FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1, 20, 51 and 90

[CC Docket No. 96–98, CC Docket No. 95–185, GN Docket No. 93–252; FCC 96–325]

Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers; Implementation of Sections 3(n) and 332 of the Communications Act

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: The Report and Order released August 8, 1996 promulgates national rules and regulations implementing the statutory requirements of the Telecommunications Act of 1996 (the 1996 Act) intended to encourage the development of competition in local exchange and exchange access markets. The Report and Order adopts certain national rules that are consistent with the terms and goals of the 1996 Act and adopts minimum requirements which states may augment with their own requirements that are consistent with the 1996 Act and the Commission's rules thereunder. The Report and Order also incorporates and resolves issues regarding interconnection between CMRS providers and LECs, which initially were raised in a separate docket. The Report and Order enables the states and the Commission to begin implementing the local competition provisions of the 1996 Act.

EFFECTIVE DATE: September 30, 1996.

FOR FURTHER INFORMATION CONTACT: Lisa Gelb, Attorney, Common Carrier Bureau, Policy and Program Planning Division, (202) 418–1580, or David Sieradzki, Attorney, Common Carrier Bureau, Competitive Pricing Division, (202) 418–1520. For additional information concerning the information collections contained in this Report and Order contact Dorothy Conway at 202–418–0217, or via the Internet at dconway@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order adopted August 1, 1996, and released August 8, 1996. The full text of this Report and Order is available for inspection and copying during normal business hours in the FCC Reference Center (Room 239), 1919 M St., NW., Washington, DC. The complete text also may be obtained through the World Wide Web, at http://www.fcc.gov/Bureaus/Common Carrier/Orders/fcc96325.wp, or may be purchased from the Commission's copy contractor, International Transcription Service, Inc., (202) 857–3800, 2100 M St., NW., Suite 140, Washington, DC 20037. Pursuant to the Telecommunications Act of 1996, the Commission released a Notice of Proposed Rulemaking, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96–98 (61 FR 18311 (April 25, 1996)) to seek comment on rules to implement sections 251, 252 and 253 of the 1996 Act.

General

Section 251 of the 1996 Act imposes specific obligations on telecommunications carriers designed to promote competition in local exchange markets across the country. Section 251(a) imposes general obligations on all telecommunications carriers. Section 251(b) imposes on all LECs certain requirements, including the obligation to provide resale, access to rights-of-way, and to establish reciprocal compensation arrangements for transport and termination of traffic. Section 251(c) requires incumbent LECs to make available to new entrants interconnection and access to unbundled network elements, and to offer LEC retail services for resale to telecommunications carriers at wholesale rates. Access to unbundled elements and resale opportunities are methods by which telecommunications carriers can enter the local exchange market.

Interconnection

Section 251(c)(2) of the 1996 Act requires incumbent LECs to provide interconnection to any requesting telecommunications carrier at any technically feasible point. The interconnection must be at least equal in quality to that provided by the incumbent LEC to itself or its affiliates, and must be provided on rates, terms, and conditions that are just, reasonable, and nondiscriminatory. The term ''interconnection'' under section 251(c)(2) refers only to the physical linking of two networks for the mutual exchange of traffic. The Commission identifies a minimum set of ''technically feasible'' points of interconnection: (1) the line-side of a local switch; (2) the trunk-side of a local switch; (3) the trunk interconnection points for a tandem-switch; (4) central office cross-connect points; and (5) out-of-band signaling transfer points. In addition, the points of access to unbundled elements are also technically feasible points of interconnection. The Commission states that telecommunications carriers may request interconnection under section 251(c)(2) to provide telephone exchange service or exchange access service, or both. If the request is for such purposes, the incumbent LEC must provide interconnection in accordance with section 251(c)(2) and the Commission's rules thereunder to any telecommunications carrier, including interexchange carriers and commercial mobile radio service (CMRS) providers.

Access to Unbundled Elements

Section 251(c)(3) requires incumbent LECs to provide requesting telecommunications carriers nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory. The Commission identifies a minimum set of network elements that incumbent LECs must provide under this section. States may require incumbent LECs to provide additional network elements on an unbundled basis. The Commission identified the seven following network elements: network interface devices, local loops, local and tandem switches (including all software features provided by such switches), interoffice transmission facilities, signalling and call-related database facilities, operations support systems and information and operator and directory assistance facilities. Incumbent LECs must provide requesting carriers nondiscriminatory access to operations support systems and information. The Order requires incumbent LECs to provide access to network elements in a manner that allows requesting carriers to combine such elements as they choose. Incumbent LECs may not impose restrictions upon the use of network elements.

Methods of Obtaining Interconnection and Access to Unbundled Elements

Section 251(c)(6) requires incumbent LECs to provide physical collocation of equipment necessary for interconnection or access to unbundled network elements at the incumbent LEC's premises, except that the incumbent LEC may provide virtual collocation if it demonstrates to the state commission that physical collocation is not practical for technical reasons or because of space limitations. Incumbent LECs are required to provide any technically feasible method of interconnection or access requested by a telecommunications carrier, including

physical collocation, virtual collocation, and interconnection at meet points. The Commission adopts, with certain modifications, the physical and virtual collocation requirements it adopted earlier in the *Expanded Interconnection* proceeding. The Commission also establishes rules interpreting the requirements of section 251(c)(6).

Pricing Methodologies

The 1996 Act requires the states to set prices for interconnection and unbundled elements that are cost-based, nondiscriminatory, and may include a reasonable profit. To help the states accomplish this, the Commission has concluded that the state commissions should set arbitrated rates for interconnection and access to unbundled elements pursuant a forward-looking economic cost pricing methodology. The Commission has concluded that the prices that new entrants pay for interconnection and unbundled elements should be based on the local telephone companies Total Element Long-Run Incremental Cost (TELRIC) of providing a particular network element, plus a reasonable share of forward-looking joint and common costs. States will determine, among other things, the appropriate risk-adjusted cost of capital and depreciation rates. If states are unable to conduct a cost study and apply an economic costing methodology within the statutory time frame for arbitrating interconnection disputes, the Commission has established default ceilings and ranges for the states to apply, on an interim basis, to interconnection arrangements. The Commission establishes a default range of 0.2–0.4 cents per minute for switching, plus access charges as discussed below. For tandem switching, the Commission establishes a default ceiling of 0.15 cents per minute. The Order also will establish default ceilings for the other unbundled network elements. These default provisions might provide an administratively simpler approach for state establishment of prices, for a limited interim period, and states, in the exercise of their discretion, select the specific price within that range, or subject to that ceiling.

Access Charges for Unbundled Switching

Nothing in the Commission's Order alters the collection of access charges paid by an interexchange carrier under Part 69 of the Commission's rules, when the incumbent LEC provides exchange access service to an interexchange carrier, either directly or through service resale. Because access charges are not included in the cost-based prices for unbundled network elements, and because certain portions of access charges currently support the provision of universal service, until the access charge reform and universal service proceedings have been completed, the Commission is continuing to provide for access charge recovery with respect to use of an incumbent LEC's unbundled switching element, for a defined period of time. This will minimize the possibility that the incumbent LEC will be able to ''double recover,'' through access charges, the facility costs that new entrants have already paid to purchase unbundled elements, while preserving the status quo with respect to subsidy payments. Under this Order, incumbent LECs will recover from interconnecting carriers the carrier common line charge and a charge equal to 75% of the transport interconnection charge for all interstate minutes traversing the incumbent LECs local switches for which the interconnecting carriers pay unbundled network element charges. This aspect of the Order expires at the earliest of: 1) June 30, 1997; 2) issuance of final decisions by the Commission in the universal service and access reform proceedings; or 3) if the incumbent LEC is a Bell Operating Company (BOC), the date on which that BOC is authorized under section 271 of the Act to provide in-region interLATA service, for any given state.

Resale

The 1996 Act requires all incumbent LECs to offer for resale any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers. Resale will be an important entry strategy both in the short term for many new entrants as they build out their own facilities and for small businesses that cannot afford to compete in the local exchange market by purchasing unbundled elements or by building their own networks. The 1996 Act's pricing standard for wholesale rates requires state commissions to identify what marketing, billing, collection, and other costs will be avoided or that are avoidable by incumbent LECs when they provide services wholesale, and calculate the portion of the retail rates for those services that is attributable to the avoided and avoidable costs. To define clearly a wholesale service, the Commission has identified certain avoided costs. The application of this definition is left to the states. If a state elects not to implement the methodology, it may elect, on an interim basis, a discount rate from within a default range of discount rates established by the Commission. The Commission establishes a default discount range of 17–25% off retail prices, leaving the states to set the specific rate within that range, in the exercise of their discretion.

Transport and Termination

The 1996 Act requires that charges for transport and termination of traffic be cost-based. The Commission concludes that state commissions, during arbitrations, should set symmetrical prices based on the local telephone company's forward-looking costs. The state commissions would also use the TELRIC methodology when establishing rates for transport and termination. The Commission establishes a default range of 0.2–0.4 cents per minute for end office termination for states which have not conducted a TELRIC cost study. The Commission finds significant evidence in the record in support of the lower end of the ranges. In addition, the Commission finds that additional reciprocal charges could apply to termination through a tandem switch. The default ceiling for tandem switching is 0.15 cents per minute, plus applicable charges for transport from the tandem switch to the end office. Each state opting for the default approach for a limited period of time, may select a rate within that range.

Commercial Mobile Radio Service

In the Order, the Commission concludes that CMRS providers are telecommunications carriers, and therefore are entitled to reciprocal compensation arrangements under section 251(b)(5). The Commission also concludes that under section 251(b)(5) a LEC may not charge a CMRS provider, including a paging company, or any other carrier for terminating LEC-originated traffic. The Commission also states that CMRS providers (specifically cellular, broadband PCS, and covered specialized mobile radio (SMR) providers) offer telephone exchange services, and such providers therefore may request interconnection under section 251(c)(2). The Commission determines that CMRS providers should not be classified as LECs at this time. In this decision, the Commission applied sections 251 and 252 to LEC-CMRS interconnection. The Commission acknowledges that section 332 is also a basis for jurisdiction over LEC-CMRS interconnection, but declined to define the precise extent of that jurisdiction at this time.

Access to Rights of Way

The Commission also amends its rules to implement the pole attachment provisions of the 1996 Act. Specifically, the Commission establishes procedures for nondiscriminatory access by cable television systems and telecommunications carriers to poles, ducts, conduits, and rights-of-way owned by utilities or LECs. The Order includes several specific rules as well as a number of more general guidelines designed to facilitate the negotiation and mutual performance of fair, pro-competitive access agreements without the need for regulatory intervention. Additionally, an expedited dispute resolution is provided when good faith negotiations fail, as are requirements concerning modifications to poles, ducts, conduits, and rights-of-way and the allocation of the costs of such modifications.

Exemptions, Suspensions, and Modifications of Section 251 Requirements for Rural and Small Telephone Companies

Section 251(f)(1) of the 1996 Act provides for exemption of the requirements in section 251(c) for rural telephone companies (as defined by the 1996 Act) under certain circumstances. Section 251(f)(2) permits LECs with fewer than 2 percent of the nation's subscriber lines to petition for suspension or modification of the requirements in sections 251(b) or (c).

States are primarily responsible for interpreting the provisions of section 251(f) through rulemaking and adjudicative proceedings, and are responsible for determining whether a LEC in a particular instance is entitled to exemption, suspension, or modification of section 251 requirements.

The Commission establishes a very limited set of rules interpreting the requirements of section 251(f):

—LECs bear the burden of proving to the state commission that a suspension or modification of the requirements of section 251(b) or (c) is justified.

—Rural LECs bear the burden of proving that continued exemption of the requirements of section 251(c) is justified, once a bona fide request has been made by a carrier under to section 251.

—Only LECs that, at the holding company level, have fewer than 2 percent of the nation's subscriber lines are entitled to petition for suspension or modification of requirements under section 251(f)(2).

Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act, the Report and Order contains a Final Regulatory Flexibility Analysis which is set forth in Appendix C to the Report and Order. A brief description of the analysis follows.

Pursuant to Section 604 of the Regulatory Flexibility Act, the Commission performed a comprehensive analysis of the Report and Order with regard to small entities and small incumbent LECs. This analysis includes: (1) a succinct statement of the need for, and objectives of, the Commission's decisions in the Report and Order; (2) a summary of the significant issues raised by the public comments in response to the initial regulatory flexibility analysis, a summary of the Commission's assessment of these issues, and a statement of any changes made in the Report and Order as a result of the comments; (3) a description of and an estimate of the number of small entities and small incumbent LECs to which the Report and Order will apply; (4) a description of the projected reporting, recordkeeping and other compliance requirements of the Report and Order, including an estimate of the classes of small entities and small incumbent LECs which will be subject to the requirement and the type of professional skills necessary for compliance with the requirement; (5) a description of the steps the Commission has taken to minimize the significant economic impact on small entities and small incumbent LECs consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the Report and Order and why each one of the other significant alternatives to each of the Commission's decisions which affect the impact on small entities and small incumbent LECs was rejected.

The rules adopted in this Report and Order are necessary to implement the provisions of the Telecommunications Act of 1996.

Paperwork Reduction Act

Public reporting burden for the collection of information is estimated as follows:

OMB Approval Number: 3060–0710.

Title: Policy and rules concernng the implementation of the local competition provisions in the Telecommunications Act of 1996.

Form No.: N/A.

Type of Review: New collection.

Information collection	No. of respondents (approx.)	Annual hour burden per response (hours)	Total annual burden (hours)
Submission of information necessary to reach agreement	51	500	25,500
Submission of agreements to the state commission	.....	.....	835
New and modified	51	5	
Class A carrier	16	5	
Other preexisting	500	1	
Burden of proof regarding interconnection and access to unbundled network elements	100	250	25,000
Collocation	100	250	25,000
Notification that state commission has failed to act	30	1	30
Rural and small carriers	500	10	5,000
Pole attachment modifications: private electric utilities and telephone utilities	1,400	375	525,000
Maintenance practices modifications: cable operators, utilities and others	12,250	.5	6,125
Pole attachment access requests	2,500	1	2,500
Pole attachment denials of access	250	3	750
Dispute resolution process for denials of access: using in-house assistance	250	25	6,250
Dispute resolution process for denials of access: using outside legal counsel	250	4	1,000
Preparation of forward-looking economic cost studies to determine rates for interconnection and unbundled network elements during arbitration proceedings	100	1,216	121,600
Preparation of a cost study on avoidable costs to determine resale discounts	200	480	96,000
Preparation of forward-looking economic cost studies to determine reciprocal rates for transport and termination of telecommunications traffic	100	1,216	121,600

Information collection	No. of respondents (approx.)	Annual hour burden per response (hours)	Total annual burden (hours)
Measurement of traffic for purposes of determining whether transport and termination traffic flows are symmetrical	550	700	385,000
Filing required for arbitration	200	2	400
Determination of rates for interconnection, unbundled network elements, and transport and termination of telecommunications traffic—state commission review of forward-looking economic cost studies	50	2,160	108,000
Determination of resale discount percentage—state commission review of avoided cost studies	50	640	32,000
Petition for incumbent LEC status	30	1	30
Use of proxies by state commissions—articulating written reasons for choice	50	120	6,000
Preparation of forward-looking economic cost studies to establish rates for transport and termination for paging and radiotelephone service, narrowband personal communications services, and paging operation in the private land mobile radio services	50	720	36,000

Total Annual Burden: 1,529,620 hours.

Respondents: Business or other for-profit.

Estimated costs per respondent: $0.

Needs and Uses: The Report and Order implements parts of section 251 of the Telecommunications Act requiring that: incumbent local exchange carriers (LECs) offer interconnection, unbundled network elements, transport and termination, and wholesale rates for retail services to new entrants; incumbent LECs price such services at rates that are cost-based and just and reasonable; and incumbent LECs provide access to rights-of-way, as well as establish reciprocal compensation arrangements for the transport and termination of telecommunications traffic.

Synopsis of First Report and Order

I. Introduction, Overview, and Executive Summary

A. The Telecommunications Act of 1996—A New Direction

1. The Telecommunications Act of 1996, (Telecommunications Act of 1996, Public Law No. 104–104, 110 Stat. 56, *to be codified* at 47 U.S.C. §§ 151 *et seq.* Hereinafter, all citations to the 1996 Act will be to the 1996 Act as codified in the United States Code), fundamentally changes telecommunications regulation. In the old regulatory regime government encouraged monopolies. In the new regulatory regime, we and the states remove the outdated barriers that protect monopolies from competition and affirmatively promote efficient competition using tools forged by Congress. Historically, regulation of this industry has been premised on the belief that service could be provided at the lowest cost to the maximum number of consumers through a regulated monopoly network. State and federal regulators devoted their efforts over many decades to regulating the prices and practices of these monopolies and protecting them against competitive entry. The 1996 Act adopts precisely the opposite approach. Rather than shielding telephone companies from competition, the 1996 Act requires telephone companies to open their networks to competition.

2. The 1996 Act also recasts the relationship between the FCC and state commissions responsible for regulating telecommunications services. Until now, we and our state counterparts generally have regulated the jurisdictional segments of this industry assigned to each of us by the Communications Act of 1934. The 1996 Act forges a new partnership between state and federal regulators. This arrangement is far better suited to the coming world of competition in which historical regulatory distinctions are supplanted by competitive forces. As this Order demonstrates, we have benefitted enormously from the expertise and experience that the state commissioners and their staffs have contributed to these discussions. We look forward to the continuation of that cooperative working relationship in the coming months as each of us carries out the role assigned by the 1996 Act.

3. Three principal goals established by the telephony provisions of the 1996 Act are: (1) opening the local exchange and exchange access markets to competitive entry; (2) promoting increased competition in telecommunications markets that are already open to competition, including the long distance services market; and (3) reforming our system of universal service so that universal service is preserved and advanced as the local exchange and exchange access markets move from monopoly to competition. In this rulemaking and related proceedings, we are taking the steps that will achieve the pro-competitive, deregulatory goals of the 1996 Act. The Act directs us and our state colleagues to remove not only statutory and regulatory impediments to competition, but economic and operational impediments as well. We are directed to remove these impediments to competition in all telecommunications markets, while also preserving and advancing universal service in a manner fully consistent with competition.

4. These three goals are integrally related. Indeed, the relationship between fostering competition in local telecommunications markets and promoting greater competition in the long distance market is fundamental to the 1996 Act. Competition in local exchange and exchange access markets is desirable, not only because of the social and economic benefits competition will bring to consumers of *local* services, but also because competition eventually will eliminate the ability of an incumbent local exchange carrier to use its control of bottleneck local facilities to impede free market competition. Under section 251, incumbent local exchange carriers (LECs), including the Bell Operating Companies (BOCs), are mandated to take several steps to open their networks to competition, including providing interconnection, offering access to unbundled elements of their networks, and making their retail services available at wholesale rates so that they can be resold. Under section 271, once the BOCs have taken the necessary steps, they are allowed to offer long distance service in areas where they provide local telephone service, if we find that entry meets the specific statutory requirements and is consistent with the public interest. Thus, under the 1996 Act, the opening of one of the last monopoly bottleneck strongholds in telecommunications—the local exchange and exchange access markets—to competition is intended to pave the way for enhanced competition in *all* telecommunications markets, by allowing all providers to enter all

markets. The opening of all telecommunications markets to all providers will blur traditional industry distinctions and bring new packages of services, lower prices and increased innovation to American consumers. The world envisioned by the 1996 Act is one in which all providers will have new competitive opportunities as well as new competitive challenges.

5. The Act also recognizes, however, that universal service cannot be maintained without reform of the current subsidy system. The current universal service system is a patchwork quilt of implicit and explicit subsidies. These subsidies are intended to promote telephone subscribership, yet they do so at the expense of deterring or distorting competition. Some policies that traditionally have been justified on universal service considerations place competitors at a disadvantage. Other universal service policies place the incumbent LECs at a competitive disadvantage. For example, LECs are required to charge interexchange carriers a Carrier Common Line charge for every minute of interstate traffic that any of their customers send or receive. This exposes LECs to competition from competitive access providers, which are not subject to this cost burden. Hence, section 254 of the Act requires the Commission, working with the states and consumer advocates through a Federal/State Joint Board, to revamp the methods by which universal service payments are collected and disbursed. *Federal-State Joint Board on Universal Service*, CC Docket No. 96–45, Notice of Proposed Rulemaking and Order Establishing Joint Board, FCC 96–93, 61 FR 10499 (March 14, 1996) (*Universal Service NPRM*). The present universal service system is incompatible with the statutory mandate to introduce efficient competition into local markets, because the current system distorts competition in those markets. For example, without universal service reform, facilities-based entrants would be forced to compete against monopoly providers that enjoy not only the technical, economic, and marketing advantages of incumbency, but also subsidies that are provided only to the incumbents.

B. The Competition Trilogy: Section 251, Universal Service Reform and Access Charge Reform

6. The rules that we adopt to implement the local competition provisions of the 1996 Act represent only one part of a trilogy. In this Report and Order, we adopt initial rules designed to accomplish the first of the goals outlined above—opening the local exchange and exchange access markets to competition. The steps we take today are the initial measures that will enable the states and the Commission to begin to implement sections 251 and 252. Given the dynamic nature of telecommunications technology and markets, it will be necessary over time to review proactively and adjust these rules to ensure both that the statute's mandate of competition is effectuated and enforced, and that regulatory burdens are lifted as soon as competition eliminates the need for them. Efforts to review and revise these rules will be guided by the experience of states in their initial implementation efforts.

7. The second part of the trilogy is universal service reform. In early November, the Federal/State Universal Service Joint Board, including three members of this Commission, will make its recommendations to the Commission. These recommendations will serve as the cornerstone of universal service reform. The Commission will act on the Joint Board's recommendations and adopt universal service rules not later than May 8, 1997, and, we hope, even earlier. Our universal service reform order, consistent with section 254, will rework the subsidy system to guarantee affordable service to all Americans in an era in which competition will be the driving force in telecommunications. By reforming the collection and distribution of universal service funds, the states and the Commission will also ensure that the goals of affordable service and access to advanced services are met by means that enhance, rather than distort, competition. Universal service reform is vitally connected to the local competition rules we adopt today.

8. The third part of the trilogy is access charge reform. It is widely recognized that, because a competitive market drives prices to cost, a system of charges which includes non-cost based components is inherently unstable and unsustainable. It also well-recognized that access charge reform is intensely interrelated with the local competition rules of section 251 and the reform of universal service. We will complete access reform before or concurrently with a final order on universal service.

9. Only when all parts of the trilogy are complete will the task of adjusting the regulatory framework to fully competitive markets be finished. Only when our counterparts at the state level complete implementing and supplementing these rules will the complete blueprint for competition be in place. Completion of the trilogy, coupled with the reduction in burdensome and inefficient regulation we have undertaken pursuant to other provisions of the 1996 Act, will unleash marketplace forces that will fuel economic growth. Until then, incumbents and new entrants must undergo a transition process toward fully competitive markets. We will, however, act quickly to complete the three essential rulemakings. We intend to issue a notice of proposed rulemaking in 1996 and to complete the access charge reform proceeding concurrently with the statutory deadline established for the section 254 rulemaking. This timetable will ensure that actions taken by the Joint Board in November and this Commission by not later than May 1997 in the universal service reform proceeding will be coordinated with the access reform docket.

C. Economic Barriers

10. As we pointed out in our Notice of Proposed Rulemaking in this docket, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96–98, Notice of Proposed Rulemaking, FCC 96–182 (April 19, 1996), 61 FR 18311 (April 25, 1996) (NPRM), the removal of statutory and regulatory barriers to entry into the local exchange and exchange access markets, while a necessary precondition to competition, is not sufficient to ensure that competition will supplant monopolies. An incumbent LEC's existing infrastructure enables it to serve new customers at a much lower incremental cost than a facilities-based entrant that must install its own switches, trunking and loops to serve its customers. Furthermore, absent interconnection between the incumbent LEC and the entrant, the customer of the entrant would be unable to complete calls to subscribers served by the incumbent LEC's network. Because an incumbent LEC currently serves virtually all subscribers in its local serving area, an incumbent LEC has little economic incentive to assist new entrants in their efforts to secure a greater share of that market. An incumbent LEC also has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's network or by insisting on supracompetitive prices or other unreasonable conditions for terminating calls from the entrant's customers to the incumbent LEC's subscribers.

11. Congress addressed these problems in the 1996 Act by mandating that the most significant economic impediments to efficient entry into the monopolized local market must be

removed. The incumbent LECs have economies of density, connectivity, and scale; traditionally, these have been viewed as creating a natural monopoly. As we pointed out in our NPRM, the local competition provisions of the Act require that these economies be shared with entrants. We believe they should be shared in a way that permits the incumbent LECs to maintain operating efficiency to further fair competition, and to enable the entrants to share the economic benefits of that efficiency in the form of cost-based prices. Congress also recognized that the transition to competition presents special considerations in markets served by smaller telephone companies, especially in rural areas. We are mindful of these considerations, and know that they will be taken into account by state commissions as well.

12. The Act contemplates three paths of entry into the local market—the construction of new networks, the use of unbundled elements of the incumbent's network, and resale. The 1996 Act requires us to implement rules that eliminate statutory and regulatory barriers and remove economic impediments to each. We anticipate that some new entrants will follow multiple paths of entry as market conditions and access to capital permit. Some may enter by relying at first entirely on resale of the incumbent's services and then gradually deploying their own facilities. This strategy was employed successfully by MCI and Sprint in the interexchange market during the 1970's and 1980's. Others may use a combination of entry strategies simultaneously—whether in the same geographic market or in different ones. Some competitors may use unbundled network elements in combination with their own facilities to serve densely populated sections of an incumbent LEC's service territory, while using resold services to reach customers in less densely populated areas. Still other new entrants may pursue a single entry strategy that does not vary by geographic region or over time. Section 251 neither explicitly nor implicitly expresses a preference for one particular entry strategy. Moreover, given the likelihood that entrants will combine or alter entry strategies over time, an attempt to indicate such a preference in our section 251 rules may have unintended and undesirable results. Rather, our obligation in this proceeding is to establish rules that will ensure that all pro-competitive entry strategies may be explored. As to success or failure, we look to the market, not to regulation, for the answer.

13. We note that an entrant, such as a cable company, that constructs its own network will not necessarily need the services or facilities of an incumbent LEC to enable its own subscribers to communicate with each other. A firm adopting this entry strategy, however, still will need an agreement with the incumbent LEC to enable the entrant's customers to place calls to and receive calls from the incumbent LEC's subscribers. Sections 251 (b)(5) and (c)(2) require incumbent LECs to enter into such agreements on just, reasonable, and nondiscriminatory terms and to transport and terminate traffic originating on another carrier's network under reciprocal compensation arrangements. In this item, we adopt rules for states to apply in implementing these mandates of section 251 in their arbitration of interconnection disputes, as well as their review of such arbitrated arrangements, or a BOC's statement of generally available terms. We believe that our rules will assist the states in carrying out their responsibilities under the 1996 Act, thereby furthering the Act's goals of fostering prompt, efficient, competitive entry.

14. We also note that many new entrants will not have fully constructed their local networks when they begin to offer service. Joint Managers' Statement, S. Conf. Rep. No. 104–230, 104th Cong., 2d Sess. 113 (1996) (''Joint Explanatory Statement'') at 121. Although they may provide some of their own facilities, these new entrants will be unable to reach all of their customers without depending on the incumbent's facilities. Hence, in addition to an arrangement for terminating traffic on the incumbent LEC's network, entrants will likely need agreements that enable them to obtain wholesale prices for services they wish to sell at retail and to use at least some portions of the incumbents' facilities, such as local loops and end office switching facilities.

15. Congress recognized that, because of the incumbent LEC's incentives and superior bargaining power, its negotiations with new entrants over the terms of such agreements would be quite different from typical commercial negotiations. As distinct from bilateral commercial negotiation, the new entrant comes to the table with little or nothing the incumbent LEC needs or wants. The statute addresses this problem by creating an arbitration proceeding in which the new entrant may assert certain rights, including that the incumbent's prices for unbundled network elements must be ''just, reasonable and nondiscriminatory.'' We adopt rules herein to implement these requirements of section 251(c)(3).

D. Operational Barriers

16. The statute also directs us to remove the existing operational barriers to entering the local market. Vigorous competition would be impeded by technical disadvantages and other handicaps that prevent a new entrant from offering services that consumers perceive to be equal in quality to the offerings of incumbent LECs. Our recently-issued number portability Report and Order addressed one of the most significant operational barriers to competition by permitting customers to retain their phone numbers when they change local carriers. *Telephone Number Portability,* CC Docket No. 95–116, First Report and Order and Further Notice of Proposed Rulemaking, FCC 96–286 (July 2, 1996) (61 FR 38605 (July 25, 1996)) (*Number Portability Order*). Consistent with the 1996 Act, 47 U.S.C. § 251(b)(2), we required LECs to implement interim and long-term measures to ensure that customers can change their local service providers without having to change their phone number. Number portability promotes competition by making it less expensive and less disruptive for a customer to switch providers, thus freeing the customer to choose the local provider that offers the best value.

17. Closely related to number portability is dialing parity, which we address in a companion order. Dialing parity enables a customer of a new entrant to dial others with the convenience an incumbent provides, regardless of which carrier the customer has chosen as the local service provider. The history of competition in the interexchange market illustrates the critical importance of dialing parity to the successful introduction of competition in telecommunications markets. Equal access enabled customers of non-AT&T providers to enjoy the same convenience of dialing ''1'' plus the called party's number that AT&T customers had. Prior to equal access, subscribers to interexchange carriers (IXCs) other than AT&T often were required to dial more than 20 digits to place an interstate long-distance call. Industry data show that, after equal access was deployed throughout the country, the number of customers using MCI and other long-distance carriers increased significantly. Federal Communications Commission, Statistics of Communications Common Carriers 1994–95, at 344, Table 8.8; Federal Communications Commission, Report on Long Distance Market Share, Second Quarter 1995, at 14, table 6 (Oct. 1995). Thus, we believe that equal access had a substantial pro-competitive

impact. Dialing parity should have the same effect.

18. This Order addresses other operational barriers to competition, such as access to rights of way, collocation, and the expeditious provisioning of resale and unbundled elements to new entrants. The elimination of these obstacles is essential if there is to be a fair opportunity to compete in the local exchange and exchange access markets. As an example, customers can voluntarily switch from one interexchange carrier to another extremely rapidly, through automated systems. This has been a boon to competition in the interexchange market. We expect that moving customers from one local carrier to another rapidly will be essential to fair local competition.

19. As competition in the local exchange market emerges, operational issues may be among the most difficult for the parties to resolve. Thus, we recognize that, along with the state commissions and the courts, we will be called upon to enforce provisions of arbitrated agreements and our rules relating to these operational barriers to entry. Because of the critical importance of eliminating these barriers to the accomplishment of the Act's pro-competitive objectives, we intend to enforce our rules in a manner that is swift, sure, and effective. To this end we will review, with the states, our enforcement techniques during the fourth quarter of 1996.

20. We recognize that during the transition from monopoly to competition it is vital that we and the states vigilantly and vigorously enforce the rules that we adopt today and that will be adopted in the future to open local markets to competition. If we fail to meet that responsibility, the actions that we take today to accomplish the 1996 Act's pro-competitive, deregulatory objectives may prove to be ineffective.

E. Transition

21. We consider it vitally important to establish a ''pro-competitive, deregulatory national policy framework'' for local telephony competition, but we are acutely mindful of existing common carrier arrangements, relationships, and expectations, particularly those that affect incumbent LECs. In light of the timing issues described above, we think it wise to provide some appropriate transitions.

22. In this regard, this Order sets minimum, uniform, national rules, but also relies heavily on states to apply these rules and to exercise their own discretion in implementing a pro-competitive regime in their local telephone markets. On those issues where the need to create a factual record distinct to a state or to balance unique local considerations is material, we ask the states to develop their own rules that are consistent with general guidance contained herein. The states will do so in rulemakings and in arbitrating interconnection arrangements. On other issues, particularly those related to pricing, we facilitate the ability of states to adopt immediate, temporary decisions by permitting the states to set proxy prices within a defined range or subject to a ceiling. We believe that some states will find these alternatives useful in light of the strict deadlines of the law. For example, section 252(b)(4)(C) requires a state commission to complete the arbitration of issues that have been referred to it, pursuant to section 252(b)(1), within nine months after the incumbent local exchange carrier received the request for negotiation. Selection of the actual prices within the range or subject to the ceiling will be for the state commission to determine. Some states may use proxies temporarily because they lack the resources necessary to review cost studies in rulemakings or arbitrations. Other states may lack adequate resources to complete such tasks before the expiration of the arbitration deadline. However, we encourage all states to complete the necessary work within the statutory deadline. Our expectation is that the bulk of interconnection arrangements will be concluded through arbitration or agreement, by the beginning of 1997. Not until then will we be able to determine more precisely the impact of this Order on promoting competition. Between now and then, we are eager to continue our work with the states. In this period, as set forth earlier, we should be able to take major steps toward implementing a new universal service system and far-reaching reform of interstate access. These reforms will reflect intensive dialogue between us and the states.

23. Similarly, as states implement the rules that we adopt in this order as well as their own decisions, they may find it useful to consult with us, either formally or informally, regarding particular aspects of these rules. We encourage and invite such inquiries because we believe that such consultations are likely to provide greater certainty to the states as they apply our rules to specific arbitration issues and possibly to reduce the burden of expensive judicial proceedings on states. A variety of formal and informal procedures exist under our rules for such consultations, and we may find it helpful to fashion others as we gain additional experience under the 1996 Act.

F. Executive Summary

1. Scope of Authority of the FCC and State Commissions

24. The Commission concludes that sections 251 and 252 address both interstate and intrastate aspects of interconnection, resale services, and access to unbundled elements. The 1996 Act moves beyond the distinction between interstate and intrastate matters that was established in the 1934 Act, and instead expands the applicability of national rules to historically intrastate issues, and state rules to historically interstate issues. In the Report and Order, the Commission concludes that the states and the FCC can craft a partnership that is built on mutual commitment to local telephone competition throughout the country, and that under this partnership, the FCC establishes uniform national rules for some issues, the states, and in some instances the FCC, administer these rules, and the states adopt additional rules that are critical to promoting local telephone competition. The rules that the FCC establishes in this Report and Order are minimum requirements upon which the states may build. The Commission also intends to review and amend the rules it adopts in this Report and Order to take into account competitive developments, states' experiences, and technological changes.

2. Duty to Negotiate in Good Faith

25. In the Report and Order, the Commission establishes some national rules regarding the duty to negotiate in good faith, but concludes that it would be futile to try to determine in advance every possible action that might be inconsistent with the duty to negotiate in good faith. The Commission also concludes that, in many instances, whether a party has negotiated in good faith will need to be decided on a case-by-case basis, in light of the particular circumstances. The Commission notes that the arbitration process set forth in section 252 provides one remedy for failing to negotiate in good faith. The Commission also concludes that agreements that were negotiated before the 1996 Act was enacted, including agreements between neighboring LECs, must be filed for review by the state commission pursuant to section 252(a).

If the state commission approves such agreements, the terms of those agreements must be made available to requesting telecommunications carriers in accordance with section 252(i).

3. Interconnection

26. Section 251(c)(2) requires incumbent LECs to provide interconnection to any requesting telecommunications carrier at any technically feasible point. The interconnection must be at least equal in quality to that provided by the incumbent LEC to itself or its affiliates, and must be provided on rates, terms, and conditions that are just, reasonable, and nondiscriminatory. The Commission concludes that the term ''interconnection'' under section 251(c)(2) refers only to the physical linking of two networks for the mutual exchange of traffic. The Commission identifies a minimum set of five ''technically feasible'' points at which incumbent LECs must provide interconnection: (1) the line side of a local switch (for example, at the main distribution frame); (2) the trunk side of a local switch; (3) the trunk interconnection points for a tandem switch; (4) central office cross-connect points; and (5) out-of-band signalling facilities, such as signalling transfer points, necessary to exchange traffic and access call-related databases. In addition, the points of access to unbundled elements (discussed below) are also technically feasible points of interconnection. The Commission finds that telecommunications carriers may request interconnection under section 251(c)(2) to provide telephone exchange or exchange access service, or both. If the request is for such purpose, the incumbent LEC must provide interconnection in accordance with section 251(c)(2) and the Commission's rules thereunder to any telecommunications carrier, including interexchange carriers and commercial mobile radio service (CMRS) providers.

4. Access to Unbundled Elements

27. Section 251(c)(3) requires incumbent LECs to provide requesting telecommunications carriers nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory. In the Report and Order, the Commission identifies a minimum set of network elements that incumbent LECs must provide under this section. States may require incumbent LECs to provide additional network elements on an unbundled basis. The minimum set of network elements the Commission identifies are: local loops, local and tandem switches (including all vertical switching features provided by such switches), interoffice transmission facilities, network interface devices, signalling and call-related database facilities, operations support systems and information, and operator and directory assistance facilities. The Commission concludes that incumbent LECs must provide nondiscriminatory access to operations support systems and information by January 1, 1997. The Commission concludes that access to such operations support systems is critical to affording new entrants a meaningful opportunity to compete with incumbent LECs. The Commission also concludes that incumbent LECs are required to provide access to network elements in a manner that allows requesting carriers to combine such elements as they choose, and that incumbent LECs may not impose restrictions upon the uses to which requesting carriers put such network elements.

5. Methods of Obtaining Interconnection and Access to Unbundled Elements

28. Section 251(c)(6) requires incumbent LECs to provide physical collocation of equipment necessary for interconnection or access to unbundled network elements at the incumbent LEC's premises, except that the incumbent LEC may provide virtual collocation if it demonstrates to the state commission that physical collocation is not practical for technical reasons or because of space limitations. The Commission concludes that incumbent LECs are required to provide for any technically feasible method of interconnection or access requested by a telecommunications carrier, including physical collocation, virtual collocation, and interconnection at meet points. The Commission adopts, with certain modifications, some of the physical and virtual collocation requirements it adopted earlier in the *Expanded Interconnection* proceeding. The Commission also establishes rules interpreting the requirements of section 251(c)(6).

6. Pricing Methodologies

29. The 1996 Act requires the states to set prices for interconnection and unbundled elements that are cost-based, nondiscriminatory, and may include a reasonable profit. To help the states accomplish this, the Commission concludes that the state commissions should set arbitrated rates for interconnection and access to unbundled elements pursuant a forward-looking economic cost pricing methodology. The Commission concludes that the prices that new entrants pay for interconnection and unbundled elements should be based on the local telephone companies Total Element Long-Run Incremental Cost (TELRIC) of providing a particular network element, plus a reasonable share of forward-looking joint and common costs. States will determine, among other things, the appropriate risk-adjusted cost of capital and depreciation rates. For states that are unable to conduct a cost study and apply an economic costing methodology within the statutory time frame for arbitrating interconnection disputes, the Commission establishes default ceilings and ranges for the states to apply, on an interim basis, to interconnection arrangements. The Commission establishes a default range of 0.2–0.4 cents per minute for switching, plus access charges as discussed below. For tandem switching, the Commission establishes a default ceiling of 0.15 cents per minute. The Order also establishes default ceilings for the other unbundled network elements.

7. Access Charges for Unbundled Switching

30. Nothing in this Report and Order alters the collection of access charges paid by an interexchange carrier under Part 69 of the Commission's rules, when the incumbent LEC provides exchange access service to an interexchange carrier, either directly or through service resale. Because access charges are not included in the cost-based prices for unbundled network elements, and because certain portions of access charges currently support the provision of universal service, until the access charge reform and universal service proceedings have been completed, the Commission continues to provide for access charge recovery with respect to use of an incumbent LEC's unbundled switching element, for a defined period of time. This will minimize the possibility that the incumbent LEC will be able to ''double recover,'' through access charges, the facility costs that new entrants have already paid to purchase unbundled elements, while preserving the status quo with respect to subsidy payments. Incumbent LECs will recover from interconnecting carriers the carrier common line charge and a charge equal to 75% of the transport interconnection charge for all interstate minutes traversing the incumbent LECs local switches for which the interconnecting carriers pay unbundled network element charges. This aspect of the Order expires at the earliest of: (1)

June 30, 1997; (2) issuance of final decisions by the Commission in the universal service and access reform proceedings; or (3) if the incumbent LEC is a Bell Operating Company (BOC), the date on which that BOC is authorized under section 271 of the Act to provide in-region interLATA service, for any given state.

8. Resale

31. The 1996 Act requires all incumbent LECs to offer for resale any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers. Resale will be an important entry strategy both in the short term for many new entrants as they build out their own facilities and for small businesses that cannot afford to compete in the local exchange market by purchasing unbundled elements or by building their own networks. State commissions must identify marketing, billing, collection, and other costs that will be avoided or that are avoidable by incumbent LECs when they provide services wholesale, and calculate the portion of the retail rates for those services that is attributable to the avoided and avoidable costs. The Commission identifies certain avoided costs, and the application of this definition is left to the states. If a state elects not to implement the methodology, it may elect, on an interim basis, a discount rate from within a default range of discount rates established by the Commission. The Commission establishes a default discount range of 17–25% off retail prices, leaving the states to set the specific rate within that range, in the exercise of their discretion.

9. Requesting Telecommunications Carriers

32. The Commission concludes that, to the extent that a carrier is engaged in providing for a fee local, interexchange, or international basic services directly to the public or to such classes of users as to be effectively available directly to the public, the carrier is a ''telecommunications carrier,'' and is thus subject to the requirements of section 251(a) and the benefits of section 251(c). The Commission concludes that CMRS providers are telecommunications carriers, and that private mobile radio service (PMRS) providers generally are not telecommunications carriers, except to the extent that a PMRS provider uses excess capacity to provide local, interexchange, or international services for a fee directly to the public. The Commission also concludes that, if a company provides both telecommunications services and information services, it must be classified as a telecommunications carrier.

10. Commercial Mobile Radio Service

33. The Commission concludes that LECs are obligated, pursuant to section 251(b)(5) and the corresponding pricing standards of section 252(d)(2) to enter into reciprocal compensation arrangements with CMRS providers, including paging providers, for the transport and termination of traffic on each other's networks. The Commission concludes that many CMRS providers (specifically cellular, broadband PCS and covered specialized mobile radio (SMR) providers) offer telephone exchange service and exchange access, and that incumbent LECs therefore must make interconnection available to these CMRS providers in conformity with sections 251(c) and 252. The Commission concludes that CMRS providers should not be classified as LECs at this time. The Commission also concludes that it may apply section 251 and 252 to LEC–CMRS interconnection. By opting to proceed under sections 251 and 252, the Commission is not finding that section 332 jurisdiction over interconnection has been repealed by implication, and the Commission acknowledges that section 332, in tandem with section 201, is a basis for jurisdiction over LEC–CMRS interconnection.

11. Transport and Termination

34. The 1996 Act requires that charges for transport and termination of traffic be cost-based. The Commission concludes that state commissions, during arbitrations, should set symmetrical prices based on the local telephone company's forward-looking costs. The state commissions would also use the TELRIC methodology when establishing rates for transport and termination. The Commission establishes a default range of 0.2–0.4 cents per minute for end office termination for states which have not conducted a TELRIC cost study. The Commission finds significant evidence in the record in support of the lower end of the ranges. In addition, the Commission finds that additional reciprocal charges could apply to termination through a tandem switch. The default ceiling for tandem switching is 0.15 cents per minute, plus applicable charges for transport from the tandem switch to the end office. Each state opting for the default approach for a limited period of time, may select a rate within that range.

12. Access to Rights of Way

35. The Commission amends its rules to implement the pole attachment provisions of the 1996 Act. Specifically, the Commission establishes procedures for nondiscriminatory access by cable television systems and telecommunications carriers to poles, ducts, conduits, and rights-of-way owned by utilities or LECs. The Order includes several specific rules as well as a number of more general guidelines designed to facilitate the negotiation and mutual performance of fair, pro-competitive access agreements without the need for regulatory intervention. Additionally, an expedited dispute resolution is provided when good faith negotiations fail, as are requirements concerning modifications to poles, ducts, conduits, and rights-of-way and the allocation of the costs of such modifications.

13. Obligations Imposed on non-incumbent LECs

36. The Commission concludes that states generally may not impose on non-incumbent LECs the obligations set forth in section 251(c) entitled, ''Additional Obligations on Incumbent Local Exchange Carriers.'' Section 251(h)(2) sets forth a process by which the Commission may decide to treat LECs as incumbent LECs, and state commissions or other interested parties may ask the Commission to issue a rule, in accordance with section 251(h)(2), providing for the treatment of a LEC as an incumbent LEC. In addition to this Report and Order, the Commission addresses in separate proceedings some of the obligations, such as dialing parity and number portability, that section 251(b) imposes on all LECs.

14. Exemptions, Suspensions, and Modifications of Section 251 Requirements

37. Section 251(f)(1) provides for exemption from the requirements in section 251(c) for rural telephone companies (as defined by the 1996 Act) under certain circumstances. Section 251(f)(2) permits LECs with fewer than 2 percent of the nation's subscriber lines to petition for suspension or modification of the requirements in sections 251(b) or (c). In the Report and Order, the Commission establishes a very limited set of rules interpreting the requirements of section 251(f). For example, the Commission finds that LECs bear the burden of proving to the state commission that a suspension or modification of the requirements of section 251(b) or (c) is justified. Rural LECs bear the burden of proving that

continued exemption of the requirements of section 251(c) is justified, once a bona fide request has been made by a carrier under section 251. The Commission also concludes that only LECs that, at the holding company level, have fewer than 2 percent of the nation's subscriber lines are entitled to petition for suspension or modification of requirements under section 251(f)(2). For the most part, however, the states will interpret the provisions of section 251(f) through rulemaking and adjudicative proceedings, and will be responsible for determining whether a LEC in a particular instance is entitled to exemption, suspension, or modification of section 251 requirements.

15. Commission Responsibilities Under Section 252

38. Section 252(e)(5) requires the Commission to assume the state's responsibilities under section 252 if the state ''fails to act to carry out its responsibility'' under that section. In the Report and Order, the Commission adopts a minimum set of rules that will provide notice of the standards and procedures that the Commission will use if it has to assume the responsibility of a state commission under section 252(e)(5). The Commission concludes that, if it arbitrates agreements, it will use a ''final offer'' arbitration method, under which each party to the arbitration proposes its best and final offer, and the arbitrator chooses among the proposals. The arbitrator could choose a proposal in its entirety, or could choose different parties' proposals on an issue-by-issue basis. In addition, the parties could continue to negotiate an agreement after they submit their proposals and before the arbitrator makes a decision.

39. Section 252(i) of the 1996 Act requires that incumbent LECs make available to any requesting telecommunications carrier any individual interconnection, service, or network element on the same terms and conditions as contained in any agreement approved under Section 252 to which they are a party. The Commission concludes that section 252(i) entitles all carriers with interconnection agreements to ''most favored nation'' status regardless of whether such a clause is in their agreement. Carriers may obtain any individual interconnection, service, or network element under the same terms and conditions as contained in any publicly filed interconnection agreement without having to agree to the entire agreement. Additionally, carriers seeking interconnection, network elements, or services pursuant to section 252(i) need not make such requests pursuant to the procedures for initial section 251 requests, but instead may obtain access to agreement provisions on an expedited basis.

II. Scope of the Commission's Rules

40. In implementing section 251, we conclude that some national rules are necessary to promote Congress's goals for a national policy framework and serve the public interest, and that states should have the major responsibility for prescribing the specific terms and conditions that will lead to competition in local exchange markets. Our approach in this Report and Order has been a pragmatic one, consistent with the Act, with respect to this allocation of responsibilities. We believe that the steps necessary to implement section 251 are not appropriately characterized as a choice between specific national rules on the one hand and substantial state discretion on the other. We adopt national rules where they facilitate administration of sections 251 and 252, expedite negotiations and arbitrations by narrowing the potential range of dispute where appropriate to do so, offer uniform interpretations of the law that might not otherwise emerge until after years of litigation, remedy significant imbalances in bargaining power, and establish the minimum requirements necessary to implement the nationwide competition that Congress sought to establish. This is consistent with our obligation to ''complete all actions necessary to establish regulations to implement the requirements'' of section 251. Some of these rules will be relatively self-executing. In many instances, however, the rules we establish call on the states to exercise significant discretion and to make critical decisions through arbitrations and development of state-specific rules. Over time, we will continue to review the allocation of responsibilities, and we will reallocate them if it appears that we have inappropriately or inefficiently designated the decisionmaking roles.

41. The decisions in this Report and Order, and in this Section in particular, benefit from valuable insights provided by states based on their experiences in establishing rules and taking other actions intended to foster local competition. Through formal comments, *ex parte* meetings, and open forums, state commissioners and their staffs provided extensive, detailed information to us regarding difficult or complex issues that they have encountered, and the various approaches they have adopted to address those issues. Information from the states highlighted both differences among communities within states, as well as similarities among states. Recent state rules and orders that take into account the local competition provisions of the 1996 Act have been particularly helpful to our deliberations about the types of national rules that will best further the statute's goal of encouraging local telephone competition. *See, e.g,* Petition of AT&T for the Commission to Establish Resale Rules, Rates, Terms and Condition and the Initial Unbundling of Services, Docket No. 6352–U (Georgia Commission May 29, 1996); AT&T Communications of Illinois, Inc. *et al.,* Petition for a Total Local Exchange Wholesale Service Tariff from Illinois Bell Telephone Company, Nos. 95–0458 and 95–0531 (consol.) (Illinois Commission June 26, 1996); Hawaii Administrative Rules, Ch. 6–80, ''Competition in Telecommunications Services,'' (Hawaii Commission May 17, 1996); Public Utilities Commission of Ohio Case No. 95–845–TP–COI (Local Competition) (Ohio Commission June 12, 1996) and Implementation of the Mediation and Arbitration Provisions of the Federal Telecommunications Act of 1996, Case No. 96–463–TP–UNC (Ohio Commission May 30, 1996); Proposed Rules regarding Implementation of §§ 40–15–101 *et seq.* Requirements relating to Interconnection and Unbundling, Docket No. 95R–556T (Colorado Commission April 25, 1996) (one of a series of Orders adopted by the Colorado Commission in response to the local competition provisions of the 1996 Act); Washington Utilities and Transportation Commission, Fifteenth Supplemental Order, Decision and Order Rejecting Tariff Revisions, Requiring Refiling, Docket No. UT–950200 (Washington Commission April 1996). These state decisions also offered useful insights in determining the extent to which the Commission should set forth uniform national rules, and the extent to which we should ensure that states can impose varying requirements. Our contact with state commissioners and their staffs, as well as recent state actions, make clear that states and the FCC share a common commitment to creating opportunities for efficient new entry into the local telephone market. Our experience in working with state commissions since passage of the 1996 Act confirms that we will achieve that goal most effectively and quickly by working cooperatively with one another now and in the future as the country's emerging competition policy presents new difficulties and opportunities.

42. We also received helpful advice and assistance from other government agencies, including the National Telecommunications and Information Administration (NTIA), the Department of Justice, and the Department of Defense about how national rules could further the public interest. In addition, comments from industry members and consumer advocacy groups helped us understand better the varying and competing concerns of consumers and different representatives of the telecommunications industry. We benefitted as well by discovering that there are certain matters on which there is substantial agreement about the role the Commission should play in establishing and enforcing provisions of section 251.

A. Advantages and Disadvantages of National Rules

1. Background

43. Section 251(d)(1) instructs the Commission, within six months after the enactment of the 1996 Act (that is, by August 8, 1996), to ''establish regulations to implement the requirements of [section 251].'' The Commission's implementing rules should be designed ''to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition.'' Joint Explanatory Statement at 1. In addition, section 253 requires the Commission to preempt the enforcement of any state or local statute, regulation, or legal requirement that ''prohibit[s] or [has] the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.''

44. In the NPRM, we stated our belief that we should implement Congress's goal of a pro-competitive, de-regulatory, national policy framework by adopting national rules that are designed to secure the full benefits of competition for consumers, with due regard to work already done by the states. We sought comment on the extent to which we should adopt explicit national rules, and the extent to which permitting variations among states would further Congress's pro-competitive goals. We anticipated that we would rely on actions some states have already taken to address interconnection and other issues related to opening local markets to competition. In the NPRM, we set forth some of the benefits that would likely result from implementing explicit national rules, and some of the benefits that would likely result from allowing variations among states.

2. Discussion

45. Comments and *ex parte* discussions with state commission representatives have convinced us that we share with states a common goal of promoting competition in local exchange markets. We conclude that states and the FCC can craft a working relationship that is built on mutual commitment to local service competition throughout the country, in which the FCC establishes uniform, national rules for some issues, the states and the FCC administer these rules, and the states adopt other critically important rules to promote competition. In implementing the national rules we adopt in this Report and Order, states will help to illuminate and develop innovative solutions regarding many complex issues for which we have not attempted to prescribe national rules at this time, and states will adopt specific rules that take into account local concerns. In this Report and Order, and in subsequent actions we intend to take, we have and will continue to seek guidance from various states that have taken the lead in establishing pro-competitive requirements. We also expect to rely heavily on state input and experience in other FCC proceedings, such as access reform and petitions concerning BOC entry into in-region interLATA markets. Virtually every decision in this Report and Order borrows from decisions reached at the state level, and we expect this close association with and reliance on the states to continue in the future. We therefore encourage states to continue to pursue their own pro-competitive policies. Indeed, we hope and expect that this Report and Order will foster an interactive process by which a number of policies consistent with the 1996 Act are generated by states.

46. We find that certain national rules are consistent with the terms and the goals of the statute. Section 251 sets forth a number of rights with respect to interconnection, resale services, and unbundled network elements. We conclude that the Commission should define at least certain minimum obligations that section 251 requires, respectively, of all telecommunications carriers, LECs, or incumbent LECs. For example, as discussed in more detail below, we conclude that it is reasonable to identify a minimum number of network elements that incumbent LECs must unbundle and make available to requesting carriers pursuant to the standards set forth in sections 251 (c) and (d), while also permitting states to go beyond that minimum list and impose additional requirements that are consistent with the 1996 Act and the FCC's implementing rules. We find no basis for permitting an incumbent LEC in some states not to make available these minimum technically feasible network elements that are provided by incumbent LECs in other states. We point out, however, that a uniform rule does not necessarily mean uniform results. For example, a national pricing methodology takes into account local factors and inputs, and thus may lead to different prices in different states, and different regions within states. In addition, parties that voluntarily negotiate agreements need not comply with the requirements we establish under sections 251 (b) and (c), including any pricing rules we adopt. We intend to review on an ongoing basis the rules we adopt herein in light of competitive developments, states' experiences, and technological changes.

47. We find that incumbent LECs have no economic incentive, independent of the incentives set forth in sections 271 and 274 of the 1996 Act, to provide potential competitors with opportunities to interconnect with and make use of the incumbent LEC's network and services. Negotiations between incumbent LECs and new entrants are not analogous to traditional commercial negotiations in which each party owns or controls something the other party desires. Under section 251, monopoly providers are required to make available their facilities and services to requesting carriers that intend to compete directly with the incumbent LEC for its customers and its control of the local market. Therefore, although the 1996 Act requires incumbent LECs, for example, to provide interconnection and access to unbundled elements on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, incumbent LECs have strong incentives to resist such obligations. The inequality of bargaining power between incumbents and new entrants militates in favor of rules that have the effect of equalizing bargaining power in part because many new entrants seek to enter national or regional markets. National (as opposed to state) rules more directly address these competitive circumstances.

48. We emphasize that, under the statute, parties may voluntarily negotiate agreements ''without regard to'' the rules that we establish under sections 251 (b) and (c). However, fair negotiations will be expedited by the promulgation of national rules. Similarly, state arbitration of interconnection agreements now and in

the future will be expedited and simplified by a clear statement of terms that must be included in every arbitrated agreement, absent mutual consent to different terms. Such efficiency and predictability should facilitate entry decisions, and in turn enhance opportunities for local exchange competition. In addition, for new entrants seeking to provide service on a national or regional basis, minimum national requirements may reduce the need for designing costly multiple network configurations and marketing strategies, and allow more efficient competition. More efficient competition will, in turn, benefit consumers. Further, national rules will reduce the need for competitors to revisit the same issue in 51 different jurisdictions, thereby reducing administrative burdens and litigation for new entrants and incumbents.

49. We also believe that some explicit national standards will be helpful in enabling the Commission and the states to carry out other responsibilities under the 1996 Act. For example, national standards will enable the Commission to address issues swiftly if the Commission is obligated to assume section 252 responsibilities because a state commission has failed to act. In addition, BOCs that seek to offer long distance service in their service areas must satisfy, *inter alia*, a ''competitive checklist'' set forth in section 271(c)(2)(B). Many of the competitive checklist provisions require compliance with specific provisions of section 251. For example, the checklist requires BOCs to provide ''nondiscriminatory access to network elements in accordance with the requirements of sections 251(c)(3) and 252(d)(1).'' Some national rules also will help the states, the DOJ, and the FCC carry out their responsibilities under section 271, and assist BOCs in determining what steps must be taken to meet the requirements of section 271(c)(2)(B), the competitive checklist. In addition, national rules that establish the minimum requirements of section 251 will provide states with a consistent standard against which to conduct the fact-intensive process of verifying checklist compliance, the DOJ will have standards against which to evaluate the applications, and we will have standards to apply in adjudicating section 271 petitions in an extremely compressed time frame. Moreover, we believe that establishing minimum requirements that arbitrated agreements must satisfy will assist states in arbitrating and reviewing agreements under section 252, particularly in light of the relatively short time frames for such state action. While some states reject the idea that national rules will help the state commissions to satisfy their obligations under section 252 to mediate, arbitrate, and review agreements, other states have welcomed national rules, at least with respect to certain matters.

50. A broad range of parties urge the Commission to adopt minimum requirements that would permit states to impose additional, pro-competitive requirements that are consistent with the 1996 Act to address local or state-specific circumstances. We agree generally that many of the rules we adopt should establish non-exhaustive requirements, and that states may impose additional pro-competitive requirements that are consistent with the purposes and terms of the 1996 Act, including our regulations established pursuant to section 251. In contrast, we conclude that the 1996 Act limits the obligations states may impose on non-incumbent carriers. *See infra*, Section XI.C. We also anticipate that the rules we adopt regarding interconnection, services, and access to unbundled elements will evolve to accommodate developments in technology and competitive circumstances, and that we will continue to draw on state experience in applying our rules and in addressing new or additional issues. We recognize that it is vital that we reexamine our rules over time in order to reflect developments in the dynamic telecommunications industry. We cannot anticipate all of the changes that will occur as a result of technological advancements, competitive developments, and practical experience, particularly at the state level. Therefore, ongoing review of our rules is inevitable. Moreover, we conclude that arbitrated agreements must permit parties to incorporate changes to our national rules, or to applicable state rules as such changes may be effective, without abrogating the entire contract. This will ensure that parties, regardless of when they enter into arbitrated agreements, will be able to take advantage of all applicable Commission and state rules as they evolve.

51. Some parties contend that even minimum requirements may impede the ability of state commissions to take varying approaches to address particular circumstances or conditions. We agree with the contention that, although there are different market conditions from one area to another, such distinct areas do not necessarily replicate state boundaries. For example, virtually all states include both more densely-populated areas and sparsely populated rural areas, and all include both business and residential areas. Although each state is unique in many respects, demographic and other differences among states do not suggest that national rules are inappropriate. Moreover, even though it may not be appropriate to impose identical requirements on carriers with different network technologies, our rules are intended to accommodate such differences. *See infra*, Section IV.E. (concluding that successful interconnection or access to an unbundled element at a particular point in the network creates a rebuttable presumption that such interconnection or access is technically feasible at networks that employ *substantially similar facilities*). We agree with parties, such as the Ohio Consumers' Counsel, that physical networks are not designed on a state-by-state basis. Ohio Consumers' Counsel comments at 4. Some parties have argued that explicit national standards will delay the emergence of local telephone competition, but none has offered persuasive evidence to substantiate that claim, and new entrants overwhelmingly favor strong national rules. We conclude, for the reasons set forth above, that some national rules will enhance opportunities for local competition, and we have chosen to adopt national rules where necessary to establish the minimum requirements for a nationwide pro-competitive policy framework.

52. We disagree with those parties that claim we are trying to impose a uniformity that Congress did not intend. Variations among interconnection agreements will exist, because parties may negotiate their own terms, states may impose additional requirements that differ from state to state, and some terms are beyond the scope of this Report and Order. We conclude, however, that establishing certain rights that are available, through arbitration, to all requesting carriers, will help advise parties of their minimum rights and obligations, and will help speed the negotiation process. In effect, the Commission's rules will provide a national baseline for terms and conditions for all arbitrated agreements. Our rules also may tend to serve as a useful guide for negotiations by setting forth minimum requirements that will apply to parties if they are unable to reach agreement. This is consistent with the broad delegation of authority that Congress gave the Commission to implement the requirements set forth in section 251.

53. We also believe that national rules will assist smaller carriers that seek to

provide competitive local service. As noted above, national rules will greatly reduce the need for small carriers to expend their limited resources securing their right to interconnection, services, and network elements to which they are entitled under the 1996 Act. This is particularly true with respect to discrete geographic markets that include areas in more than one state. We agree with the Small Business Administration that national rules will reduce delay and lower transaction costs, which impose particular hardships for small entities that are likely to have less of a financial cushion than larger entities. In addition, even a small provider may wish to enter more than one market, and national rules will create economies of scale for entry into multiple markets. We reject the position advocated by some parties that we should not adopt national rules because such rules will be particularly burdensome for small or rural incumbent LECs. We note, however, that section 251(f) provides relief from some of our rules.

54. We recognize the concern of many state commissions that the Commission not undermine or reverse existing state efforts to foster local competition. We believe that Congress did not intend for us needlessly to disrupt the pro-competitive actions some states already have taken that are both consistent with the 1996 Act and our rules implementing section 251. We believe our rules will in many cases be consistent with pro-competitive actions already taken by states, and in fact, many of the rules we adopt are based directly on existing state commission actions. We also intend to continue to reflect states' experiences as we revise our rules. We also recognize, however, that in at least some instances existing state requirements will not be consistent with the statute and our implementing rules. It will be necessary in those instances for the subject states to amend their rules and alter their decisions to conform to our rules. In our judgment, national rules are highly desirable to achieve Congress's goal of a pro-competitive national policy framework for the telecommunications industry.

B. Suggested Approaches for FCC Rules

1. Discussion

55. We intend to adopt minimum requirements in this proceeding; states may impose additional pro-competitive requirements that are consistent with the Act and our rules. We decline to adopt a ''preferred outcomes'' approach, because such an approach would fail to establish explicit national standards for arbitration, and would fail to provide sufficient guidance to the parties' options in negotiations. To the extent that parties advocate ''preferred outcomes'' from which the parties could deviate in arbitrated agreements, we reject such a proposal, because we conclude that it would not provide the benefits conferred by establishing ''default'' requirements. To the extent that commenters advocate a regulatory approach that would require parties to justify a negotiated result different from the preferred outcomes, we believe that such an approach would impose greater constraints on voluntarily negotiated agreements than the 1996 Act permits. Under the 1996 Act, parties may freely negotiate any terms without justifying deviation from ''preferred outcomes.'' The only restriction on such negotiated agreements is that they must be deemed by the state commission to be nondiscriminatory and consistent with the public interest, under the standards set forth in section 252(e)(2)(A). In response to the Illinois Commission's suggestion that we adopt a process by which states may seek waivers of our rules, we note that Commission rules already provide for waiver of our rules under certain circumstances. We decline to adopt a special waiver process in this proceeding.

56. We intend our rules to give guidance to the parties regarding their rights and obligations under section 251. The specificity of our rules varies with respect to different issues; in some cases, we identify broad principles and leave to the states the determination of what specific requirements are necessary to satisfy those principles. In other cases, we find that local telephone competition will be better served by establishing specific requirements. In each of the sections below, we discuss the basis for adopting particular national principles or rules.

57. We also believe that we should periodically review and amend our rules to take into account experiences of carriers and states, technological changes, and market developments. The actions we take here are fully responsive to Congress's mandate that we complete all actions necessary to establish regulations to implement the requirements of section 251 by August 8, 1996. We nevertheless retain authority to refine or augment our rules, or to follow a different course, after developing some practical experience with the rules adopted herein. It is beyond doubt that the Commission has ongoing rulemaking authority. For example, section 4(i) provides that the Commission ''may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with the Act, as may be necessary in the execution of its functions.'' Section 4(j) provides that the Commission ''may conduct its proceedings in such manner as will best conduce to the proper dispatch and to the ends of justice.'' We agree with Sprint, the Illinois Commission, and other parties that we should address in this rulemaking the most important issues, and continue to refine our rules on an ongoing basis to address additional or unanticipated issues, and especially to learn from the decisions and experiences of the states. We also reject the argument of Margaretville Telephone Company that the 1996 Act constitutes an unconstitutional taking because it seeks to deprive incumbent LECs of their ''reasonable, investment-backed expectation to hold competitive advantages over new market entrants.''

C. Legal Authority of the Commission to Establish Rules Applicable to Intrastate Aspects of Interconnection, Services, and Unbundled Network Elements

1. Background

58. In the NPRM, we tentatively concluded that Congress intended sections 251 and 252 to apply, and that our rules should apply, to both interstate and intrastate aspects of interconnection, services, and access to network elements. We stated in the NPRM that it would seem to make little sense, in terms of economics or technology, to distinguish between interstate and intrastate components for purposes of sections 251 and 252. We also believed that such a distinction would appear to be inconsistent with Congress's desire to establish a national policy framework for interconnection and other issues critical to achieving local competition. We sought comment on these tentative conclusions.

59. We further tentatively concluded in the NPRM that section 2(b) of the 1934 Act does not require a contrary conclusion. Section 2(b) states that, except as provided in certain enumerated sections not including sections 251 and 252, ''nothing in [the 1934] Act shall be construed to apply or to give to the Commission jurisdiction with respect to * * * charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier * * *.'' We noted in the NPRM that sections 251 and 252 do not alter the jurisdictional division of authority with respect to matters falling outside the scope of these provisions. For example, rates charged to end users for local exchange service have

traditionally been subject to state authority, and will continue to be.

2. Discussion

60. We conclude that, in enacting sections 251, 252, and 253, Congress created a regulatory system that differs significantly from the dual regulatory system it established in the 1934 Act. According to Senator Pressler, ''Progress is being stymied by a morass of regulatory barriers which balkanize the telecommunications industry into protective enclaves. We need to design a *national policy framework*—a new regulatory paradigm for telecommunications—which accommodates and accelerates technological change and innovation.'' 141 Cong. Rec. S7881–2, S7886 (June 7, 1995) (emphasis added). According to Representative Fields, ''[Congress] is decompartmentalizing segments of the telecommunications industry, opening the floodgates of competition through deregulation, and most importantly, giving consumers choice * * *'', 142 Cong. Rec. H1149 (Feb. 1, 1996). That Act generally gave jurisdiction over interstate matters to the FCC and over intrastate matters to the states. The 1996 Act alters this framework, and expands the applicability of both national rules to historically intrastate issues, and state rules to historically interstate issues. For example, section 253(a) suggests that states may establish regulations regarding interstate as well as intrastate matters. Indeed, many provisions of the 1996 Act are designed to open telecommunications markets to all potential service providers, without distinction between interstate and intrastate services.

61. For the reasons set forth below, we hold that section 251 authorizes the FCC to establish regulations regarding both interstate and intrastate aspects of interconnection, services, and access to unbundled elements. We also hold that the regulations the Commission establishes pursuant to section 251 are binding upon states and carriers and section 2(b) does not limit the Commission's authority to establish regulations governing intrastate matters pursuant to section 251. Similarly, we find that the states' authority pursuant to section 252 also extends to both interstate and intrastate matters. Although we recognize that these sections do not contain an explicit grant of intrastate authority to the Commission or of interstate authority to the states, we nonetheless find that this interpretation is the only reasonable way to reconcile the various provisions of sections 251 and 252, and the statute as a whole. As we indicated in the NPRM, it would make little sense in terms of economics or technology to distinguish between interstate and intrastate components for purposes of sections 251 and 252. We believe that this interpretation is the most reasonable one in light of our expectation that marketing and product offerings by telecommunications carriers will diminish or eliminate the significance of interstate-intrastate distinctions.

62. We view sections 251 and 252 as creating parallel jurisdiction for the FCC and the states. These sections require the FCC to establish implementing rules to govern interconnection, resale of services, access to unbundled network elements, and other matters, and direct the states to follow the Act and those rules in arbitrating and approving arbitrated agreements under sections 251 and 252. Among other things, the fact that the Commission is required to assume the state commission's responsibilities if the state commission fails to carry out its section 252 responsibilities gives rise to the inevitable inference that both the states and the FCC are to address the same matters through their parallel jurisdiction over both interstate and intrastate matters under sections 251 and 252.

63. The only other possible interpretations would be that: (1) sections 251 and 252 address only interstate aspects of interconnection, services, and access to unbundled elements; (2) the provisions address only the intrastate aspects of those issues; or (3) the FCC's role is to establish rules for interstate aspects, and the states' role is to arbitrate and approve agreements on intrastate aspects. As explained below, none of these interpretations withstands examination. Accordingly, we conclude that sections 251 and 252 address both interstate and intrastate aspects of interconnection services and access to unbundled elements.

64. Some parties have argued that our authority under section 251 is limited by section 2(b). Ordinarily, in light of section 2(b), we would interpret a provision of the Communications Act as addressing only the interstate jurisdiction unless the provision (as well as section 2(b) itself) provided otherwise. That interpretation is contradicted in this case, however, by strong evidence in the statute that the local competition provisions of the 1996 Act are directed to both intrastate and interstate matters. For example, section 251(c)(2), the interconnection requirement, requires LECs to provide interconnection ''for the transmission and routing of *telephone exchange service* and exchange access.'' Because telephone exchange service is a local, intrastate service, section 251(c)(2) plainly addresses intrastate service, but it also addresses interstate exchange access. In addition, we note that in section 253, the statute explicitly authorizes the Commission to preempt intrastate and interstate barriers to entry.

65. More generally, if these sections are read to address only interstate services, the grant of substantial responsibilities to the states under section 252 is incongruous. A statute designed to develop a *national* policy framework to promote local competition cannot reasonably be read to reduce significantly the FCC's traditional jurisdiction over interstate matters by delegating enforcement responsibilities to the states, unless Congress intended also to implement its national policies by enhancing our authority to encompass rulemaking authority over intrastate interconnection matters. The legislative history is replete with statements indicating that Congress meant to address intrastate local exchange competition. For instance, Senator Lott stated that ''[i]n addressing *local and long distance issues,* creating an open access and sound interconnection policy was the key objective * * *'' 141 Cong. Rec. S7906 (June 7, 1995) (emphasis added). Representative Markey noted that ''we take down the barriers of *local and long distance* and cable company, satellite, computer software entry into any business they want to get in.'' 142 Cong. Rec. H1151 (Feb. 1, 1996) (emphasis added).

66. Some parties argue that section 251 addresses solely intrastate matters. We do not find this argument persuasive. Under this narrow view, section 251(c)(6) requiring incumbent LECs to offer physical collocation would apply only to equipment used for intrastate services, while new entrants would be limited to the use of virtual collocation for equipment used in the provision of interstate services, pursuant to the decision in *Bell Atlantic. Bell Atlantic Telephone Companies* v. *FCC,* 24 F.3d 1441 (D.C. Cir. 1994) (*Bell Atlantic*) (holding that the Commission did not have authority to require physical collocation for the provision of interstate services). Such an interpretation would force new entrants to use different methods of collocation based on the jurisdictional nature of the traffic involved, and would thereby greatly increase new entrants' costs. Moreover, such an interpretation would fail to give effect to Congress's intent in

enacting section 251(c)(6) to reverse the result reached in *Bell Atlantic*. The language in the House bill which closely matches the language that appears in section 251(c)(6), noted that a provision requiring physical collocation was necessary ''because a recent court decision indicates that the Commission lacks authority under the Communications Act to order physical collocation.'' H.R. Rep. No. 204, pt. I, 104th Cong., 1st Sess., at 73 (1995).

67. Another factor that makes clear that sections 251 and 252 did not address exclusively intrastate matters is the provision in section 251(g), ''Continued Enforcement of Exchange Access and Interconnection Requirements.'' That section provides that BOCs must follow the Commission's ''equal access and nondiscriminatory interconnection restrictions (including receipt of compensation)'' until they are explicitly superseded by Commission regulations after the date of enactment of the 1996 Act. This provision refers to existing Commission rules governing interstate matters, and therefore it contradicts the argument that section 251 addresses intrastate matters exclusively.

68. Nor does the savings clause of section 251(i) require us to conclude that sections 251 and 252 address only intrastate issues. Section 251(i) provides that ''[n]othing in this section shall be construed to limit or otherwise affect the Commission's authority under section 201.'' This subsection merely affirms that the Commission's preexisting authority under section 201 continues to apply for purely interstate activities. It does not act as a limitation on the agency's authority under section 251.

69. As to the third possible interpretation, the FCC's role is to establish rules for only the interstate aspects of interconnection, and the states' role is to arbitrate and approve only the intrastate aspects of interconnection agreements. No commenters support this position, and we find that it would be inconsistent with the 1996 Act to read into sections 251 and 252 such a distinction. The statute explicitly contemplates that the states are to comply with the Commission's rules, and the Commission is required to assume the state commission's responsibilities if the state commission fails to act to carry out its section 252 responsibilities. Thus, we believe the only logical conclusion is that the Commission and the states have parallel jurisdiction. We conclude, therefore, that these sections can only logically be read to address both interstate and intrastate aspects of interconnection, services, and access to unbundled network elements, and thus to grant the Commission authority to establish regulations under 251, binding on both carriers and states, for both interstate and intrastate aspects.

70. Section 2(b) of the Act does not require a different conclusion. Section 2(b) provides that, except as provided in certain enumerated sections not including sections 251 and 252, ''nothing in [the 1934] Act shall be construed to apply or to give to the Commission jurisdiction with respect to * * * charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier * * *''. As stated above, however, we have found that sections 251 and 252 do apply to ''charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service.'' In enacting sections 251 and 252 after section 2(b), and squarely addressing therein the issue of interstate and intrastate jurisdiction, we find that Congress intended for sections 251 and 252 to take precedence over any contrary implications based on section 2(b). We note also, that in enacting the 1996 Act, there are other instances where Congress indisputably gave the Commission intrastate jurisdiction without amending section 2(b). For instance, section 251(e)(1) provides that ''[t]he Commission shall have exclusive jurisdiction over those portions of the North American Numbering Plan that pertain to the United States.'' Section 253 directs the FCC to preempt state regulations that prohibit the ability to provide intrastate services. Section 276(b) directs the Commission to ''establish a per call compensation plan to ensure that payphone service providers are fairly compensated for each and every completed intrastate and interstate call.'' Section 276(d) provides that ''[t]o the extent that any State requirements are inconsistent with the Commission's regulations, the Commission's regulations on such matters shall preempt such State requirements.'' None of these provisions is specifically excepted from section 2(b), yet *all* of them explicitly give the FCC jurisdiction over intrastate matters. Thus, we believe that the lack of an explicit exception in section 2(b) should not be read to require an interpretation that the Commission's jurisdiction under sections 251 and 252 is limited to interstate services. A contrary holding would nullify several explicit grants of authority to the FCC, noted above, and would render parts of the statute meaningless.

71. Some parties find significance in the fact that earlier drafts of the legislation would have amended section 2(b) to make an exception for Part II of Title II, including section 251, but the enacted version did not include that exception. These parties argue that this change in drafting demonstrates an intention by Congress that the limitations of section 2(b) remain fully in force with regard to sections 251 and 252. We find this argument unpersuasive.

72. Parties that attach significance to the omission of the proposed amendment of section 2(b) rely on a rule of statutory construction providing that, when a provision in a prior draft is altered in the final legislation, Congress intended a change from the prior version. This rule of statutory construction has been rejected, however, when changes from one draft to another are not explained. In this instance, the only statement from Congress regarding the meaning of the omission of the section 2(b) amendment appears in the Joint Explanatory Statement of the Conference Report. According to the Joint Explanatory Statement, all differences between the Senate Bill, the House Amendment, and the substitute reached in conference are noted therein ''except for clerical corrections, conforming changes made necessary by agreements reached by the conferees, and minor drafting and clerical changes.'' Because the Joint Explanatory Statement did not address the removal of the section 2(b) amendment from the final bill, the logical inference is that Congress regarded the change as an inconsequential modification rather than a significant alteration. Moreover, it seems implausible that, by selecting the final version, Congress intended a radical alteration of the Commission's authority under section 251, given the total lack of legislative history to that effect. We conclude that elimination of the proposed amendment of section 2(b) was a nonsubstantive change because, as AT&T contends, such amendment was unnecessary in light of the grants of authority under sections 251 and 252, and would have had no practical effect.

73. Some parties have argued that, to the extent that sections 251 and 252 address intrastate matters, the Commission's rulemaking authority under those sections is limited to those instances where Commission action regarding intrastate matters is specifically mandated, such as number administration. We disagree. There is no language limiting the Commission's

authority to establish rules under section 251. To the contrary, section 251(d)(1) affirmatively requires Commission rules, stating that ''the Commission *shall* complete *all* actions necessary to implement the requirements of *this section*.'' Pursuant to sections 4(i), 201(b), and 303(r) of the Act, the Commission generally has rulemaking authority to implement all provisions of the Communications Act. Courts have held that the Commission, pursuant to its general rulemaking authority, has ''expansive'' rather than limited powers. Further, where Congress has expressly delegated to the Commission rulemaking responsibility with respect to a particular matter, such delegation constitutes ''something more than the normal grant of authority permitting an agency to make ordinary rules and regulations * * *''. Indeed, to read these provisions otherwise would negate the requirement that states ensure that arbitrated agreements are consistent with the Commission's rules. Thus, the explicit rulemaking requirements pointed out by some of the parties is best read as giving the Commission more jurisdiction than usual, not less. We believe that the delegation of authority set forth in section 251(d)(1) is ''expansive'' and not limited. We therefore reject assertions that the Commission has authority to establish regulations regarding intrastate matters only with respect to certain provisions of section 251, such as number administration.

74. Moreover, the Court in *Louisiana PSC* does not suggest a different result. The reasoning in *Louisiana PSC* applies to the dual regulatory system of the 1934 Act. As set forth above, however, in sections 251–253, Congress amended the dual regulatory system that the Court addressed in *Louisiana PSC.* As a result, preemption in this case is governed by the usual rule, also recognized in *Louisiana PSC,* that an agency, acting within the scope of its delegated authority, may preempt inconsistent state regulation. As discussed above, Congress here has expressed an intent that our rules apply to intrastate interconnection, services, and access to network elements. Therefore, *Louisiana PSC* does not foreclose our adoption of regulations under section 251 to govern intrastate matters.

75. Parties have raised other arguments suggesting that the Commission lacks authority over intrastate matters. We are not persuaded by the argument that sections 256(c) and 261, as well as section 601(c) of the 1996 Act, evince an intent by Congress to preserve states' exclusive authority over intrastate matters. In fact, section 261 supports the finding that the Commission may establish regulations regarding intrastate aspects of interconnection, services and access to unbundled elements that the states may not supersede. Section 261(b) *generally* permits states to enforce regulations prescribed prior to the date of enactment of the 1996 Act, and to prescribe regulations after such date, if such regulations are not inconsistent with the provisions of Part II of Title II. Section 261(c) *specifically* provides that nothing in Part II of Title II ''precludes a State from imposing requirements on a telecommunications carrier for intrastate services that are necessary to further competition in the provision of telephone exchange service or exchange access, as long as the State's requirements are not inconsistent with this part *or the Commission's regulations to implement this part.''* We conclude that state access and interconnection obligations referenced in section 251(d)(3) fall within the scope of section 261(c). Section 261(c), as the more specific provision, controls over section 261(b) for matters that fall within its scope. We note, too, that section 261(c) encompasses all state requirements. It is not limited to requirements that were prescribed prior to the enactment of the 1996 Act. By providing that state requirements for *intrastate* services must be consistent with the Commission's regulations, section 261(c) buttresses our conclusion that the Commission may establish regulations regarding intrastate aspects of interconnection, services, and access to unbundled elements.

76. Section 601 of the 1996 Act and section 256 also are consistent with our conclusion. Section 601(c) of the 1996 Act provides that the Act and its amendments ''shall not be construed to modify, impair, or supersede Federal, State, or local law unless expressly so provided in such Act or amendments.'' We conclude that section 251(d)(1), which requires the Commission to ''establish regulations to implement the requirements of this section,'' and section 261(c), were expressly intended to modify federal and state law and jurisdictional authority.

77. Section 256, entitled ''Coordination for Interconnectivity,'' has no direct bearing on the issue of the Commission's authority under section 251, because it provides only that ''[n]othing *in this section* shall be construed as expanding or limiting any authority that the Commission may have under law in effect before the date of enactment of the Telecommunications Act of 1996.'' That provision is relevant, however, as a contrast to section 251, which does not contain a similar statement that the scope of the Commission's authority is unchanged by section 251. *Russello* v. *United States,* 464 U.S. 16, 23 (1983); *Cramer* v. *Internal Revenue Service,* 64 F.3d 1406, 1412 (9th Cir. 1995) (where Congress includes a provision in one section of statute but omits it in another section of the same Act, it should not be implied where it is excluded).

78. We further conclude that the Commission's regulations under section 251 are binding on the states, even with respect to intrastate issues. Section 252 provides that the agreements state commissions arbitrate must comply with the Commission's regulations established pursuant to section 251. In addition, section 253 requires the Commission to preempt state or local regulations or requirements that ''prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.'' As discussed above, section 261(c) provides further support for the conclusion that states are bound by the regulations the Commission establishes under section 251.

79. We disagree with claims that section 251(d)(3) ''grandfathers'' existing state regulations that are consistent with the 1996 Act, and that such state regulations need not comply with the Commission's implementing regulations. Section 251(d)(3) only specifies that the Commission may not preclude enforcement of state access and interconnection requirements that are consistent with section 251, and that do not substantially prevent implementation of the requirements of section 251 or the purposes of Part II of Title II. In this Report and Order, we set forth only such rules that we believe are necessary to implement fully section 251 and the purposes of Part II of Title II. Thus, state regulations that are inconsistent with our rules may ''substantially prevent implementation of the requirements of this section and the purposes of [Part II of Title II].''

80. We are not persuaded by arguments that, because other provisions of the 1996 Act specifically require states to comply with the Commission's regulations, the absence of such requirement in section 251(d)(3) indicates that Congress did not intend such compliance. Section 251(d)(3) permits states to prescribe and to enforce access and interconnection requirements only to the extent that such requirements ''are consistent with the requirements'' of section 251 and do not ''substantially prevent

implementation'' of the requirements of section 251 and the purposes of Part II of Title II. The Commission is required to establish regulations to ''implement the requirements of the section.'' Therefore, in order to be consistent with the requirements of section 251 and not ''substantially prevent'' implementation of section 251 or Part II of Title II, state requirements must be consistent with the FCC's implementing regulations.

D. Commission's Legal Authority and the Adoption of National Pricing Rules

1. Background

81. In the NPRM, we sought comment on our tentative conclusion that sections 251 (c)(2), (c)(3), and (c)(6) establish the Commission's legal authority under section 251(d) to adopt pricing rules to ensure that the rates, terms, and conditions for interconnection, access to unbundled network elements, and collocation are just, reasonable, and nondiscriminatory. We also sought comment on our tentative conclusion that sections 251(b)(5) and 251(c)(4) establish our authority to define ''wholesale rates'' for purposes of resale, and ''reciprocal compensation arrangements'' for purposes of transport and termination of telecommunications services. In addition, we asked parties to comment on our tentative conclusion that the Commission's statutory duty to implement the pricing requirements of section 251, as elaborated in section 252, requires that we establish pricing rules interpreting and further explaining the provisions of section 252(d). The states would then apply these rules in establishing rates pursuant to arbitrations and in reviewing BOC statements of generally available terms and conditions.

82. We further sought comment on our tentative conclusion that national pricing rules would likely reduce or eliminate inconsistent state regulatory requirements, increase the predictability of rates, and facilitate negotiation, arbitration, and review of agreements between incumbent LECs and competitive providers. We also sought comment on the potential consequences of the Commission not establishing specific pricing rules.

2. Discussion

83. In adopting sections 251 and 252, we conclude that Congress envisioned complementary and significant roles for the Commission and the states with respect to the rates for section 251 services, interconnection, and access to unbundled elements. We interpret the Commission's role under section 251 as ensuring that rates are just, reasonable, and nondiscriminatory: in doing so, we believe it to be within our discretion to adopt national pricing rules in order to ensure that rates will be just, reasonable, and nondiscriminatory. The Commission is also responsible for ensuring that interconnection, collocation, access to unbundled elements, resale services, and transport and termination of telecommunications are reasonably available to new entrants. The states' role under section 252(c) is to establish specific rates when the parties cannot agree, consistent with the regulations prescribed by the Commission under sections 251(d)(1) and 252(d).

84. While we recognize that sections 201 and 202 create a very different regulatory regime from that envisioned by sections 251 and 252, we observe that Congress used terms in section 251, such as the requirement that rates, terms, and conditions be ''just, reasonable, and nondiscriminatory,'' that are very similar to language in sections 201 and 202. This lends additional support for the proposition that Congress intended to give us authority to adopt rules regarding the justness and reasonableness of rates pursuant to section 251, comparable in some respects to the authority Congress gave us pursuant to sections 201 and 202.

85. We believe that national pricing rules are a critical component of the interconnection regime set out in sections 251 and 252. Congress intended these sections to promote opportunities for local competition, and directed us to establish regulations to ensure that rates under this regime would be economically efficient. This, in turn, should reduce potential entrants' capital costs, and should facilitate entry by all types of service providers, including small entities. Further, we believe that national rules will help states review and arbitrate contested agreements in a timely fashion. From August to November and beyond, states will be carrying the tremendous burden of setting specific rates for interconnection and network elements, for resale, and for transport and termination when parties bring these issues before them for arbitration. As discussed in more detail below, we are setting forth default proxies for states to use if they are unable to set these rates using the necessary cost studies within the statutory time frame. After that, both we and the states will need to review the level of competition, revise our rules as necessary, and reconcile arbitrated interconnection arrangements to those revisions on a going-forward basis.

86. We believe that national rules should reduce the parties' uncertainty about the outcome that may be reached by different states in their respective regulatory proceedings, which will reduce regulatory burdens for all parties including small incumbent LECs and small entities. A national regime should also help to ensure consistent federal court decisions on review of specific state orders under sections 251 and 252. In addition, under the national pricing rules that we adopt for interconnection and unbundled network elements, states will retain the flexibility to consider local technological, environmental, regulatory, and economic conditions. Failure to adopt national pricing rules, on the other hand, could lead to widely disparate state policies that could delay the consummation of interconnection arrangements and otherwise hinder the development of local competition. Lack of national rules could also provide opportunities for incumbent LECs to inhibit or delay the interconnection efforts of new competitors, and create great uncertainty for the industry, capital markets, regulators, and courts as to what pricing policies would be pursued by each of the individual states, frustrating the potential entrants' ability to raise capital. In sum, we believe that the pricing of interconnection, unbundled elements, resale, and transport and termination of telecommunications is important to ensure that opportunities to compete are available to new entrants.

87. As we observed in the NPRM, section 251 explicitly sets forth certain requirements regarding rates for interconnection, access to unbundled elements, and related offerings. Sections 251 (c)(2) and (c)(3) require that incumbent LECs' ''*rates*, terms, and conditions'' for interconnection and unbundled network elements be ''just, reasonable, and nondiscriminatory in accordance with * * * the requirements of sections 251 and 252.'' Section 251(c)(4) requires that incumbent LECs offer ''for resale at wholesale *rates* any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers,'' without unreasonable conditions or limitations. Section 251(c)(6) provides that all LECs must provide physical collocation of equipment, ''on *rates*, terms, and conditions that are just, reasonable, and nondiscriminatory.'' Section 251(b)(5) requires that all LECs ''establish reciprocal *compensation* arrangements for the transport and termination of telecommunications.'' Section 251(d)(1) further expressly directs the

Commission, without limitation, to ''complete all actions necessary to implement the requirements of [section 251].''

88. Section 252 generally sets forth the procedures that state commissions, incumbent LECs, and new entrants must follow to implement the requirements of section 251 and establish specific interconnection arrangements. Section 252(c)(1) provides that ''in resolving by arbitration * * * any open issues and imposing conditions upon the parties to the agreement, a State commission shall * * * ensure that such resolution and conditions meet the requirements of section 251, *including the regulations prescribed by the Commission pursuant to section 251.*''

89. We conclude that, under section 251(d)(1), Congress granted us broad authority to complete all actions necessary to implement the requirements of section 251, including actions necessary to ensure that rates for interconnection, access to unbundled elements, and collocation are ''just, reasonable, and nondiscriminatory.'' We also determine that the statute grants us the authority to define reasonable ''wholesale rates'' for purposes of services to be resold, and ''reciprocal compensation'' for purposes of transport and termination of telecommunications. The argument advanced by the New York Commission, NARUC, and others that the Commission's implementing authority under section 251(d)(1) is limited to those provisions in section 251 that mandate specific Commission rules, such as prescribing regulations for number portability, unbundling, and resale, reads into section 251(d)(1) limiting language that the section does not contain. Congress did not confine the Commission's rulemaking authority to only those matters identified in sections 251(b)(2), 251(c)(4)(B), and 251(d)(2), and there is no basis for inferring such an implicit limitation. A narrow reading of section 251(d)(1), as proposed by the New York Commission, NARUC, and others, would require the Commission to neglect its statutory duty to implement the provisions of section 251 and to promote rapid competitive entry into local telephone markets.

90. We also reject the arguments raised by several state commissions that the language in section 252(c) indicates Congress' intent for the Commission to have little or no authority with respect to pricing of interconnection, access to unbundled elements, and collocation. We do not believe that the statutory directive that state commissions establish rates according to section 252(d) restricts our authority under section 251(d)(1). States must comply with both the statutory standards under section 252(d) *and* the regulations prescribed by the Commission pursuant to section 251 when arbitrating rate disputes or when reviewing BOC statements of generally available terms. Section 252(c) enumerates three requirements that states must follow in arbitrating issues. These requirements are not set forth in the alternative; rather, states must comply with all three.

91. We further reject the argument that section 251(d)(3) restricts the Commission's authority to establish national pricing regulations. Section 251(d)(3) provides that the Commission shall not preclude the enforcement of any regulation, order, or policy of a state commission that, *inter alia,* is consistent with the requirements of section 251 and does not substantially prevent implementation of the requirements of section 251. This subsection, as discussed in section II.C., *supra,* is intended to allow states to adopt regulations that are not inconsistent with the Commission's rules; it does not address state policies that are inconsistent with the pricing rules established by the Commission.

92. We also address the impact of our rules on small incumbent LECs. For example, Rural Tel. Coalition argues that rigid rules, based on the properties of large urban LECs, cannot blindly be applied to small and rural LECs. As discussed above, however, we believe that states will retain sufficient flexibility under our rules to consider local technological, environmental, regulatory, and economic conditions. We also note that section 251(f) may provide relief to certain small carriers.

E. Authority To Take Enforcement Action

1. Background

93. The Commission's implementation of section 251 must be given full effect in arbitrated agreements and incorporated into all such agreements. There is judicial review of such arbitrated agreements, and one issue surely will be the adherence of these agreements to our rules. The Commission will have the opportunity to participate, upon request by a party or a state or by submitting an *amicus* filing, in the arbitration or the judicial review thereof. To clarify our potential role, we consider the extent of the Commission's authority to review and enforce agreements entered into pursuant to section 252. Section 252(e)(6) provides that, in ''any case in which a State commission makes a determination under this section, any party aggrieved by such determination may bring an action in an appropriate Federal district court to determine whether the agreement or statement meets the requirements of section 251 and this section.''

94. In the NPRM, we sought comment on the relationship between sections 251 and 252 and the Commission's existing authority under section 208(a), which allows any person to file a complaint with the Commission regarding ''anything done or omitted to be done by any common carrier subject to this Act, in contravention of the provisions thereof * * *'' We asked whether section 208 gives the Commission authority over complaints alleging violations of requirements set forth in sections 251 or 252. We also sought comment on the relationship between sections 251 and 252 and any other applicable Commission enforcement authority. We further sought comment on how we might increase the effectiveness of the Commission's enforcement mechanisms. Specifically, we asked for comment on how private rights of action might be used under the Act, and the Commission's role in speeding dispute resolution in forums used by private parties.

2. Discussion

95. Consistent with our decision in *Telephone Number Portability* and the views of most commenters, we conclude that parties have several options for seeking relief if they believe that a carrier has violated the standards under section 251 or 252. Pursuant to section 252(e)(6), a party aggrieved by a state commission arbitration determination under section 252 has the right to bring an action in federal district court. Commenters also suggest that the statute's provision for federal district court review of state public utility commission decisions is inconsistent with the 11th Amendment. That issue is not properly before the Commission since it is the federal courts that will have to determine the scope of their jurisdiction and in any case ''regulatory agencies are not free to declare an act of Congress unconstitutional.'' *See Meredith Corp.* versus *FCC,* 809 F.2d 863, 873 (D.C. Cir. 1987). Federal district courts may choose to stay or dismiss proceedings brought pursuant to section 252(e)(6), and refer issues of compliance with the substantive requirements of sections 251 and 252 to the Commission under the primary jurisdiction doctrine. We find, however, that federal court review is not the exclusive remedy regarding state determinations under section 252. The

1996 Act is clear when it intends for a remedy to be exclusive. For example, section 252(e)(6) provides that, if a state commission fails to act, as described in section 252(e)(5), ''the proceeding by the Commission under [section 252(e)(5)] and any judicial review of the Commission's actions *shall be the exclusive remedies* for a State commission's failure to act.'' In contrast, the succeeding sentence in section 252(e)(6) provides that any party aggrieved by a state commission determination under section 252 ''*may* bring an action in an appropriate Federal district court * * *''

96. The Commission also stands ready to provide guidance to states and other parties regarding the statute and our rules. In addition to the informal consultations that we hope to continue with state commissions, they or other parties may at any time seek a declaratory ruling where necessary to remove uncertainty or eliminate a controversy. *See* 47 CFR § 1.2 (the Commission, in accordance with section 5(d) of the Administrative Procedures Act, 5 U.S.C. § 554(e), may issue a declaratory ruling terminating a controversy or removing uncertainty). Because section 251 is critical to the development of competitive local markets, we intend to act expeditiously on such requests for declaratory rulings.

97. We further conclude that section 252(e)(6) does not divest the Commission of jurisdiction, in whole or in part, over complaints that a common carrier violated section 251 or 252 of the Act. Section 601(c)(1) of the 1996 Act provides that the 1996 Act ''shall not be construed to modify, impair or supersede'' existing federal law—which includes the section 208 complaint process—''unless expressly so provided.'' Sections 251 and 252 do not divest the Commission of its section 208 complaint authority.

98. An aggrieved party could file a section 208 complaint with the Commission, alleging that the incumbent LEC or requesting carrier has failed to comply with the requirements of sections 251 and 252, including Commission rules thereunder, even if the carrier is in compliance with an agreement approved by the state commission. Alternatively, a party could file a section 208 complaint alleging that a common carrier is violating the terms of a negotiated or arbitrated agreement. We plan to initiate a proceeding to adopt expedited procedures for resolving complaints filed pursuant to section 208.

99. We note that, in acting on a section 208 complaint, we would not be directly reviewing the state commission's decision, but rather, our review would be strictly limited to determining whether the common carrier's actions or omissions were in contravention of the Communications Act. While we would have authority to review such complaints, we note that we might decline, at least in some instances, to impose financial penalties upon a common carrier that is acting pursuant to state requirements or authorization, even if we sustain the allegations in the complaint. Thus, consistent with our past decisions in analogous contexts (*See Number Portability Order, supra; Freemon* versus *AT&T*, 59 FR 43125 (August 22, 1994) (provision permitting persons aggrieved by violation of prohibition against unauthorized publication of certain communications to ''bring a civil action in United States district court or any other court of competent jurisdiction'' did not bar a complaint under section 208 of the Communications Act); *see also Policies Governing the Provision of Shared Telecommunications Service*, 54 FR 478 (January 6, 1989) (the section 208 complaint process is available to resolve any specific problems that might arise regarding shared telecommunications service regulation by a state that impinges upon a federal interest)), we conclude that a person aggrieved by a state determination under sections 251 and 252 of the Act may elect to either bring an action for federal district court review or a section 208 complaint to the Commission against a common carrier. Such a person could, as a further alternative, pursuant to section 207, file a complaint against a common carrier with the Commission or in federal district court for the recovery of damages. We are unlikely, in adjudicating a complaint, to examine the consistency of a state decision with sections 251 and 252 if a judicial determination has already been made on the issues before us.

100. Finally, we clarify, as one commenter requested, that nothing in sections 251 and 252 of our implementing regulations is intended to limit the ability of persons to seek relief under the antitrust laws, other statutes, or common law. In addition, in appropriate circumstances, the Commission could institute an inquiry on its own motion, 47 U.S.C. § 403, initiate a forfeiture proceeding, 47 U.S.C. § 503(b), initiate a cease-and-desist proceeding, 47 U.S.C. § 312(b), or in extreme cases, consider initiating a revocation proceeding for violators with radio licenses, 47 U.S.C. § 312(a), or referring violations to the Department of Justice for possible criminal prosecution under 47 U.S.C. § 501, 502 & 503(a).

F. Regulations of BOC Statements of Generally Available Terms

101. We noted in the NPRM that section 251 and our implementing regulations govern the states' review of BOC statements of generally available terms and conditions, as well as arrangements reached through compulsory arbitration pursuant to section 252(b). We tentatively concluded that we should adopt a single set of standards with which both arbitrated agreements and BOC statements of generally available terms must comply.

102. Only a few commenters addressed this issue, and most concurred with the tentative conclusion that we should apply the same requirements to both arbitrated agreements and BOC statements of generally available terms. The Illinois Commission, for example, asserts that, ''[s]ince the generally available terms could be viewed as a baseline against which to craft arbitrated arrangements, it is reasonable to hold both arbitrated agreements and the BOC statements of generally available terms to the same standards.'' CompTel asserts that, particularly if states require incumbent LECs to tariff the terms and conditions in agreements that are subject to arbitration, there will be few if any distinctions between arbitrated agreements and generally available terms and conditions.

103. We hereby find that our tentative conclusion that we should apply a single set of standards to both arbitrated agreements and BOC statements of generally available terms is consistent with both the text and purpose of the 1996 Act. BOC statements of generally available terms are relevant where a BOC seeks to provide in-region interLATA service, and the BOC has not negotiated or arbitrated an agreement. Therefore, such statements are to some extent a substitute for an agreement for interconnection, services, or access to unbundled elements. We also find no basis in the statute for establishing different requirements for arbitrated agreements and BOC statements of generally available terms. Moreover, a single set of requirements will substantially ease the burdens of state commissions and the FCC in reviewing agreements and statements of generally available terms pursuant to sections 252 and 271.

G. States' Role in Fostering Local Competition Under Sections 251 and 252

104. As already referenced, states will play a critical role in promoting local competition, including by taking a key role in the negotiation and arbitration process. We believe the negotiation/arbitration process pursuant to section 252 is likely to proceed as follows. Initially, the requesting carrier and incumbent LEC will seek to negotiate mutually agreeable rates, terms, and conditions governing the competing carrier's interconnection to the incumbent's network, access to the incumbent's unbundled network elements, or the provision of services at wholesale rates for resale by the requesting carrier. Either party may ask the relevant state commission to mediate specific issues to facilitate an agreement during the negotiation process.

105. Because the new entrant's objective is to obtain the services and access to facilities from the incumbent that the entrant needs to compete in the incumbent's market, the negotiation process contemplated by the 1996 Act bears little resemblance to a typical commercial negotiation. Indeed, the entrant has nothing that the incumbent needs to compete with the entrant, and has little to offer the incumbent in a negotiation. Consequently, the 1996 Act provides that, if the parties fail to reach agreement on all issues, either party may seek arbitration before a state commission. The state commission will arbitrate individual issues specified by the parties, or conceivably may be asked to arbitrate the entire agreement. In the event that a state commission must act as arbitrator, it will need to ensure that the arbitrated agreement is consistent with the Commission's rules. In reviewing arbitrated and negotiated agreements, the state commission may ensure that such agreements are consistent with applicable state requirements.

106. Under the statutory scheme in sections 251 and 252, state commissions may be asked by parties to define specific terms and conditions governing access to unbundled elements, interconnection, and resale of services beyond the rules the Commission establishes in this Report and Order. Moreover, the state commissions are responsible for setting specific rates in arbitrated proceedings. For example, state commissions in an arbitration would likely designate the terms and conditions by which the competing carrier receives access to the incumbent's loops. The state commission might arbitrate a description or definition of the loop, the term for which the carrier commits to the purchase of rights to exclusive use of a specific network element, and the provisions under which the competing carrier will order loops from the incumbent and the incumbent will provision an order. The state commission may establish procedures that govern should the incumbent refurbish or replace the element during the agreement period, and the procedures that apply should an end user customer decide to switch from the competing carrier back to the incumbent or a different provider. In addition, the state commission will establish the rates an incumbent charges for loops, perhaps with volume and term discounts specified, as well as rates that carriers may charge to end users.

107. State commissions will have similar responsibilities with respect to other unbundled network elements such as the switch, interoffice transport, signalling and databases. State commissions may identify network elements to be unbundled, in addition to those elements identified by the Commission, and may identify additional points at which incumbent LECs must provide interconnection, where technically feasible. State commissions are responsible for determining when virtual collocation may be provided instead of physical collocation, pursuant to section 251(c)(6). States also will determine, in accordance with section 251(f)(1), whether and to what extent a rural incumbent LEC is entitled to continued exemption from the requirements of section 251(c) after a telecommunications carrier has made a bona fide request under section 251. Under section 251(f)(2), states will determine whether to grant petitions that may be filed by certain LECs for suspension or modification of the requirements in sections 251 (b) or (c).

108. The foregoing is a representative sampling of the role that states will have in steering the course of local competition. State commissions will make critical decisions concerning a host of issues involving rates, terms, and conditions of interconnection and unbundling arrangements, and exemption, suspension, or modification of the requirements in section 251. The actions taken by a state will significantly affect the development of local competition in that state. Moreover, actions in one state are likely to influence other states, and to have a substantial impact on steps the FCC takes in developing a pro-competitive national policy framework.

III. Duty to Negotiate in Good Faith

A. Background

109. Section 251(c)(1) of the statute imposes on incumbent LECs the ''duty to negotiate in good faith in accordance with section 252 the particular terms and conditions of agreements to fulfill the duties described'' in sections 251(b) and (c), and further provides that ''(t)he requesting telecommunications carrier also has the duty to negotiate in good faith the terms and conditions of such agreements.'' In the NPRM, we asked parties to comment on the extent to which the Commission should establish national rules defining the requirements of the good faith negotiation obligation.

B. Advantages and Disadvantages of National Rules

1. Discussion

110. We conclude that establishing some national standards regarding the duty to negotiate in good faith could help to reduce areas of dispute and expedite fair and successful negotiations, and thereby realize Congress' goal of enabling swift market entry by new competitors. In order to address the balance of the incentives between the bargaining parties, however, we believe that we should set forth some minimum requirements of good faith negotiation that will guide parties and state commissions. As discussed above, the requirements in section 251 obligate incumbent LECs to provide interconnection to competitors that seek to reduce the incumbent's subscribership and weaken the incumbent's dominant position in the market. Generally, the new entrant has little to offer the incumbent. Thus, an incumbent LEC is likely to have scant, if any, economic incentive to reach agreement. In addition, incumbent LECs argue that requesting carriers may have incentives to make unreasonable demands or otherwise fail to act in good faith. The fact that an incumbent LEC has superior bargaining power does not itself demonstrate a lack of good faith, or ensure that a new entrant will act in good faith.

111. We agree with commenters that it would be futile to try to determine in advance every possible action that might be inconsistent with the duty to negotiate in good faith. As discussed more fully below, determining whether or not a party's conduct is consistent with its statutory duty will depend largely on the specific facts of individual negotiations. Therefore, we believe that it is appropriate to identify factors or practices that may be evidence of failure to negotiate in good faith, but

that will need to be considered in light of all relevant circumstances.

112. Consistent with our discussion in Section II, above, we believe that the Commission has authority to review complaints alleging violations of good faith negotiation pursuant to section 208. We previously have held that parties may raise allegations regarding good faith negotiation pursuant to section 208. *Cellular Interconnection Proceeding,* 4 FCC Rcd 2369 (1989). The Commission also held in that case that ''the conduct of good faith negotiations is not jurisdictionally severable.'' *Id.* at 2371. Penalties may be imposed under sections 501, 502 and 503 for failure to negotiate in good faith. In addition, we believe that state commissions have authority, under section 252(b)(5), to consider allegations that a party has failed to negotiate in good faith. We also reserve the right to amend these rules in the future as we obtain more information regarding negotiations under section 252.

C. Specific Practices That May Constitute a Failure to Negotiate in Good Faith

1. Discussion

113. The Uniform Commercial Code defines ''good faith'' as ''honesty in fact in the conduct of the transaction concerned.'' U.C.C. § 1–201(19) (1981); *see also* Black's Law Dictionary at 353 (Abridged ed. 1983) (''Good faith is an intangible and abstract quality with no technical meaning or statutory definition, and it encompasses, among other things, an honest belief, the absence of malice, and the absence of design to defraud or to seek an unconscionable advantage * * *''). When looking at good faith, the question ''is a narrow one focused on the subjective intent with which the person in question has acted.'' U.C.C. § 1–201 (84). Even where there is no specific duty to negotiate in good faith, certain principles or standards of conduct have been held to apply. Steven J. Burton and Eric G. Anderson, *Contractual Good Faith,* § 8.2.2 at 332 (1995). For example, parties may not use duress or misrepresentation in negotiations. Thus, the duty to negotiate in good faith, at a minimum, prevents parties from intentionally misleading or coercing parties into reaching an agreement they would not otherwise have made. We conclude that intentionally obstructing negotiations also would constitute a failure to negotiate in good faith, because it reflects a party's unwillingness to reach agreement.

114. Because section 252 permits parties to seek mediation ''at any point in the negotiation,'' and also allows parties to seek arbitration as early as 135 days after an incumbent LEC receives a request for negotiation under section 252, we conclude that Congress specifically contemplated that one or more of the parties may fail to negotiate in good faith, and created at least one remedy in the arbitration process. Section 252(b)(4)(C) requires state commissions to ''conclude the resolution of any unresolved issues not later than 9 months after the date on which the local exchange carrier received the request under this section.'' 47 U.S.C. § 252(b)(4)(C). The possibility of arbitration itself will facilitate good faith negotiation. For example, parties seeking to avoid a legitimate accusation of breach of the duty of good faith in negotiation will work to provide their negotiating adversary all relevant information—given that section 252(b)(4)(B) authorizes the state commission to require the parties ''to provide such information as may be necessary for the State commission to reach a decision on the unresolved issues.'' That provision also states that, if either party ''fails unreasonably to respond on a timely basis to any reasonable request from the State commission, then the State commission may proceed on the basis of the best information available to it from whatever source derived.'' The likelihood that an arbitrator will review the positions taken by the parties during negotiations also should discourage parties from refusing unreasonably to provide relevant information to each other or to delay negotiations.

115. We believe that determining whether a party has acted in good faith often will need to be decided on a case-by-case basis by state commissions or, in some instances the FCC, in light of all the facts and circumstances underlying the negotiations. This is consistent with earlier Commission decisions. *See Amendment to the Commission's Rules Regarding a Plan for Sharing the Costs of Microwave Relocation,* WT Docket 95–157, First Report and Order, FCC 96–196, at para. 20, 61 FR 24470 (May 15, 1996). In light of these considerations, we set forth some minimum standards that will offer parties guidance in determining whether they are acting in good faith, but leave specific determinations of whether a party has acted in good faith to be decided by a state commission, court, or the FCC on a case-by-case basis.

116. We find that there may be pro-competitive reasons for parties to enter into nondisclosure agreements. A broad range of commenters, including IXCs, state commissions, and incumbent LECs, support this view. We conclude that there can be nondisclosure agreements that would not constitute a violation of the good faith negotiation duty, but we caution that overly broad, restrictive, or coercive nondisclosure requirements may well have anticompetitive effects. We therefore will not prejudge whether a party has demonstrated a failure to negotiate in good faith by requesting another party to sign a nondisclosure agreement, or by failing to sign a nondisclosure agreement; such demands by incumbents, however, are of concern and any complaint alleging such tactics should be evaluated carefully. Agreements may not, however, preclude a party from providing information requested by the FCC, a state commission, or in support of a request for arbitration under section 252(b)(2)(B).

117. We reject the general contention that a request by a party that another party limit its legal remedies as part of a negotiated agreement will in all cases constitute a violation of the duty to negotiate in good faith. A party may voluntarily agree to limit its legal rights or remedies in order to obtain a valuable concession from another party. In some circumstances, however, a party may violate this statutory provision by demanding that another waive its legal rights. For example, we agree with ALTS' contention that an incumbent LEC may not demand that the requesting carrier attest that the agreement complies with all provisions of the 1996 Act, federal regulations, and state law, because such a demand would be at odds with the provisions of sections 251 and 252 that are intended to foster opportunities for competition on a level playing field. In addition, we find that it is a *per se* failure to negotiate in good faith for a party to refuse to include in an agreement a provision that permits the agreement to be amended in the future to take into account changes in Commission or state rules. Refusing to permit a party to include such a provision would be tantamount to forcing a party to waive its legal rights in the future.

118. We decline to find that other practices identified by parties constitute *per se* violations of the duty to negotiate in good faith. Time Warner contends that we should find that a party is not negotiating in good faith under section 252 if it seeks to tie resolution of issues in that negotiation to the resolution of other, unrelated disputes between the parties in another proceeding. On its face, the hypothetical practice raises concerns. Time Warner, however, did

not present specific examples of how linking two independent negotiation proceedings would undermine good faith negotiations. We believe that requesting carriers have certain rights under sections 251 and 252, and those rights may not be derogated by an incumbent LEC demanding *quid pro quo* concessions in another proceeding. Parties, however, could mutually agree to link section 252 negotiations to negotiations on a separate matter. In fact, to the extent that concurrent resolution of issues could offer more potential solutions or may equalize the bargaining power between the parties, such action may be pro-competitive. For example, an incumbent LEC that offers video programming may be negotiating for the right to use video programming owned by a cable company while the cable company is negotiating terms for interconnecting with the incumbent LEC. Addressing some or all of the issues in the two negotiations collectively could expand the options for reaching agreement, and would equalize the parties' bargaining power, because each has something that the other party desires.

119. We agree with parties contending that actions that are intended to delay negotiations or resolution of disputes are inconsistent with the statutory duty to negotiate in good faith. The Commission will not condone any actions that are deliberately intended to delay competitive entry, in contravention of the statute's goals. We agree with SCBA that small entities seeking to enter the market may be particularly disadvantaged by delay. However, whether a party has failed to negotiate in good faith by employing unreasonable delaying tactics must be determined on a specific, case-by-case basis. For example, a party may not refuse to negotiate with a requesting telecommunications carrier, and a party may not condition negotiation on a carrier first obtaining state certification. A determination based upon the intent of a party, however, is not susceptible to a standardized rule. If a party refuses throughout the negotiation process to designate a representative with authority to make binding representations on behalf of the party, and thereby significantly delays resolution of issues, such action would constitute failure to negotiate in good faith. The Commission has reached a consistent conclusion in other instances. *See, e.g., Application of Gross Telecasting, Inc.,* 57 FR 18857 (May 1, 1992); *Public Notice,* FCC Asks for Comments Regarding the Establishment of an Advisory Committee to Negotiate Proposed Regulations, 57 FR 18857 (May 1, 1992). In particular, we believe that designating a representative authorized to make binding representations on behalf of a party will assist small entities and small incumbent LECs by centralizing communications and thereby facilitating the negotiation process. On the other hand, it is unreasonable to expect an agent to have authority to bind the principal on every issue—i.e., a person may reasonably be an agent of limited authority.

120. We agree with incumbent LECs and new entrants that contend that the parties should be required to provide information necessary to reach agreement. *See National Labor Relations Board* v. *Truitt Mfg Co.,* 351 U.S. 149, 153 (1956) (the trier of fact can reasonably conclude that a party lacks good faith if it raises assertions about inability to pay without making the slightest effort to substantiate that claim); *see also Microwave Facilities Operating in 1850–1990 MHz (2GHz) Band,* 61 FR 29679, 29689 (June 12, 1996). Parties should provide information that will speed the provisioning process, and incumbent LECs must prove to the state commission, or in some instances the Commission or a court, that delay is not a motive in their conduct. Review of such requests, however, must be made on a case-by-case basis to determine whether the information requested is reasonable and necessary to resolving the issues at stake. It would be reasonable, for example, for a requesting carrier to seek and obtain cost data relevant to the negotiation, or information about the incumbent's network that is necessary to make a determination about which network elements to request to serve a particular customer. It would not appear to be reasonable, however, for a carrier to demand proprietary information about the incumbent's network that is not necessary for such interconnection. This is consistent with previous FCC determinations. *See, e.g., Amendment of Rules and Policies Governing the Attachment of Cable Television Hardware to Utility Poles,* 4 FCC Rcd 468 (1989) (good faith negotiations necessitate that, at a minimum, one party must approach the other with a specific request). We conclude that an incumbent LEC may not deny a requesting carrier's reasonable request for cost data during the negotiation process, because we conclude that such information is necessary for the requesting carrier to determine whether the rates offered by the incumbent LEC are reasonable. We find that this is consistent with Congress' intention for parties to use the voluntary negotiation process, if possible, to reach agreements. On the other hand, the refusal of a new entrant to provide data about its own costs does not appear on its face to be unreasonable, because the negotiations are not about unbundling or leasing the new entrants' networks.

121. We also find that incumbent LECs may not require requesting carriers to satisfy a ''bona fide request'' process as part of their duty to negotiate in good faith. Some of the information that incumbent LECs propose to include in a bona fide request requirement may be legitimately demanded from the requesting carrier; some of the proposed requirements, on the other hand, exceed the scope of what is necessary for the parties to reach agreement, and imposing such requirements may discourage new entry. For example, parties advocate that a ''bona fide request'' requirement should require requesting carriers to commit to purchase services or facilities for a specified period of time. We believe that forcing carriers to make such a commitment before critical terms, such as price, have been resolved is likely to impede new entry. Moreover, we note that section 251(c) does not impose any bona fide request requirement. In contrast, section 251(f)(1) provides that a rural telephone company is exempt from the requirements of 251(c) until, among other things, it receives a ''bona fide request'' for interconnection, services, or network elements. This suggests that, if Congress had intended to impose a ''bona fide request'' requirement on requesting carriers as part of their duty to negotiate in good faith, Congress would have made that requirement explicit.

D. Applicability of Section 252 to Preexisting Agreements

1. Background

122. Section 252(a)(1) provides that, ''[u]pon receiving a request for interconnection, services, or network elements pursuant to section 251, an incumbent local exchange carrier may negotiate and enter into a binding agreement with the requesting telecommunications carrier or carriers without regard to the standards set forth in subsections (b) and (c) of section 251. * * * The agreement, including any interconnection agreement negotiated before the date of enactment of the Telecommunications Act of 1996, shall be submitted to the State commission under subsection (e) of this section.''

123. In the NPRM, we sought comment on whether sections 252(a)(1) and 252(e) require parties that have negotiated agreements for interconnection, services or network elements prior to the passage of the 1996 Act to submit such agreements to state commissions for approval. We also asked whether one party to such an existing agreement could compel renegotiation and arbitration in accordance with the procedures set forth in section 252.

2. Discussion

124. We conclude that the 1996 Act requires all interconnection agreements, ''including any interconnection agreement negotiated before the date of enactment of the Telecommunications Act of 1996,'' to be submitted to the state commission for approval pursuant to section 252(e). The 1996 Act does not exempt certain categories of agreements from this requirement. When Congress sought to exclude preexisting contracts from provisions of the new law, it did so expressly. For example, section 276(b)(3) provides that ''nothing in this section shall affect any existing contracts between location providers and payphone service providers or interLATA or intraLATA carriers that are in force and effect as of the date of enactment of the Telecommunications Act of 1996.'' Nothing in the legislative history leads us to a contrary conclusion. Congress intended, in enacting sections 251 and 252, to create opportunities for local telephone competition. We believe that this pro-competitive goal is best effected by subjecting all agreements to state commission review.

125. The first sentence in section 252(a)(1) refers to requests for interconnection ''pursuant to section 251.'' The final sentence in section 252(a)(1) requires submission to the state commission of all negotiated agreements, including those negotiated *before* the enactment of the 1996 Act. Some parties have asserted that there is a tension between those two sentences. We conclude that the final sentence of section 252(a)(1), which requires that *any* interconnection agreement must be submitted to the state commission, can and should be read to be independent of the prior sentences in section 252(a)(1). The interpretation suggested by some commenters that preexisting contracts need only be filed if they are amended subsequent to the 1996 Act, or incorporated by reference into agreements negotiated pursuant to the 1996 Act, would force us to impose conditions that were not intended by Congress.

126. As a matter of policy, moreover, we believe that requiring filing of all interconnection agreements best promotes Congress' stated goals of opening up local markets to competition, and permitting interconnection on just, reasonable, and nondiscriminatory terms. State commissions should have the opportunity to review *all* agreements, including those that were negotiated before the new law was enacted, to ensure that such agreements do not discriminate against third parties, and are not contrary to the public interest. In particular, preexisting agreements may include provisions that violate or are inconsistent with the pro-competitive goals of the 1996 Act, and states may elect to reject such agreements under section 252(e)(2)(A). Requiring all contracts to be filed also limits an incumbent LEC's ability to discriminate among carriers, for at least two reasons. First, requiring public filing of agreements enables carriers to have information about rates, terms, and conditions that an incumbent LEC makes available to others. Second, any interconnection, service or network element provided under an agreement approved by the state commission under section 252 must be made available to any other requesting telecommunications carrier upon the same terms and conditions, in accordance with section 252(i). In addition, we believe that having the opportunity to review existing agreements may provide state commissions and potential competitors with a starting point for determining what is ''technically feasible'' for interconnection.

127. Conversely, excluding certain agreements from public disclosure could have anticompetitive consequences. For example, such contracts could include agreements not to compete. In addition, if we exempt agreements between neighboring non-competing LECs, those parties might have a disincentive to compete with each other in the future, in order to preserve the terms of their preexisting agreements. Such a result runs counter to the goal of the 1996 Act to encourage local service competition. Moreover, preserving such ''non-competing'' agreements could effectively insulate those parties from competition by new entrants. For example, if a new entrant seeking to provide competitive local service in a rural community is unable to obtain from a neighboring BOC interconnection or transport and termination on terms that are as favorable as those the BOC offers to the incumbent LEC in the rural area, the new entrant cannot effectively compete. This analysis does not address the separate question of whether an incumbent LEC in a rural area must offer interconnection, resale services, or unbundled network elements. As discussed *infra,* Section XII, Congress provided rural carriers with an exemption from section 251(c) requirements until the state commission removes such exemption. 47 U.S.C. § 251(f)(1). This is because the new entrant will have to charge its subscribers higher rates than the incumbent LEC charges to place calls to subscribers of the neighboring BOC.

128. We find that section 259 does not compel us to reach a different conclusion regarding the application of section 252 to agreements between neighboring LECs. Section 259 requires the Commission to prescribe, within one year after the date of enactment of the 1996 Act, regulations that require incumbent LECs ''to make available to any qualifying carrier such public switched network infrastructure, technology, information, and telecommunications facilities and functions as may be requested by such qualifying carrier to provide telecommunications services, or to provide access to information services * * *'' 47 U.S.C. § 259(a). A ''qualifying carrier'' is a telecommunications carrier that ''lacks economies of scale or scope,'' and that offers telephone exchange service, exchange access, and any other service included in universal service to all consumers in the service area without preference. 47 U.S.C. § 259(d). Section 259 is limited to agreements for infrastructure sharing between incumbent LECs and telecommunications carriers that lack ''economies of scale or scope,'' as determined in accordance with regulations prescribed by the Commission. We conclude that the purpose and scope of section 259 differ significantly from the purpose and scope of section 251. The Commission plans to initiate a proceeding to establish regulations pursuant to section 259. Section 259 is a limited and discrete provision designed to bring the benefits of advanced infrastructure to additional subscribers, in the context of the pro-competitive goals and provisions of the 1996 Act. Moreover, section 259(b)(7) requires LECs to file with the Commission or the state ''any tariffs, contracts or other arrangements showing the rates, terms, and conditions under which such carrier is making available public switched network infrastructure and functions under this

section.'' We believe that this language further supports our conclusion that Congress intended agreements between neighboring LECs to be filed and available for public inspection. Commenters also have failed to persuade us that universal service is jeopardized by our finding that agreements between neighboring LECs are subject to section 252 filing and review provisions. Concerns regarding universal service should be addressed by the Federal-State Joint Board, empaneled pursuant to section 254 of the 1996 Act. The Joint Board has initiated a comprehensive review of universal service issues and is considering, among other matters, access to telecommunications and information services in rural and high cost areas. In addition, as discussed in Section XII, *infra*, the 1996 Act provides for exemptions, suspension, or modification of some of the requirements in section 251 for rural or smaller carriers.

129. Some parties have suggested that we provide parties an opportunity to renegotiate preexisting contracts. Parties, of course, may mutually agree to renegotiate agreements, but we decline to mandate that parties renegotiate existing contracts. In addition, as discussed below, commercial mobile radio service (CMRS) providers that are party to preexisting agreements with incumbent LECs that provide for non-mutual compensation have the option of renegotiating such agreements with no termination liabilities or contract penalties. We believe that generally requiring renegotiation of preexisting contracts is unnecessary, however, because state commissions will review preexisting agreements, and may reject any negotiated agreement that ''discriminates against a telecommunications carrier not a party to the agreement,'' or that ''is not consistent with the public interest, convenience, and necessity.'' We recognize that preexisting agreements were negotiated under very different circumstances, and may not provide a reasonable basis for interconnection agreements under the 1996 Act. For example, non-competing neighboring LECs may have negotiated terms that simply are not viable in a competitive market. It would not foster efficient long-term competition to force parties to make available to all requesting carriers interconnection on terms not sustainable in a competitive environment. In such circumstances, a state commission would have authority to reject a preexisting agreement as inconsistent with the public interest. If a state commission approves a preexisting agreement, that agreement will be available to other parties in accordance with section 252(i). Contrary to NYNEX's assertion, once a state approves an agreement under section 252(e), that agreement is ''approved under'' section 252.

130. We decline to require immediate filing of preexisting agreements. States should establish procedures and reasonable time frames for requiring filing of preexisting agreements in a timely manner. We leave these procedures largely in the hands of the states in order to ensure that we do not impair some states' ability to carry out their other duties under the 1996 Act, especially if a large number of such agreements must be filed and approved by the state commission. We believe, nevertheless, that we should set an outer time period to file with the appropriate state commission agreements that Class A carriers have with other Class A carriers that predate the 1996 Act. Class A companies are defined as companies ''having annual revenues from regulated telecommunications operations of $100,000,000 or more.'' 47 CFR § 32.11(a)(1). We conclude that setting such a time limit will ensure that third parties are not prevented indefinitely from reviewing and taking advantage of the terms of preexisting agreements. We are concerned, however, about the burden that a national filing deadline might impose on small telephone companies that have preexisting agreements with Class A carriers or with other small carriers. We therefore limit the filing deadline requirement to preexisting agreements between Class A carriers. We encourage all carriers to file preexisting contracts with the appropriate state commission no later than June 30, 1997, but impose this as a *requirement* only with respect to agreements between Class A carriers. We find that requiring preexisting agreements between Class A carriers to be filed no later than June 30, 1997 is unlikely to burden state commissions unduly, and will give parties a reasonable opportunity to renegotiate agreements if they so choose, while at the same time, establishing this outer time limit ensures that third parties will have access to the terms of such agreements, under section 252(i), within a reasonable period. We expect to have completed proceedings on universal service and access charges by this filing deadline. States may impose a shorter time period for filing preexisting agreements.

IV. Interconnection

131. This section of the Report and Order, and the three sections that follow it, address the interconnection and unbundling obligations that the Act imposes on incumbent LECs. Beyond the resale of incumbent LEC services, it is these obligations that pave the way for the introduction of facilities-based competition with incumbent LECs. The interconnection obligation of section 251(c)(2), discussed in this section, allows competing carriers to choose the most efficient points at which to exchange traffic with incumbent LECs, thereby lowering the competing carriers' costs of, among other things, transport and termination of traffic. The unbundling obligation of section 251(c)(3) further permits new entrants, where economically efficient, to substitute incumbent LEC facilities for some or all of the facilities the new entrant would have had to obtain in order to compete. Finally, both the interconnection and unbundling sections of the Act, in combination with the collocation obligation imposed on incumbents by section 251(c)(6), allow competing carriers to choose technically feasible methods of achieving interconnection or access to unbundled elements.

132. Section 251(c)(2) imposes upon incumbent LECs ''the duty to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network * * * for the transmission and routing of telephone exchange service and exchange access.'' Such interconnection must be: (1) provided by the incumbent LEC at ''any technically feasible point within [its] network;'' (2) ''at least equal in quality to that provided by the local exchange carrier to itself or * * * [to] any other party to which the carrier provides interconnection;'' and (3) provided on rates, terms, and conditions that are ''just, reasonable, and nondiscriminatory, in accordance with the terms and conditions of the agreement and the requirements of this section and section 252.''

A. Relationship Between Interconnection and Transport and Termination

1. Background

133. In the NPRM, we sought comment on the relationship between the obligation of incumbent LECs to provide ''interconnection'' under section 251(c)(2) and the obligation of all LECs to establish reciprocal compensation arrangements for the ''transport and termination'' of

telecommunications pursuant to section 251(b)(5). We stated that the term ''interconnection'' might refer only to the physical linking of two networks or to both the linking of facilities and the transport and termination of traffic. We noted in the NPRM that section 252(d) sets forth different pricing standards for interconnection and transport and termination.

2. Discussion

134. We conclude that the term ''interconnection'' under section 251(c)(2) refers only to the physical linking of two networks for the mutual exchange of traffic. Including the transport and termination of traffic within the meaning of section 251(c)(2) would result in reading out of the statute the duty of all LECs to establish ''reciprocal compensation arrangements for the transport and termination of telecommunications,'' under section 251(b)(5). In addition, in setting the pricing standard for section 251(c)(2) interconnection, section 252(d)(1) states it applies when state commissions make determinations ''of the just and reasonable rate for interconnection of *facilities and equipment* for purposes of subsection (c)(2) of section 251.'' Because section 251(d)(1) states that it only applies to the interconnection of ''facilities and equipment,'' if we were to interpret section 251(c)(2) to refer to transport and termination of traffic as well as the physical linking of equipment and facilities, it would still be necessary to find a pricing standard for the transport and termination of traffic apart from section 252(d)(1). We also reject CompTel's argument that reading section 251(c)(2) to refer only to the physical linking of networks implies that incumbent LECs would not have a duty to route and terminate traffic. That duty applies to all LECs and is clearly expressed in section 251(b)(5). We note that because interconnection refers to the physical linking of two networks, and not the transport and termination of traffic, access charges are not affected by our rules implementing section 251(c)(2).

B. National Interconnection Rules

1. Background

135. In the NPRM, we tentatively concluded that national interconnection rules would facilitate swift entry by competitors in multiple states by eliminating the need to comply with a multiplicity of state variations in technical and procedural requirements. NPRM at para. 40, 61 FR 18311 (April 25, 1996). We sought comment on this tentative conclusion.

2. Discussion

136. As discussed more fully above, we conclude that national rules regarding interconnection pursuant to section 251(c)(2) are necessary to further Congress's goal of creating conditions that will facilitate the development of competition in the telephone exchange market. Uniform rules will permit all carriers, including small entities and small incumbent LECs, to plan regional or national networks using the same interconnection points in similar networks nationwide. Uniform rules will also guarantee consistent, minimum nondiscrimination safeguards and ''equal in quality'' standards in every state. Such rules will also avoid relitigating, in multiple states, the issue of whether interconnection at a particular point is technically feasible.

137. We believe, however, that inflexible or overly detailed national rules implementing section 251(c)(2) may inhibit the ability of the states or the parties to reach arrangements that reflect technological and market advances and regional differences. We also believe that, on several issues, the record is not adequate at this time to justify the establishment of national rules. Therefore, as required by section 251(d)(3) and as discussed in section II.C. above, our rules will permit states to go beyond the national rules discussed below, and impose additional procompetitive interconnection requirements, as long as such requirements are otherwise consistent with the 1996 Act and the Commission's regulations. We believe that we can benefit from state experience in our ongoing review of these issues.

C. Interconnection for the Transmission and Routing of Telephone Exchange Service and Exchange Access

1. Background

138. Section 251(c)(2) imposes a duty upon incumbent LECs to provide ''interconnection with the [LEC's] network * * * for the transmission and routing of telephone exchange service and exchange access.'' In the NPRM, we sought comment on whether a carrier could request interconnection pursuant to subsection (c)(2) for purposes of transmitting and routing telephone exchange service, exchange access, or both, or whether this provision requires that such a request be solely for purposes of providing *both* telephone exchange service and exchange access.

2. Discussion

139. We conclude that the phrase ''telephone exchange service and exchange access'' imposes at least three obligations on incumbent LECs: an incumbent must provide interconnection for purposes of transmitting and routing telephone exchange traffic or exchange access traffic or both. We believe that this interpretation is consistent with both the language of the statute and Congress's intent to foster entry by competitive providers into the local exchange market. As the U.S. Court of Appeals for the Fifth Circuit stated in *Peacock* v. *Lubbock Compress Company,* ''the word 'and' is not a word with a single meaning, for chameleonlike, it takes its color from its surroundings.'' The court held that ''[i]n the construction of statutes, it is the duty of the Court to ascertain the clear intention of the legislature. In order to do this, Courts are often compelled to construe 'or' as meaning 'and,' and again 'and' as meaning 'or'.'' *Peacock* v. *Lubbock Compress Company,* 252 F.2d 892, 893 (5th Cir. 1958) (*citing United States* v. *Fisk,* 70 U.S. 445, 448). Moreover, the term ''local exchange carrier'' is defined in the Act as ''any person that is engaged in the provision of telephone exchange service *or* exchange access.'' Thus, we believe that Congress intended to facilitate entry by carriers offering either service. In imposing an interconnection requirement under section 251(c)(2) to facilitate such entry, however, we believe that Congress did not want to deter entry by entities that seek to offer either service, or both, and, as a result, section 251(c)(2) requires incumbent LECs to interconnect with carriers providing ''telephone exchange service *and* exchange access.'' Congress made clear that incumbent LECs must provide interconnection to carriers that seek to offer telephone exchange service *and* to carriers that seek to offer exchange access. This interpretation is consistent with section 251(c)(2), which imposes an obligation on incumbent LECs, but not requesting carriers. Thus, for example, an analogous requirement might be that incumbent LECs must provide interconnection for the transmission and routing of ''electrical and optical signals.'' Such a hypothetical requirement could not rationally be read to obligate *requesting carriers* to provide both electrical and optical signals.

140. We also conclude that requiring new entrants to make available both local exchange service and exchange access as a prerequisite to obtaining interconnection to the incumbent LEC's network under subsection (c)(2) would unduly restrict potential competitors. For example, CAPs often enter the

telecommunications market as exchange access providers prior to offering telephone exchange services. Further, applying separate regulatory regimes (*i.e.*, section 251 related-rules for providers of telephone exchange and exchange access services and section 201 related-rules for providers of only exchange access services) with divergent requirements to parties using essentially the same equipment to transmit and route traffic, is undesirable in light of the new procompetitive paradigm created by section 251. We see no convincing justification for treating providers of exchange access services that offer telephone exchange services differently from access providers who do not offer telephone exchange services. We therefore conclude that parties offering only exchange access are permitted to seek interconnection pursuant to section 251(c)(2).

D. Interexchange Service is Not Telephone Exchange Service or Exchange Access

1. Background

141. Sections 251(c)(2) and 251(c)(3) impose duties upon incumbent LECs to provide interconnection and nondiscriminatory access to unbundled network elements to ''any requesting telecommunications carrier.'' In the NPRM, we tentatively concluded that carriers providing interexchange services are ''telecommunications carriers'' and thus may seek interconnection and unbundled elements under subsections (c)(2) and (c)(3). We also tentatively concluded, however, that with respect to section 251(c)(2), the statute imposes limits on the purposes for which any telecommunications carrier, including IXCs, may request interconnection pursuant to that section. Section 251(c)(2) imposes an obligation upon incumbent LECs to provide requesting carriers with interconnection if the purpose of the interconnection is for the ''transmission and routing of telephone exchange service and exchange access.'' We tentatively concluded in the NPRM that interexchange service does not appear to constitute either ''telephone exchange service'' or ''exchange access.'' ''Exchange access'' is defined in section 3(16) as ''the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services.'' We stated that an IXC that requests interconnection to originate or terminate an interexchange toll call is not ''offering'' access services, but rather is ''receiving'' access services.

2. Discussion

142. We conclude that IXCs are telecommunications carriers under the 1996 Act, because they provide telecommunications services (*i.e.*, ''offer telecommunications for a fee directly to the public'') by originating or terminating interexchange traffic. IXCs are permitted under the statute to obtain interconnection pursuant to section 251(c)(2) for the ''transmission and routing of telephone exchange service and exchange access.'' Moreover, traditional IXCs are a significant potential new local competitor and we conclude that denying them the right to obtain section 251(c)(2) interconnection lacks any legal or policy justification. Thus, all carriers (including those traditionally classified as IXCs) may obtain interconnection pursuant to section 251(c)(2) for the purpose of terminating calls originating from their customers residing in the same telephone exchange (*i.e.*, non-interexchange calls).

143. We conclude, however, that an IXC that requests interconnection solely for the purpose of originating or terminating its *interexchange* traffic, not for the provision of telephone exchange service and exchange access to others, on an incumbent LEC's network is not entitled to receive interconnection pursuant to section 251(c)(2). Section 251(c)(2) states that incumbent LECs have a duty to interconnect with telecommunications providers ''for the transmission and routing of telephone exchange service and exchange access.'' A telecommunications carrier seeking interconnection only for interexchange services is not within the scope of this statutory language because it is not seeking interconnection for the purpose of providing telephone exchange service. Nor does a carrier seeking interconnection of interstate traffic only—for the purpose of providing interstate services only—fall within the scope of the phrase ''exchange access.'' Such a would-be interconnector is not ''offering'' access to telephone exchange services. As we stated in the NPRM, an IXC that seeks to interconnect solely for the purpose of originating or terminating its own interexchange traffic is not offering access, but rather is only obtaining access for its own traffic. Thus, we disagree with CompTel's position that IXCs are offering exchange access when they offer and provide exchange access as a part of long distance service. We conclude that a carrier may not obtain interconnection pursuant to section 251(c)(2) for the purpose of terminating interexchange traffic, even if that traffic was originated by a local exchange customer in a different telephone exchange of the same carrier providing the interexchange service, if it does not offer exchange access services to others. As we stated above, however, providers of competitive access services are eligible to receive interconnection pursuant to section 251(c)(2). Thus, traditional IXCs that offer access services in competition with an incumbent LEC (i.e., IXCs that offer access services to other carriers as well as to themselves) are also eligible to obtain interconnection pursuant to section 251(c)(2). For example, when an IXC interconnects at a local switch, bypassing the incumbent LECs' transport network, that IXC may offer access to the local switch in competition with the incumbent. In such a situation, the interconnection point may be considered a section 251(c)(2) interconnection point.

E. Definition of ''Technically Feasible''

1. Background

144. In addition to specifying the purposes for which carriers may request interconnection, section 251(c)(2) obligates incumbent LECs to provide interconnection within their networks at any ''technically feasible point.'' Similarly, section 251(c)(3) obligates incumbent LECs to provide access to unbundled elements at any ''technically feasible point.'' Thus our interpretation of the term ''technically feasible'' applies to both sections.

145. In the NPRM, we sought comment on a ''dynamic'' definition of ''technically feasible'' that would provide flexibility for negotiating parties and the states in determining interconnection and unbundling points as network technology evolves. We requested comment on the extent to which network reliability concerns should be included in a technical feasibility analysis, and tentatively concluded that, if such concerns were involved, the incumbent LEC had the burden to support such a claim with detailed information. We also sought comment on the role of other considerations, such as economic burden, in determining technical feasibility under sections 251(c)(2) and 251(c)(3).

146. We also tentatively concluded that interconnection or access at a particular point in one LEC network evidences the technical feasibility of providing the same or similar interconnection or access in another, similarly structured LEC network. Finally, we tentatively concluded that incumbent LECs have the burden of

proving the technical infeasibility of providing interconnection or access at a particular point.

2. Discussion

147. We conclude that the term ''technically feasible'' refers solely to technical or operational concerns, rather than economic, space, or site considerations. We further conclude that the obligations imposed by sections 251(c)(2) and 251(c)(3) include modifications to incumbent LEC facilities to the extent necessary to accommodate interconnection or access to network elements. Specific, significant, and demonstrable network reliability concerns associated with providing interconnection or access at a particular point, however, will be regarded as relevant evidence that interconnection or access at that point is technically infeasible. We also conclude that preexisting interconnection or access at a particular point evidences the technical feasibility of interconnection or access at substantially similar points. Finally, we conclude that incumbent LECs must prove to the appropriate state commission that a particular interconnection or access point is not technically feasible.

148. We find that the 1996 Act bars consideration of costs in determining ''technically feasible'' points of interconnection or access. In the 1996 Act, Congress distinguished ''technical'' considerations from economic concerns. Section 251(f), for example, exempts certain rural LECs from ''unduly economically burdensome'' obligations imposed by section 251(c) even where satisfaction of such obligations is ''technically feasible.'' Similarly, section 254(h)(2)(A) treats ''technically feasible'' and ''economically reasonable'' as separate requirements. Finally, we note that the House committee that considered H.R. 1555 (which was combined with Senate Bill S.652 to form the 1996 Act) dropped the term ''economically reasonable'' from its unbundling provision. The House committee explicitly addressed this substantive change, reporting that ''this requirement could result in certain unbundled * * * elements * * * not being made available.'' H. Rep. 104–204, 71 (1995). Thus, the deliberate and explained substantive omission of explicit economic requirements in sections 251(c)(2) and 251(c)(3) cannot be undone through an interpretation that such considerations are implicit in the term ''technically feasible.'' Of course, a requesting carrier that wishes a ''technically feasible'' but expensive interconnection would, pursuant to section 252(d)(1), be required to bear the cost of that interconnection, including a reasonable profit.

149. USTA and SBC cite the Commission's *900 Service* order (*Policies and Rules Concerning Interstate 900 Telecommunications Services*, Report and Order, 56 FR 56160 (November 1, 1991)) as support for the contention that costs must be considered in a technical feasibility analysis. In that order, the Commission concluded that ''[i]n defining 'technically feasible,' we balance both technical and economic considerations with a view toward providing [900] blocking capability to consumers without imposing undue economic burdens on LECs.'' Our *900 Service* order, however, has little bearing on our interpretation of the term ''technically feasible'' in the 1996 Act. As stated above, the 1996 Act distinguishes technical considerations from the ''undue economic burdens'' considered in the *900 Service* order. Indeed, Congress used virtually the same language—''unduly economically burdensome''—in drawing the distinction. If, as SBC contends, we are to presume that Congress was aware of the Commission's analysis of the technical feasibility of 900 call blocking, the 1996 Act appears squarely to reject that view of technical feasibility. Moreover, unlike the costs of providing 900 call blocking, which we imposed largely on LECs in the *900 Service* order, as noted above, to the extent incumbent LECs incur costs to provide interconnection or access under sections 251(c)(2) or 251(c)(3), incumbent LECs may recover such costs from requesting carriers.

150. In addition to economic considerations, section 251(c)(6) distinguishes considerations of ''space limitations'' from those of ''technical reasons,'' and thus, in general, we believe existing space or site restrictions should not be included within a technical feasibility analysis. Of course, under section 251(c)(6) ''space'' restrictions are expressly considered along with ''technical'' considerations in determining whether an incumbent LEC must provide for physical collocation. Where physical collocation is not practical because of ''space limitations,'' however, incumbent LECs must provide for virtual collocation. Section 251 is silent as to whether an incumbent LEC's duty to provide for virtual collocation or other methods of interconnection or access to unbundled elements is dependent on space constraints. We conclude, as a practical matter, that space limitations at a particular network site, without any possibility of expansion, may render interconnection or access at that point infeasible, technically or otherwise. Where such expansion is possible, however, we conclude that, in light of the distinction drawn in section 251(c)(6), site restrictions do not represent a ''technical'' obstacle. Again, however, the requesting party would bear the cost of any necessary expansion. Nor do we believe the term ''technical,'' when interpreted in accordance with its ordinary meaning as referring to engineering and operational concerns in the context of sections 251(c)(2) and 251(c)(3), includes consideration of accounting or billing restrictions.

151. Several parties also attempt to draw a distinction between what is ''feasible'' under the terms of the statute, and what is ''possible.'' The words ''feasible'' and ''possible,'' however, are used synonymously. Feasible is defined as ''capable of being accomplished or brought about; possible.'' The statute itself provides a more meaningful distinction. Unlike the ''technically *feasible*'' terminology included in sections 251(c)(2) and 251(c)(3), section 251(c)(6) uses the term ''*practical* for technical reasons'' in determining the scope of an incumbent LEC's obligation to provide for physical collocation. ''Practical'' is defined as ''manifested in practice or action * * * not theoretical or ideal'' or ''adapted or designed for actual use; useful,'' and connotes similarity to ordinary usage. Thus, it is reasonable to interpret Congress' use of the term ''feasible'' in sections 251(c)(2) and 251(c)(3) as encompassing more than what is merely ''practical'' or similar to what is ordinarily done. That is, use of the term ''feasible'' implies that interconnecting or providing access to a LEC network element may be feasible at a particular point even if such interconnection or access requires a novel use of, or some modification to, incumbent LEC equipment. This interpretation is consistent with the fact that incumbent LEC networks were not designed to accommodate third-party interconnection or use of network elements at all or even most points within the network. If incumbent LECs were not required, at least to some extent, to adapt their facilities to interconnection or use by other carriers, the purposes of sections 251(c)(2) and 251(c)(3) would often be frustrated. For example, Congress intended to obligate the incumbent to accommodate the new entrant's network architecture by requiring the incumbent to provide interconnection ''for the facilities and equipment'' of the new entrant.

Consistent with that intent, the incumbent must accept the novel use of, and modification to, its network facilities to accommodate the interconnector or to provide access to unbundled elements.

152. We also conclude, however, that legitimate threats to network reliability and security must be considered in evaluating the technical feasibility of interconnection or access to incumbent LEC networks. Negative network reliability effects are necessarily contrary to a finding of technical feasibility. Each carrier must be able to retain responsibility for the management, control, and performance of its own network. Thus, with regard to network reliability and security, to justify a refusal to provide interconnection or access at a point requested by another carrier, incumbent LECs must prove to the state commission, with clear and convincing evidence, that specific and significant adverse impacts would result from the requested interconnection or access. The reports of the Commission's Network Reliability Council discuss network reliability considerations, and establish templates that list activities that need to occur when service providers connect their networks pursuant to defined interconnection specifications or when they are attempting to define a new network interface specification.

153. We further conclude that successful interconnection or access to an unbundled element at a particular point in a network, using particular facilities, is substantial evidence that interconnection or access is technically feasible at that point, or at substantially similar points in networks employing substantially similar facilities. In comparing networks for this purpose, the substantial similarity of network facilities may be evidenced, for example, by their adherence to the same interface or protocol standards. We also conclude that previous successful interconnection at a particular point in a network at a particular level of quality constitutes substantial evidence that interconnection is technically feasible at that point, or at substantially similar points, at that level of quality. Although most parties agree with this conclusion, some LECs contend that such comparisons are all but impossible because of alleged variability in network technologies, even where the ultimate services offered by separate networks are the same. We believe that, if the facilities are substantially similar, the LECs' contention is adequately addressed.

154. Finally, because sections 251(c)(2) and 251(c)(3) impose duties upon incumbent LECs, we conclude that incumbent LECs must prove to the appropriate state commission that interconnection or access at a point is not technically feasible. Incumbent LECs possess the information necessary to assess the technical feasibility of interconnecting to particular LEC facilities. Further, incumbent LECs have a duty to make available to requesting carriers general information indicating the location and technical characteristics of incumbent LEC network facilities. Without access to such information, competing carriers would be unable to make rational network deployment decisions and could be forced to make inefficient use of their own and incumbent LEC facilities, with anticompetitive effects.

155. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, the Rural Telephone Coalition argues that the Commission should set interconnection points in a flexible manner to recognize the differences between carriers and regions. We do not adopt the Rural Telephone Coalition's position because we believe that, in general, the Act does not permit incumbent LECs to deny interconnection or access to unbundled elements for any reason other than a showing that it is not technically feasible. We believe that this interpretation will advance the procompetitive goals of the statute. We also note, however, that section 251(f) of the 1996 Act provides relief to certain small LECs from our regulations implementing section 251.

F. Technically Feasible Points of Interconnection

1. Background

156. In the NPRM, we requested comment on which points within an incumbent LEC's network constitute ''technically feasible'' points for purposes of section 251(c)(2). Having defined the phrase ''technically feasible'' above, we now determine a minimum set of technically feasible points of interconnection.

2. Discussion

157. We conclude that we should identify a minimum list of technically feasible points of interconnection that are critical to facilitating entry by competing local service providers. Section 251(c)(2) gives competing carriers the right to deliver traffic terminating on an incumbent LEC's network at any technically feasible point on that network, rather than obligating such carriers to transport traffic to less convenient or efficient interconnection points. Section 251(c)(2) lowers barriers to competitive entry for carriers that have not deployed ubiquitous networks by permitting them to select the points in an incumbent LEC's network at which they wish to deliver traffic. Moreover, because competing carriers must usually compensate incumbent LECs for the additional costs incurred by providing interconnection, competitors have an incentive to make economically efficient decisions about where to interconnect.

158. We conclude that, at a minimum, incumbent LECs must provide interconnection at the line-side of a local switch (at, for example, the main distribution frame), the trunk-side of a local switch; the trunk interconnection points for a tandem switch; and central office cross-connect points in general. This requirement includes interconnection at those out-of-band signaling transfer points necessary to exchange traffic and access call related databases. All of these points of interconnection are used today by competing carriers, noncompeting carriers, or LECs themselves for the exchange of traffic, and thus we conclude that interconnection at such points is technically feasible.

159. A varied group of commenters, including Bell Atlantic and AT&T, agree that interconnection at the line-side of the switch is technically feasible. Interconnection at this point is currently provided to some commercial mobile radio service (CMRS) carriers and may be necessary for other competitors that have their own distribution plant, but seek to interconnect to the incumbent's switch. We also agree with numerous commenters that claim that interconnection at the trunk-side of a switch is technically feasible and should be available upon request. Interconnection at this point is currently used by competing carriers to exchange traffic with incumbent LECs. Interconnection to tandem switching facilities is also currently used by IXCs and competing access providers, and is thus technically feasible. Finally, central office cross-connect points, which are designed to facilitate interconnection, are natural points of technically feasible interconnection to, for example, interoffice transmission facilities. There may be rare circumstances where there are true technical barriers to interconnection at the line- or trunk-side of the switch or at central office cross-connect points, however, the parties have not presented us with any such circumstances. Thus,

incumbent LECs must prove to the state commissions that such points are not technically feasible interconnection points.

160. We also note that the points of access to unbundled elements discussed below may also serve as points of interconnection (*i.e.*, points in the network that may serve as places where potential competitors may wish to exchange traffic with the incumbent LEC other than for purposes of gaining access to unbundled elements), and thus we incorporate those points by reference here. Finally, as noted above, we have identified a minimum list of technically feasible interconnection points: (1) The line-side of a local switch; (2) the trunk-side of a local switch; (3) the trunk interconnection points for a tandem switch; (4) central office cross-connect points; (5) out-of-band signaling transfer points; and (6) the points of access to unbundled elements. In addition, we anticipate and encourage parties and the states, through negotiation and arbitration, to identify additional points of technically feasible interconnection. We believe that the experience of the parties and the states will benefit our ongoing review of interconnection.

G. Just, Reasonable, and Nondiscriminatory Rates, Terms, and Conditions of Interconnection

1. Background

161. Section 251(c)(2)(D) requires that incumbent LECs provide interconnection ''on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.'' In the NPRM, we sought comment on whether we should adopt national requirements governing the terms and conditions of providing interconnection. We also sought comment on how we should determine whether the terms and conditions for interconnection arrangements are just, reasonable, and nondiscriminatory, and how we should enforce such rules. In particular, we sought comment on whether we should adopt national guidelines governing installation, service, maintenance, and repair of the incumbent LEC's portion of interconnection facilities.

2. Discussion

162. We conclude that minimum national standards for just, reasonable, and nondiscriminatory terms and conditions of interconnection will be in the public interest and will provide guidance to the parties and the states in the arbitration process and thereafter. We believe that national standards will tend to offset the imbalance in bargaining power between incumbent LECs and competitors and encourage fair agreements in the marketplace between parties by setting minimum requirements that new entrants are guaranteed in arbitrations. Negotiations between an incumbent and a new entrant differ from commercial negotiations in a competitive market because new entrants are dependent solely on the incumbent for interconnection.

163. Section 202(a) of the Act states that ''[i]t shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, * * * facilities, or services for or in connection with like communication service * * * by any means or device, or to make or give any undue or unreasonable preference or advantage to any particular person.'' By comparison, section 251(c)(2) creates a duty for incumbent LECs ''to provide * * * any requesting telecommunications carrier, interconnection with a LEC's network on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.'' The nondiscrimination requirement in section 251(c)(2) is not qualified by the ''unjust or unreasonable'' language of section 202(a). We therefore conclude that Congress did not intend that the term ''nondiscriminatory'' in the 1996 Act be synonymous with ''unjust and unreasonable discrimination'' used in the 1934 Act, but rather, intended a more stringent standard.

164. Given that the incumbent LEC will be providing interconnection to its competitors pursuant to the purpose of the 1996 Act, the LEC has the incentive to discriminate against its competitors by providing them less favorable terms and conditions of interconnection than it provides itself. Permitting such circumstances is inconsistent with the procompetitive purpose of the Act. Therefore, we reject for purposes of section 251, our historical interpretation of ''nondiscriminatory,'' which we interpreted to mean a comparison between what the incumbent LEC provided other parties in a regulated monopoly environment. We believe that the term ''nondiscriminatory,'' as used throughout section 251, applies to the terms and conditions an incumbent LEC imposes on third parties as well as on itself. In any event, by providing interconnection to a competitor in a manner less efficient than an incumbent LEC provides itself, the incumbent LEC violates the duty to be ''just'' and ''reasonable'' under section 251(c)(2)(D). Also, incumbent LECs may not discriminate against parties based upon the identity of the carrier (*i.e.*, whether the carrier is a CMRS provider, a CAP, or a competitive LEC). As long as a carrier meets the statutory requirements, as discussed in this section, it has a right to obtain interconnection with the incumbent LEC pursuant to section 251(c)(2).

165. We identify below specific terms and conditions for interconnection in discussing physical or virtual collocation (*i.e.*, two methods of interconnection). We conclude here, however, that where a carrier requesting interconnection pursuant to section 251(c)(2) does not carry a sufficient amount of traffic to justify separate one-way trunks, an incumbent LEC must accommodate two-way trunking upon request where technically feasible. Refusing to provide two-way trunking would raise costs for new entrants and create a barrier to entry. Thus, we conclude that if two-way trunking is technically feasible, it would not be just, reasonable, and nondiscriminatory for the incumbent LEC to refuse to provide it.

166. Finally, as discussed below, we reject Bell Atlantic's suggestion that we impose reciprocal terms and conditions on incumbent LECs and requesting carriers pursuant to section 251(c)(2). Section 251(c)(2) does not impose on non-incumbent LECs the duty to provide interconnection. The obligations of LECs that are not incumbent LECs are generally governed by sections 251 (a) and (b), not section 251(c). Also, the statute itself imposes different obligations on incumbent LECs and other LECs (*i.e.*, section 251(b) imposes obligations on all LECs while section 251(c) obligations are imposed only on incumbent LECs). We do note, however, that 251(c)(1) imposes upon a requesting telecommunications carrier a duty to negotiate the terms and conditions of interconnection agreements in good faith. We also conclude that MCI's POI proposal, permitting interconnecting carriers, both competitors and incumbent LECs, to designate points of interconnection on each other's networks, is at this time best addressed in negotiations and arbitrations between parties. We believe that the record on this issue is not sufficiently persuasive to justify Commission action at this time. As market conditions evolve, we will continue to review and revise our rules as necessary.

H. Interconnection that is Equal in Quality

1. Background

167. Section 251(c)(2)(C) requires that the interconnection provided by an

incumbent LEC be ''at least equal in quality to that provided by the [incumbent LEC] to itself or to any subsidiary, affiliate, or any other party to which the carrier provides interconnection.'' In the NPRM, we sought comment on how to determine whether interconnection is ''equal in quality.''

2. Discussion

168. We conclude that the equal in quality standard of section 251(c)(2)(C) requires an incumbent LEC to provide interconnection between its network and that of a requesting carrier at a level of quality that is at least indistinguishable from that which the incumbent provides itself, a subsidiary, an affiliate, or any other party. We agree with MFS that this duty requires incumbent LECs to design interconnection facilities to meet the same technical criteria and service standards, such as probability of blocking in peak hours and transmission standards, that are used within their own networks. Contrary to the view of some commenters, we further conclude that the equal in quality obligation imposed by section 251(c)(2) is not limited to the quality perceived by end users. The statutory language contains no such limitation, and creating such a limitation may allow incumbent LECs to discriminate against competitors in a manner imperceptible to end users, but which still provides incumbent LECs with advantages in the marketplace (*e.g.*, the imposition of disparate conditions between carriers on the pricing and ordering of services).

169. We also note that section 251(c)(2) requires interconnection that is ''at least'' equal in quality to that enjoyed by the incumbent LEC itself. This is a minimum requirement. Moreover, to the extent a carrier requests interconnection of superior or lesser quality than an incumbent LEC currently provides, the incumbent LEC is obligated to provide the requested interconnection arrangement if technically feasible. Requiring incumbent LECs to provide upon request higher quality interconnection than they provide themselves, subsidiaries, or affiliates will permit new entrants to compete with incumbent LECs by offering novel services that require superior interconnection quality. We also conclude that, as long as new entrants compensate incumbent LECs for the economic cost of the higher quality interconnection, competition will be promoted.

V. Access to Unbundled Network Elements

A. Commission Authority to Identify Unbundled Network Elements

1. Background

170. Section 251(c)(3) imposes a duty on incumbent LECs to ''provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of the agreement and the requirements of this section and section 252.'' This section also requires incumbent LECs to provide these elements ''in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service.''

171. Section 251(d)(1) provides that ''the Commission shall complete all actions necessary to establish regulations to implement the requirements of'' section 251 by August 8, 1996. Section 251(d)(2) further provides that, ''[i]n determining what network elements should be made available for purposes of subsection (c)(3), the Commission shall consider, at a minimum, whether (A) Access to such network elements as are proprietary in nature is necessary; and (B) the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.''

172. In the NPRM, we sought comment on our tentative conclusion that the 1996 Act requires the Commission to identify network elements that incumbent LECs are required to make available to requesting carriers on an unbundled basis under section 251(c)(3).

2. Discussion

173. We affirm our tentative conclusion in the NPRM that the 1996 Act requires the Commission to identify network elements that incumbent LECs must offer requesting carriers on an unbundled basis under section 251(c)(3). Section 251(d)(1) directs the Commission to establish rules implementing the requirements of section 251(c)(3). Further, section 251(d)(2) contemplates that, pursuant to this direction, the Commission will identify unbundled network elements. We conclude that neither the language in section 251(d), nor any other part of the 1996 Act, is reasonably susceptible to the interpretation advanced by BellSouth that our obligation to identify unbundled network elements arises only when we act under section 252(e)(5).

B. National Requirements for Unbundled Network Elements

1. Background

174. In the NPRM, we noted Congress' view that, when new entrants begin providing services in local telephone markets, it is unlikely they will own network facilities that completely duplicate those of incumbent LECs because of the significant investment and time required to build such facilities. The statutory requirement imposed on incumbent LECs to provide access to unbundled network elements will permit new entrants to offer competing local services by purchasing from incumbents, at cost-based prices, access to elements which they do not already possess, unbundled from those elements that they do not need.

175. It is possible that there will be sufficient demand in some local telephone markets to support the construction of competing local exchange facilities that duplicate most or even all of the elements of an incumbent LEC's network. In these markets new entrants will be able to use unbundled elements from the incumbent LEC to provide services until such time as they complete the construction of their own networks, and thus, no longer need to rely on the facilities of an incumbent to provide local exchange and exchange access services. It is also possible, however, that other local markets, now and even into the future, may not efficiently support duplication of all, or even some, of an incumbent LEC's facilities. Access to unbundled elements in these markets will promote efficient competition for local exchange services because, under the scheme set out in the 1996 Act, such access will allow new entrants to enter local markets by obtaining use of the incumbent LECs' facilities at prices that reflect the incumbents' economies of scale and scope.

176. In the NPRM, we tentatively concluded that the Commission should identify a minimum number of elements that incumbent LECs must make available to requesting carriers on an unbundled basis. We further tentatively concluded that section 252(e)(3) preserves a state's authority, during arbitration, to impose additional unbundling requirements beyond those we specify, as long as such requirements are consistent with the 1996 Act and our

regulations. Section 252(e) discusses a state commission's obligations regarding the approval or rejection of agreements between incumbent LECs and requesting telecommunications carriers for interconnection, services or network elements. Subparagraph (3) of this section specifically provides that a state commission is not prohibited ''from establishing or enforcing other requirements of State law in its review of an agreement,'' as long as such requirements do not violate the terms of the statute. 47 U.S.C. § 252(e)(3). We further note that under section 252(f)(2) states may impose additional unbundling requirements during review of BOC statements of generally available terms and conditions. Section 252(f)(2) states that ''(e)xcept as provided in section 253, nothing in this section shall prohibit a State commission from establishing or enforcing other requirements of State law in its review of such statement * * *'' 47 U.S.C. § 252(f)(2). Finally, we tentatively concluded that we have authority to identify additional or different unbundling requirements in the future, as we learn about changes in technology, the innovation of new services, and the necessities of competition.

2. Discussion

177. We adopt our tentative conclusion and identify a minimum list of unbundled network elements that incumbent LECs must make available to new entrants upon request. We believe the procompetitive goals of section 251(c)(3) will best be achieved through the adoption of such a list. As discussed above, we believe that negotiations and arbitrations will best promote efficient, rapid, and widespread new entry if we establish certain minimum national unbundling requirements. As the Department of Justice argues, there is ''no basis in economic theory or in experience to expect incumbent monopolists to quickly negotiate arrangements to facilitate disciplining entry by would-be competitors, absent clear legal requirements to do so.'' Ad Hoc Telecommunications Users Committee notes that ''[h]istorically, the [incumbent LECs] have had strong incentives to resist, and have actively resisted, efforts to open their networks to users, competitors, or new technology-driven applications of network technology.''

178. National requirements for unbundled elements will allow new entrants, including small entities, seeking to enter local markets on a national or regional scale to take advantage of economies of scale in network design. If fifty states were to establish different unbundling requirements, new entrants, including small entities, could be denied the benefits of scale economies in obtaining access to unbundled elements. National requirements will also: reduce the number of issues states must consider in arbitrations, thereby facilitating the states' ability to conduct such proceedings; reduce the likelihood of litigation regarding the requirements of section 251(c)(3) and the costs associated with such litigation; and provide financial markets with greater certainty in assessing new entrants' business plans, thus enhancing the ability of new entrants, including small entities, to raise capital. In addition, to the extent the Commission assumes a state's arbitration authority under section 252(e)(5), national requirements for unbundled elements will help the Commission to conclude such proceedings expeditiously.

179. We reject the alternative option of developing an exhaustive list of required unbundled elements, to which states could not add additional elements, on the grounds that such a list would not necessarily accommodate changes in technology, and it would not provide states the flexibility they need to deal with local conditions.

180. We also reject the proposal advanced by several parties that we should adopt non-binding national guidelines for unbundled elements that states would not be required to enforce. The parties asserting that differences between incumbent LEC networks militate against the adoption of national standards provide few, if any, specific examples of what those differences are. In addition, they fail to articulate persuasively why those differences are significant enough to weigh against the adoption of national requirements. Accordingly, and as previously discussed, we conclude that any differences that may exist among states are not sufficiently great to overcome the procompetitive benefits that would result from establishing a minimum set of binding national rules. Moreover, we believe the authority granted the states in section 252(e)(3), as well as our existing rules which set forth a process by which incumbent LECs can request a waiver of the requirements we adopt here, will provide the necessary flexibility in our rules to permit states and parties to accommodate any truly unique state conditions that might exist. We further observed in the NPRM that under the voluntary negotiation paradigm set out in section 252, parties to such negotiations can agree to provide unbundled network elements that differ from those identified by the Commission. *See* NPRM at para. 78 (*citing* 47 U.S.C. § 252(a)). Accordingly, we adopt our tentative conclusion that states may impose additional unbundling requirements pursuant to section 252(e)(3), as long as such requirements are consistent with the 1996 Act and our regulations. This conclusion is consistent with the statement in section 252(e)(3) that ''nothing in this section shall prohibit a State commission from establishing or enforcing other requirements of State law in its review of an agreement.''

181. We find the arguments presented by parties opposing national rules for unbundled elements unpersuasive especially in light of the 1996 Act's strong procompetitive goals. For example, in light of the incumbent LECs' disincentives to negotiate with potential competitors, we believe national rules will promote competition by making the bargaining strength of potential competitors, including small entities, more equal. We are not persuaded that national rules will discourage incumbent LECs from developing new technologies and services; to the contrary, based on our experience in other telecommunications markets, we believe that competition will stimulate innovation by incumbent LECs. We also believe that any failure of incumbent LECs to develop new technologies or services would have a less significant adverse effect on competition in local exchange markets than a failure to adopt national rules. Nor is it likely that new entrants will seek unnecessary elements merely to raise incumbents' costs because such new entrants must pay the costs associated with unbundling. In addition, the pricing standard of section 252(d)(1)(B), which allows incumbent LECs to receive not only their costs but also a reasonable profit on the provision of unbundled elements, should further alleviate concerns regarding sham requests.

182. We adopt our tentative conclusion that, in addition to identifying unbundled network elements that incumbent LECs must make available now, we have authority to identify additional, or perhaps different, unbundling requirements that would apply to incumbent LECs in the future. The rapid pace and ever changing nature of technological advancement in the telecommunications industry makes it essential that we retain the ability to revise our rules as circumstances change. Otherwise, our rules might impede technological change and frustrate the 1996 Act's overriding goal of bringing the benefits

of competition to consumers of local phone services. For the same reasons that we believe we should adopt national unbundling requirements, as discussed above, we reject the proposal that future unbundling requirements should be determined solely by the parties to voluntary negotiations.

183. Finally, we have considered the economic impact of our rules in this section on small incumbent LECs. For example, we have considered the argument advanced by the Rural Telephone Coalition that national unbundling requirements would be unworkable because of technological, demographic and geographic variations between states. We do not adopt the Rural Telephone Coalition's position, however, because we believe that the minimum list we adopt can be applied to a broad range of networks across geographic regions and any differences between incumbent LEC networks in different states are not sufficiently great to overcome the procompetitive benefits of a minimum list of required unbundled network elements. We have also considered the argument advanced by GVNW that unbundling requirements imposed on small incumbent LECs should differ from those imposed on large, urban incumbent LECs because of differences in networks and operational procedures. We reject GVNW's proposal for two reasons. First, some small incumbent LECs may not experience any problems complying with our unbundling rules. Second, we note that section 251(f) of the 1996 Act provides relief to certain small LECs from our regulations implementing section 251.

184. Although we have concluded in this proceeding that we can best achieve the procompetitive aims of the 1996 Act by adopting minimum national unbundling requirements for arbitrated agreements, the 1996 Act envisions that the states will administer those requirements through approval of negotiated agreements and arbitrations. Through arbitrations and review of negotiated agreements the states will add to their significant expertise on issues relating to the provision of access to unbundled network elements. We encourage state commissions to take an active role in evaluating the success or difficulties in implementing any of our requirements. The Commission intends to draw on the expertise developed by the states when we review and revise our rules as necessary.

C. Network Elements

1. Background

185. Section 3(29) of the Communications Act defines the term ''network element'' to mean both ''a facility or equipment used in the provision of a telecommunications service'' and ''features, functions, and capabilities that are provided by means of such facility or equipment.'' Such features, functions, and capabilities include ''subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.'' The Joint Explanatory Statement explains that ''[t]he term 'network element' was included to describe the facilities, such as local loops, equipment, such as switching, and the features, functions, and capabilities that a local exchange carrier must provide for certain purposes under other sections of the conference agreement.''

186. In the NPRM, we noted that we could identify ''network elements'' in two ways. First, we could identify a single ''network element,'' and then further subdivide it into additional ''elements.'' Alternatively, we could provide that, once we identify a particular ''network element,'' it cannot be further subdivided. In the NPRM, we asked for comment on these two approaches.

187. We observed in the NPRM that the statutory definition of a ''network element'' draws a distinction between a ''facility or equipment used in the provision of a telecommunications service,'' and the ''service'' itself. We asked for comment on the meaning of this distinction in general, with respect to requirements for unbundling, and in connection with specific unbundled elements. We noted that the definition of a network element, *i.e.*, a facility, function, or capability, is not dependent on the particular types of services that are provided by means of the element (*e.g.*, interstate access, intrastate local exchange), and asked whether a carrier purchasing access to an element is obligated, pursuant to the definition, to provide all services typically carried or provided by that element.

2. Discussion

188. We adopt the concept of unbundled elements as physical facilities of the network, together with the features, functions, and capabilities associated with those facilities. Carriers requesting use of unbundled elements within the incumbent LEC's network seek in effect to purchase the right to obtain exclusive access to an entire facility, or use of some feature, function or capability of that element. For some elements, especially the loop, the requesting carrier will purchase exclusive access to the element for a specific period, such as on a monthly basis. Carriers seeking other elements, especially shared facilities such as common transport, are essentially purchasing access to a functionality of the incumbent's facilities on a minute-by-minute basis. This concept of network elements, as discussed *infra* at section V.G., does not alter the incumbent LEC's physical control or ability or duty to repair and maintain network elements.

189. We conclude that we should identify a particular facility or capability, for example, as a single network element, but allow ourselves and the states (where appropriate) the discretion to further identify, within that single facility or capability, additional required network elements. Thus, for example, in this proceeding, we identify the local loop as a single network element. We also ask the states to evaluate, on a case-by-case basis, whether to require access to subloop elements, which can be facilities or capabilities within the local loop. We agree with those commenters that argue that identifying a particular facility or capability as single network element, but allowing such elements to be further subdivided into additional elements, will allow our rules (as well as the states) to accommodate changes in technology, and thus better serve the interests of new entrants and incumbent LECs, and the procompetitive purposes of the 1996 Act. We are not persuaded by PacTel's argument that it is unnecessary for our rules to permit the identification of additional elements, beyond those specifically referenced in parts of the 1996 Act, because our rules must conform to the definition of a network element, and they must accommodate changes in technology. Nor are we persuaded by BellSouth that identification of network elements should be left solely to the parties. We reject this approach for the same reasons that led us to adopt national unbundling requirements. Finally, we agree with NYNEX and others that we should not identify elements in rigid terms, but rather by function.

190. We agree with MCI and MFS that the definition of the term network element includes physical facilities, such as a loop, switch, or other node, as well as logical features, functions, and capabilities that are provided by, for example, software located in a physical facility such as a switch. We further agree with MCI that the embedded features and functions within a network element are part of the characteristics of that element and may not be removed from it. Accordingly, incumbent LECs

must provide network elements along with all of their features and functions, so that new entrants may offer services that compete with those offered by incumbents as well as new services.

191. The only limitation that the statute imposes on the definition of a network element is that it must be ''used in the provision of a telecommunications service.'' Incumbent LECs provide telecommunications services not only through network facilities that serve as the basis for a particular service, or that accomplish physical delivery, but also through information (such as billing information) that enables incumbents to offer services on a commercial basis to consumers. Our interpretation of the term ''provision'' finds support in the definition of the term ''network element.'' That definition provides that the type of information that may constitute a feature or function includes information ''used in the transmission, routing or other provision of a telecommunications service.'' Since ''transmission'' and ''routing'' refer to physical delivery, the phrase ''or other provision of a telecommunications service'' goes beyond mere physical delivery.

192. We conclude that the definition of the term ''network element'' broadly includes all ''facilit[ies] or equipment used in the provision of a telecommunications service,'' and all ''features, functions, and capabilities that are provided by means of such facility or equipment, including subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.'' This definition thus includes, but is not limited to, transport trunks, call-related databases, software used in such databases, and all other unbundled elements that we identify in this proceeding. The definition also includes information that incumbent LECs use to provide telecommunications functions commercially, such as information required for pre-ordering, ordering, provisioning, billing, and maintenance and repair services. (The term ''provisioning'' includes installation.) This interpretation of the definition of the term ''network element'' will serve to guide both the Commission and the states in evaluating further unbundling requirements beyond those we identify in this proceeding.

193. We disagree with those incumbent LECs which argue that features that are sold directly to end users as retail services, such as vertical features, cannot be considered elements within incumbent LEC networks. If we were to conclude that any functionality sold directly to end users as a service, such as call forwarding or caller ID, cannot be defined as a network element, then incumbent LECs could provide local service to end users by selling them unbundled loops and switch elements, and thereby entirely evade the unbundling requirement in section 251(c)(3). We are confident that Congress did not intend such a result. We further reject Ameritech's argument that we should not permit carriers to use unbundled elements to provide services that are priced above cost at retail. We agree with those parties that argue that competition will not develop if we find that supracompetitive pricing is protected by the 1996 Act.

194. Moreover, we agree with those commenters that argue that network elements are defined by facilities or their functionalities or capabilities, and thus, cannot be defined as specific services. A single network element could be used to provide many different services. For example, a local loop can be used to provision inter- and intrastate exchange access services, as well as local exchange services. We conclude, consistent with the findings of the Ohio and Oregon Commissions, that the plain language of section 251(c)(3) does not obligate carriers purchasing access to network elements to provide all services that an unbundled element is capable of providing or that are typically offered over that element. Section 251(c)(3) does not impose any service-related restrictions or requirements on requesting carriers in connection with the use of unbundled elements.

D. Access to Network Elements

1. Background

195. In the NPRM, we observed that section 251(c)(3) requires incumbent LECs to provide ''access'' to network elements ''on an unbundled basis.'' We interpreted these terms to mean that incumbent LECs must provide carriers with the functionality of a particular element, separate from the functionality of other elements, and must charge a separate fee for each element. We sought comment on this interpretation and any alternative interpretations.

2. Discussion

196. We conclude that we should adopt our proposed interpretation that the terms ''access'' to network elements ''on an unbundled basis'' mean that incumbent LECs must provide the facility or functionality of a particular element to requesting carriers, separate from the facility or functionality of other elements, for a separate fee. We further conclude that a telecommunications carrier purchasing access to an unbundled network facility is entitled to exclusive use of that facility for a period of time, or when purchasing access to a feature, function, or capability of a facility, a telecommunications carrier is entitled to use of that feature, function, or capability for a period of time. The specified period may vary depending on the terms of the agreement between the incumbent LEC and the requesting carrier. The ability of other carriers to obtain access to a network element for some period of time does not relieve the incumbent LEC of the duty to maintain, repair, or replace the unbundled network element. We clarify that title to unbundled network elements will not shift to requesting carriers. We reject PacTel's interpretation of the terms quoted above because it is inconsistent with our definition of the term network element (i.e., an element includes all features and functions embedded in it). Moreover, to the extent that PacTel's argument suggests that the 1996 Act does not require unbundled elements to be provisioned in a way that would make them useful, we find that its statutory interpretation is inconsistent with the statute's goal of providing new entrants with realistic means of competing against incumbents.

197. We further conclude that ''access'' to an unbundled element refers to the means by which requesting carriers obtain an element's functionality in order to provide a telecommunications service. Just as section 251(c)(2) requires ''interconnection * * * at any technically feasible point,'' section 251(c)(3) requires ''access * * * at any technically feasible point.'' We conclude, based on the terms of sections 251 (c)(2), 251(c)(3), and 251(c)(6), that an incumbent LEC's duty to provide ''access'' constitutes a duty to provide a connection to a network element independent of any duty imposed by subsection (c)(2). Thus, such ''access'' must be provided under the rates, terms, and conditions that apply to unbundled elements.

198. Specifically, section 251(c)(6) provides that incumbent LECs must provide ''physical collocation of equipment necessary for interconnection or access to unbundled network elements.'' The use of the term ''or'' in this phrase means that interconnection is different from ''access'' to unbundled elements. The text of sections 251(c)(2) and (c)(3) leads to the same conclusion. Section 251(c)(2) requires that interconnection be provided for ''the transmission and

routing of telephone exchange service and exchange access.'' Section 251(c)(3), in contrast, requires the provision of access to unbundled elements to allow requesting carriers to provide ''a telecommunications service.'' The term ''telecommunications service'' by definition includes a broader range of services than the terms ''telephone exchange service and exchange access.'' Subsection (c)(3), therefore, allows unbundled elements to be used for a broader range of services than subsection (c)(2) allows for interconnection. If we were to conclude that ''access'' to unbundled elements under subsection (c)(3) could only be achieved by means of interconnection under subsection (c)(2), we would be limiting, in effect, the uses to which unbundled elements may be put, contrary to the plain language of section 251(c)(3) and standard canons of statutory construction.

E. Standards Necessary To Identify Unbundled Network Elements

1. Background

199. In the NPRM, we raised a number of issues concerning the meaning of technical feasibility in connection with unbundled elements. We also sought comment on the extent to which the Commission should consider the standards set forth in section 251(d)(2) in identifying required unbundled elements, and on how we ought to interpret these standards. Subsection (d)(2) provides that ''(i)n determining what network elements should be made available for purposes of subsection (c)(3), the Commission shall consider, at a minimum'' the following two standards, ''whether (A) access to such network elements as are proprietary in nature is necessary; and (B) the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.'' We further asked about the relationship between the latter standard and the requirement in section 251(c)(3) that carriers be able to use unbundled elements to provide a telecommunications service.

2. Discussion

200. Sections 251(c)(3) and 251(d)(2) set forth standards the Commission must consider in identifying unbundled network elements that incumbent LECs must make available in connection with arbitrations before state commissions and BOC statements of generally available terms and conditions. These standards guide the unbundling requirements we issue today as well as any different or additional unbundling requirements we may issue in the future. Similarly, the States must follow our interpretation of these standards to the extent they impose additional unbundling requirements during arbitrations or subsequent rulemaking proceedings.

201. Section 251(c)(3) requires incumbent LECs to provide requesting carriers with ''nondiscriminatory access to network elements on an unbundled basis at any technically feasible point.'' We find that this clause imposes on an incumbent LEC the duty to provide all network elements for which it is technically feasible to provide access on an unbundled basis. Because section 251(d)(1) requires us to ''establish regulations to implement the requirements of'' section 251(c)(3), we conclude that we have authority to establish regulations that are coextensive with the duty section 251(c)(3) imposes on incumbent LECs.

202. Section 251(d)(2), however, sets forth standards that do not depend on technical feasibility. More specifically, section 251(d)(2) provides that, in identifying unbundled elements, the Commission shall ''consider, at a minimum,'' whether access to proprietary elements is necessary (the ''proprietary standard''), and whether requesting carriers' ability to provide services would be impaired if the desired elements were not provided by an incumbent LEC (the ''impairment standard.'') Thus, section 251(d)(2) gives us the authority to decline to require incumbent LECs to provide access to unbundled network elements at technically feasible points if, for example, we were to conclude that access to a particular proprietary element is not necessary. To give effect to both sections 251(c)(3) and 251(d)(2), we conclude that the proprietary and impairment standards in section 251(d)(2) grant us the authority to refrain from requiring incumbent LECs to provide all network elements for which it is technically feasible to provide access on an unbundled basis. The authority we derive from section 251(d)(2) is limited, however, by our interpretation of these standards, and this section, as set forth below.

203. We agree with BellSouth, SBC, and others that the plain import of the ''at minimum'' language in section 251(d)(2) requires us, in identifying unbundled network elements, to ''consider'' the standards enumerated there, as well as other standards we believe are consistent with the objectives of the 1996 Act. We conclude that the word ''consider'' means we must weigh the standards enumerated in section 251(d)(2) in evaluating whether to require the unbundling of a particular element.

204. We further conclude that, in evaluating whether to impose additional unbundling requirements during the arbitration process, States must apply our definition of technical feasibility, discussed above in section IV.D. A determination of technical feasibility would then create a presumption in favor of requiring an incumbent LEC to provide the element. If providing access to an unbundled element is technically feasible, a State must then consider the standards set forth in section 251(d)(2), as we interpret them below. Similarly, the Commission will apply this analysis where we must arbitrate specific unbundling issues, under section 252(e)(5), and in future rulemaking proceedings that may consider additional or possibly different unbundling requirements.

205. Section 251(d)(2)(A) requires the Commission and the States to consider whether access to proprietary elements is ''necessary.'' ''Necessary'' means, in this context, that an element is a prerequisite for competition. We believe that, in some instances, it will be ''necessary'' for new entrants to obtain access to proprietary elements (e.g., elements with proprietary protocols or elements containing proprietary information), because without such elements, their ability to compete would be significantly impaired or thwarted. As noted *supra*, a number of commenters argue that section 251(d)(2)(A) requires us to protect proprietary information, such as CPNI information, contained in network elements. We intend to treat issues regarding CPNI in our rulemaking proceeding on CPNI information. *Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, CC Docket No. 96–115, Notice of Proposed Rulemaking, FCC 96–221, 61 FR 26483 (May 28, 1996). Thus, as an initial matter, we decline to adopt a general rule, as suggested by some incumbents, that would prohibit access to such elements, or make access available only upon a carrier demonstrating a heavy burden of need. We acknowledge that prohibiting incumbents from refusing access to proprietary elements could reduce their incentives to offer innovative services. We are not persuaded, however, that this is a sufficient reason to prohibit generally the unbundling of proprietary elements, because the threat to competition from any such prohibition would far exceed any costs to

consumers resulting from reduced innovation by the incumbent LEC. In this proceeding, for example, we are requiring incumbent LECs to provide the local switching element which includes vertical features that some carriers contend are proprietary. *See infra,* Section V.J. Moreover, the procompetitive effects of our conclusion generally will stimulate innovation in the market, offsetting any hypothetical reduction in innovation by the incumbent LECs.

206. We further conclude that, to the extent new entrants seek additional elements beyond those we identify herein, section 251(d)(2)(A) allows the Commission and the states to require the unbundling of such elements unless the incumbent can prove to a state commission that: (1) The element is proprietary, or contains proprietary information that will be revealed if the element is provided on an unbundled basis; and (2) a new entrant could offer the same proposed telecommunications service through the use of other, nonproprietary unbundled elements within the incumbent's network. We believe this interpretation of section 251(d)(2)(A) will best advance the procompetitive purposes of the 1996 Act. It allows new entrants to obtain proprietary elements from incumbent LECs where they are necessary to offer a telecommunications service, and, at the same time, it gives incumbents the opportunity to argue, before the states or the Commission, against unbundling proprietary elements where a new entrant could offer the same service using other unbundled elements in the incumbent's network. We decline to adopt the interpretation of section 251(d)(2)(A) advanced by some incumbents that incumbent LECs need not provide proprietary elements if requesting carriers can obtain the requested proprietary element from a source other than the incumbent. Requiring new entrants to duplicate unnecessarily even a part of the incumbent's network could generate delay and higher costs for new entrants, and thereby impede entry by competing local providers and delay competition, contrary to the goals of the 1996 Act.

207. We further conclude that, to the extent new entrants do not need access to all the proprietary information contained within an element in order to provide a telecommunications service, the Commission and the states may take action to protect the proprietary information. For example, to provide a telecommunications service, a new entrant might need access to information about a particular customer that is in an incumbent LEC database. The database to which the new entrant requires access, however, may contain proprietary information about all of the incumbent LECs' customers. In this circumstance, the new entrant should not have access to proprietary information about the incumbent LEC's other customers where it is not necessary to provide service to the new entrant's particular customer. Accordingly, we believe the Commission and the states have the authority to protect the confidentiality of proprietary information in an unbundled network element, such as a database, where that information is not necessary to enable a new entrant to offer a telecommunications service to its particular customer.

208. Section 251(d)(2)(B) requires us to consider whether the failure to provide access to an element would ''impair'' the ability of a new entrant to provide a service it seeks to offer. The term ''impair'' means ''to make or cause to become worse; diminish in value.'' We believe, generally, that an entrant's ability to offer a telecommunications service is ''diminished in value'' if the quality of the service the entrant can offer, absent access to the requested element, declines and/or the cost of providing the service rises. We believe we must consider this standard by evaluating whether a carrier could offer a service using other unbundled elements within an incumbent LEC's network. Accordingly, we interpret the ''impairment'' standard as requiring the Commission and the states, when evaluating unbundling requirements beyond those identified in our minimum list, to consider whether the failure of an incumbent to provide access to a network element would decrease the quality, or increase the financial or administrative cost of the service a requesting carrier seeks to offer, compared with providing that service over other unbundled elements in the incumbent LEC's network.

209. We decline to adopt the interpretation of the ''impairment'' standard advanced by most BOCs and GTE. Under their interpretation, incumbent LECs must provide unbundled elements only when the failure to do so would prevent a carrier from offering a service. We also reject the related interpretations that carriers are not impaired in their ability to provide a service if they can obtain elements from another source, or if they can provide the proposed service by purchasing the service at wholesale rates from a LEC. In general, and as discussed above, section 251(c)(3) imposes on incumbent LECs the obligation to offer on an unbundled basis all network elements for which it is technically feasible to provide access. We believe the plain language of section 251(d)(2), and the standards articulated there, give us the discretion to limit the general obligation imposed by subsection 251(c)(3), but they do not require us to do so. The standards set forth in section 251(d)(2) are minimum considerations that the Commission shall take into account in evaluating unbundling requirements. Accordingly, we conclude that the statute does not require us to interpret the ''impairment'' standard in a way that would significantly diminish the obligation imposed by section 251(c)(3).

210. The interpretation advanced by most of the BOCs and GTE, described above, means that, if a requesting carrier could obtain an element from a source other than the incumbent, then the incumbent need not provide the element. We agree with the reasoning advanced by some of the commenters that this interpretation would nullify section 251(c)(3) because, in theory, any new entrant could provide all of the elements in the incumbents' networks. Congress made it possible for competitors to enter local markets through the purchase of unbundled elements because it recognized that duplication of an incumbent's network could delay entry, and could be inefficient and unnecessary. The interpretation proffered by the BOCs and GTE would inhibit new entry and thus restrict the potential for meaningful competition, which would undermine the procompetitive goals of the 1996 Act. As a practical matter, if it is more efficient and less costly for new entrants to obtain network elements from a source other than an incumbent LEC, new entrants will likely pursue the more efficient and less costly approach. Additionally, as discussed above at section IV.C, we believe that allowing incumbent LECs to deny access to unbundled elements on the grounds that an element is equivalent to a service available at resale would lead to impractical results, because incumbents could completely avoid section 251(c)(3)'s unbundling obligations by offering unbundled elements to end users as retail services.

211. Finally, we decline at this time to adopt any of the additional criteria proposed by commenters. We conclude that none of the additional factors suggested by commenters enhances our ability to identify unbundled network elements consistent with the procompetitive goals of the 1996 Act. These additional considerations would limit unbundling requirements or make it administratively more difficult for

new entrants to obtain additional unbundled elements beyond those identified in our minimum list of required elements. For example, we believe that the proposal that new entrants must provide detailed estimates regarding projected market demand is not necessary for incumbent LECs to efficiently plan for network growth.

F. Provision of a Telecommunications Service Using Unbundled Network Elements

1. Background

212. Section 251(c)(3) provides that an incumbent LEC must provide access to ''unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide'' a telecommunications service. In the NPRM, we sought comment on the meaning of this requirement.

2. Discussion

213. Under section 251(c)(3), incumbent LECs must provide access to ''unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide'' a telecommunications service. We agree with the Illinois Commission, the Texas Public Utility Counsel, and others that this language bars incumbent LECs from imposing limitations, restrictions, or requirements on requests for, or the sale or use of, unbundled elements that would impair the ability of requesting carriers to offer telecommunications services in the manner they intend. For example, incumbent LECs may not restrict the types of telecommunications services requesting carriers may offer through unbundled elements, nor may they restrict requesting carriers from combining elements with any technically compatible equipment the requesting carriers own. We also conclude that section 251(c)(3) requires incumbent LECs to provide requesting carriers with all of the functionalities of a particular element, so that requesting carriers can provide any telecommunications services that can be offered by means of the element. We believe this interpretation provides new entrants with the requisite ability to use unbundled elements flexibly to respond to market forces, and thus is consistent with the procompetitive goals of the 1996 Act.

214. We agree with AT&T and Comptel that the quoted text in section 251(c)(3) bars incumbent LECs from separating elements that are ordered in combination, unless a requesting carrier specifically asks that such elements be separated. We also conclude that the quoted text requires incumbent LECs, if necessary, to perform the functions necessary to combine requested elements in any technically feasible manner either with other elements from the incumbent's network, or with elements possessed by new entrants, subject to the technical feasibility restrictions discussed below. We adopt these conclusions for two reasons. First, in practice it would be impossible for new entrants that lack facilities and information about the incumbent's network to combine unbundled elements from the incumbents' network without the assistance of the incumbent. If we adopted NYNEX's proposal, we believe requesting carriers would be seriously and unfairly inhibited in their ability to use unbundled elements to enter local markets. We therefore reject NYNEX's contention that the statute requires requesting carriers, rather than incumbents, to combine elements. We do not believe it is possible that Congress, having created the opportunity to enter local telephone markets through the use of unbundled elements, intended to undermine that opportunity by imposing technical obligations on requesting carriers that they might not be able to readily meet.

215. Second, given the practical difficulties of requiring requesting carriers to combine elements that are part of the incumbent LEC's network, we conclude that section 251(c)(3) should be read to require incumbent LECs to combine elements requested by carriers. More specifically, section 251(c)(3) provides that incumbent LECs must provide unbundled elements ''in a manner that allows requesting carriers to combine them'' to provide a telecommunications service. We believe this phrase means that incumbents must provide unbundled elements in a way that *enables* requesting carriers to combine them to provide a service. The phrase ''allows requesting carriers to combine them,'' does not impose the obligation of physically combining elements exclusively on requesting carriers. Rather, it permits a requesting carrier to combine the elements if the carrier is reasonably able to do so. If the carrier is unable to combine the elements, the incumbent must do so. In this context, we conclude that the term ''combine'' means connecting two or more unbundled network elements in a manner that would allow a requesting carrier to offer the telecommunications service it seeks to offer.

216. Our conclusion that incumbent LECs must combine unbundled elements when so requested is consistent with the method we have adopted to identify unbundled network elements. Under our method, incumbents must provide, as a single, combined element, facilities that could comprise more than one element. This means, for example, that, if the states require incumbent LECs to provision subloop elements, incumbent LECs must still provision a local loop as a single, combined element when so requested, because we identify local loops as a single element in this proceeding.

217. We decline to adopt the view proffered by some parties that incumbents must combine network elements in any technically feasible manner requested. This proposal necessarily means that carriers could request incumbent LECs to combine elements that are not ordinarily combined in the incumbent's network. We are concerned that, in some instances, this could potentially affect the reliability and security of the incumbent's network, and the ability of other carriers to obtain interconnection, or request and use unbundled elements. Accordingly, incumbent LECs are required to perform the functions necessary to combine those elements that are ordinarily combined within their network, in the manner in which they are typically combined. Incumbent LECs are also required to perform the functions necessary to combine elements, even if they are not ordinarily combined in that manner, or they are not ordinarily combined in the incumbent's network, provided that such combination is technically feasible, and such combination would not undermine the ability of other carriers to access unbundled elements or interconnect with the incumbent LEC's network. As discussed in Section IV, effects on network reliability and security are factors to be considered in determining technical feasibility. Incumbent LECs must prove to state commissions that a request to combine particular elements in a particular manner is not technically feasible, or that the request would undermine the ability of other carriers to access unbundled elements and interconnect because they have the information to support such a claim.

218. We agree with Sprint and the Florida Commission, respectively, that in some cases incumbent LECs may be required to provision a particular element in different ways, depending on the service a requesting carrier seeks to offer; and, in other instances, where a new entrant needs a particular variant of an element to offer a service, that element should be treated as distinct from other variants of the element. This means, for example, that we will treat

local loops with a particular type of conditioning as distinct elements that are different from loops with other types of conditioning. As discussed below, we agree with CompTel that incumbent LECs must provide the operational and support systems necessary for requesting carriers to purchase and combine network elements. Incumbent LECs use these systems to provide services to their own end users, and new entrants similarly must have access to them to provide telecommunications services using unbundled elements. Finally, we agree with BellSouth that requesting carriers must specify to incumbent LECs the network elements they seek before they can obtain such elements on an unbundled basis. We do not believe, however, that it will always be possible for new entrants to do this either before negotiations (or arbitrations) begin, or before they end, because new entrants will likely lack knowledge about the facilities and capabilities of a particular incumbent LEC's network. We further believe that incumbent LECs must work with new entrants to identify the elements the new entrants will need to offer a particular service in the manner the new entrants intend.

G. Nondiscriminatory Access to Unbundled Network Elements and Just, Reasonable and Nondiscriminatory Terms and Conditions for the Provision of Unbundled Network Elements

1. Background

219. Section 251(c)(3) requires incumbent LECs to provide requesting carriers ''nondiscriminatory access to network elements on an unbundled basis * * * on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.'' In the NPRM, we sought comment on whether we should adopt minimum national requirements governing the terms and conditions for the provision of unbundled network elements. We further asked what rules could ensure that the terms and conditions for access to unbundled network elements are just, reasonable and nondiscriminatory, and how we should enforce such rules. In particular, we sought comment on whether we should adopt uniform national rules governing provisioning, service, maintenance, technical standards and nondiscrimination safeguards in connection with the provision of unbundled network elements. We also asked whether we should consider any of the terms and conditions applicable to the provision of access to unbundled elements in evaluating BOC applications to provide in-region interLATA services under section 271(b).

2. Discussion

220. We agree with those commenters, including the Florida, Illinois and Washington Commissions, that to achieve the procompetitive goals of the 1996 Act, it is necessary to establish rules that define the obligations of incumbent LECs to provide nondiscriminatory access to unbundled network elements, and to provide such elements on terms and conditions that are just, reasonable and nondiscriminatory. As discussed above at sections II.A, II.B and V.B, we believe that incumbent LECs have little incentive to facilitate the ability of new entrants, including small entities, to compete against them and, thus, have little incentive to provision unbundled elements in a manner that would provide efficient competitors with a meaningful opportunity to compete. We are also cognizant of the fact that incumbent LECs have the incentive and the ability to engage in many kinds of discrimination. For example, incumbent LECs could potentially delay providing access to unbundled network elements, or they could provide them to new entrants at a degraded level of quality.

221. Consistent with arguments advanced by the Florida and Washington Commissions, incumbent LECs, and potential competitors, and as more fully discussed in the specific sections below, we adopt general, national rules defining ''nondiscriminatory access'' to unbundled network elements, and ''just, reasonable, and nondiscriminatory'' terms and conditions for the provision of such elements. We have chosen this approach, rather than allowing states exclusively to consider these issues, because we believe that some national rules regarding nondiscriminatory access will reduce the costs of entry and speed the development of competition.

222. We conclude, for example, that national rules defining the 1996 Act's requirements regarding nondiscriminatory access to, and provision of, unbundled elements will reduce costs associated with potential litigation over these issues, and will enable states to conduct arbitrations more quickly by reducing the number of issues they must consider. Such rules will also facilitate the ability of the Commission to conduct arbitrations, should we assume a state's responsibilities under section 252(e)(5). We conclude further that such rules will create some uniformity across states in connection with the terms under which new entrants may obtain access to network elements, thus facilitating the ability of potential competitors, including small entities, to enter local markets on a regional or national scale. Accordingly, for all of these reasons, we reject the arguments of PacTel and USTA that we should not adopt national rules relating to incumbent LEC obligations to provide access to, and provision, unbundled elements in a nondiscriminatory manner.

223. The record compiled in this proceeding supports the adoption of uniform general rules that rely on states to develop more specific requirements in arbitrations and other state proceedings. More significantly, however, we agree with the California and Florida Commissions that the states are best situated to issue specific rules because of their existing knowledge regarding incumbent LEC networks, capabilities, and performance standards in their separate jurisdictions and because of the role they will play in conducting mediations, arbitrations, and approving agreements. We expect that the states will implement the general nondiscrimination rules set forth herein by adopting, *inter alia*, specific rules determining the timing in which incumbent LECs must provision certain elements, and any other specific conditions they deem necessary to provide new entrants, including small competitors, with a meaningful opportunity to compete in local exchange markets. The states will continue to gain expertise in connection with issues relating to just, reasonable, and nondiscriminatory access and provision of unbundled network elements. We expect to turn to the states, and rely on the expertise they develop in this area, when we review and revise our rules as necessary.

224. We agree with those commenters that argue that incumbent LECs should be required to fulfill some type of reporting requirement to ensure that they provision unbundled elements in a nondiscriminatory manner. We believe the record is insufficient at this time to adopt such requirements, and we may reexamine this issue in the future. We encourage the states, however, to adopt reporting requirements. We decline to address whether the Commission should consider any of the terms and conditions adopted here in evaluating BOC applications to provide in-region long distance services. We will consider this issue, as it arises, when we evaluate individual BOC applications.

a. Nondiscriminatory Access to Unbundled Network Elements

225. We conclude that the obligation to provide ''nondiscriminatory access to

network elements on an unbundled basis'' refers to both the physical or logical connection to the element and the element itself. In considering how to implement this obligation in a manner that would achieve the 1996 Act's goal of promoting local exchange competition, we recognize that new entrants, including small entities, would be denied a meaningful opportunity to compete if the quality of the access to unbundled elements provided by incumbent LECs, as well as the quality of the elements themselves, were lower than what the incumbent LECs provide to themselves. Thus, we conclude it would be insufficient to define the obligation of incumbent LECs to provide ''nondiscriminatory access'' to mean that the quality of the access and unbundled elements incumbent LECs provide to all requesting carriers is the same. As discussed above with respect to interconnection, an incumbent LEC could potentially act in a nondiscriminatory manner in providing access or elements to all requesting carriers, while providing preferential access or elements to itself. Accordingly, we conclude that the phrase ''nondiscriminatory access'' in section 251(c)(3) means at least two things: first, the quality of an unbundled network element that an incumbent LEC provides, as well as the access provided to that element, must be equal between all carriers requesting access to that element; second, where technically feasible, the access and unbundled network element provided by an incumbent LEC must be at least equal-in-quality to that which the incumbent LEC provides to itself. We note that providing access or elements of lesser quality than that enjoyed by the incumbent LEC would also constitute an ''unjust'' or ''unreasonable'' term or condition.

226. We believe that Congress set forth a ''nondiscriminatory access'' requirement in section 251(c)(3), rather then an absolute equal-in-quality requirement, such as that set forth in section 251(c)(2)(C), because, in rare circumstances, it may be technically infeasible for incumbent LECs to provide requesting carriers with unbundled elements, and access to such elements, that are equal-in-quality to what the incumbent LECs provide themselves. According to some commenters, this problem arises in connection with one variant of one of the unbundled network elements we identify in this order. These commenters argue that a carrier purchasing access to a 1AESS local switch may not be able to receive, for example, the full measure of customized routing features that such a switch may afford the incumbent. In the rare circumstances where it is technically infeasible for an incumbent LEC to provision access or elements that are equal-in-quality, we believe disparate access would not be inconsistent with the nondiscrimination requirement. Accordingly, we require incumbent LECs to provide access and unbundled elements that are at least equal-in-quality to what the incumbent LECs provide themselves, and allow for an exception to this requirement only where it is technically infeasible to meet. The exception described here does not excuse incumbent LECs from the obligation to modify elements within their networks to allow requesting carriers to obtain access to such elements where this is technically feasible. *See supra,* Section IV.D. We expect incumbent LECs to fulfill this requirement in nearly all instances where they provision unbundled elements because we believe the technical infeasibility problem will arise rarely. We further conclude, however, that the incumbent LEC must prove to a state commission that it is technically infeasible to provide access to unbundled elements, or the unbundled elements themselves, at the same level of quality that the incumbent LEC provides to itself.

227. Our conclusion that an incumbent LEC must provide unbundled elements, as well as access to them, that is ''at least'' equal in quality to that which the incumbent provides itself, does not excuse incumbent LECs from providing, when requested and where technically feasible, access or unbundled elements of higher quality. An incumbent LEC, in accommodating a carrier's request for a particular unbundled element, may ultimately provision an element that is higher in quality than what the incumbent provides to itself. *See infra,* Section V.J.1. As we discuss below, we do not believe that this obligation is unduly burdensome to incumbent LECs because the 1996 Act requires a requesting carrier to pay the costs of unbundling, and thus incumbent LECs will be fully compensated for any efforts they make to increase the quality of access or elements within their own network. (*See infra,* Section V.J. We require, for example, that incumbent LECs provide local loops conditioned to enable the provision of digital services (where technically feasible) even if the incumbent does not itself provide such digital services.) Moreover, to the extent this obligation allows new entrants, including small entities, to offer services that are different from those offered by the incumbent, we believe it is consistent with Congress's goal to promote local exchange competition. We note that, to the extent an incumbent LEC provides an element with a superior level of quality to a particular carrier, the incumbent LEC must provide all other requesting carriers with the same opportunity to obtain that element with the equivalent higher level of quality. We further note that where a requesting carrier specifically requests access or unbundled elements that are lower in quality to what the incumbent LECs provide themselves, incumbent LECs may offer such inferior quality if it is technically feasible. Finally, we conclude that the incumbent LEC must prove to a state commission that it is technically infeasible to provide access to unbundled elements, or the unbundled elements themselves, at a level of quality that is superior to or lower than what the incumbent LEC provides to itself.

b. Just, Reasonable and Nondiscriminatory Terms and Conditions for the Provision of Unbundled Network Elements

228. The duty to provide unbundled network elements on ''terms, and conditions that are just, reasonable, and nondiscriminatory'' means, at a minimum, that whatever those terms and conditions are, they must be offered equally to all requesting carriers, and where applicable, they must be equal to the terms and conditions under which the incumbent LEC provisions such elements to itself. We also conclude that, because section 251(c)(3) includes the terms ''just'' and ''reasonable,'' this duty encompasses more than the obligation to treat carriers equally. Interpreting these terms in light of the 1996 Act's goal of promoting local exchange competition, and the benefits inherent in such competition, we conclude that these terms require incumbent LECs to provide unbundled elements under terms and conditions that would provide an efficient competitor with a meaningful opportunity to compete. Such terms and conditions should serve to promote fair and efficient competition. This means, for example, that incumbent LECs may not provision unbundled elements that are inferior in quality to what the incumbent provides itself because this would likely deny an efficient competitor a meaningful opportunity to compete. We reach this conclusion because providing new entrants, including small entities, with a

meaningful opportunity to compete is a necessary precondition to obtaining the benefits that the opening of local exchange markets to competition is designed to achieve.

229. As is more fully discussed below, to enable new entrants, including small entities, to share the economies of scale, scope, and density within the incumbent LECs' networks, we conclude that incumbent LECs must provide carriers purchasing access to unbundled network elements with the pre-ordering, ordering, provisioning, maintenance and repair, and billing functions of the incumbent LECs operations support systems. (The term ''provisioning'' includes installation.) Moreover, the incumbent must provide access to these functions under the same terms and conditions that they provide these services to themselves or their customers. We discuss specific terms and conditions applicable to the unbundled elements identified in this order below, in Section V.J.

H. The Relationship Between Sections 251(c)(3) and 251(c)(4)

1. Background

230. Section 251(c)(4) provides that incumbent LECs must offer ''for resale at wholesale rates any telecommunications service that the carrier provides at retail to subscribers that are not telecommunications carriers.'' In the NPRM, we asked for comment on the relationship between this provision and section 251(c)(3). Specifically, we asked whether carriers can order and combine network elements to offer the same services that incumbent LECs offer for resale under section 251(c)(4). We observed that different pricing standards under section 252(d) apply to unbundled elements under section 251(c)(3) and resold services under section 251(c)(4), and that section 251(c)(3) contemplates the purchase of unseparated facilities (*i.e.*, facilities that can be used for either inter- or intrastate services) while subsection (c)(4) does not necessarily contemplate this. We asked for comment on the implications or significance of these differences.

2. Discussion

231. The language of section 251(c)(3) is cast exclusively in terms of obligations imposed on incumbent LECs, and it does not discuss, reference, or suggest a limitation or requirement in connection with the right of new entrants to obtain access to unbundled elements. We conclude, therefore, that Congress did not intend section 251(c)(3) to be read to contain any requirement that carriers must own or control some of their own local exchange facilities before they can purchase and use unbundled elements to provide a telecommunications service. We note that the Illinois Commission has reached the same conclusion.

232. We reject the arguments advanced by Bell Atlantic and NYNEX that the language of section 251(c)(3) requires carriers seeking access to unbundled elements to own some local exchange facilities, and that this serves to distinguish section 251(c)(3) from section 251(c)(4). The ''at any technically feasible point'' language in section 251(c)(3) refers to points in an incumbent LEC's network where new entrants may obtain access to elements. It does not, however, require that new entrants interconnect local exchange facilities which they own or control at that technically feasible access point. If we were to conclude otherwise, then new entrants would be prohibited from requesting two network elements that are connected to each other because the new entrant would be required to connect a single network element to a facility of its own. The 1996 Act, however, does not impose any limitations on carriers' ability to obtain access to unbundled network elements. Moreover, we conclude that Congress did not intend to limit access to unbundled elements in this manner because such a limit would seriously inhibit the ability of potential competitors to enter local markets through the use of unbundled elements, and thus would retard the development of local exchange competition. We also reject NYNEX's argument that the phrase ''such telecommunications service'' excludes services provided by the incumbent. This interpretation is inconsistent with the 1996 Act's definition of a telecommunications service, which includes all telecommunications services provided by an incumbent.

233. We also reject the argument that language in the Joint Explanatory Statement requires us to conclude that carriers must own facilities to obtain access to unbundled elements. Congress may have recognized that carriers that own some of their own facilities will more likely benefit by entering local markets through unbundled elements rather than resale, but this consideration does not imply that carriers must own their own facilities to obtain access to unbundled elements.

234. We are not persuaded that, in order to give meaning and effect to section 251(c)(4), we must require new entrants to own some local exchange facilities in order to obtain access to unbundled elements. We disagree with the premise that no carrier would consider entering local markets under the terms of section 251(c)(4) if it could use recombined network elements solely to offer the same or similar services that incumbents offer for resale. We believe that sections 251(c)(3) and 251(c)(4) present different opportunities, risks, and costs in connection with entry into local telephone markets, and that these differences will influence the entry strategies of potential competitors. We therefore find that it is unnecessary to impose a limitation on the ability of carriers to enter local markets under the terms of section 251(c)(3) in order to ensure that section 251(c)(4) retains functional validity as a means to enter local phone markets.

235. The principal distinction between sections 251(c)(3) and 251(c)(4), in terms of the opportunities each section presents to new entrants, is that carriers using solely unbundled elements, compared with carriers purchasing services for resale, will have greater opportunities to offer services that are different from those offered by incumbents. More specifically, carriers reselling incumbent LEC services are limited to offering the same service an incumbent offers at retail. This means that resellers cannot offer services or products that incumbents do not offer. The only means by which a reseller can distinguish the services it offers from those of an incumbent is through price, billing services, marketing efforts, and to some extent, customer service. The ability of a reseller to differentiate its products based on price is limited, however, by the margin between the retail and wholesale price of the product.

236. In contrast, a carrier offering services solely by recombining unbundled elements can offer services that differ from those offered by an incumbent. For example, some incumbent LECs have capabilities within their networks, such as the ability to offer Centrex, which they do not use to offer services to consumers. Carriers purchasing access to unbundled elements can offer such services. Additionally, carriers using unbundled elements can bundle services that incumbent LECs sell as distinct tariff offerings, as well as services that incumbent LECs have the capability to offer, but do not, and can market them as a bundle with a single price. The ability to package and market services in ways that differ from the incumbent's existing service offerings increases the requesting carrier's ability to compete against the incumbent and is likely to

benefit consumers. Additionally, carriers solely using unbundled network elements can offer exchange access services. These services, however, are not available for resale under section 251(c)(4) of the 1996 Act.

237. If a carrier taking unbundled elements may have greater competitive opportunities than carriers offering services available for resale, they also face greater risks. A carrier purchasing unbundled elements must pay for the cost of that facility, pursuant to the terms and conditions agreed to in negotiations or ordered by states in arbitrations. It thus faces the risk that end-user customers will not demand a sufficient number of services using that facility for the carrier to recoup its cost. (Many network elements can be used to provide a number of different services.) A carrier that resells an incumbent LEC's services does not face the same risk. This distinction in the risk borne by carriers entering local markets through resale as opposed to unbundled elements is likely to influence the entry strategies of various potential competitors. Some new entrants will be unable or unwilling to bear the financial risks of entry by means of unbundled elements and will choose to enter local markets under the terms of section 251(c)(4) irrespective of the fact that they can obtain access to unbundled elements without owning any of their own facilities. Moreover, some markets may never support new entry through the use of unbundled elements because new entrants seeking to offer services in such markets will be unable to stimulate sufficient demand to recoup their investment in unbundled elements. Accordingly, in these markets carriers will enter through the resale of incumbent LEC services, irrespective of the fact that they could enter exclusively through the use of unbundled elements.

238. We are not persuaded by the argument set forth by Ameritech, NYNEX, and MFS that allowing carriers to use solely recombined network elements would eviscerate the joint marketing restriction in section 271(e)(1). It is true that the terms of section 271(e) do not restrict joint marketing through the use of unbundled elements pursuant to section 251(c)(3). As discussed above, differences in opportunities and risk will cause some new entrants to consider entering local telephone markets through resale of incumbent LEC services, even if they could enter solely through the use of unbundled elements. Thus, we conclude that section 271(e)(1) will impose a meaningful limitation on joint marketing.

239. We note, moreover, that the 1996 Act does not prohibit all forms of joint marketing. For example, it does not prohibit carriers who own local exchange facilities from jointly marketing local and interexchange service. Nor does it prohibit joint marketing by carriers who provide local exchange service through a combination of local facilities which they own or possess, and unbundled elements. Because the 1996 Act does not prohibit all forms of joint marketing, we see no principled basis for reading into section 271(e)(1) a further limitation on the ability of carriers to jointly market local and long distance services without concluding that this section prohibits all forms of joint marketing. In other words, we see no basis upon which we could conclude that section 271(e)(1) restricts joint marketing of long distance services, and local services provided solely through the use of unbundled network elements, without also concluding that the section restricts the ability of carriers to jointly market long distance services and local services that are provided through a combination of a carriers' own facilities and unbundled network elements. Moreover, we do not believe that we have the discretion to read into the 1996 Act a restriction on competition which is not required by the plain language of any of its sections.

240. We also reject the argument advanced by BellSouth and Ameritech that allowing carriers to use solely unbundled elements to provide services available through resale would allow carriers to evade a possible prohibition, which is reserved to the discretion of the states, on the sale of certain services to certain categories of consumers. Under section 251(c)(4)(B) states are permitted to restrict resellers from offering certain services to certain consumers, in the same manner that states restrict incumbent LECs. For example, states that prohibit incumbent LECs from selling to business consumers residential services priced below cost have the ability to restrict resellers from selling such services to business consumers.

241. We do not believe, however, that carriers using solely unbundled elements to provide local exchange services will be able to evade any potential restrictions states may impose under section 251(c)(4)(B). In this section Congress granted the states the discretion to impose certain limited restrictions on the sale of services available for resale. It did not, however, grant states, in section 251(c)(3), the same discretion to impose similar restrictions on the use of unbundled elements. Accordingly, we are not persuaded that allowing carriers to use solely unbundled elements to provide services that incumbent LECs offer for resale would allow competing carriers to evade a possible marketing restriction that Congress intended to reserve to the discretion of the states.

242. We agree with those commenters who argue that it would be administratively impossible to impose a requirement that carriers must own some of their own local exchange facilities in order to obtain access to unbundled elements, and they must use these facilities, in combination with unbundled elements, for the purpose of providing local services. We conclude that it would not be possible to identify the elements carriers must own without creating incentives to build inefficient network architectures that respond not to marketplace factors, but to regulation. We further conclude that such a requirement could delay possible innovation. These effects would diminish competition for local telephone services, and thus any local exchange facilities requirement would be inconsistent with the 1996 Act's goals of promoting competition. Moreover, if we imposed a facilities ownership requirement that attempted to avoid these competitive pitfalls, it would likely be so easy to meet it would ultimately be meaningless.

243. We reject the argument that requiring carriers to own some local exchange facilities would promote competition for local exchange services, or that we should impose such a requirement for other policy reasons. To the contrary, we conclude that allowing carriers to use unbundled elements as they wish, subject only to the maintenance of the key elements of the access charge regime, described below at section VII, will lead to more efficient competition in local phone markets. If we were to limit access to unbundled network elements to those markets where carriers already own, or could efficiently build, some local exchange facilities, we would limit the ability of carriers to enter local markets under the pricing standard for unbundled elements to those markets that could efficiently support duplication of some or all of the incumbent LECs' networks. We believe that such a result could diminish competition, and that allowing new entrants to take full advantage of incumbent LECs' scale and scope economies will promote more rapid and efficient entry and will result in more robust competition.

244. Finally, we conclude that a new entrant may offer services to one group of consumers using unbundled network elements, and it may offer services to a

separate group of consumers by reselling an incumbent LEC's services. With the exception noted in Section VII, *infra,* we do not address the issue of whether the 1996 Act permits a new entrant to offer services to the same set of consumers through a combination of unbundled elements and services available for resale.

I. Provision of Interexchange Services Through The Use of Unbundled Network Elements

1. Background

245. In the NPRM, we tentatively concluded that interexchange carriers are telecommunications carriers, and thus such carriers are entitled to access to unbundled elements under the terms of section 251(c)(3). We also tentatively concluded that carriers may request unbundled elements for purposes of originating and terminating toll services, in addition to any other services they seek to provide, because section 251(c)(3) provides that carriers may request unbundled elements to provide a ''telecommunications service,'' and interexchange services are a telecommunications service.

246. In the NPRM, we sought comment on whether the 1996 Act permits carriers to use unbundled elements to provide exchange access services only, or whether carriers seeking to provide exchange access services using unbundled elements must provide local exchange service as well. We premised the latter view on the definition of the term ''network element,'' as a facility and not a service, and on the pricing standard under section 252(d)(1) that requires network elements to be priced based on economic costs (rather than jurisdictionally separated costs.) We also sought comment on whether allowing carriers to purchase unbundled elements to provide exchange access services exclusively would be inconsistent with the terms of sections 251(i) and 251(g) and, further, whether this would result in a fundamental jurisdictional shift of the administration of interstate access charges to state jurisdictions.

247. Finally, in the NPRM, we tentatively concluded that, if carriers purchase unbundled elements to provide exchange access services to themselves, irrespective of whether they provide such services alone or in connection with local exchange services, incumbent LECs cannot assess Part 69 access charges in addition to charges for the cost of the unbundled elements. We based this tentative conclusion on the view that the imposition of access charges in addition to cost-based charges for unbundled elements would depart from the statutory mandate of cost-based pricing of elements.

2. Discussion

248. We confirm our tentative conclusion in the NPRM that section 251(c)(3) permits interexchange carriers and all other requesting telecommunications carriers, to purchase unbundled elements for the purpose of offering exchange access services, or for the purpose of providing exchange access services to themselves in order to provide interexchange services to consumers. Although we conclude below that we have discretion under the 1934 Act, as amended by the 1996 Act, to adopt a limited, transitional plan to address public policy concerns raised by the bypass of access charges via unbundled elements, we believe that our interpretation of section 251(c)(3) in the NPRM is compelled by the plain language of the 1996 Act. As we observed in the NPRM, section 251(c)(3) provides that requesting telecommunications carriers may seek access to unbundled elements to provide a ''telecommunications service,'' and exchange access and interexchange services are telecommunications services. Moreover, section 251(c)(3) does not impose restrictions on the ability of requesting carriers ''to combine such elements in order to provide such telecommunications service[s].'' Thus, we find that there is no statutory basis upon which we could reach a different conclusion for the long term.

249. We also confirm our conclusion in the NPRM that, for the reasons discussed below in section V.J, carriers purchase rights to exclusive use of unbundled loop elements, and thus, as the Department of Justice and Sprint observe, such carriers, as a practical matter, will have to provide whatever services are requested by the customers to whom those loops are dedicated. This means, for example, that, if there is a single loop dedicated to the premises of a particular customer and that customer requests both local and long distance service, then any interexchange carrier purchasing access to that customer's loop will have to offer both local and long distance services. That is, interexchange carriers purchasing unbundled loops will most often not be able to provide solely interexchange services over those loops.

250. We reject the argument advanced by a number of incumbent LECs that section 251(i) demonstrates that requesting carriers using unbundled elements must continue to pay access charges. Section 251(i) provides that nothing in section 251 ''shall be construed to limit or otherwise affect the Commission's authority under section 201.'' We conclude, however, that our authority to set rates for these services is not limited or affected by the ability of carriers to obtain unbundled elements for the purpose of providing interexchange services. Our authority to regulate interstate access charges remains unchanged by the 1996 Act. What has potentially changed is the volume of access services, in contrast to the number of unbundled elements, interexchange carriers are likely to demand and incumbent LECs are likely to provide. When interexchange carriers purchase unbundled elements from incumbents, they are not purchasing exchange access ''services.'' They are purchasing a different product, and that product is the right to exclusive access or use of an entire element. Along this same line of reasoning, we reject the argument that our conclusion would place the administration of interstate access charges under the authority of the states. When states set prices for unbundled elements, they will be setting prices for a different product than ''interstate exchange access services.'' Our exchange access rules remain in effect and will still apply where incumbent LECs retain local customers and continue to offer exchange access services to interexchange carriers who do not purchase unbundled elements, and also where new entrants resell local service. The application of our exchange access rules in the circumstances described will continue beyond the transition period described at *infra,* Section VII.

251. We also reject the incumbent LECs' arguments that language contained in bills that were not enacted, or legislative history connected to such bills, demonstrates that carriers cannot purchase access to unbundled elements to provide exchange access services to themselves, for the purpose of providing long distance services to consumers. The incumbent LECs are arguing in effect, that we should read into the current statute a limitation on the ability of carriers to use unbundled network elements, despite the fact that no such limitation survived the Conference Committee's amendments to the 1996 Act. We conclude, however, that the language of section 251(c)(3), which provides that telecommunications carriers may purchase unbundled elements in order to provide a telecommunications service is not ambiguous. Accordingly, we must

interpret it pursuant to its plain meaning and not by referencing earlier versions of the statute that were ultimately not adopted by Congress.

252. Moreover, we do not believe that the Joint Explanatory Statement, which describes the House and Senate versions of the statute, and the 1996 Act as enacted, compels a different conclusion. The Joint Explanatory Statement states that the statute incorporates provisions from the Senate Bill and the House Amendment in connection with the interconnection model adopted in section 251. It notes that the provision in the Senate Bill relating to interconnection did not apply to interconnection arrangements between local and long distance carriers for the purpose of providing long distance services. The text of section 251 of the Senate Bill is consistent with this comment because it states that a local exchange carrier must offer interconnection to other carriers to allow such carriers to provide telephone exchange or exchange access services. The Joint Explanatory Statement, however, does not describe any restriction in the House Amendment regarding the ability of carriers to use unbundled elements to provide long distance service. Indeed, the House Amendment specifically states that carriers may obtain access to unbundled elements to offer ''a telecommunications service,'' which is not limited to telephone exchange and exchange access services. We observe that the Conference Committee incorporated language from the House Amendment and not the Senate Bill in describing in section 251(c)(3) the services carriers may offer using unbundled elements. Accordingly, we do not believe that the Joint Explanatory Statement's description of the provision in the Senate Bill controls our interpretation of section 251(c)(3) as enacted.

253. We also reject the argument that allowing carriers to use unbundled elements to provide originating and terminating toll services is inconsistent with the purposes of the 1996 Act. Congress intended the 1996 Act to promote competition for not only telephone exchange services and exchange access services, but also for toll services. Section 251(b)(3), for example, imposes a duty on LECs to provide dialing parity for telephone toll service.

254. We disagree with the incumbent LECs which argue that section 251(g) requires requesting carriers using unbundled elements to continue to pay federal and state access charges indefinitely. Section 251(g) provides that the federal and state equal access rules applicable before enactment, including the ''receipt of compensation,'' will continue to apply after enactment, ''until such restrictions and obligations are explicitly superseded by regulations prescribed by the Commission after such date of enactment.'' We believe this provision does not apply to the exchange access ''services'' requesting carriers may provide themselves or others after purchasing unbundled elements. Rather, the primary purpose of section 251(g) is to preserve the right of interexchange carriers to order and receive exchange access services if such carriers elect not to obtain exchange access through their own facilities or by means of unbundled elements purchased from an incumbent.

255. We affirm our tentative conclusion in the NPRM that, telecommunications carriers purchasing unbundled network elements to provide interexchange services or exchange access services are not required to pay federal or state exchange access charges except as described in section VII, *infra*, for a temporary period. As we explained in the NPRM, if we were to require indefinitely carriers purchasing unbundled elements to also pay access charges, then incumbent LECs would receive compensation in excess of their underlying network costs. This result would be inconsistent with the pricing standard for unbundled elements set forth in section 252(d)(1). In addition, we believe this conclusion is consistent with Congress's overriding goal of promoting efficient competition for local telephony services, because it will allow, in the long term, new entrants using unbundled elements to compete on the basis of the economic costs underlying the incumbent LECs' networks. The facilities used to provide exchange access services are the same as those used to provide local exchange services. We note, however, as discussed below, (*see infra*, Section VII, discussing an interim mechanism addressing near-term access charge bypass) that certain additional charges are necessary for a specific, limited duration to smooth the transition to a competitive marketplace. We also note that where new entrants purchase access to unbundled network elements to provide exchange access services, whether or not they are also offering toll services through such elements, the new entrants may assess exchange access charges to IXCs originating or terminating toll calls on those elements. In these circumstances, incumbent LECs may not assess exchange access charges to such IXCs because the new entrants, rather than the incumbents, will be providing exchange access services, and to allow otherwise would permit incumbent LECs to receive compensation in excess of network costs in violation of the pricing standard in section 252(d). *See* 47 U.S.C. § 252. We further note, however, that in these same circumstances the new entrant purchasing access to an unbundled switch element must pay to the incumbent LEC the charges included in the transitional mechanism, described *infra*, at Section VII, for a temporary period.

256. We further conclude that when a carrier purchases a local loop for the purpose of providing interexchange services or exchange access services, incumbent LECs may not recover the subscriber line charge (SLC) now paid by end users. (As discussed at *infra*, Section VIII, a different result will occur when interconnecting carriers purchase LEC retail services at wholesale rates under section 251(c)(4).) The SLC recovers the portion of loop costs allocated to the interstate jurisdiction, but as discussed in Section II.C, *supra*, we conclude that the 1996 Act creates a new jurisdictional regime outside of the current separations process. The unbundled loop charges paid by new entrants under section 251(c)(3) will therefore recover the unseparated cost of the loop, including the interstate component now recovered through the SLC. If end users or carriers purchasing access to local loops were required to pay the SLC in this situation, LECs would enjoy double recovery, and the effective price of unbundled loops would exceed the cost-based levels required under section 251(d)(1).

257. Finally, we have considered the economic impact on small incumbent LECs of our conclusion that carriers purchasing access to unbundled network elements to provide interexchange or exchange access services are not required to pay federal or state access charges, except as described in Section VII, *infra*, for a temporary period. For example, the Rural Telephone Coalition argues that rural ratepayers could be subject to higher local service rates if interexchange carriers are allowed to bypass access charges through the purchase of unbundled elements before proceedings regarding access reform and universal service are completed. We reject the Rural Telephone Coalition's argument, however, because our rules, as discussed in Section VII, *infra*, provide for a limited, transitional plan to address public policy concerns raised by the bypass of access charges through unbundled network elements.

J. Specific Unbundling Requirements

258. Having interpreted the standards set forth in the 1996 Act for the unbundling of network elements, we now apply those standards to incumbent LECs' networks. Based on the information developed in this proceeding, we require incumbent LECs to provide unbundled access to local loops, network interface devices, end office and tandem switching, and various interoffice facilities, as described below. These network elements represent a minimum set of elements that must be unbundled by incumbent LECs. State commissions, as previously noted, are free to prescribe additional elements, and parties may agree on different or additional network elements in the voluntary negotiation process.

1. Local Loops

(a) Background

259. In the NPRM, we tentatively concluded that incumbent LECs should be required to unbundle local loops. We sought comment on appropriate requirements for loop unbundling that would promote entry and build upon existing state initiatives, and whether we should adopt specific provisioning requirements for loop unbundling. We also sought comment on our tentative conclusion that incumbent LECs should make available as individual network elements various subloop elements such as the feeder, distribution, and concentration equipment.

(b) Discussion

260. We conclude that incumbent LECs must provide local loops on an unbundled basis to requesting carriers. We note that the Joint Explanatory Statement lists local loops as an example of an unbundled network element. As discussed below, the record demonstrates that it is technically feasible for incumbent LECs to provide access to unbundled local loops, and that such access is critical to encouraging market entry. Further, the competitive checklist contained in section 271 requires BOCs to offer unbundled loops separate from switching as a precondition to entry into the in-region, interLATA services market.

261. Requiring incumbent LECs to make available unbundled local loops will facilitate market entry and improve consumer welfare. Without access to unbundled local loops, new entrants would need to invest immediately in duplicative facilities in order to compete for customers. Such investment and building would likely delay market entry and postpone the benefits of local telephone competition for consumers. Moreover, without access to unbundled loops, new entrants would be required to make a large initial sunk investment in loop facilities before they had a customer base large enough to justify such an expenditure. As of year end 1995, Class A carriers reported $268 billion of total plant in service, of which $229 billion was classified as network plant. Local loop plant comprises approximately $109 billion of total plant in service, which represents 41 percent of total plant in service and 48 percent of network plant. See 1995 ARMIS Report 43–04. This would increase the risk of entry and raise the new entrant's cost of capital. By contrast, the ability of a new entrant to purchase unbundled loops from the incumbent LEC allows the new entrant to build facilities gradually, and to deploy loops for its customers where it is efficient to do so. Moreover, in some areas, the most efficient means of providing competing service may be through the use of unbundled loops. In such cases, preventing access to unbundled loops would either discourage a potential competitor from entering the market in that area, thereby denying those consumers the benefits of competition, or cause the competitor to construct unnecessarily duplicative facilities, thereby misallocating societal resources.

262. Section 251(c)(3) requires incumbent LECs to provide access to unbundled elements ''at any technically feasible point.'' The vast majority of commenters, including incumbent LECs, agree with our tentative conclusion that it is technically feasible to provide access to unbundled local loops, and a number of commenters identify the main distribution frame in a LEC central office as an appropriate access point. Moreover, access to unbundled loops is currently provided by several LECs pursuant to state unbundling requirements. Thus, we conclude that it is technically feasible for incumbent LECs to provide access to unbundled local loops at, for example, a central office distribution frame.

263. We further conclude that the local loop element should be defined as a transmission facility between a distribution frame, or its equivalent, in an incumbent LEC central office, and the network interface device at the customer premises. This definition includes, for example, two-wire and four-wire analog voice-grade loops, and two-wire and four-wire loops that are conditioned to transmit the digital signals needed to provide services such as ISDN, ADSL, HDSL, and DS1-level signals. ISDN (Integrated Services Digital Network) at the Basic Rate Interface level permits the transmission of digital signals over the loop at the rate of 144 kbps, which provides two standard 64 kbps voice or data channels and a 16 kbps data channel. ISDN at the Primary Rate Interface permits 23 standard 64 kbps channels plus one 16 kbps data channel. ADSL (Asynchronous Digital Subscriber Line) is a transmission path that facilitates 6 Mbps digital signal downstream and 640 kbps digital signal upstream, while simultaneously carrying an analog voice signal. Two-wire HDSL (High-bit-rate Digital Subscriber Line) permits the transmission of a 768 kbps digital signal over a copper loop, while four-wire HDSL allows the transmission of 1.544 Mbps over two two-wire pairs. We note that a number of parties proposed definitions of the local loop that encompassed some or all of these loop types. In addition, we agree with ITIC that the ability to offer various digital loop functions in competition with incumbent LECs may be particularly beneficial to small entities by allowing them to serve niche markets.

264. Incumbent LECs are required to provide access to these transmission facilities only to the extent technically feasible. That is, if it is not technically feasible to condition a loop facility to support a particular functionality, the incumbent LEC need not provide unbundled access to that loop so conditioned. For example, a local loop that exceeds the maximum length allowable for the provision of a high-bit rate digital service could not feasibly be conditioned for such service. Such loop conditioning may involve removing load coils or bridged taps that interfere with the transmission of digital signals. Such a situation may necessitate a request for subloop elements. Nevertheless, section 251(c)(3) does not limit the types of telecommunications services that competitors may provide over unbundled elements to those offered by the incumbent LEC.

265. Our definition of loops will in some instances require the incumbent LEC to take affirmative steps to condition existing loop facilities to enable requesting carriers to provide services not currently provided over such facilities. For example, if a competitor seeks to provide a digital loop functionality, such as ADSL, and the loop is not currently conditioned to carry digital signals, but it is technically feasible to condition the facility, the incumbent LEC must condition the loop to permit the transmission of digital signals. Thus, we reject BellSouth's position that requesting carriers ''take the LEC networks as they find them''

with respect to unbundled network elements. As discussed above, some modification of incumbent LEC facilities, such as loop conditioning, is encompassed within the duty imposed by section 251(c)(3). The requesting carrier would, however, bear the cost of compensating the incumbent LEC for such conditioning.

266. We further conclude that incumbent LECs must provide competitors with access to unbundled loops regardless of whether the incumbent LEC uses integrated digital loop carrier technology, or similar remote concentration devices, for the particular loop sought by the competitor. IDLC technology allows a carrier to aggregate and multiplex loop traffic at a remote concentration point and to deliver that multiplexed traffic directly into the switch without first demultiplexing the individual loops. If we did not require incumbent LECs to unbundle IDLC-delivered loops, end users served by such technologies would not have the same choice of competing providers as end users served by other loop types. Further, such an exception would encourage incumbent LECs to ''hide'' loops from competitors through the use of IDLC technology.

267. We find that it is technically feasible to unbundle IDLC-delivered loops. One way to unbundle an individual loop from an IDLC is to use a demultiplexer to separate the unbundled loop(s) prior to connecting the remaining loops to the switch. Commenters identify a number of other methods for separating out individual loops from IDLC facilities, including methods that do not require demultiplexing. Again, the costs associated with these mechanisms will be recovered from requesting carriers.

268. We decline to define a loop element in functional terms, rather than in terms of the facility itself. Some parties advocate defining a loop element as merely a functional piece of a shared facility, similar to capacity purchased on a shared transport trunk. According to these parties, this definition would enable an IXC to purchase a loop element solely for purposes of providing interexchange service. While such a definition, based on the types of traffic provided over a facility, may allow for the separation of costs for a facility dedicated to one end user, we conclude that such treatment is inappropriate. Giving competing providers exclusive control over network facilities dedicated to particular end users provides such carriers the maximum flexibility to offer new services to such end users. In contrast, a definition of a loop element that allows simultaneous access to the loop facility would preclude the provision of certain services in favor of others. For example, carriers wishing to provide solely voice-grade service over a loop would preclude another carrier's provision of a digital service, such as ISDN or ADSL, over that same loop. Digital services such as ISDN and ADSL occupy the same frequency spectrum on a loop as ordinary voice-grade services. We note that these two types of services could be provided by different carriers over, for example, separate two-wire loop elements to the same end user.

269. Incumbent LECs must provide cross-connect facilities, for example, between an unbundled loop and a requesting carrier's collocated equipment, in order to provide access to that loop. As we conclude in section IV.D, above, an incumbent LEC must take the steps necessary to allow a competitor to combine its own facilities with the incumbent LEC's unbundled network elements. We highlight this requirement for unbundled loops because of allegations by competitive providers that incumbent LECs have imposed unreasonable rates, terms, and conditions for such cross-connect facilities in the past. Incumbent LECs may recover the cost of providing such facilities in accordance with our rules on the costs of interconnection and unbundling. Charges for all such facilities must meet the cost-based standard provided in section 252(d)(1), and the terms and conditions of providing these facilities must be reasonable and nondiscriminatory under section 251(c)(3).

270. At this time, we decline to adopt additional terms and conditions, such as the five-minute loop cutover requirement proposed by MFS, for loop provisioning. We agree with commenters who contend that the provisioning of unbundled local loops must be subject to close scrutiny to ensure that incumbent LECs do not delay loop cutover or otherwise complicate the acquisition of loops by a competitor. We conclude, however, that the rules we adopt in the Access to Unbundled Network Elements section that require nondiscriminatory terms and conditions for provisioning, billing, testing, and repair of unbundled elements, and the availability of electronic ordering systems, adequately address these concerns. We will continue to review and revise our rules in this area as necessary.

271. Section 251(d)(2)(A) requires the Commission to consider whether ''access to such network elements as are proprietary in nature is necessary.'' Most parties did not identify any proprietary concerns associated with providing unbundled access to local loops. Ericsson notes that some ''active'' loop equipment, such as channel banks and remote terminal equipment, is often proprietary in nature, and that manufacturers would require time to modify such equipment to create end-to-end network compatibility on a national basis. Ericsson does not contend, however, that any proprietary information would be revealed if loops using such equipment were unbundled, or that use of such equipment should prevent loop unbundling in general. Thus, we conclude that loop elements are, in general, not proprietary in nature under our interpretation of section 251(d)(2)(A). Even if loop elements were proprietary in nature, however, Ericsson does not meet the second consideration in our section 251(d)(2)(A) standard, which requires a showing that a new entrant can offer the proposed telecommunications service through the use of other, nonproprietary elements in the incumbent LEC's network. Ericsson merely contends that manufacturers may need time to establish compatibility between its proprietary equipment and equipment of other manufacturers. Therefore, we find that Ericsson's concerns do not justify withholding unbundled loops from requesting carriers pursuant to section 251(d)(2)(A).

272. Section 251(d)(2)(B) directs the Commission to consider whether ''the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.'' We have interpreted the term ''impair'' to mean either increased cost or decreased service quality that would result from using network elements of the incumbent LEC other than the one sought. Commenters do not identify alternative facilities that would fulfill requesting carriers' need for transmission between the central office and the customer premises at the same cost and same quality of service. Accordingly, we conclude that competitors' ability to provide telephone exchange, exchange access, or other telecommunications services would be significantly impaired if they did not have the opportunity to purchase unbundled loops from incumbent LECs.

273. As a general matter, we believe that subloop unbundling could give competitors flexibility in deploying some portions of loop facilities, while relying on the incumbent LEC's facilities where convenient. For example, a competitor may seek to minimize its reliance on the LEC's

facilities by combining its own feeder plant with the incumbent LEC's distribution plant. In addition, some high bandwidth services, such as ADSL, cannot be provided over long loop lengths. ITIC, Compaq, and Intel assert that subloop unbundling would lead to innovative new data services. In these situations, carriers would need access at points along the loop closer to the customer premises. The record presents evidence primarily of logistical, rather than technical, impediments to subloop unbundling. Several LECs and USTA, for example, assert that incumbent LECs would need to create databases for identifying, provisioning, and billing for subloop elements. Further, incumbent LECs argue that there is insufficient space at certain possible subloop interconnection points. We note that these concerns do not represent ''technical'' considerations under our interpretation of the term ''technically feasible.''

274. Nonetheless, we decline at this time to identify the feeder, feeder/distribution interface (FDI), and distribution components of the loop as individual network elements. We find that proponents of subloop unbundling do not address certain technical issues raised by incumbent LECs concerning subloop unbundling. Incumbent LECs contend that access by a competitor's personnel to loop equipment necessary to provide subloop elements, such as the FDI, raise network reliability concerns for customers served through that FDI. SBC, for example, asserts that access to its loop concentration points by competitors would increase the risk of error by a competitor's technicians that may disrupt service to customers of one or both carriers. U S West contends that the potential for poor technical implementation of subloop interconnection and the lack of overall responsibility for loop performance is very likely to degrade overall service quality. Proponents of subloop unbundling do not adequately respond to these arguments by incumbent LECs. As discussed above, we have determined that we must take into account specific, demonstrable claims regarding network reliability in determining whether to identify any particular component as an element that must be unbundled. Therefore, we believe that, at this stage, based on the current record evidence, the technical feasibility of subloop unbundling is best addressed at the state level on a case-by-case basis at this time. We encourage states to pursue subloop unbundling in response to requests for subloop elements by competing providers. Information developed by the parties in the context of a specific request for subloop unbundling will provide a useful framework for addressing the loop maintenance and network reliability matters that we have identified. Based on actions taken by the states or other future developments, and on the importance of subloop unbundling in light of technological advancements, we intend to revisit the specific issue of subloop unbundling sometime in 1997.

275. We require incumbent LECs to offer unbundled access to the network interface device (NID), as a network element, as described below. The NID is a cross-connect device used to connect loop facilities to inside wiring. When a competitor deploys its own loops, the competitor must be able to connect its loops to customers' inside wiring in order to provide competing service, especially in multi-tenant buildings. In many cases, inside wiring is connected to the incumbent LEC's loop plant at the NID. In order to provide service, a competitor must have access to this facility. Therefore, we conclude that a requesting carrier is entitled to connect its loops, via its own NID, to the incumbent LEC's NID.

276. Pursuant to section 251(c)(3), we find that this arrangement clearly is technically feasible. Ameritech notes that it currently maintains such connections with competitors that have deployed their own loop facilities. This is persuasive evidence that unbundled access at the NID, in this manner, does not raise network reliability concerns. Under section 251(d)(2)(A), the record contains no evidence of proprietary concerns with unbundled access to the NID. In addition, under our interpretation of the ''impair'' test of section 251(d)(2)(B), commenters do not contend that new entrants could obtain the same functionality at the same cost and service quality through other network elements of the incumbent LEC. Moreover, the record indicates that certain network architectures used by new entrants, such as fiber rings, can most efficiently connect end users to the new entrant's switching office without use of the incumbent LEC's facilities. Thus, we conclude that the unavailability of access to incumbent LECs' NIDs would impair the ability of carriers deploying their own loops to provide service. Further, we believe that unbundled access to the NID will facilitate entry strategies premised on the deployment of loops. As discussed in section VII, above, the new entrant bears the costs connecting its NID to the incumbent LEC's NID.

277. We do not require an incumbent LEC to permit a new entrant to connect its loops directly to the incumbent LEC's NID. MCI contends that directly connecting its loops to incumbent LEC's NIDs is ''[t]he only practical solution'' for gaining access to inside wiring. According to MCI, there is no extra wiring to connect the incumbent LEC's NID to the new entrant's NID. Ameritech demonstrates, however, that it currently provides access to inside wiring through the type of arrangement that MCI asserts is not practical—that is, by connecting a new entrant's loops to inside wiring via the new entrant's NID and Ameritech's NID. MCI does not demonstrate that its ability to provide competing service is unreasonably limited by the arrangements explained by Ameritech.

278. The record contains conflicting evidence on the technical feasibility of requiring incumbent LECs to permit competitors to connect their loops directly to incumbent LECs' NIDs. Ameritech asserts that such a direct connection would leave Ameritech's unused loops without overvoltage protection. MCI argues that overvoltage protection is provided through the incumbent LEC's ''protector module'' that is separate from the NID. Ameritech responds that its NIDs are integrated units providing both overvoltage protection and a demarcation point, and that these two functions of the NID are ''inseverable.'' AT&T contends direct access to incumbent LECs NIDs is technically feasible. According to AT&T, if a competitor connects its loops directly to the incumbent LEC's NID, the incumbent LEC's loops remain connected to the grounding equipment that protects against overvoltage. According to AT&T, when the competitor does not use spare terminals on the NID, the competitor would be required to ground the incumbent LEC's unused loops to protect against overvoltage.

279. We find that the record in this proceeding does not permit a determination on the technical feasibility of the direct connection of a competitor's loops to the incumbent LEC's NID. Our requirement of a NID-to-NID connection addresses the most critical need of competitors that deploy their own loops—obtaining access to the inside wiring of the building. We recognize, however, that competitors may benefit by directly connecting their loops to the incumbent LEC's NID, for example, by avoiding the cost of deploying NIDs. States should determine whether direct connection to the NID can be achieved in a technically feasible manner in the context of

specific requests by competitors for direct access to incumbent LECs' NIDs.

2. Switching

(a) Background

280. In the NPRM, we tentatively concluded that incumbent LECs should be required to make available local switching capability as an unbundled network element. We sought comment on how a local switching element should be defined, and we identified two possible models: the switch ''platform'' approach, which would entitle and require a requesting carrier to purchase all of the features and functions of the switch on a per-line basis and the port approach used by the New York Commission, which offers local switching capability through the purchase of a port at a retail rate. We also sought comment on other definitions of a local switching element. In addition, we requested that commenters address whether vertical switching functions, such as those enabling the provision of custom local area signaling service (CLASS) features and call waiting, should be considered individual network elements separate from the basic switching functionality.

(b) Discussion

(i) Local Switching

281. We conclude that incumbent LECs must provide local switching as an unbundled network element. The record supports a finding that it is technically feasible for incumbent LECs to provide access to an unbundled local switching element, and that denying access to a local switching element would substantially impair the ability of many competing carriers to provide switched telecommunications services. We also note that section 271 requires BOCs to offer or provide ''[l]ocal switching unbundled from transport, local loop transmission, or other services'' as a precondition to providing in-region interLATA services. As discussed below, we identify a local switching element that includes the basic function of connecting lines and trunks as well as vertical switching features, such as custom calling and CLASS features. We agree with the Illinois Commission that defining the switching element in this way will permit competitors to compete more effectively by designing new packages and pricing plans.

282. In the United States, there are over 23,000 central office switches, the vast majority of which are operated by incumbent LECs. It is unlikely that consumers would receive the benefits of competition quickly if new entrants were required to replicate even a small percentage of incumbent LECs' existing switches prior to entering the market. The Illinois Commission staff presented evidence in a recent proceeding indicating that it takes between nine months and two years for a carrier to purchase and install a switch. We find this to be persuasive evidence of the entry barrier that would be created if new entrants were unable to obtain unbundled local switching from the incumbent LEC. The ability to purchase unbundled switching will also promote competition in an area until the new entrant has built up a sufficient customer base to justify investing in its own switch. We expect that the availability of unbundled local switching is likely to increase the number of carriers that will successfully enter the market, and thus should accelerate the development of local competition.

283. We define the local switching element to encompass line-side and trunk-side facilities plus the features, functions, and capabilities of the switch. The NPRM used the terms ''switch platform'' and ''port,'' as they had been developed by the Illinois and New York Commissions, respectively, to describe two possible approaches to establishing an unbundled local switching element. Parties commenting on the unbundled switching element attributed a variety of functionalities to each of these terms. To avoid confusion, we will not use these terms in discussing the unbundled local switching element. Instead, we will address commenters' proposals according to the functionality that they recommend be included in the definition of an unbundled local switching element. The line-side facilities include the connection between a loop termination at, for example, a main distribution frame (MDF), and a switch line card. Trunk-side facilities include the connection between, for example, trunk termination at a trunk-side cross-connect panel and a trunk card. The ''features, functions, and capabilities'' of the local switch include the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, trunks to trunks. It also includes the same basic capabilities that are available to the incumbent LEC's customers, such as a telephone number, directory listing, dial tone, signaling, and access to 911, operator services, and directory assistance. Purchasing the local switching element does not entitle a requesting carrier to connect its own AIN call processing database to the incumbent LEC's switch, either directly or via the incumbent LEC's signal transfer point or database. Section V.I.4, which discusses the unbundling of incumbent LECs' signaling systems and databases. We also note that E911 and operator services are further unbundled from local switching. In addition, the local switching element includes all vertical features that the switch is capable of providing, including custom calling, CLASS features, and Centrex, as well as any technically feasible customized routing functions. Thus, when a requesting carrier purchases the unbundled local switching element, it obtains all switching features in a single element on a per-line basis. A requesting carrier will deploy individual vertical features on its customers' lines by designating, via an electronic ordering interface, which features the incumbent LEC is to activate for particular customer lines.

284. We disagree with commenters who argue that vertical switching features should be classified exclusively as retail services, available to competing providers only through the resale provision of section 251(c)(4). The 1996 Act defines network element as ''a facility or equipment used in the provision of a telecommunications service'' and ''the features, functions, and capabilities that are provided by means of such facility or equipment.'' Vertical switching features, such as call waiting, are provided through operation of hardware and software comprising the ''facility'' that is the switch, and thus are ''features'' and ''functions'' of the switch. In some cases vertical features may be provided using hardware and software external to the actual switch. In those instances, the functionality of such external hardware and software is a separate element under section 251(c)(3), and is available to competing providers. We note that the Illinois Commission recently defined an unbundled local switching element to include vertical switching features. Although we find that vertical switching features should be available to competitors through the resale provision of section 251(c)(4), we reject the view that Congress intended for section 251(c)(4) implicitly to remove vertical switching features from the definition of ''network element.'' Therefore, we find that vertical switching features are part of the unbundled local switching element.

285. At this time we decline to require further unbundling of the local switch into a basic switching element and independent vertical feature elements. Such unbundling does not appear to be necessary to promote local competition. Indeed, most potential local competitors do not recommend that vertical switching features be available as

separate network elements. MCI, AT&T and LDDS believe that such features should be available to new entrants as part of the local switch element. We also note that additional unbundling of the local switching would not result in a practical difference in the way the local switching element is provisioned. As discussed below, when a competing provider orders the unbundled basic switching element for a particular customer line, it will designate which vertical features should be activated by the incumbent LEC for that line. In addition, the record indicates that the incremental costs associated with vertical switching features on a per-line basis may be quite small, and may not justify the administrative difficulty for the incumbent LEC or the arbitrator to determine a price for each vertical element. Thus, states can investigate, in arbitration or other proceedings, whether vertical switching features should be made available as separate network elements. We will continue to review and revise our rules in this area as necessary.

286. We conclude that providing access to an unbundled local switching element at a LEC central office is technically feasible. We are not persuaded by the argument that shared use of an unbundled switching element would jeopardize network security and reliability by permitting competitors independently to activate and deactivate various switching features. A competing provider will purchase and obtain the local switching element the same way it obtains an unbundled local loop, that is, by ordering, via electronic interfaces, the local switching element and particular vertical switching features. The incumbent LEC will receive the order and activate (or deactivate) the particular features on the customer line designated by the competing provider. Consequently, the incumbent LEC is not required to relinquish control over operations of the switch.

287. We also reject the argument that a definition of local switching that incorporates shared use of a local switch would involve physical partitioning of the switch. The requirements we establish for local switch unbundling do not entail physical division of the switch, and consequently do not impose the inefficiency or technical difficulties identified by some commenters.

288. Nor are we persuaded by the arguments of some incumbent LECs that an unbundled switching element based on shared use of the local switch is technically infeasible because incumbent LECs lack significant excess capacity at any given time. Initially, many requests for local switching elements from competitors will likely result from the loss of customers by the incumbent LEC. Thus, at least initially, an increase in the use of the local switch element by the requesting carrier is not likely to lead to an enormous, immediate increase in switch use overall. If incumbent LECs and competing providers believe that they would benefit by quantifying their anticipated demand for switch resources, they are free to do so in the negotiation and arbitration processes. Such planning may be necessary when a competitor anticipates that usage of the local switching element by its customers will place demands on the incumbent LEC's switch that exceed the usage levels anticipated by the incumbent LEC.

289. We conclude that customized routing, which permits requesting carriers to designate the particular outgoing trunks that will carry certain classes of traffic originating from the competing provider's customers, is technically feasible in many LEC switches. Customized routing will enable a competitor to direct particular classes of calls to particular outgoing trunks, which will permit a new entrant to self-provide, or select among other providers of, interoffice facilities, operator services, and directory assistance. In addition, we note that the Illinois Commission recently directed Ameritech and Centel to permit a carrier purchasing wholesale local exchange service to designate a provider of operator services and directory assistance other than that of the incumbent LEC. Such access is accomplished through the routing of such calls from the incumbent LEC's switch to the competing provider of the operator service or directory assistance. Bell Atlantic notes that customized routing is generally technically feasible for local calling, although it notes that the technology and capacity constraints vary from switch to switch. SBC contends that customized routing is technically infeasible for older switches, such as the 1AESS switch. AT&T acknowledges that, although the ability to establish customized routing in 1AESS switches may be affected by the ''call load'' in each office, only 9.8% of the switches used by the seven RBOCs, GTE and SNET are 1AESS switches. We recognize that the ability of an incumbent LEC to provide customized routing to a requesting carrier will depend on the capability of the particular switch in question. Thus, our requirement that incumbent LECs provide customized routing as part of the ''functionality'' of the local switching element applies, by definition, only to those switches that are capable of performing customized routing. An incumbent LEC must prove to the state commission that customized routing in a particular switch is not technically feasible.

290. Section 251(d)(2)(A) requires the Commission, in determining which network elements should be made available to competing providers, to consider ''whether access to such network elements as are proprietary in nature is necessary.'' To withhold a proposed network element from a competing provider, an incumbent LEC must demonstrate that the element is proprietary and that gaining access to that element is not necessary because the competing provider can use other, nonproprietary elements in the incumbent LEC's network to provide service. U S West asserts that switch unbundling could raise concerns involving, among other things, ''licensing of intellectual property.'' It cites a request by one interconnector to be the exclusive provider of particular features in U S West's generic switching software. Bell Atlantic states that it is not at liberty to sub-license the software that operates vertical switching features. We note, however, that these incumbent LECs do not object to providing vertical switching functionalities to requesting carriers under the resale provision of section 251(c)(4). In addition, the vast majority of parties that discuss unbundled local switching do not raise proprietary concerns with the unbundling of either basic local switching or vertical switching features. Even if we accept the claim of U S West and Bell Atlantic that vertical features are proprietary in nature, these carriers do not meet the second consideration in our section 251(d)(2)(A) standard, which requires an incumbent LEC to show that a new entrant could offer the proposed telecommunications service through the use of other, nonproprietary elements in the incumbent LEC's network. Accordingly, we find that access to unbundled local switching is clearly ''necessary'' under our interpretation of section 251(d)(2)(A).

291. Section 251(d)(2)(B) directs the Commission to consider whether the failure to provide access to an unbundled element ''would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.'' We have interpreted the term ''impair'' to mean either increased cost or decreased service quality that would result from using network elements of the incumbent LEC other than the one sought. SBC and MFS contend that

access to unbundled local switching may not be essential for new entrants because competitors are likely to deploy their own switches. These parties present no evidence that competitors could provide service using another element in the LEC's network at the same cost and at the same level of quality. In addition, most commenters that address this issue generally argue that local switching is essential for the provision of competing local service, and we agree. We thus conclude that a requesting carrier's ability to offer local exchange services would be impaired, if not thwarted, without access to an unbundled local switching element.

292. Section 251(c)(3) requires that incumbent LECs provide access to unbundled network elements on terms and conditions that are ''just, reasonable, and nondiscriminatory.'' We agree with CompTel and LDDS that new entrants will be disadvantaged if customer switchover is not rapid and transparent. We also note that the Michigan Commission has recognized the significance of customer switchover intervals and has directed Ameritech and GTE to file proposals on how they will ''ensure the equal availability of expeditious processing of local, interLATA, and intraLATA carrier changes.'' Therefore, we require incumbent LECs to switch over customers for local service in the same interval as LECs currently switch end users between interexchange carriers. This requirement applies to switchovers that only require the incumbent LEC to make changes to software. Switchovers that require the incumbent LEC to make physical modifications to its network, such as connecting a competitor's loop to its switch, are not subject to this requirement, and instead are governed by our terms and conditions for all unbundled elements. Today, incumbent LECs routinely change customers' presubscribed interexchange carriers quickly and transparently, thereby contributing to the competitiveness of the interexchange market. We expect that a similar requirement for local exchange switchovers that require only a software change will similarly contribute to local exchange competition.

293. We reject the proposal by some incumbent LECs to define unbundled local switching as the facilities that provide a point of access to the switch, but that would not actually include switching functionality. Under this definition, the purchaser of the local switching element would not actually obtain local switching, only the right to purchase local switching functionality and other switching features at wholesale rates. We believe that the unbundled local switching element must include the functionality of connecting lines and trunks. The definition proposed by these incumbent LECs would contravene the requirement in section 251(c)(3) that incumbent LECs provide network elements ''in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service.'' If a competing provider combined its own loops and transport with the local switching element (''point of access''), it would be unable to provide telecommunications service without separately purchasing, at wholesale rates, switching functionality from the incumbent LEC.

294. We also disagree with the proposal to define local switching as a point of access plus basic switching functionality, but that would exclude vertical switching features. As a legal matter, this definition is inconsistent with the 1996 Act's definition of ''network element,'' which includes all the ''features, functionalities, and capabilities provided by means of such facility or equipment.'' In addition, this definition would not fulfill the pro-competitive objectives of the 1996 Act as effectively as the per-line definition we adopt. A competitor that obtains basic and vertical switching features at cost-based rates will have maximum flexibility to distinguish its offerings from those of the incumbent LEC by developing a variety of service packages and pricing plans. Moreover, an upfront purchase of all local switching features may speed entry by simplifying practical issues such as the pricing of individual switching features.

295. We also address the impact on small incumbent LECs. For example, the Illinois Independent Telephone Association and the Rural Telephone Coalition favor rules that recognize the differences between larger and smaller LECs. We have considered the economic impact of our rules in this section on small incumbent LECs. In this section, for example, we expressly provide for the fact that certain LECs may possess switches that are incapable of performing customized routing for competitors that purchase unbundled local switching. As noted by Rural Telephone Coalition and the Illinois Independent Telephone Coalition, this approach is necessary to accommodate the different technical capabilities of large and small carriers. We also note that section 251(f) of the 1996 Act provides relief for certain small LECs from our regulations under section 251.

(ii) Tandem Switching

296. We also affirm our tentative conclusion in the NPRM that it is technically feasible for incumbent LECs to provide access to their tandem switches unbundled from interoffice transmission facilities. We note that some states already have required incumbent LECs to unbundle tandem switching. Parties do not contend, pursuant to section 251(d)(2)(A), that tandem switches are proprietary in nature. With regard to section 251(d)(2)(B), we find that competitors' ability to provide telecommunications service would be impaired without unbundled access to tandem switching. Therefore, we find that the availability of unbundled tandem switching will ensure that competitors can deploy their own interoffice facilities and connect them to incumbent LECs' tandem switches where it is efficient to do so.

297. We define the tandem switch element as including the facilities connecting the trunk distribution frames to the switch, and all the functions of the switch itself, including those facilities that establish a temporary transmission path between two other switches. The definition of the tandem switching element also includes the functions that are centralized in tandems rather than in separate end office switches, such as call recording, the routing of calls to operator services, and signaling conversion functions.

(iii) Packet Switching

298. At this time, we decline to find, as requested by AT&T and MCI, that incumbent LECs' packet switches should be identified as network elements. Because so few parties commented on the packet switches in connection with section 251(c)(3), the record is insufficient for us to decide whether packet switches should be defined as a separate network element. We will continue to review and revise our rules, but at present, we do not adopt a national rule for the unbundling of packet switches.

3. Interoffice Transmission Facilities

(a) Background

299. In the NPRM, we proposed to require incumbent LECs to make available unbundled transport facilities in a manner that corresponds to the rate structure for interstate transport charges. We specifically proposed to require unbundled access to links between the end office and the serving wire center (SWC), the SWC and the IXC point of presence (POP), the end office and the tandem switch, and the tandem switch and the SWC. We also tentatively

concluded that incumbent LECs should be required to unbundle channel termination facilities for special access from the interoffice facilities. In addition, we requested comment on whether and how other interoffice facilities used by incumbent LECs should be unbundled.

(b) Discussion

300. We conclude that incumbent LECs must provide interoffice transmission facilities on an unbundled basis to requesting carriers. The record supports our conclusion that such access is technically feasible and would promote competition in the local exchange market. We note that the 1996 Act requires BOCs to unbundle transport facilities prior to entering the in-region, interLATA market.

301. We require incumbent LECs to provide unbundled access to shared transmission facilities between end offices and the tandem switch. Further, incumbent LECs must provide unbundled access to dedicated transmission facilities between LEC central offices or between such offices and those of competing carriers. This includes, at a minimum, interoffice facilities between end offices and serving wire centers (SWCs), SWCs and IXC POPs, tandem switches and SWCs, end offices or tandems of the incumbent LEC, and the wire centers of incumbent LECs and requesting carriers. The incumbent LEC must also provide, to the extent discussed below, all technically feasible transmission capabilities, such as DS1, DS3, and Optical Carrier levels (e.g. OC–3/12/48/96) that the competing provider could use to provide telecommunications services. We conclude that an incumbent LEC may not limit the facilities to which such interoffice facilities are connected, provided such interconnection is technically feasible, or the use of such facilities. In general, this means that incumbent LECs must provide interoffice facilities between wire centers owned by incumbent LECs or requesting carriers, or between switches owned by incumbent LECs or requesting carriers. For example, an interoffice facility could be used by a competitor to connect to the incumbent LEC's switch or to the competitor's collocated equipment. We agree with the Texas Commission that a competitor should have the ability to use interoffice transmission facilities to connect loops directly to its switch. We anticipate that these requirements will reduce entry barriers into the local exchange market by enabling new entrants to establish efficient local networks by combining their own interoffice facilities with those of the incumbent LEC.

302. The ability of new entrants to purchase the interoffice facilities we have identified will increase the speed with which competitors enter the market. By unbundling various dedicated and shared interoffice facilities, a new entrant can purchase all interoffice facilities on an unbundled basis as part of a competing local network, or it can combine its own interoffice facilities with those of the incumbent LEC. The opportunity to purchase unbundled interoffice facilities will decrease the cost of entry compared to the much higher cost that would be incurred by an entrant that had to construct all of its own facilities. An efficient new entrant might not be able to compete if it were required to build interoffice facilities where it would be more efficient to use the incumbent LEC's facilities. We recognize that there are alternative suppliers of interoffice facilities in certain areas. We are convinced, however, that entry will be facilitated if competitors have greater, not fewer, options for procuring interoffice facilities as part of their local networks, and that Congress intended for competitors to have these options available from competitors. Thus, the rules we establish for the unbundled interoffice facilities should maximize a competitor's flexibility to use new technologies in combination with existing LEC facilities.

303. We find that it is technically feasible for incumbent LECs to unbundle the foregoing interoffice facilities as individual network elements. The interconnection and unbundling arrangements among the larger LECs, IXCs, and CAPs that resulted from our Expanded Interconnection rules confirm the technical feasibility of unbundling interoffice facilities used by incumbent LECs to provide special access and switched transport. As AT&T and Telecommunications Resellers Association point out, IXCs currently interconnect with incumbent LECs' transport facilities pursuant to standard specifications. We also note that commenters do not identify technical feasibility problems with unbundling interoffice facilities.

304. We also find that it is technically feasible for incumbent LECs to unbundle certain interoffice facilities not addressed in our Expanded Interconnection proceeding. First, we conclude that an incumbent LEC must provide unbundled access to interoffice facilities between its end offices, and between any of its switching offices and a new entrant's switching office, where such interoffice facilities exist. This allows a new entrant to purchase unbundled facilities between two end offices of the incumbent LEC, or between the new entrant's switching office and the incumbent LEC's switching office. Although our Expanded Interconnection rules did not specifically require incumbent LECs to unbundle these facilities, commenters do not identify any potential technical problem with such unbundling. Moreover, some LECs already offer unbundled dedicated interoffice facilities, for example, between their end offices and SWCs for exchange access.

305. In addition, as a condition of offering unbundled interoffice facilities, we require incumbent LECs to provide requesting carriers with access to digital cross-connect system (DCS) functionality. A DCS aggregates and disaggregates high-speed traffic carried between IXCs' POPs and incumbent LECs' switching offices, thereby facilitating the use of cost-efficient, high-speed interoffice facilities. AT&T notes that the BOCs, GTE, and other large LECs currently make DCS capabilities available for the termination of interexchange traffic. We find that the use of DCS functionality could facilitate competitors' deployment of high-speed interoffice facilities between their own networks and LECs' switching offices. Therefore, we require incumbent LECs to offer DCS capabilities in the same manner that they offer such capabilities to IXCs that purchase transport services.

306. We disagree with PacTel's assertion that it is not technically feasible for incumbent LECs to provide DCS functionality to competitors that purchase unbundled interoffice facilities. First, contrary to PacTel's assertion, we do not require incumbent LECs to develop new arrangements for the offering of DCS capabilities to competitors. We only require that DCS capabilities be made available to competitors to the extent incumbent LECs offer such capabilities to IXCs. Second, PacTel suggests the provision of DCS capabilities requires physical partitioning of the DCS equipment in order to prevent carriers from gaining control of each other's traffic. We do not require such partitioning for the provision of DCS capabilities. As noted above, we only require incumbent LECs to permit competitors to use DCS functionality in the same manner that incumbent LECs now permit IXCs to use such functionality.

307. Section 251(d)(2)(A) requires the Commission to consider whether ''access to such network elements as are

proprietary in nature is necessary.'' Commenters do not identify any proprietary concerns relating to the provision of interoffice facilities that LECs are required to unbundle. We also note that many of these facilities are also currently offered on an unbundled basis to competing carriers. Therefore, the record provides no basis for withholding these facilities from competitors based on proprietary considerations.

308. Section 251(d)(2)(B) requires the Commission to consider whether the failure to provide access to an unbundled element ''would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.'' We have interpreted the term ''impair'' to mean either increased cost or decreased service quality that would result from using network elements other than the one sought. Certain commenters contend that unbundled access to these facilities would improve their ability to provide competitive local exchange and exchange access service. MCI, for example, argues that its inability to obtain unbundled access to trunks between an incumbent LEC's end offices raises its cost of providing local service. Accordingly, we conclude that the section 251(d)(2)(B) requires incumbent LECs to provide access to shared interoffice facilities and dedicated interoffice facilities between the above-identified points in incumbent LECs' networks, including facilities between incumbent LECs' end offices, new entrant's switching offices and LEC switching offices, and DCSs. We believe that access to these interoffice facilities will improve competitors' ability to design efficient network architecture, and in particular, to combine their own switching functionality with the incumbent LEC's unbundled loops.

309. We reject Cincinnati Bell's argument that existing tariffs for transport and special access services filed pursuant to our Expanded Interconnection rules fulfill our obligation to implement the requirements of section 251(c). First, the Expanded Interconnection rules require the unbundling of interstate transport services only by Class A carriers whereas section 251(c) requires network unbundling by all incumbent LECs, except for carriers that are exempt under section 251(f) from our interconnection rules. Consequently, some non-Class A carriers that were not subject to our Expanded Interconnection requirements will be required to comply with the requirements of this Order. Second, we find that the Class A carriers' existing tariffs for unbundled transport elements do not satisfy the unbundling requirement of section 251(c), as suggested by Cincinnati Bell, because such tariffs are only for interstate access services, not for unbundled interoffice facilities. As such, existing federal tariffs for transport and special access exclude intrastate transport, and therefore are not equivalent to unbundled interoffice facilities, which we have determined to be nonjurisdicational in nature.

310. We also disagree with MECA, GTE, and Ameritech that we should consider ''pricing distortions'' in adopting rules for unbundled interoffice facilities. Section, below, addresses the pricing of unbundled network elements identified pursuant to section 251(c)(3) as it relates to our current access charge rules. Nor are we are persuaded by MECA's argument that incumbent LECs not subject to the MFJ should not be required to unbundle transport facilities because, according to MECA, such facilities are unnecessary for local competition. As discussed above, the ability of a new entrant to obtain unbundled access to incumbent LECs' interoffice facilities, including those facilities that carry interLATA traffic, is essential to that competitor's ability to provide competing telephone service.

311. We do not impose specific terms and conditions for the provision of unbundled interoffice facilities. We believe that the rules we establish in this Order for all unbundled network elements adequately address ALTS's concern regarding the provisioning, billing, and maintenance of unbundled transport facilities. We also decline at this time to address the unbundling of incumbent LECs' ''dark fiber.'' Parties that address this issue do not provide us with information on whether dark fiber qualifies as a network element under sections 251(c)(3) and 251(d)(2). Therefore, we lack a sufficient record on which to decide this issue. We will continue to review and revise our rules in this area as necessary.

312. Rural Telephone Coalition contends that incumbent LECs should not be required to construct new facilities to accommodate new entrants. We have considered the economic impact of our rules in this section on small incumbent LECs. In this section, for example, we expressly limit the provision of unbundled interoffice facilities to existing incumbent LEC facilities. We also note that section 251(f) of the 1996 Act provides relief for certain small LECs from our regulations under section 251.

4. Databases and Signaling Systems

a. Background

(1) NPRM

313. In the NPRM, we tentatively concluded that incumbent LECs should be required to unbundle access to their signaling systems and databases as network elements. We asked commenters to identify points at which carriers interconnect with SS7 networks today, as well as the technical feasibility of establishing other points of access and interconnection. We also asked commenters to identify those signaling and database functions currently provided by incumbent LECs on an unbundled basis, and other functions not currently offered by incumbent LECs, that the parties believe should be offered on an unbundled basis.

314. In the NPRM, we noted the possibility that competitors that provide local exchange service using resold incumbent LEC services or unbundled elements might want to connect an alternative call processing database to the incumbent LEC's SS7 network in order to offer services and features not available through the incumbent LEC's own SS7 network databases.

315. We also sought comment on unbundling access to the Advanced Intelligent Network (AIN), and referenced our separate Intelligent Networks proceeding which deals with related issues. We sought comment on whether to unbundle access to AIN facilities and functionalities.

(2) SS7 Signaling Network Technology

316. Signaling systems facilitate the routing of telephone calls between switches. Most LECs employ signaling networks that are physically separate from their voice networks, and these ''out-of-band'' signaling networks simultaneously carry signaling messages for multiple calls. In general, most LECs' signaling networks adhere to a Bellcore standard Signaling System 7 (SS7) protocol.

317. SS7 networks use signaling links to transmit routing messages between switches, and between switches and call-related databases. A typical SS7 network includes a signaling link, which transmits signaling information in packets, from a local switch to a signaling transfer point (STP), which is a high-capacity packet switch. The STP switches packets onto other links according to the address information contained in the packet. These additional links extend to other switches, databases, and STPs in the LEC's network. A switch routing a call to another switch will initiate a series of signaling messages via signaling links

through an STP to establish a call path on the voice network between the switches.

318. As mentioned above, the SS7 network also employs signaling links (via STPs) between switches and call-related databases, such as the Line Information Database (LIDB), Toll Free Calling (*i.e.*, 800, 888 number) database, and AIN databases. These links enable a switch to send queries via the SS7 network to call-related databases, which return customer information or instructions for call routing to the switch.

319. From the perspective of a switch in a LEC network, the databases discussed above merely supply information or instructions. Updating or populating the information in such databases, however, takes place through a separate process involving different equipment. Carriers input information directly into a service management system (SMS), which in turn downloads such information into the individual databases.

320. The Advanced Intelligent Network (AIN) is a network architecture that uses distributed intelligence in centralized databases to control call processing and manage network information, rather than performing those functions at every switch. An AIN-capable switch halts call progress when a resident software ''trigger'' is activated, and uses the SS7 network to access intelligent databases, known as Service Control Points (SCPs), that contain service software and subscriber information, for instruction on how to route, monitor, or terminate the call. AIN is being used in the deployment of number portability, wireless roaming, and such advanced services as same number service (i.e., 500 number service) and voice recognition dialing. AIN services are designed and tested in an off-line computer known as a Service Creation Environment (SCE). Once a service is successfully tested, the software is transferred to an SMS that administers and supports SCP databases in the network. The SMS then regularly downloads software and information to an SCP where interaction with the voice network takes place via the signaling links and STPs discussed above.

b. Discussion

321. In the interconnection section above, we conclude that the exchange of signaling information between LECs necessary to exchange traffic and access call related databases was included within the interconnection obligation of section 251(c)(2). We emphasize below, such exchange of signaling information does not include the exchange of AIN signaling information between networks for the purpose of providing AIN messages to the incumbent LEC's switch from a competitor's SCP database. Thus, notwithstanding any obligations under section 251(c)(3), incumbent LECs are required to accept and provide signaling in accordance with the exchange of traffic between interconnecting networks. We conclude that this exchange of signaling information may occur through an STP-to-STP interconnection.

(1) Signaling Links and STP

322. We conclude that incumbent LECs, upon request, must provide nondiscriminatory access to their signaling links and STPs on an unbundled basis. We believe it is technically feasible for incumbent LECs to provide such access, and that such access is critical to entry in the local exchange market. Further, the 1996 Act requires BOCs to provide ''nondiscriminatory access to databases and associated signaling necessary for call routing and completion'' as a precondition for entry into in-region interLATA services. Thus, it appears that Congress contemplated the unbundling of signaling systems as network elements.

323. We conclude that access to unbundled signaling links and STPs is technically feasible. The majority of commenters, including incumbent LECs, agree that it is technically feasible to provide unbundled access to signaling links and STPs. Parties note that incumbent LECs and signaling aggregators already provide such access. In addition, several state commissions already require incumbent LECs to provide unbundled elements of SS7 networks. Because of the screening role played by the STP and associated network reliability concerns that were raised in the record, however, we do not require that incumbent LECs permit requesting carriers to link their own STPs directly to the incumbent's switch or call-related databases. We take a deliberately conservative approach here because of significant evidence in the record and we note that mere conclusory objections to technical feasibility would not alone be sufficient evidence.

324. Under section 251(d)(2)(A), the Commission must consider whether access to proprietary network elements is necessary. Commenters did not identify proprietary concerns with signaling protocols for the SS7 network. Moreover, in general, SS7 signaling networks adhere to Bellcore standards, rather then LEC-specific protocols and provide seamless interconnectivity between networks. Thus, we conclude that the unbundling of signaling links and STPs does not present proprietary concerns with respect to the incumbent LEC.

325. Under section 251(d)(2)(B), the Commission must consider whether ''the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.'' Access to signaling systems continues to be a critical element to providing competing local exchange and exchange access service. The vast majority of calls made over incumbent LEC networks are set-up and controlled by separate signaling networks. Incumbent LECs argue that access to signaling systems and associated databases is already available from other providers and therefore, they should not have to unbundle them for access by competitors. As discussed above, section 251(d)(2)(B) only relieves an incumbent LEC of its unbundling obligation if other unbundled elements in its network could provide the same service without diminution of quality. Because alternative signaling methods, such as in-band signaling, would provide a lower quality of service, we conclude that a competitor's ability to provide service would be significantly impaired if it did not have access to incumbent LECs' unbundled signaling links and STPs.

326. The purchase of unbundled elements of the SS7 network gives the competitive provider the right to use those elements for signaling between its switches (including unbundled switching elements), between its switches and the incumbent LEC's switches, and between its switches and those third party networks with which the incumbent LEC's SS7 network is interconnected. When a competitive provider purchases unbundled switching from the incumbent LEC, the incumbent LEC must provide nondiscriminatory access to its SS7 network from that switch in the same manner in which it obtains such access itself. Carriers that provide their own switching facilities should be able to access the incumbent LEC's SS7 network for each of their switches via a signaling link between their switch and an incumbent LEC's STP. Competitive carriers should be able to make this connection in the same manner as an incumbent LEC connects one of its own switches to the STP. This could be accomplished by the incumbent providing an unbundled signaling link from its STP to the competitor's switch or by a competitor bringing a signaling

link from its switch to the incumbent LEC's STP.

(2) Call-Related Databases

327. We conclude that incumbent LECs, upon request, must provide nondiscriminatory access on an unbundled basis to their call-related databases for the purpose of switch query and database response through the SS7 network. Query and response access to a call-related database is intended to require the incumbent LEC only to provide access to its call-related databases as is necessary to permit a competing provider's switch (including the use of unbundled switching) to access the call-related database functions supported by that database. The incumbent LEC may mediate or restrict access to that necessary for the competing provider to provide such services as are supported by the database. Thus, for example, we find that it is technically feasible for incumbent LECs to provide access to the Line Information Database (LIDB), the Toll Free Calling Database and Number Portability downstream databases. The vast majority of parties, including incumbent LECs, agree that it is technically feasible to provide access to the LIDB and the Toll Free Calling databases at an STP linked to the database. Several state commissions also report that they have ordered incumbent LECs' to provide such access to the LIDB and the Toll Free Calling databases. We require incumbent LECs to provide this access to their call-related databases by means of physical access at the STP linked to the unbundled database. We find that such access is critical to entry in the local exchange market.

328. We conclude that it is not technically feasible to unbundle the SCP from its associated STP. We note that the overwhelming majority of commenters contend that it is not technically feasible to access call-related databases in a manner other than by connection at the STP directly linked to the call-related database. Parties argue that the STP is designed to provide mediation and screening functions for the SS7 network that are not performed at the switch or database. We, therefore, emphasize that access to call-related databases must be provided through interconnection at the STP and that we do not require direct access to call-related databases.

329. Several commenters also identified access to call-related databases used in the incumbent's AIN to be critical to fair competition in the local market, and some state commissions have ordered incumbent LECs to provide access to AIN databases. We conclude that such access is technically feasible via an STP for those call-related databases used in the incumbent LEC's AIN. First, of course, when a new entrant purchases an incumbent's local switching element it is technically feasible for the new entrant to use the incumbent's SCP element in the same manner, and via the same signaling links, as the incumbent itself. Thus, we find no technical impediments in the record with regard to such access when a requesting carrier is also purchasing a local switching element associated with the AIN call-related database.

330. Further, we conclude that when a new entrant deploys its own switch, and links it to the incumbent LEC's signaling system, it is technically feasible for the incumbent to provide access to the incumbent's SCP to provide AIN-supported services to customers served by the new entrant's switch. Some SS7 network services resellers currently provide such access. Other potential local competitors present additional evidence supporting the technical feasibility of such access. Unlike the situation where a competitor's SCP would control the incumbent's switch (which is discussed below in section V.I.4.c.(4)), in this scenario, the incumbent's SCP will respond to and control the competitor's switch, and potential competitors that have commented in the record do not express network reliability concerns with regard to such control. Further, like the software resident in a switch, the incumbent LEC's applications resident in an SCP are merely part of the overall software and hardware making up the SCP facility. Thus, carriers purchasing access under either scenario above may use the incumbent's service applications in addition to their own.

311. Although we conclude that access to incumbent AIN SCPs is technically feasible, we agree with BellSouth that such access may present the need for mediation mechanisms to, among other things, protect data in incumbent AIN SCPs and ensure against excessive traffic volumes. In addition, there may be mediation issues a competing carrier will need to address before requesting such access. Mediation may be necessary for requesting carriers to ensure that inadvertent feature interactions, network management control and customer privacy concerns do not arise from such access. Accordingly, if parties are unable to agree to appropriate mediation mechanisms through negotiations, we conclude that during arbitration of such issues the states (or the Commission acting pursuant to section 252(e)(5)) must consider whether such mediation mechanisms will be available and will adequately protect against intentional or unintentional misuse of the incumbent's AIN facilities. We encourage incumbent LECs and competitive carriers to participate in industry fora and industry testing to resolve outstanding mediation concerns. Incumbent LECs may establish reasonable certification and testing programs for carriers proposing to access AIN call related databases in a manner similar to those used for SS7 certification.

332. We recognize that providing unbundled access to AIN call-related databases at cost, and in particular providing access to the incumbent LEC's software applications that reside in the AIN databases, may reduce the incumbent's incentive to develop new and advanced services using AIN. In the near term, however, requiring entrants to bear the cost of deploying a fully redundant network architecture, including AIN databases and their application software, would constitute a significant barrier to market entry for competitive carriers. As local service markets develop, however, competition may reduce the incumbent LEC's control over bottleneck facilities and increase the importance of innovation. In those circumstances it is important that incumbent LECs have the incentive to develop unique and innovative services supported by AIN. Therefore at a later date, we will revisit the proper balance between providing unbundled access and maintaining the incentives of incumbent LECs to innovate.

333. Parties generally do not identify proprietary concerns when access to call-related databases is provided via STPs. In general, signaling protocols used to access call-related databases adhere to open Bellcore standards. Parties also do not raise proprietary concerns with specific call-related databases themselves. Today, many separate carriers access incumbent LEC Toll Free Calling and LIDB databases for the proper routing and billing of calls. Thus, we conclude that, in general, unbundled access to call-related databases does not present proprietary concerns with respect to section 251(d)(2)(A). Incumbent LECs may, however, present such proprietary concerns in the arbitration process with regard to specific databases, and states (or the Commission acting pursuant to section 252(e)(5)) may take action to limit unnecessary access to proprietary information.

334. We also conclude that denying access to call-related databases would

impair the ability of a competing provider to offer services such as Alternative Billing Services and AIN-based services. AIN-based services represent the cutting edge of telephone exchange services, and competitors would be at a significant disadvantage if they were forced to develop their own AIN capability immediately. In addition, the record indicates that deployment of call-related databases in the near term would represent a substantial cost to new entrants. As mentioned above, incumbent LECs argue that access to certain call-related databases is already competitively available and therefore they should not have to unbundle access to them. As discussed above, however, section 251(d)(2)(B) would only relieve an incumbent LEC of its unbundling obligation if other unbundled elements in its network could provide the same service without diminution of quality. Because of the absence of such elements, we conclude that a competitor's ability to provide service would be significantly impaired if it did not have unbundled access to incumbent LECs' call-related databases, including the LIDB, Toll Free Calling, AIN, and number portibility downstream databases for the purpose of switch query and database response through the SS7 network.

335. We also conclude that access to call-related databases as discussed above, and access to the service management system discussed below, must be provided to, and obtained by, requesting carriers in a manner that complies with section 222 of the Act. Section 222, which was effective upon adoption, sets out requirements for privacy of customer information. Section 222(a) provides that all telecommunications carriers have a duty to protect the confidentiality of proprietary information of other carriers, including resellers, equipment manufacturers, and customers. Section 222(b) requires that telecommunications carriers that use proprietary information obtained from another telecommunications carrier in providing any telecommunications service ''shall use that information only for such purpose, and shall not use such information for its own marketing purposes.'' Sections 222 (c) and (d) provide protection for, and limitations on the use of, and access to, customer proprietary network information (CPNI). We note that we have initiated a proceeding to clarify the obligations of carriers with regard to sections 222 (c) and (d).

(3) Service Management Systems

336. Finally, we conclude that incumbent LECs should provide access, on an unbundled basis, to the service management systems (SMS), which allow competitors to create, modify, or update information in call-related databases. We believe it is technically feasible for incumbent LECs to provide access to the SMS in the same manner and method that they provide for their own access. We find that such access is necessary for competitors to effectively use call-related databases, which we have already found to be critical to entry in the local exchange market.

337. Commenters argue that they need equal access to incumbent LECs' SMSs to write or populate their own information in call-related databases. As discussed above, information bound for many call-related databases is entered first at an off-line SMS, which then downloads the information to the call-related database for real time use on the network. We find that competing provider access to the SMS is technically feasible if it is provided in the same or equivalent manner that the incumbent LEC currently uses to provide such access to itself. For example, if the incumbent LEC inputs information into the SMS using magnetic tapes, the competitive carrier must be able to create and submit magnetic tapes for the incumbent to input into the SMS in the same way the incumbent inputs its own magnetic tapes. If the incumbent accesses the SMS through an electronic interface, the competitive carrier should be able to access the SMS through an equivalent electronic interface. We further conclude that, whatever method is used, the incumbent LEC must provide the competing carrier with the information necessary to correctly enter or format for entry the information relevant for input into the particular incumbent LEC SMS.

338. Specifically with respect to AIN, we find that the record in the *Intelligent Networks* proceeding supports access to the SMS. A competing carrier seeking access to the SMS that is part of the incumbent LEC's AIN would do so through the incumbent LEC's service creation environment (SCE), an interface used to design, create, and test AIN supported services. Software successfully tested in the SCE is transferred to the SMS, where it is then downloaded into an SCP database for active deployment on the network. We are persuaded that the risk of harm to the public switched network from such access to the SMS is minimized by the technical safeguards inherent in the SCE and SMS. As described in comments filed in the *Intelligent Networks* docket, competitors accessing the SCE and SMS would not communicate directly with the LEC's database or switch. We therefore conclude that such access is technically feasible, and that incumbent LECs should provide requesting carriers with the same access to design, create, test, and deploy AIN-based services at the SMS that the incumbent LEC provides for itself. While many incumbent LECs express concerns with the technical feasibility of access to AIN, we conclude that those concerns deal primarily with the interconnection of third party AIN SCP databases to the incumbent LEC's AIN and not access to the SCE and SMS.

339. We recognize that, although technically feasible, providing nondiscriminatory access to the SMS and SCE for the creation and deployment of AIN services may require some modifications, including appropriate mediation, to accommodate such access by requesting carriers. We note that BellSouth is currently prepared to tariff and offer such access to third parties, and other incumbent LECs, including Bell Atlantic and Ameritech, indicate that they have made significant progress towards implementing such access. Therefore, if parties are unable to agree to appropriate mediation mechanisms through negotiations, we conclude that during arbitration of such issues the states (or the Commission acting pursuant to section 252(e)(5)) must consider whether such mediation mechanisms will be available and will adequately protect against intentional or unintentional misuses of the incumbent's AIN facilities. We again encourage incumbent LECs and competitive carriers to participate in industry fora and industry testing to resolve outstanding mediation concerns.

340. Parties did identify some proprietary concerns regarding access to the SCE and SMS used in the incumbent LEC's AIN. Some incumbent LECs contend that the interface used at the SCE is proprietary in nature. GVNW argues that specific AIN-based services designed by carriers should be proprietary in nature. Competitors correctly argue that AIN can be used, not only for telecommunication services traditionally supported by the switch, but as a means to deploy advanced services not otherwise possible. We find that competing providers without access to AIN would be at a significant disadvantage to incumbent LECs, because they could not necessarily offer the same services to the customer. This access will help competing providers without imposing costs on incumbent

LECs because the entrants will pay the cost. We therefore conclude, under section 251(d)(2)(A), that access to AIN, including those elements that may be proprietary, is necessary for successful entry into the local service market.

341. Most parties generally did not identify proprietary concerns with access to those SMSs used other than for AIN. Some parties, however, argue that there are proprietary interfaces used to enter information into various databases. Competing carriers counter that competitive providers would not need to have direct access to the proprietary methods of data entry used by incumbent LECs, and as a result we conclude that the unbundled access to SMSs used for other than AIN does not present proprietary concerns with respect to section 251(d)(2)(A).

342. We also conclude that unbundled access to all SMSs is necessary for a competing provider to effectively use unbundled call-related databases. We find that the inability of competing carriers to use the SMS in the same manner that an incumbent LEC uses to input data itself would impair the ability of a competing carrier to effectively offer services to its customers using unbundled call-related databases. Commenters in the record point out that access to call-related databases alone would not allow the competing carrier to provide such services to its customers without access to an SMS. We also conclude that AIN-based services are important to a new entrant's ability to compete effectively for customers with the incumbent LEC, and in developing new business by introducing new AIN based services. Thus we conclude that a competitor's ability to provide service would be significantly impaired if it did not have unbundled access to an incumbent LEC's SMS, including access to the SMS(s) used to input data to the LIDB, Toll Free Calling, Number Portability and AIN call-related databases.

343. We reject the contention by several incumbent LECs that signaling and database access was meant by the 1996 Act to apply only to such access as is necessary for call routing and completion. Although the competitive checklist for BOC entry into in-region interLATA services under section 271 requires ''nondiscriminatory access to databases and associated signaling necessary for call routing and completion'' the definition of a network element is more comprehensive in scope. A network element as defined by the 1996 Act includes ''databases'' and in particular ''databases sufficient for billing and collection or used in the transmission, routing, or *other* provision of a telecommunications service.'' We find that the inclusion of ''other provision of a telecommunications service'' meant Congress intended the unbundling of databases to be read broadly and could include databases beyond those directly used in the transmission or routing of a telecommunications service.

(4) Third Party Call-Related Databases

344. We find that there is not enough evidence in the record to make a determination as to the technical feasibility of interconnection of third party call-related databases to the incumbent LEC's signaling system. Some parties argue that such interconnection, including the interconnection of third party AIN SCP databases, would allow them to provide more efficient or advanced call processing and services to customers, thereby increasing their ability to compete with the incumbent LEC. AT&T and MCI specifically argue that it would be technically feasible for them to interconnect their AIN SCP database to an incumbent LEC's AIN for the purpose of providing call processing instructions to the incumbent LEC's switch. Incumbent LECs contend that such interconnection would leave their switch vulnerable to a multitude of potential harms because sufficient mediation for such interconnection does not currently exist at the STP or SCP and has not yet been developed. AT&T counters that there is no need for additional mediation and that sufficient certification and testing of AIN based services before deployment in such a fashion is technically feasible.

345. At this time, in view of this record and the record compiled in the *Intelligent Networks* docket, we cannot make a determination of the technical feasibility of such interconnection. We do, however, believe that state commissions could find such an arrangement to be technically feasible and we do not intend to preempt such an order through these rules. The Illinois Commission recently ordered access to incumbent LECs' AIN that does allow for this type of interconnection. We intend to address this issue early in 1997, either in the IN docket or in a subsequent phase of this proceeding, taking into account, *inter alia*, any relevant decisions of state commissions.

346. We also address the impact on small incumbent LECs. For example, GVNW asserts that any national rule requiring this form of interconnection would require many small incumbent LECs to make uneconomic upgrades of their switches in order to accommodate it. We have considered the economic impact of our rules in this section on small incumbent LECs. Accordingly, we have not adopted any national standards concerning AIN at this time. We also note that section 251(f) provides relief for certain small LECs from our regulations implementing section 251.

5. Operation Support Systems

a. Background

347. We sought comment, in the NPRM, on whether national requirements for electronic ordering interfaces would reduce the time and resources required for new entrants to enter and compete in regional markets. We also sought comment on the unbundling of databases generally in our discussion on unbundling database and signaling systems.

b. Discussion

348. We conclude that operations support systems and the information they contain fall squarely within the definition of ''network element'' and must be unbundled upon request under section 251(c)(3), as discussed below. Congress included in the definition of ''network element'' the terms ''databases'' and ''information sufficient for billing and collection or used in the transmission, routing, *or other provision* of a telecommunications service.'' We believe that the inclusion of these terms in the definition of ''network element'' is a recognition that the massive operations support systems employed by incumbent LECs, and the information such systems maintain and update to administer telecommunications networks and services, represent a significant potential barrier to entry. It is these systems that determine, in large part, the speed and efficiency with which incumbent LECs can market, order, provision, and maintain telecommunications services and facilities. Thus, we agree with Ameritech that ''[o]perational interfaces are essential to promote viable competitive entry.''

349. Nondiscriminatory access to operations support systems functions can be viewed in at least three ways. First, operations support systems themselves can be characterized as ''databases'' or ''facilit[ies] * * * used in the provision of a telecommunications service,'' and the functions performed by such systems can be characterized as ''features, functions, and capabilities that are provided by means of such facilit[ies].'' Second, the information contained in, and processed by operations support systems can be classified as

''information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.'' Third, nondiscriminatory access to the functions of operations support systems, which would include access to the information they contain, could be viewed as a ''term or condition'' of unbundling other network elements under section 251(c)(3), or resale under section 251(c)(4). Thus, we conclude that, under any of these interpretations, operations support systems functions are subject to the nondiscriminatory access duty imposed by section 251(c)(3), and the duty imposed by section 251(c)(4) to provide resale services under just, reasonable, and nondiscriminatory terms and conditions.

350. Much of the information maintained by these systems is critical to the ability of other carriers to compete with incumbent LECs using unbundled network elements or resold services. Without access to review, *inter alia,* available telephone numbers, service interval information, and maintenance histories, competing carriers would operate at a significant disadvantage with respect to the incumbent. Other information, such as the facilities and services assigned to a particular customer, is necessary to a competing carrier's ability to provision and offer competing services to incumbent LEC customers. Finally, if competing carriers are unable to perform the functions of pre-ordering, ordering, provisioning, maintenance and repair, and billing for network elements and resale services in substantially the same time and manner that an incumbent can for itself, competing carriers will be severely disadvantaged, if not precluded altogether, from fairly competing. Thus providing nondiscriminatory access to these support systems functions, which would include access to the information such systems contain, is vital to creating opportunities for meaningful competition.

351. As noted in the comments above, several state commissions have ordered real-time access or have ongoing proceedings working to develop and implement it within their jurisdictions. The New York Commission, building on its pioneering experience with the Rochester Telephone ''Open Market Plan,'' has facilitated a working group on electronic interfaces comprised of both incumbent LECs and potential competitors. The New York Commission focused on these issues in response to the frustrations and concerns of resellers in the Rochester market. In particular, AT&T alleged that it was ''severely disadvantaged due to the fact that [Rochester Telephone] has failed to provide procedures for resellers to access [their] databases for on-line queries needed to perform basic service functions [such] as scheduling customer appointments.'' The New York Commission has concluded that wherever possible NYNEX will provide new entrants with real-time electronic access to its systems. As another example, the Georgia Commission recently ordered BellSouth to provide electronic interfaces such that resellers have the same access to operations support systems and informational databases as BellSouth does, including interfaces for pre-ordering, ordering and provisioning, service trouble reporting, and customer daily usage. In testimony before the Georgia Commission, a BellSouth witness acknowledged that ''[n]o one is happy, believe me, with a system that is not fully electronic.'' As noted above, Georgia ordered BellSouth to establish these interfaces within two months of its order (by July 15, 1996), but recently extended the deadline an additional month (to August 15th). Both the Illinois and Indiana Commissions ordered incumbent LECs immediately to provide to competitors access to operational interfaces at parity with those provided to their own retail customers, or submit plans with specific timetables for achieving such access. Several other states have passed laws or adopted rules ordering incumbent LECs to provide interfaces for access equal to that the incumbent provides itself. We recognize the lead taken by these states and others, and we generally rely upon their conclusions in this Order.

352. We conclude that providing nondiscriminatory access to operations support systems functions is technically feasible. Incumbent LECs today provide IXCs with different types of electronic ordering or trouble interfaces that demonstrate the feasibility of such access, and perhaps also provide a basis for adapting such interfaces for use between local service providers. Further, as discussed above, several incumbent LECs, including NYNEX and Bell Atlantic, are already testing and operating interfaces that support limited functions, and are developing the interfaces to support access to the remaining functions identified by most potential competitors. Some incumbent LECs acknowledge that nondiscriminatory access to operations support systems functions is technically feasible. Finally, several industry groups are actively establishing standards for inter-telecommunications company transactions.

353. Section 251(d)(2)(A) requires the Commission to consider whether ''access to such network elements as are proprietary in nature is necessary.'' Incumbent LECs argue that there are proprietary interfaces used to access these databases and information. Parties seeking to compete with incumbent LECs counter that access to such databases and information is vitally important to the ability to broadly compete with the incumbent. As discussed above, competitors also argue that such access is necessary to order, provision, and maintain unbundled network elements and resold services, and to market competing services effectively to an incumbent LEC's customers. We find that it is absolutely necessary for competitive carriers to have access to operations support systems functions in order to successfully enter the local service market.

354. Section 251(d)(2)(B) requires the Commission to consider whether ''the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.'' As mentioned above, parties identified access to operations support systems functions as critical to the provision of local service. We find that such operations support systems functions are essential to the ability of competitors to provide services in a fully competitive local service market. Therefore, we conclude that competitors' ability to provide service successfully would be significantly impaired if they did not have access to incumbent LECs' operations support systems functions.

355. We thus conclude that an incumbent LEC must provide nondiscriminatory access to their operations support systems functions for pre-ordering, ordering, provisioning, maintenance and repair, and billing available to the LEC itself. We adopt the definition of these terms as set forth in the *AT&T-Bell Atlantic Joint Ex Parte* as the minimum necessary for our requirements. We note, however, that individual incumbent LEC's operations support systems may not clearly mirror these definitions. Nevertheless, incumbent LECs must provide nondiscriminatory access to the full range of functions within pre-ordering, ordering, provisioning, maintenance and repair and billing enjoyed by the incumbent LEC. Such nondiscriminatory access necessarily includes access to the functionality of

any internal gateway systems the incumbent employs in performing the above functions for its own customers. For example, to the extent that customer service representatives of the incumbent have access to available telephone numbers or service interval information during customer contacts, the incumbent must provide the same access to competing providers. Obviously, an incumbent that provisions network resources electronically does not discharge its obligation under section 251(c)(3) by offering competing providers access that involves human intervention, such as facsimile-based ordering.

356. We recognize that, although technically feasible, providing nondiscriminatory access to operations support systems functions may require some modifications to existing systems necessary to accommodate such access by competing providers. Although, as discussed above, many incumbent LECs are actively developing these systems, even the largest and most advanced incumbent LECs have not completed interfaces that provide such access to all of their support systems functions. State commissions such as Georgia, Illinois, and Indiana, however, have ordered that such access be made available to requesting carriers in the near term. As a practical matter, the interfaces developed by incumbents to accommodate nondiscriminatory access will likely provide such access for services and elements beyond a particular state's boundaries, and thus we believe that requirements for such access by a small number of states representing a cross-section of the country will quickly lead to incumbents providing access in all regions.

357. In all cases, however, we conclude that in order to comply fully with section 251(c)(3) an incumbent LEC must provide, upon request, nondiscriminatory access to operations support systems functions for pre-ordering, ordering, provisioning, maintenance and repair, and billing of unbundled network elements under section 251(c)(3) and resold services under section 251(c)(4). Incumbent LECs that currently do not comply with this requirement of section 251(c)(3) must do so as expeditiously as possible, but in any event no later than January 1, 1997. We believe that the record demonstrates that incumbent LECs and several national standards-setting organizations have made significant progress in developing such access. This progress is also reflected in a number of states requiring competitor access to these transactional functions in the near term. Thus, we believe that it is reasonable to expect that by January 1, 1997, new entrants will be able to compete for end user customers by obtaining nondiscriminatory access to operations support systems functions.

358. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, RTC urges us to recognize the differences between carriers in regards to computerized network administration and operational interfaces. Our requirement of nondiscriminatory access to operations support systems recognizes that different incumbent LECs possess different existing systems. We also note, however, that section 251(f) of the 1996 Act provides relief for certain small LECs from our regulations implementing section 251.

359. Ideally, each incumbent LEC would provide access to support systems through a nationally standardized gateway. Such national standards would eliminate the need for new entrants to develop multiple interface systems, one for each incumbent. We believe that the progress made by standards-setting organizations to date evidences a strong national movement toward such a uniform standard. For example, both AT&T and Bell Atlantic agree that, given appropriate guidance from the Commission, the industry can achieve consensus on national standards such that within 12 months 95% of all inter-telecommunications company transactions may be processed via nationally standardized electronic gateways.

360. In order to ensure continued progress in establishing national standards, we propose to monitor closely the progress of industry organizations as they implement the rules adopted in this proceeding. Depending upon the progress made, we will make a determination in the near future as to whether our obligations under the 1996 Act require us to issue a separate notice of proposed rulemaking or take other action to guide industry efforts at arriving at appropriate national standards for access to operations support systems.

6. Other Network Elements

a. Background

361. In the NPRM, we requested comment on other network elements the Commission should require incumbent LECs to unbundle. We tentatively concluded that ''subscriber numbers'' and ''operator call completion services'' should be unbundled. We also, under our discussion of section 251(b)(3), sought comment on nondiscriminatory access to telephone numbers, operator services, and directory assistance.

b. Discussion

(1) Operator Services and Directory Assistance

362. We conclude that incumbent LECs are under the same duty to permit competing carriers nondiscriminatory access to operator services and directory assistance as all LECs are under section 251(b)(3). We further conclude that, if a carrier requests an incumbent LEC to unbundle the facilities and functionalities providing operator services and directory assistance as separate network elements, the incumbent LEC must provide the competing provider with nondiscriminatory access to such facilities and functionalities at any technically feasible point. We believe that these facilities and functionalities are important to facilitate competition in the local exchange market. Further, the 1996 Act imposes upon BOCs, as a condition of entry into in-region interLATA services the duty to provide nondiscriminatory access to directory assistance services and operator call completion services. We therefore conclude that unbundling facilities and functionalities providing operator services and directory assistance is consistent with the intent of Congress.

363. As discussed in our section on nondiscriminatory access under section 251(b)(3), the provision of nondiscriminatory access to operator services and directory assistance must conform to the requirements of section 222, which restricts carrier's use of CPNI. In particular, access to directory assistance and underlying directory information does not require incumbent LECs to provide access to unlisted or unpublished telephone numbers, or other information that the incumbent LEC's customer has requested the LEC not to make available. In conforming to section 222, we anticipate that incumbent LECs will provide such access in a manner that will protect against the inadvertent release of unlisted customer names and numbers.

364. We note that several competitors advocate unbundling the facilities and functionalities providing operator services and directory assistance from particular resold services or the unbundled local switching element, so that a competing provider can provide these services to its customers supported by its own systems rather than those of the incumbent LEC. Some incumbent LECs argue that such unbundling, however, is not technically feasible because of their inability to

route individual end user calls to multiple systems. We find that unbundling both the facilities and functionalities providing operator services and directory assistance as separate network elements will be beneficial to competition and will aid the ability of competing providers to differentiate their service from the incumbent LECs. We also note that the Illinois Commission has recently ordered such access. We therefore find that incumbent LECs must unbundle the facilities and functionalities providing operator services and directory assistance from resold services and other unbundled network elements to the extent technically feasible. As discussed above in our section on unbundled switching, we require incumbent LECs, to the extent technically feasible, to provide customized routing, which would include such routing to a competitor's operator services or directory assistance platform.

365. We also note that some competitors seek access to operator services and directory assistance in order to serve their own customers. Some of these parties argue that nondiscriminatory access to such network elements requires incumbent LECs to provide rebranded operator call completion services and directory assistance to the competing carrier's customers. Incumbent LECs argue that the provision of these services on an unbranded or rebranded basis is not technically feasible because of their inability at the operator services or directory assistance platforms to identify the carrier serving the end user. As we concluded in our discussion on section 251(b)(3), we find that incumbent LECs must permit nondiscriminatory access to both operator services and directory assistance in the same manner required of all LECs. We make no finding on the technical feasibility of providing branded or unbranded service to competitors based on the record before us. We note, however, that the Illinois Commission has ordered incumbent LECs to provide rebranded operator call completion services and directory assistance to requesting competitive carriers.

366. As discussed above, incumbent LECs must provide access to databases as unbundled network elements. We find that the databases used in the provision of both operator call completion services and directory assistance must be unbundled by incumbent LECs upon a request for access by a competing provider. In particular, the directory assistance database must be unbundled for access by requesting carriers. Such access must include both entry of the requesting carrier's customer information into the database, and the ability to read such a database, so as to enable requesting carriers to provide operator services and directory assistance concerning incumbent LEC customer information. We clarify, however, that the entry of a competitor's customer information into an incumbent LEC's directory assistance database can be mediated by the incumbent LEC to prevent unauthorized use of the database. We find that the arrangement ordered by the California Commission concerning the shared use of such a database by Pacific Bell and GTE is one possible method of providing such access.

367. Section 251(d)(2)(A) requires the Commission to consider whether ''access to such network elements as are proprietary in nature is necessary.'' Parties generally did not identify proprietary concerns with unbundling access to operator call completion services or directory assistance. Incumbent LECs generally did not claim a proprietary interest in their directory assistance databases. Many parties contend that proprietary interests leading to restrictions on use or sharing of such database information would injure their ability to compete effectively for local service. For the reasons described below, we find that access to the systems supporting both operator call completion services and directory assistance is necessary for new entrants to provide competing local exchange service.

368. Section 251(d)(2)(B) requires the Commission to consider whether ''the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.'' Parties identified access to operator call completion services and directory assistance as critical to the provision of local service. Therefore we conclude that competitors' ability to provide service would be significantly impaired if they did not have access to incumbent LEC's operator call completion services and directory assistance.

(2) Subscriber Numbers

369. Some commenters argue that the Commission should require incumbent LECs to unbundle access to subscriber numbers. We conclude that no Commission action under section 251(b)(3) is required at this time to ensure nondiscriminatory access to subscriber numbers. Issues regarding access to subscriber numbers will be addressed by our implementation of section 251(e).

VI. Methods of Obtaining Interconnection and Access to Unbundled Elements

370. In this section, we address the means of achieving interconnection and access to unbundled network elements that incumbent LECs are required to make available to requesting carriers.

A. Overview

1. Background

371. Section 251(c)(2) requires incumbent LECs to provide interconnection with the LEC's network ''for the facilities and equipment of any requesting telecommunications carrier.'' Section 251(c)(6) imposes upon incumbent LECs ''the duty to provide * * * for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the premises of the [LEC], except that the carrier may provide for virtual collocation if the [LEC] demonstrates to the State commission that physical collocation is not practical for technical reasons or because of space limitations.'' In the NPRM, we noted that section 251(c)(6) does not expressly limit the Commission's authority under section 251(c)(2) to establish rules requiring incumbent LECs to make available a variety of methods of interconnection, except in situations where the incumbent can demonstrate to the State commission that physical collocation is not practical for technical reasons or space limitations. We tentatively concluded that the Commission has the authority to require any reasonable method of interconnection, including physical collocation, virtual collocation, and meet point interconnection arrangements. Under the Commission's *Expanded Interconnection* rules, LECs are not required to offer a collocating carrier a choice between physical and virtual collocation. *Special Access Order,* 57 FR 54323 (November 18, 1992); *Switched Transport Order,* 58 FR 48756 (September 17, 1993); *see also Physical Collocation Designation Order,* 8 FCC Rcd 4589 (under our *Expanded Interconnection* rules, LECs must provide virtual collocation where: virtual collocation is available on an intrastate basis; a LEC has negotiated an interstate virtual collocation arrangement; LECs are exempted from providing physical collocation because of space constraints; or a state commission has granted a waiver). Also, *see* Section VI.B.1.b. regarding the

definitions of physical and virtual collocation.

2. Discussion

372. We conclude that, under sections 251(c)(2) and 251(c)(3), any requesting carrier may choose any method of technically feasible interconnection or access to unbundled elements at a particular point. Section 251(c)(2) imposes an interconnection duty at any technically feasible point; it does not limit that duty to a specific method of interconnection or access to unbundled elements.

373. Physical and virtual collocation are the only methods of interconnection or access specifically addressed in section 251. Under section 251(c)(6), incumbent LECs are under a duty to provide physical collocation of equipment necessary for interconnection unless the LEC can demonstrate that physical collocation is not practical for technical reasons or because of space limitations. In that event, the incumbent LEC is still obligated to provide virtual collocation of interconnection equipment. Under section 251, the only limitation on an incumbent LEC's duty to provide interconnection or access to unbundled elements at any technically feasible point is addressed in section 251(c)(6) regarding physical collocation. Unless a LEC can establish that the specific technical or space limitations in subsection (c)(6) are met with respect to physical collocation, we conclude that incumbent LECs must provide for any technically feasible method of interconnection or access requested by a competing carrier, including physical collocation. If, for example, we interpreted section 251(c)(6) to limit the means of interconnection available to requesting carriers to physical and virtual collocation, the requirement in section 251(c)(2) that interconnection be made available ''at any technically feasible point'' would be narrowed dramatically to mean that interconnection was required only at points where it was technically feasible to collocate equipment. We are not pursuaded that Congress intended to limit interconnection points to locations only where collocation is possible.

374. Section 251(c)(6) provides the Commission with explicit authority to mandate physical collocation as a method of providing interconnection or access to unbundled elements. Such authority was previously found lacking by the U.S. Court of Appeals for the D.C. Circuit in *Bell Atlantic* v. *FCC, (Bell Atlantic Telephone Companies* v. *FCC*, 24 F.3d 1441 (D.C. Cir. 1994) (Bell Atlantic v. FCC)), which was decided prior to enactment of the 1996 Act. While section 251(c)(6) limits an incumbent LEC's duty to provide physical collocation in certain circumstances, we find that it does not limit our authority to require, under sections 251 (c)(2) and (c)(3), the provision of virtual collocation. We note that under our *Expanded Interconnection* rules, that were amended subsequent to the Bell Atlantic decision, competitive entrants using physical collocation were required by many incumbent LECs to convert to virtual collocation. If the Commission concluded that subsection (c)(6) places a limitation on our authority to require virtual collocation, competitive providers would be required to undertake costly and burdensome actions to convert back to physical collocation even if they were satisfied with existing virtual collocation arrangements. We conclude that Congress did not intend to impose such a burden on requesting carriers that wish to continue to use virtual collocation for purposes of section 251(c). Further, the record indicates that this requirement would be costly and would delay competition. In short, we conclude that, in enacting section 251(c)(6), Congress intended to expand the interconnection choices available to requesting carriers, not to restrict them.

375. We also conclude that requiring incumbent LECs to provide virtual collocation and other technically feasible methods of interconnection or access to unbundled elements is consistent with Congress' desire to facilitate entry into the local telephone market by competitive carriers. In certain circumstances, competitive carriers may find, for example, that virtual collocation is less costly or more efficient than physical collocation. We believe that this may be particularly true for small carriers which lack the financial resources to physically collocate equipment in a large number of incumbent LEC premises. Moreover, since requesting carriers will bear the costs of other methods of interconnection or access, this approach will not impose an undue burden on the incumbent LECs.

376. Consistent with this view, other methods of technically feasible interconnection or access to incumbent LEC networks, such as meet point arrangements, in addition to virtual and physical collocation, must be available to new entrants upon request. *See* Teleport comments at 26–30; *see also* Washington Utilities and Transportation Commission, *Fourth Supplemental Order Rejecting Tariff Filings and Ordering Refiling;* Granting Complaints, in Part, (Washington Commission Oct. 31, 1995), Docket No. UT–941464, at 45; *Application of Electric Lightwave, Inc., MFS Intelnet of Oregon, Inc., and MCI Metro Access Transmission Services, Inc.,* Public Utility Commission of Oregon Order, Order No. 96–021, (Oregon Commission Jan. 12, 1996), at 68–69; *Rules for Telecommunications Interconnection and Unbundling,* Arizona Corporation Commission Order, Decision No. 59483, (Arizona Commission Jan. 11, 1996), Proposed Rule R14–2–1303 (Attachment E hereto). Meet point arrangements (or mid-span meets), for example, are commonly used between neighboring LECs for the mutual exchange of traffic, and thus, in general, we believe such arrangements are technically feasible. The Michigan Commission recently required Ameritech to provide meet point interconnection. Michigan Public Service Commission, Case No. U–10860 (Michigan June 5, 1996) at 18 n.4. Further, although the creation of meet point arrangements may require some build out of facilities by the incumbent LEC, we believe that such arrangements are within the scope of the obligations imposed by sections 251(c)(2) and 251(c)(3). In a meet point arrangement, the ''point'' of interconnection for purposes of sections 251(c)(2) and 251(c)(3) remains on ''the local exchange carrier's network'' (*e.g.*, main distribution frame, trunk-side of the switch), and the limited build-out of facilities from that point may then constitute an accommodation of interconnection. In a meet point arrangement each party pays its portion of the costs to build out the facilities to the meet point. We believe that, although the Commission has authority to require incumbent LECs to provide meet point arrangements upon request, such an arrangement only makes sense for interconnection pursuant to section 251(c)(2) but not for unbundled access under section 251(c)(3). New entrants will request interconnection pursuant to section 251(c)(2) for the purpose of exchanging traffic with incumbent LECs. In this situation, the incumbent and the new entrant are co-carriers and each gains value from the interconnection arrangement. Under these circumstances, it is reasonable to require each party to bear a reasonable portion of the economic costs of the arrangement. In an access arrangement pursuant to section 251(c)(3), however, the interconnection point will be a part of the new entrant's network and will be used to carry traffic from one element in the new entrant's network to another. We conclude that in a section 251(c)(3)

access situation, the new entrant should pay all of the economic costs of a meet point arrangement. Regarding the distance from an incumbent LEC's premises that an incumbent should be required to build out facilities for meet point arrangements, we believe that the parties and state commissions are in a better position than the Commission to determine the appropriate distance that would constitute the required reasonable accommodation of interconnection.

377. Finally, in accordance with our interpretation of the term ''technically feasible,'' we conclude that, if a particular method of interconnection is currently employed between two networks, or has been used successfully in the past, a rebuttable presumption is created that such a method is technically feasible for substantially similar network architectures. Moreover, because the obligation of incumbent LECs to provide interconnection or access to unbundled elements by any technically feasible means arises from sections 251(c)(2) and 251(c)(3), we conclude that incumbent LECs bear the burden of demonstrating the technical infeasibility of a particular method of interconnection or access at any individual point.

B. Collocation

1. Collocation Standards

a. Adoption of National Standards

(1) Background

378. In the NPRM we tentatively concluded that we should adopt national rules for virtual and physical collocation. This tentative conclusion was based on the belief that national standards would help to speed the development of competition. We also sought comment on specific national standards that we might adopt, and on whether any specific state approaches would serve as an appropriate model.

(2) Discussion

379. We conclude that we should adopt explicit national rules to implement the collocation requirements of the 1996 Act. We find that specific rules defining minimum requirements for nondiscriminatory collocation arrangements will remove barriers to entry by potential competitors and speed the development of competition. Our experience in the *Expanded Interconnection* proceeding indicates that incumbent LECs have an economic incentive to interpret regulatory ambiguities to delay entry by new competitors. Our review of the LECs' initial physical and virtual collocation tariffs raised significant concerns regarding the implementation of our *Expanded Interconnection* requirements and resulted in the designation of numerous issues for investigation. The Commission has not yet reached decisions on most of these issues, though it has found that certain rates for virtual collocation were unlawful. We and the states should therefore adopt, to the extent possible, specific and detailed collocation rules. We find, however, that states should have flexibility to apply additional collocation requirements that are otherwise consistent with the 1996 Act and our implementing regulations.

b. Adoption of *Expanded Interconnection* Terms and Conditions for Physical and Virtual Collocation Under Section 251

(1) Background

380. In our *Expanded Interconnection* proceeding, we required LECs to offer expanded interconnection to all interested parties, which allowed competitors and end users to terminate their own special access and switched transport access transmission facilities at LEC central offices. *Expanded Interconnection with Local Telephone Company Facilities, First Report and Order,* 57 FR 54323 (November 18, 1992) (*Special Access Order*), *vacated in part and remanded, Bell Atlantic, 24 F.3d 1441 (1994); First Reconsideration,* 57 FR 62481 (December 31, 1992); *vacated in part and remanded, Bell Atlantic,* 24 F.3d 1441; *Second Reconsideration,* 58 FR 48752 (September 17, 1993); *Second Report and Order,* 58 FR 48756 (September 17, 1993) (*Switched Transport Order*), *vacated in part and remanded, Bell Atlantic Telephone Cos.,* v. *FCC,* 24 F.3d 1441; *Remand Order,* 9 FCC Rcd 5154 (1994) (*Virtual Collocation Order), remanded for consideration of 1996 Act, Pacific Bell, et al.* v. *FCC,* 81 F.3d 1147 (1996) (collectively referred to as *Expanded Interconnection*). Interstate access is a service traditionally provided by local telephone companies and enables IXCs and other customers to originate and terminate interstate telephone traffic. Special access is a form of interstate access that uses dedicated transmission lines between two points, without switching the traffic on those lines. Switched transport is another form of interstate access comprising the transmission of traffic between interexchange carriers' (or other customers') points of presence and local telephone companies' end offices, where the traffic is switched and routed to end users. We required Tier 1 LECs to offer physical collocation, with the interconnecting party paying the LEC for central office floor space. (Tier 1 LECs are local exchange carriers having $100 million or more in ''total company annual regulated revenues.'' *Commission Requirements for Cost Support Material to be Filed with 1990 Annual Access Tariffs,* 5 FCC Rcd 1364, 1364 (Com. Car. Bur. 1990)). We required that LECs provide space to interested parties on a first-come first-served basis, and that they provide virtual collocation when space for physical collocation is exhausted. Under virtual collocation, interconnectors are allowed to designate central office transmission equipment dedicated to their use, as well as to monitor and control their circuits terminating in the LEC central office. Interconnectors, however, do not pay for the incumbent's floor space under virtual collocation arrangements and have no right to enter the LEC central office. Under our virtual collocation requirements, LECs must install, maintain, and repair interconnector-designated equipment under the same intervals and with the same or better failure rates for the performance of similar functions for comparable LEC equipment.

381. In the *Expanded Interconnection* proceeding, we required the LECs to file tariffs to implement our virtual and physical collocation requirements. Our initial review of the LECs' tariffs raised significant concerns regarding the LECs' provision of physical and virtual collocation. Consequently, the Bureau partially suspended the rates proposed by many of the LECs and allowed these rates to take effect subject to investigation and an accounting order.

382. In 1994, the U.S. Court of Appeals for the District of Columbia Circuit found that the FCC lacked the authority under section 201 of the 1934 Communications Act to require physical collocation and remanded all other issues to the Commission. *Bell Atlantic* v. *FCC,* 24 F.3d 1441. On remand, we adopted rules for both special access and switched transport that required LECs to provide either virtual or physical collocation, at the LECs' option. Those rules currently are in place, although the court of appeals remanded the *Remand Order* to us to consider the impact of the 1996 Act on those rules. *Pacific Bell et al.* v. *FCC,* 81 F.3d 1147 (D.C. Cir. 1996). As discussed below, we find that the 1996 Act does not supplant or otherwise alter our *Expanded Interconnection* rules for interstate interconnection services provided pursuant to section 201 of the Communications Act. In the 1996 Act, Congress specifically directed

incumbent LECs to provide physical collocation for interconnection and access to unbundled network elements, absent technical or space constraints, pursuant to section 251(c)(6) of the Communications Act.

383. We sought comment in the NPRM on whether, for purposes of implementing physical and virtual collocation under section 251, we should readopt the standards set out in our *Expanded Interconnection* proceeding and, if so, how to adapt those standards to reflect the new statutory requirements and other policy considerations of the 1996 Act.

(2) Discussion

384. We conclude that we should adopt the existing *Expanded Interconnection* requirements, with some modifications, as the rules applicable for collocation under section 251. Those rules were established on the basis of an extensive record in the *Expanded Interconnection* proceeding, and are largely consistent with the requirements of section 251(c)(6). Adoption of those requirements for purposes of collocation under section 251, moreover, has substantial support in the record of this proceeding. Thus, the standards established for physical and virtual collocation in our *Expanded Interconnection* proceeding will generally apply to collocation under section 251. The most significant requirements of *Expanded Interconnection* are specifically set out in rules we adopt here. We address pricing and rate structure issues separately, in section VII below.

385. We find, however, that certain modifications to our *Expanded Interconnection* requirements are necessary to account for specific provisions of section 251(c)(6) and service arrangements that differ from those contemplated in our *Expanded Interconnection* orders. For example, the *Expanded Interconnection* requirements apply to Tier 1 LECs that are not NECA pool members, and section 251 applies to ''incumbent LECs,'' though there is an exemption for certain rural carriers. *Expanded Interconnection* also allows end-users to interconnect their equipment, while section 251 requires that interconnection and access to unbundled network elements be provided to ''any requesting telecommunications carrier.'' Accordingly, we set forth below several modifications to the terms and conditions for collocation as they are described in our *Expanded Interconnection* orders for application in implementing section 251. We believe that, in light of the expedited statutory time frame for this rulemaking and limited record addressing the specific terms and conditions for collocation under section 251 in this proceeding, it would be impractical and imprudent to develop a large number of new substantive collocation requirements in this order. We may consider the need for additional or different requirements in a subsequent proceeding, if we determine that such action is warranted.

386. The most significant difference between the *Expanded Interconnection* rules and the collocation rules we adopt to implement the 1996 Act concerns the collocation tariffing requirement. As discussed below, the 1996 Act does not require that collocation be federally tariffed. We thus do not adopt, under section 251, the *Expanded Interconnection* tariffing requirements originally adopted under section 201 for physical and virtual collocation. The existing tariffing requirements of *Expanded Interconnection* for interstate special access and switched transport will continue to apply for use by customers that wish to subscribe to those interstate services.

387. We reject SBC's contention that we may not adopt any terms and conditions in this proceeding that differ from those in the *Expanded Interconnection* proceeding. SBC argues that Congress intended, in section 251(c)(6), to use the term ''physical collocation'' as a term of art, and thereby to adopt wholesale the terms and conditions for physical collocation that the Commission adopted in the *Expanded Interconnection* proceeding. A variety of terms and conditions for physical collocation are possible and section 251(c)(6) makes no reference to the Commission's decisions on these issues in the *Expanded Interconnection* proceeding. If Congress had intended to readopt those rules wholesale without permitting the Commission any flexibility in the matter, we believe that Congress would have been more explicit rather than merely using the phrase ''physical collocation.'' Thus, we believe that we can and should modify our preexisting standards, as set forth below, for purposes of implementing the provisions of section 251(c)(6). In the following sections (c.–i.) we address comments filed by interested parties concerning application of our existing *Expanded Interconnection* requirements for purposes of collocation under section 251. (In a number of instances, we decline to adopt proposals for modifications to our *Expanded Interconnection* requirements.)

388. Finally, our experience reviewing the tariffs that incumbent LECs filed to implement our requirements for physical and virtual collocation suggests that rates, terms, and conditions under which incumbent LECs propose to provide these arrangements pursuant to section 251(c)(6) bear close scrutiny. We strongly urge state commissions to be vigilant in their review of such arrangements. Some areas our investigations have found problematic in the past include channel assignment, letters of agency, charges for repeaters, and placement of point-of-termination bays. We will review this issue and revise our requirements as necessary.

c. The Meaning of the Term ''Premises''

(1) Background

389. In the *Expanded Interconnection* proceeding, we required collocation at end offices, serving wire centers, and tandem switches, as well as at remote distribution nodes and any other points that the LEC treats as a ''rating point.'' A rating point is a point used in calculating the length of interoffice special access links. Section 251(c)(6) requires physical collocation ''at the premises of the local exchange carrier.'' In the NPRM, we tentatively concluded that the term ''premises'' includes, in addition to LEC central offices and tandem offices, all buildings or similar structures owned or leased by the incumbent LEC that house LEC network facilities. We sought comment on whether structures that house LEC network facilities on public rights-of-way, such as vaults containing loop concentrators or similar structures, should be deemed to be LEC ''premises.''

(2) Discussion

390. The 1996 Act does not address the definition of premises, nor is the term discussed in the legislative history. Therefore, we look to the purposes of the 1996 Act and general uses of the term ''premises'' in other contexts in order to define this term for purposes of section 251(c)(6). The term ''premises'' is defined in varying ways, according to the context in which it is used. In light of the 1996 Act's procompetitive purposes, we find that a broad definition of the term ''premises'' is appropriate in order to permit new entrants to collocate at a broad range of points under the incumbent LEC's control. A broad definition will allow collocation at points other than those specified for collocation under the existing *Expanded Interconnection* requirements. We find that this result is

appropriate because the purposes of physical and virtual collocation under section 251 are broader than those established in the *Expanded Interconnection* proceeding. We therefore interpret the term ''premises'' broadly to include LEC central offices, serving wire centers and tandem offices, as well as all buildings or similar structures owned or leased by the incumbent LEC that house LEC network facilities. We also treat as incumbent LEC premises any structures that house LEC network facilities on public rights-of-way, such as vaults containing loop concentrators or similar structures.

391. As discussed below, we conclude that section 251(c)(6) requires collocation only where technically feasible. In light of this conclusion, we find that adoption of a definition of ''premises'' that depends on whether interconnection or access to unbundled network elements at a particular point is ''technically feasible,'' as suggested by Ameritech and Pacific Telesis, would be superfluous. We also conclude that it is not appropriate to adopt a definition of ''premises,'' as suggested by several parties, that is dependent on whether it is ''practical'' to collocate equipment at a particular point. We note however, that neither physical nor virtual collocation is required at points where not technically feasible. We therefore decline to adopt specific requirements regarding collocation at particular points in the LEC network, as suggested by GVNW and others. Because collocation is only required where technically feasible, the approach we here adopt will enable competitors to take advantage of opportunities to collocate equipment without imposing undue burdens on incumbent LECs, whether large or small.

392. We also address the impact on small incumbent LECs. For example, the Rural Tel. Coalition asks that interconnection and collocation points be established in a flexible manner. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, we do not adopt rigid requirements for locations where collocation must be provided. Incumbent LECs are not required to physically collocate equipment in locations where not practical for technical reasons or because of space limitations, and virtual collocation is required only where technically feasible. We also note, however, that section 251(f) of the 1996 Act provides relief to certain small LECs from our regulations implementing section 251.

d. Collocation Equipment

(1) Background

393. In the *Expanded Interconnection* proceeding, we allowed collocation for central office equipment needed to terminate basic transmission facilities between LEC central offices and third-party premises. Acceptable equipment included optical terminating equipment and multiplexers. We did not require the LECs to permit collocation of enhanced services equipment or customer premises equipment because such equipment was not necessary to foster competition in the provision of basic transmission services. We also did not require LECs to allow the collocation of switches. Section 251(c)(6) requires incumbent LECs to allow collocation of ''equipment necessary for interconnection or access to unbundled elements. * * *'' We sought comment in the NPRM on what types of equipment competitors should be permitted to collocate on LEC premises.

(2) Discussion

394. We believe that section 251(c)(6) generally requires that incumbent LECs permit the collocation of equipment used for interconnection or access to unbundled network elements. Although the term ''necessary,'' read most strictly, could be interpreted to mean ''indispensable,'' we conclude that for the purposes of section 251(c)(6) ''necessary'' does not mean ''indispensable'' but rather ''used'' or ''useful.'' This interpretation is most likely to promote fair competition consistent with the purposes of the Act. (We note that this view is consistent with the findings of the Colorado Commission.) Colorado Public Utilities Commission, *Proposed Rules Regarding Implementation of §§ 40–15–101 et seq., Requirements Relating to Interconnection and Unbundling,* Docket No. 95R–556T, (Colorado Commission, March 29, 1996) at 19–20. Thus, we read section 251(c)(6) to refer to equipment used for the purpose of interconnection or access to unbundled network elements. *Cf. National Railroad Passenger Corporation* v. *Boston and Maine Corp.,* 503 U.S. 407, 417 (1992) (upholding the ICC's interpretation of the word ''required'' as ''useful or appropriate,'' rather than ''indispensable''); *McCulloch* v. *Maryland,* 4 Wheat. 316, 413 (1819) (Chief Justice Marshall read the word ''necessary'' to mean ''convenient, or useful,'' rejecting a stricter reading of the term). Even if the collocator could use other equipment to perform a similar function, the specified equipment may still be ''necessary'' for interconnection or access to unbundled network elements under section 251(c)(6). We can easily imagine circumstances, for instance, in which alternative equipment would perform the same function, but with less efficiency or at greater cost. A strict reading of the term ''necessary'' in these circumstances could allow LECs to avoid collocating the equipment of the interconnectors' choosing, thus undermining the procompetitive purposes of the 1996 Act.

395. Consistent with this interpretation, we conclude that transmission equipment, such as optical terminating equipment and multiplexers, may be collocated on LEC premises. We also conclude that LECs should continue to permit collocation of any type of equipment currently being collocated to terminate basic transmission facilities under the *Expanded Interconnection* requirements. In addition, whenever a telecommunications carrier seeks to collocate equipment for purposes within the scope of section 251(c)(6), the incumbent LEC shall prove to the State commission that such equipment is not ''necessary,'' as we have defined that term, for interconnection or access to unbundled network elements. State commissions may designate specific additional types of equipment that may be collocated pursuant to section 251(c)(6).

396. We do not find, however, that section 251(c)(6) requires collocation of equipment used to provide enhanced services, contrary to the arguments of the Association of Telemessaging Services International. We also decline to require incumbent LECs to allow collocation of any equipment without restriction. Section 251(c)(6) requires collocation only of equipment ''necessary for interconnection or access to unbundled elements.'' Section 251(c)(2) requires incumbent LECs to provide ''interconnection'' for the ''transmission and routing of telephone exchange service and exchange access,'' and section 251(c)(3) requires incumbent LECs to provide access to unbundled network elements ''for the provision of a telecommunications service.'' Section 251(c)(6) therefore requires incumbent LECs to provide physical or virtual collocation only for equipment ''necessary'' or used for those purposes. We find that section 251(c)(6) does not require collocation of equipment necessary to provide enhanced services. We declined to require collocation of enhanced services equipment in our *Computer III* and *ONA* proceedings. *See Third Computer*

Inquiry, Report and Order, 51 FR 24350 (July 3, 1986); *Computer III Remand*, 57 FR 4373 (February 5, 1992). Enhanced services are defined as services that ''employ computer processing applications which act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information.'' 47 CFR § 64.702. This definition appears not to include the provision of ''telecommunications services.'' *See* 47 U.S.C. § 153(43), (46). At this time, we do not impose a general requirement that switching equipment be collocated since it does not appear that it is used for the actual interconnection or access to unbundled network elements. We recognize, however, that modern technology has tended to blur the line between switching equipment and multiplexing equipment, which we permit to be collocated. We expect, in situations where the functionality of a particular piece of equipment is in dispute, that state commissions will determine whether the equipment at issue is actually used for interconnection or access to unbundled elements. We also reserve the right to reexamine this issue at a later date if it appears that such action would further achievement of the 1996 Act's procompetitive goals. Finally, because we lack an adequate record on the issue, we decline to adopt AT&T's proposal that we require that incumbent LECs allow collocated equipment to be used for ''hubbing.'' AT&T advocates requiring LECs to allow new entrants to ''connect additional equipment of their own to their collocated equipment in the collocated space.''

397. In response to WinStar's suggestion that we require collocation of microwave transmission facilities, we note that collocation of microwave transmission equipment was required where reasonably feasible by the *Special Access Order*. We also require the collocation of microwave equipment under section 251, although we modify the *Expanded Interconnection* standard we adopt under section 251 for when such collocation is required slightly to conform to the standard for the provision of physical collocation in section 251(c)(6). We therefore require that incumbent LECs allow competitors to use physical collocation for microwave transmission facilities except where this is not practical for technical reasons or because of space limitations, in which case virtual collocation is required where technically feasible.

e. Allocation of Space

(1) Background

398. In the *Expanded Interconnection* proceeding, we required LECs to allocate space for physical collocation on a first-come, first-served basis. We also required LECs to take into account interconnector demand for collocation space when reconfiguring space or building new central offices, and we found that imposing reasonable restrictions on warehousing of space by collocating carriers was appropriate. The NPRM sought comment on whether national guidelines would deter anticompetitive behavior through the manipulation or unreasonable allocation of space by either incumbent LECs or new entrants.

(2) Discussion

399. We believe that incumbent LECs have the incentive and capability to impede competitive entry by minimizing the amount of space that is available for collocation by competitors. Accordingly, we adopt our *Expanded Interconnection* space allocation rules for purposes of section 251, except as indicated herein. LECs will thus be required to make space available to requesting carriers on a first-come, first-served basis. We also conclude that collocators seeking to expand their collocated space should be allowed to use contiguous space where available. We further conclude that LECs should not be required to lease or construct additional space to provide physical collocation to interconnectors when existing space has been exhausted. We find such a requirement unnecessary because section 251(c)(6) allows incumbent LECs to provide virtual collocation where physical collocation is not practical for technical reasons or because of space limitations. Consistent with the requirements and findings of the *Expanded Interconnection* proceeding, we conclude that incumbent LECs should be required to take collocator demand into account when renovating existing facilities and constructing or leasing new facilities, just as they consider demand for other services when undertaking such projects. We find that this requirement is necessary in order to ensure that sufficient collocation space will be available in the future. We decline, however, to adopt a general rule requiring LECs to file reports on the status and planned increase and use of space. State commissions will determine whether sufficient space is available for physical collocation, and we conclude that they have authority under the 1996 Act to require incumbent LECs to file such reports. We expect individual state commissions to determine whether the filing of such reports is warranted.

400. We also agree with Pacific Telesis that restrictions on warehousing of space by interconnectors are appropriate. Because collocation space on incumbent LEC premises may be limited, inefficient use of space by one competitive entrant could deprive another entrant of the opportunity to collocate facilities or expand existing space. In the *Expanded Interconnection* proceeding, we allowed ''reasonable restrictions on warehousing of space,'' and will adopt this provision for purposes of section 251. As discussed below, we also adopt measures to ensure that incumbent LECs themselves do not unreasonably ''warehouse'' space, although we do permit them to reserve a limited amount of space for specific future uses. Incumbent LECs, however, are not permitted to set maximum space limitations without demonstrating that space constraints make such restrictions necessary, as such maximum limits could constrain a collocator's ability to provide service efficiently.

401. We also address the impact on small incumbent LECs. For example, GVNW argues that we should require collocation in rural areas only where there is space available. We have considered the impact of our rules in this section on small incumbent LECs and do not require physical collocation at any point where there is insufficient space available. We decline, however, to adopt rules regarding space availability that apply differently to small, rural carriers because the rules we here adopt are sufficiently flexible. We also note, however, that section 251(f) of the 1996 Act provides relief to certain small LECs from our regulations implementing section 251.

f. Leasing Transport Facilities

(1) Background

402. Our *Expanded Interconnection* rules require LECs to provide collocation for the purpose of allowing collocators to terminate their own transmission facilities for special access or switched transport service. We did not require that collocation be made available for other purposes, for example, when the interconnecting party wished only to connect incumbent LEC transmission facilities to collocated equipment. We sought comment in the NPRM on whether we should modify

the standards of the *Expanded Interconnection* proceeding in light of the new statutory requirements and disputes that have arisen in the investigations regarding the incumbent LECs' physical and virtual collocation tariffs.

(2) Discussion

403. Although in *Expanded Interconnection* the Commission required that interested parties interconnect collocated equipment with their own transmission facilities, we conclude that it would be inconsistent with the provisions of the 1996 Act to adopt that requirement under section 251. Rather, we conclude that a competitive entrant should not be required to bring transmission facilities to LEC premises in which it seeks to collocate facilities. Entrants should instead be permitted to collocate and connect equipment to unbundled network transmission elements obtained from the incumbent LEC. The purpose of the *Expanded Interconnection* requirement was to foster competition in the market for interstate switched and special access transmission facilities. The purposes of section 251 are broader. Section 251(c)(3) requires that competitive entrants be given access to unbundled elements and that they be permitted to combine such elements. Prohibiting competitors from connecting unbundled network elements to their collocated equipment would appear contrary to the provisions of section 251(c)(3).

404. Finally, we find that Bell Atlantic's opposition to this requirement is without merit. Bell Atlantic argues that collocators should be required to provide their own transmission facilities because otherwise new entrants could compete without providing any of their own facilities. Section 251(c)(3) specifically states that unbundled elements are to be provided in a manner that allows requesting carriers to combine elements in order to provide telecommunications service. As stated above, requiring collocators to supply their own transmission facilities would amount to a prohibition on connecting unbundled transmission facilities to other unbundled elements connected to equipment in the collocation space. Although such interconnection arrangements were not required by our *Expanded Interconnection* requirements, we conclude that they are required by section 251 when collocated equipment is used to achieve interconnection or access to unbundled network elements.

g. Co-Carrier Cross-Connect

(1) Background

405. In the most common collocation configuration under existing requirements, the designated physical collocation space of several competitive entrants is located close together within the LEC premises. Since carriers connect to the collocation space via high-capacity lines, different competitive entrants seeking to interconnect with each other may find connecting between their respective collocation spaces on the LEC premises the most efficient means of interconnecting with each other. We sought comment in the NPRM on whether we should adopt any requirements in addition to those adopted in the *Expanded Interconnection* proceeding in order to fulfill the mandate of the 1996 Act.

(2) Discussion

406. We believe that it serves the public interest and is consistent with the policy goals of section 251 to require that incumbents permit two or more collocators to interconnect their networks at the incumbent's premises. Parties opposed to this proposal have offered no legitimate objection to such interconnection. Allowing incumbent LECs to prohibit collocating carriers from interconnecting their collocated equipment would require them to interconnect collocated facilities by routing transmission facilities outside of the LECs' premises. We find that such a policy would needlessly burden collocating carriers. To the extent equipment is collocated for the purposes expressly permitted under section 251(c)(6), the statute does not bar us from requiring that incumbent LECs allow connection of such equipment to other collocating carriers located nearby. We find that requiring LECs to allow such interconnection of collocated equipment will foster competition by promoting efficient operation. It is also unlikely to have a significant effect on space availability. We find authority for such a requirement in section 251(c)(6), which requires that collocation be provided on ''terms and conditions that are just, reasonable, and nondiscriminatory'' and in section 4(i), which permits the Commission to ''perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions.'' We therefore will require that incumbent LECs allow collocating telecommunications carriers to connect collocated equipment to such equipment of other carriers within the same LEC premises so long as the collocated equipment is used for interconnection with the incumbent LEC or access to the LEC's unbundled network elements.

407. We clarify that we here require incumbent LECs to provide the connection between the equipment in the collocated spaces of two or more collocating telecommunications carriers unless they permit the collocating parties to provide this connection for themselves. We do not require incumbent LECs to allow placement of connecting transmission facilities owned by competitors within the incumbent LEC premises anywhere outside of the actual physical collocation space.

h. Security Arrangements

(1) Background

408. Under our *Expanded Interconnection* requirements, incumbent LECs typically require that physically collocated equipment be placed inside a collocation cage within the incumbent LEC facility. Such cages are intended to separate physically the competitors' facilities from those of the incumbent and to prevent access by unauthorized personnel to any parties' equipment. Such cages frequently add considerably to the cost of establishing physical collocation at a particular LEC premises and could constitute a barrier to entry in certain circumstances.

(2) Discussion

409. Based on the comments in this proceeding and our previous experience with physical collocation in the *Expanded Interconnection* docket, we will continue to permit LECs to require reasonable security arrangements to separate an entrant's collocation space from the incumbent LEC's facilities. The physical security arrangements around the collocation space protect both the LEC's and competitor's equipment from interference by unauthorized parties. We reject the suggestion of ALTS and MCI that security measures be provided only at the request of the entrant since LECs have legitimate security concerns about having competitors' personnel on their premises as well. We conclude that the physical separation provided by the collocation cage adequately addresses these concerns. At the same time, we recognize that the construction costs of physical security arrangements could serve as a significant barrier to entry, particularly for smaller competitors. We also conclude that LECs have both an incentive and the capability to impose higher construction costs than the new

entrant might need to incur. We therefore conclude that collocating parties should have the right to subcontract the construction of the physical collocation arrangements with contractors approved by the incumbent LEC. Incumbent LECs shall not unreasonably withhold such approval of contractors. Approval by incumbent LECs of such contractors should be based on the same criteria as such LECs use for approving contractors for their own purposes. We decline, however, to require that competitive entrants' personnel be subject to minimum training and proficiency requirements as suggested by GVNW. We find that such concerns are better resolved through negotiation and arbitration.

i. Allowing Virtual Collocation in Lieu of Physical

(1) Background

410. Section 251(c)(6) requires that incumbent LECs provide physical collocation unless the carrier ''demonstrates to the state commission that physical collocation is not practical for technical reasons or because of space limitations * * *.'' In the NPRM, we sought comment on whether the Commission should establish guidelines for states to apply when determining whether physical collocation is not practical for ''technical reasons or because of space limitations.''

(2) Discussion

411. Section 251(c)(6) clearly contemplates the provision of virtual collocation when physical collocation is not practical for technical reasons or because of space limitations. Section 251(c)(6) requires the incumbent LEC to demonstrate to the state commission's satisfaction that there are space limitations on the LEC premises or that technical considerations make collocation impractical. Because the space limitations and technical practicality issues will vary considerably depending on the location at which competitor equipment is to be collocated, we find that these issues are best handled on a case-by-case basis, as they were under our *Expanded Interconnection* requirements. In light of our experience in the *Expanded Interconnection* proceeding, we require that incumbent LECs provide the state commission with detailed floor plans or diagrams of any premises where the incumbent alleges that there are space constraints. Submission of floor plans will enable state commissions to evaluate whether a refusal to allow physical collocation on the grounds of space constraints is justified. We also find that the approach detailed by AT&T in its July 12 *Ex Parte* submission to be useful and believe that state commissions may find it a valuable guide. AT&T describes a detailed proposed showing that would be required of an incumbent LEC that claims physical collocation is not practical because of space exhaustion. The proposed showing would require the specific identification of the space on incumbent LEC premises that is used for various purposes, as well as specific plans for rearrangement/expansion and identification of steps taken to avoid exhaustion.

412. Although section 251(c)(6) provides that incumbent LECs are not required to provide physical collocation where impractical for technical reasons or because of space limitations, our experience in the *Expanded Interconnection* proceeding has not demonstrated that technical reasons, apart from those related to space availability, are a significant impediment to physical collocation. We therefore decline to adopt any rules for determining when physical collocation should be deemed impractical for technical reasons.

413. Incumbent LECs are allowed to retain a limited amount of floor space for defined future uses. Allowing competitive entrants to claim space that incumbent LECs had specifically planned to use could prevent incumbent LECs from serving their customers effectively. Incumbent LECs may not, however, reserve space for future use on terms more favorable than those that apply to other telecommunications carriers seeking to hold collocation space for their own future use.

414. We decline to adopt AT&T's suggestion that incumbent LECs should be required to lease additional space or provide trunking at no cost where they have insufficient space for physical collocation. In light of the availability of substitute virtual collocation arrangements, we find that requiring the type of ''substitute'' for physical collocation as advocated by AT&T is unnecessary. We similarly reject Time Warner's suggestion that incumbent LECs supply a ''substitute'' for physical collocation at cost, except to the extent we require virtual collocation. On the other hand, we will require incumbent LECs with limited space availability to take into account the demands of interconnectors when planning renovations and leasing or constructing new premises, as we have in the *Expanded Interconnection* proceeding.

415. Incumbent LECs are not required to provide collocation at locations where it is not technically feasible to provide virtual collocation. Although space constraints are a concern normally associated with physical collocation, given our broad reading of the term ''premises,'' we find that space constraints could preclude virtual collocation at certain LEC premises as well. State commissions will decide whether virtual collocation is technically feasible at a given point. We do, however, require that incumbent LECs relinquish any space held for future use before denying virtual collocation due to a lack of space unless the incumbent can prove to a state commission that virtual collocation at that point is not technically feasible. Moreover, when virtual collocation is not feasible, we require that incumbent LECs provide other forms of interconnection and access to unbundled network elements to the extent technically feasible.

416. Finally, we decline to require that incumbent LECs provide virtual collocation that is equal in all functional aspects to physical collocation. Our *Expanded Interconnection* rules required a variety of standards for the virtual collocation and have been largely successful. In addition, Congress was aware of the differences between virtual and physical collocation when it adopted section 251(c)(6), and this section does not specify any requirements for virtual collocation. As discussed above, we adopt the *Expanded Interconnection* requirements for virtual collocation under section 251. We find, however, that a standard simply requiring equality in all functional aspects could be difficult to administrate and could lead to substantial disputes. We also decline to adopt the suggestion that we require LECs to offer virtual collocation under the ''$1 sale and repurchase option.'' This configuration is described as involving ''the acquisition by the interconnectors of the equipment to be dedicated for interconnectors' use on the LEC premises and the sale of that equipment to the LECs for a nominal $1 sum while maintaining a repurchase option.'' We do not find evidence that such a specific requirement is necessary at this time. We reserve the right to revisit these issues in the future, however, if we perceive that smaller entities would be disadvantaged by our existing standards.

2. Legal Issues

a. Relationship Between Expanded Interconnection Tariffs and Section 251

(1) Background

417. The enactment of sections 251 and 252 raises the question of whether,

and to what extent, the interconnection, access to unbundled network element, and collocation requirements set forth in those sections, and the delegation of specific rate-setting authority to the states under section 252(d)(1), as a matter of law supplant our section 201 *Expanded Interconnection* requirements. We tentatively concluded in the NPRM that our existing *Expanded Interconnection* policies for interstate special access and switched transport should continue to apply.

(2) Discussion

418. Our *Expanded Interconnection* rules require the largest incumbent LECs to file tariffs with the Commission to offer collocation to parties that wish to terminate interstate special access and switched transport transmission facilities. Section 252 of the 1996 Act, on the other hand, provides for interconnection arrangements rather than tariffs, for review and approval of such agreements by state commissions rather than the FCC, and for public filing of such agreements. Section 252 procedures, however, apply only to ''request[s] for interconnection, services, or network elements *pursuant to section 251*.'' Such procedures do not, by their terms, apply to requests for service under section 201. Moreover, section 251(i) expressly provides that ''[n]othing in this section shall be construed to limit or otherwise affect the Commission's authority under section 201,'' which provided the statutory basis for our *Expanded Interconnection* rules. Thus, we find that the 1996 Act, as a matter of law, does not displace our *Expanded Interconnection* requirements, and, in fact, grants discretion to the FCC to preserve our existing rules and tariffing requirements to the extent they are consistent with the Communications Act.

419. We further conclude that it would make little sense to find that sections 251 and 252 supersede our *Expanded Interconnection* rules, because the two sets of requirements are not coextensive. For example, our *Expanded Interconnection* rules encompass collocation for interstate purposes for all parties, including non-carrier end users, that seek to terminate transmission facilities at LEC central offices. In comparison, section 251 requires collocation only for ''any requesting telecommunications carrier.'' Certain competing carriers—and non-carrier customers not covered by section 251—may prefer to take interstate expanded interconnection service under general interstate tariff schedules. We find that it would be unnecessarily disruptive to eliminate that possibility at this time. We also conclude that permitting requesting carriers to seek interconnection pursuant to our *Expanded Interconnection* rules as well as section 251 is consistent with the goals of the 1996 Act to permit competitive entry through a variety of entry strategies. Thus, a requesting carrier would have the choice of negotiating an interconnection agreement pursuant to sections 251 and 252 or of taking tariffed interstate service under our *Expanded Interconnection* rules.

420. Finally, we expect that, over time, sections 251 and 252 and our implementing rules may replace our *Expanded Interconnection* rules as the primary regulations governing interconnection for carriers. We note that section 251 is broader than our *Expanded Interconnection* requirements in certain respects. For example, section 251 requires incumbent LECs to offer collocation for purposes of accessing unbundled network elements, whereas our *Expanded Interconnection* rules require collocation only for the provision of interstate special access and switched transport. In addition, section 251(c)(6) requires incumbents to offer physical collocation subject to certain exceptions, whereas our existing *Expanded Interconnection* rules only require carriers to offer virtual collocation, although they may choose to offer physical collocation under Title II regulation in lieu of virtual collocation. In the future, we may review the need for a separate set of *Expanded Interconnection* requirements and revise our requirements if necessary. We believe that this approach is consistent with Congress' determination that the need for federal regulations will likely decrease as the provisions of the 1996 Act take effect and competition develops in the local exchange and exchange access markets.

b. Takings Issues

(1) Background

421. In *Bell Atlantic* v. *FCC*, the U.S. Court of Appeals for the DC Circuit found that the Commission lacked authority under the Communications Act to impose physical collocation on the LECs. The court found that this requirement implicated the Fifth Amendment takings clause. *See Bell Atlantic* v. *FCC*, 24 F.3d 1441 (DC Cir. 1994). On remand, the Commission required LECs to provide virtual collocation. In *Pacific Bell* v. *FCC*, 81 F.3d 1147 (DC Cir. 1996), several LECs challenged the Commission's virtual collocation rules on essentially identical grounds, claiming that the virtual collocation rules also constituted an unauthorized taking. The court did not reach the merits of these claims. Instead, addressing the scope of section 251 immediately following enactment and before the FCC had yet exercised its interpretive authority with respect to the provision, the court stated that regulations enacted to implement the 1996 Act would render moot questions regarding the future effect of the virtual collocation order under review. The court did not vacate the order, but remanded to the Commission the issues presented in that case.

(2) Discussion

422. We conclude that the ruling in *Bell Atlantic* does not preclude the rules we are adopting in this proceeding. The court in *Bell Atlantic* did not hold that an agency may never ''take'' property; the court acknowledged that, as a constitutional matter, takings are unlawful only if they are not accompanied by ''just compensation.'' Instead, the court simply said that the Communications Act of 1934 should not be construed to permit the FCC to take LEC property without *express* authorization. Because the court concluded that mandatory physical collocation would likely constitute a taking, and that section 201 of the Act did not expressly authorize physical collocation, the court held that the Commission was without authority under section 201 to impose physical collocation requirements on LECs. The Commission maintains the position, however, that mandatory physical collocation should not properly be seen to create a takings issue. *See Remand Order*, 9 FCC Rcd at 5169.

423. The question of statutory authority to impose (physical or virtual) collocation obligations on incumbent LECs largely evaporates in the context of the 1996 Act. New section 251(c)(6) *expressly* requires incumbent LECs to provide physical collocation, absent space or technical limitations. Where such limitations exist, the statute *expressly* requires virtual collocation. Thus, under the court's analysis in *Bell Atlantic*, there is no warrant for a narrowing construction of section 251 that would deny us the authority to require either form of collocation. Moreover, for the reasons stated in the *Virtual Collocation Order*, we continue to believe that virtual collocation, as we have defined it, is not a taking, and that our authority to order such collocation (under either section 251 or section 201) is not subject to the strict construction canon announced in *Bell Atlantic*.

424. Given that we now have express statutory authority to order physical and

virtual collocation pursuant to section 251, any remaining takings-related issue necessarily is limited to the question of just compensation. As discussed in Section VII.B.2.a.(3).(c), below, we find that the ratemaking methodology we are adopting to implement the collocation obligations under section 251(c) is consistent with congressional intent and fully satisfies the just compensation standard. There is, therefore, no merit to the LECs' Fifth Amendment-based claims.

VII. Pricing of Interconnection and Unbundled Elements

A. Overview

425. The prices of interconnection and unbundled elements, along with prices of resale and transport and termination, are critical terms and conditions of any interconnection agreement. If carriers can agree on such prices voluntarily without government intervention, these agreements will be submitted directly to the states for approval under section 252. To the extent that the carriers, in voluntary negotiations, cannot determine the prices, state commissions will have to set those prices. The price levels set by state commissions will determine whether the 1996 Act is implemented in a manner that is *pro-competitor* and favors one party (whether favoring incumbents or entrants) or, as we believe Congress intended, *pro-competition*. As discussed more fully in Section II.D. above, it is therefore critical to implementing Congress' pro-competitive, de-regulatory national policy framework to establish among the states a common, pro-competition understanding of the pricing standards for interconnection and unbundled elements, resale, and transport and termination. While such a common interpretation might eventually emerge through judicial review of state arbitration decisions, we believe that such a process could delay competition for years and require carriers to incur substantial legal costs. We therefore conclude that, to expedite the development of fair and efficient competition, we must set forth rules now establishing this common, pro-competition understanding of the 1996 Act's pricing standards. Accordingly, the rules we adopt today set forth the methodological principles for states to use in setting prices. This section addresses interconnection and unbundled elements, and subsequent sections address resale and transport and termination, respectively.

426. While every state should, to the maximum extent feasible, immediately apply the pricing methodology for interconnection and unbundled elements that we set forth below, we recognize that not every state will have the resources to implement this pricing methodology immediately in the arbitrations that will need to be decided this fall. Therefore, so that competition is not impaired in the interim, we establish default proxies that a state commission shall use to resolve arbitrations in the period before it applies the pricing methodology. In most cases, these default proxies for unbundled elements and interconnection are ceilings, and states may select lower prices. In one instance, the default proxy we establish is a price range. Once a state sets prices according to an economic cost study conducted pursuant to the cost-based pricing methodology we outline, the defaults cease to apply. In setting a rate pursuant to the cost-based pricing methodology, and especially when setting a rate above a default proxy ceiling or outside the default proxy range, the state must give full and fair effect to the economic costing methodology we set forth in this Order and must create a factual record, including the cost study, sufficient for purposes of review after notice and opportunity for the affected parties to participate.

427. In the following sections, we first set forth generally, based on the current record, a cost-based pricing methodology based on forward-looking economic costs, which we conclude is the approach for setting prices that best furthers the goals of the 1996 Act. In dynamic competitive markets, firms take action based not on embedded costs, but on the relationship between market-determined prices and forward-looking economic costs. If market prices exceed forward-looking economic costs, new competitors will enter the market. If their forward-looking economic costs exceed market prices, new competitors will not enter the market and existing competitors may decide to leave. Prices for unbundled elements under section 251 must be based on cost under the law, and that should be read as requiring that prices be based on forward-looking economic costs. New entrants should make their decisions whether to purchase unbundled elements or to build their own facilities based on the relative economic costs of these options. By contrast, because the cost of building an element is based on forward-looking economic costs, new entrants' investment decisions would be distorted if the price of unbundled elements were based on embedded costs. In arbitrations of interconnection arrangements, or in rulemakings the results of which will be applied in arbitrations, states must set prices for interconnection and unbundled network elements based on the forward-looking, long-run, incremental cost methodology we describe below. Using this methodology, states may not set prices lower than the forward-looking incremental costs directly attributable to provision of a given element. They may set prices to permit recovery of a reasonable share of forward-looking joint and common costs of network elements. In the aftermath of the arbitrations and relying on the state experience, we will continue to review this costing methodology, and issue additional guidance as necessary.

428. We reject various arguments raised by parties regarding the recovery of costs other than forward-looking economic costs in section 251 (c)(2) and (c)(3) prices, including the possible recovery of: (1) embedded or accounting costs in excess of economic costs; (2) incumbent LECs' opportunity costs; (3) universal service subsidies; and (4) access charges. As discussed in Section VII.B.2.a. below, certain portions of access charges may continue to be collected for an interim period in addition to section 251(c)(3) prices.

429. With respect to prices developed under the forward-looking, cost-based pricing methodology, we conclude that incumbent LECs' rates for interconnection and unbundled elements must recover costs in a manner that reflects the way they are incurred. We adopt certain rules that states must follow in setting rates in arbitrations. These rules are designed to ensure the efficient cost-based rates required by the 1996 Act.

430. In the next section of the Order, we establish default proxies that states may elect to use prior to utilizing an economic study and developing prices using the cost-based pricing methodology. We recognize that certain states may find it difficult to apply an economic costing methodology within the statutory time frame for arbitrating interconnection disputes. We therefore set forth default proxies that will be relatively easy to apply on an interim basis to interconnection arrangements. We discuss with respect to particular unbundled elements the reasonable rate structure for those elements and the particular default proxies we are establishing for use pending our adoption of a generic forward-looking cost model. Finally, we discuss the following additional matters: generic forward-looking costing models that we intend to examine further by the first quarter of 1997 in order to determine

whether any of those models, with modifications, could serve as better default proxies; the future adjustment of rates; the relationship of unbundled element prices to retail prices; and the meaning of the statutory prohibition against discrimination in sections 251 and 252.

431. Those states that have already established methodologies for setting interconnection and unbundled rates must review those methodologies against the rules we are adopting in this Order. To the extent a state's methodology is consistent with the approach we set forth herein, the state may apply that methodology in any section 252 arbitration. However, if a state's methodology is not consistent with the rules we adopt today, the state must modify its approach. We invite any state uncertain about whether its approach complies with this Order to seek a declaratory ruling from the Commission.

B. Cost-Based Pricing Methodology

432. As discussed more fully in Section II.D. above, although the states have the crucial role of setting specific rates in arbitrations, the Commission must establish a set of national pricing principles in order to implement Congress's national policy framework. For the reasons set forth in the preceding section and as more fully explained below, we are adopting a cost-based methodology for states to follow in setting interconnection and unbundled element rates. In setting forth the cost-based pricing methodology for interconnection and access to unbundled elements, there are three basic sets of questions that must be addressed. First, does the 1996 Act require that the same standard apply to the pricing of interconnection provided pursuant to section 251(c)(2), and unbundled elements provided pursuant to section 251(c)(3)? Second, what is the appropriate methodology for establishing the price levels for interconnection and for each unbundled element, how should costs be defined, and is the price based on economic costs, embedded costs, or other costs? Third, what are the appropriate rate structures to be used to set prices designed to recover costs, including a reasonable profit? We address each of these questions in the following sections.

1. Application of the Statutory Pricing Standard

a. Background

433. In the NPRM, we proposed that any pricing principles we adopt should be the same for interconnection and unbundled network elements because sections 251(c)(2) and (c)(3) and 252(d)(1) use the same pricing standard. We invited parties to comment on this issue and to justify any proposed distinction in the priority for interconnection and unbundled network elements. We also stated our belief that the same pricing rules that apply to interconnection and unbundled network elements should also apply to collocation under section 251(c)(6) of the 1996 Act.

b. Discussion

434. Sections 251(c)(2) and (c)(3) impose an identical duty on incumbent LECs to provide interconnection and access to network elements ''on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.'' In addition, both interconnection and unbundled network elements are made subject to the same pricing standard in section 252(d)(1). Based on the plain language of sections 251(c)(2), (c)(3), and section 252(d)(1), we conclude that Congress intended to apply the same pricing rules to interconnection and unbundled network elements. The pricing rules we adopt shall, therefore, apply to both.

435. We further conclude that, because section 251(c)(6) requires that incumbent LECs provide physical collocation on ''rates, terms, and conditions that are just, reasonable, and nondiscriminatory,'' which is identical to the standard for interconnection and unbundled elements in sections 251(c)(2) and (c)(3), collocation should be subject to the same pricing rules. We also note that, because collocation is a method of obtaining interconnection and access to unbundled network elements, collocation is properly treated under the same pricing rules. This legal conclusion that there should be a single set of pricing rules for interconnection, unbundled network elements, and collocation provides greater consistency and guidance to the industry, regulators, and the courts. Moreover, it reduces the regulatory burdens on state commissions of developing and applying different pricing rules for collocation, interconnection, and unbundled network elements. We note that our adoption of this single set of pricing rules should minimize regulatory burdens, conflicts, and uncertainties associated with multiple, and possibly inconsistent rules, thus facilitating competition on a reasonable and efficient basis minimizing the economic impact of our rules for all parties, including small entities and small incumbent LECs.

2. Rate Levels

a. Pricing Based on Economic Cost

(1) Background

436. We observed in the NPRM that economists generally agree that prices based on forward-looking long-run incremental costs (LRIC) give appropriate signals to producers and consumers and ensure efficient entry and utilization of the telecommunications infrastructure. We noted, however, that there was a lack of general agreement on the specifics of methodology for deriving prices based on LRIC or total service long-run incremental cost (TSLRIC). We invited parties to comment on whether we should require the states to employ a LRIC-based pricing methodology and to explain with specificity the costing methodology they support. We recognized, however, that prices based on LRIC might not permit recovery of forward-looking costs if there were significant forward-looking joint and common costs among network elements. We sought comment on how, if rates are set above incremental cost, to deal with the problems inherent in allocating common costs and any other overheads. We observed that, by defining the unbundled elements at a sufficiently aggregated level, it may be possible to reduce the costs to be allocated as joint and common by identifying a substantial portion of costs as incremental to a particular element. To the extent that joint and common costs cannot be entirely eliminated, we sought comment on various methodologies for assigning them, including the use of a fixed allocator or on the basis of inverse demand elasticity. We also sought comment on whether, regardless of the method of allocating common costs, we should limit rates to levels that do not exceed stand-alone costs. Finally, we invited parties to comment on whether a LRIC-based methodology would establish a price for interconnection and unbundled network elements that includes a reasonable profit and thus complies with section 252(d)(1).

437. A number of states already employ, or have plans to utilize, some form of LRIC or TSLRIC methodology in their approach to setting prices for unbundled network elements, with several states choosing LRIC or TSLRIC as a price floor. For instance, the Connecticut Commission adopted a TSLRIC methodology to measure the cost of service of SNET, its principal incumbent LEC. Arizona also requires incumbent LECs to conduct TSLRIC cost studies to establish the underlying cost

of unbundled services and facilities. The Ohio Commission has adopted Long Run Service Incremental Cost (''LRSIC''), which is closely related to TSLRIC. The Missouri and Wyoming Commissions are among a number of state commissions that have not yet adopted a pricing methodology, but are considering LRIC or TSLRIC. Oklahoma law provides for submission of LRIC cost studies and studies identifying a contribution to common costs for interconnection of facilities and access to network elements to the Oklahoma Commission during an arbitration. A number of states have yet to choose a pricing methodology. For instance, the New York Commission sets prices on a case-by-case basis. Unbundled element prices also exist in several states pursuant to negotiated interconnection agreements that have either already been approved by state commissions or are under consideration.

438. Section 252(d)(1) requires, *inter alia,* that rates for interconnection and unbundled network elements be based on ''cost (determined without reference to a rate-of-return or other rate-based proceeding).'' We tentatively concluded in the NPRM that this language precludes states from setting rates by use of traditional cost-of service regulation, with its detailed examination of historical carrier investment and expenses. Instead, we indicated our belief that the statute contemplates the use of other forms of cost-based price regulation, such as the setting of prices based on forward-looking economic cost methodologies (such as LRIC) that do not involve the use of an embedded rate base. We sought comment on whether section 252(d)(1) forecloses consideration of historical or embedded costs or merely prohibits state commissions from conducting a traditional rate-of-return proceeding to establish prices for interconnection and unbundled network elements. Embedded costs are the costs that the incumbent LECs carry on their accounting books that reflect historical purchase prices, regulatory depreciation rates, system configurations, and operating procedures. We invited parties to comment on whether incumbent LECs should be permitted to recover some portion of their historical or embedded costs over TSLRIC.

439. In the NPRM, we noted that certain incumbent LECs had advocated that interconnection and access to unbundled element prices be based on the ''efficient component pricing rule'' (ECPR). Under this approach, an incumbent LEC that sells an essential input element, such as interconnection, to a competing network would set the price of that input element equal to ''the input's direct per-unit incremental costs plus the opportunity cost to the input supplier of the sale of a unit of input.'' We tentatively concluded in the NPRM that ECPR or equivalent methodologies are inconsistent with the section 252(d)(1) requirement that rates be based on ''cost,'' and we proposed to preclude the states from using this methodology.

440. Section 254 requires the Commission and the Joint Board established thereunder to ensure that ''[a]ll providers of telecommunications service * * * make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service. * * *'' That section further provides that ''[t]here should be specific, predictable, and sufficient Federal and State mechanisms to preserve and advance universal service.'' The Conference Committee also explained that these provisions require any such universal service support payment to be, to the extent possible, ''explicit, rather than implicit as many support mechanisms are today.'' In the NPRM, we sought comment on whether ''it would be consistent with sections 251(d)(1) and 254 for states to include any universal service costs or subsidies in the rates they set for interconnection, collocation, and unbundled network elements.'' In particular, we discussed the ''play or pay'' system adopted by the State of New York in which interconnectors that agree to serve all customers in their self-defined service areas (''players'') potentially pay a substantially lower interconnection rate than those that serve only selected customers (''payers'') and are, therefore, liable to pay additional contribution charges. We noted that the statutory schedule for the completion of the universal service reform proceeding (15 months from the enactment of the 1996 Act) is different from that for this proceeding (6 months from the date of enactment of the 1996 Act). We asked whether the ability of states to take universal service support into account differs pending completion of the section 254 Joint Board proceeding or state universal service proceedings, pursuant to section 254(f), during any transition period that may be established in the section 254 proceeding or thereafter.

(2) Discussion

441. *Overview.* Having concluded in Section II.D., above, that we have the requisite legal authority and that we should establish national pricing rules, we conclude here that prices for interconnection and unbundled elements pursuant to sections 251(c)(2), 251(c)(3), and 252(d)(1), should be set at forward-looking long-run economic cost. In practice, this will mean that prices are based on the TSLRIC of the network element, which we will call Total Element Long Run Incremental Cost (TELRIC), and will include a reasonable allocation of forward-looking joint and common costs. The 1996 Act encourages competition by removing barriers to entry and providing an opportunity for potential new entrants to purchase unbundled incumbent LEC network elements to compete efficiently to provide local exchange services. We believe that the prices that potential entrants pay for these elements should reflect forward-looking economic costs in order to encourage efficient levels of investment and entry.

442. In this section, we describe this forward-looking, cost-based pricing standard in detail. First, we define the terms we are using, explain how the methodology we are adopting differs from other costing approaches, and describe how it should be implemented. In particular, we explain that the price of a network element should include the forward-looking costs that can be attributed directly to the provision of services using that element, which includes a reasonable return on investment (*i.e.,* ''profit''), plus a reasonable share of the forward-looking joint and common costs. Second, we address potential cost measures that must not be included in a TELRIC analysis, such as embedded (or historical) costs, opportunity costs, or universal service subsidies. Finally, we refute arguments that this methodology would violate the incumbent LECs' rights under the Fifth Amendment.

(a) Total Element Long-Run Incremental Cost

443. *Definitions of Terms.* In light of the various possible definitions of a number of the critical economic terms used in this context, we begin by defining terms as we use them in this Order. Specifically, we provide definitions for the following terms: ''incremental cost;'' ''economic cost;'' ''embedded or accounting cost;'' ''joint cost;'' ''common cost;'' ''long-run incremental cost;'' ''total service long-run incremental cost;'' ''total element long-run incremental cost.'' In addition to defining these terms, we explain the economic rationale behind the concepts.

444. Incremental costs are the additional costs (usually expressed as a cost per unit) that a firm will incur as a result of expanding the output of a good or service by producing an additional quantity of the good or

service. Incremental costs are forward-looking in the sense that these costs are incurred as the output level changes by a given increment. The costs that are considered incremental will vary greatly depending on the size of the increment. For example, the incremental cost of carrying an additional call from a residence that is already connected to the network to its end office is virtually zero. The incremental cost of connecting a new residence to its end office, however, is the cost of the loop. Forward-looking incremental costs, plus a portion of the forward-looking joint and common costs, are sometimes referred to as ''economic costs.'' Embedded or accounting costs are costs that firms incurred in the past for providing a good or service and are recorded as past operating expenses and depreciation. Due to changes in input prices and technologies, incremental costs may differ from embedded costs of that same increment. In competitive markets, the price of a good or service will tend towards its long-run incremental cost.

445. Certain types of costs arise from the production of multiple products or services. We use the term ''joint costs'' to refer to costs incurred when two or more outputs are produced in fixed proportion by the same production process (*i.e.*, when one product is produced, a second product is generated by the same production process at no additional cost). The term ''common costs'' refers to costs that are incurred in connection with the production of multiple products or services, and remains unchanged as the relative proportion of those products or services varies (*e.g.*, the salaries of corporate managers). Such costs may be common to all services provided by the firm or common to only a subset of those services or elements. If a cost is common with respect to a subset of services or elements, for example, a firm avoids that cost only by not providing each and every service or element in the subset. For the purpose of our discussion, we refer to joint and common costs as simply common costs unless the distinction is relevant in a particular context.

446. The term ''long-run,'' in the context of ''long run incremental cost,'' refers to a period long enough so that all of a firm's costs become variable or avoidable. The term ''total service,'' in the context of TSLRIC, indicates that the relevant increment is the entire quantity of the service that a firm produces, rather than just a marginal increment over and above a given level of production. Depending on what services are the subject of a study, TSLRIC may be for a single service or a class of similar services. TSLRIC includes the incremental costs of dedicated facilities and operations that are used by only the service in question. TSLRIC also includes the incremental costs of shared facilities and operations that are used by that service as well as other services.

447. While we are adopting a version of the methodology commonly referred to as TSLRIC as the basis for pricing interconnection and unbundled elements, we are coining the term ''total element long-run incremental cost'' (TELRIC) to describe our version of this methodology. The incumbent LEC offerings to be priced using this methodology generally will be ''network elements,'' rather than ''telecommunications services,'' as defined by the 1996 Act. More fundamentally, we believe that TELRIC-based pricing of discrete network elements or facilities, such as local loops and switching, is likely to be much more economically rational than TSLRIC-based pricing of conventional services, such as interstate access service and local residential or business exchange service. As discussed in greater detail below, separate telecommunications services are typically provided over shared network facilities, the costs of which may be joint or common with respect to some services. The costs of local loops and their associated line cards in local switches, for example, are common with respect to interstate access service and local exchange service, because once these facilities are installed to provide one service they are able to provide the other at no additional cost. By contrast, the network elements, as we have defined them, largely correspond to distinct network facilities. Therefore, the amount of joint and common costs that must be allocated among separate offerings is likely to be much smaller using a TELRIC methodology rather than a TSLRIC approach that measures the costs of conventional services. Because it is difficult for regulators to determine an economically optimal allocation of any such joint and common costs, we believe that pricing elements, defined as facilities with associated features and functions, is more reliable from the standpoint of economic efficiency than pricing services that use shared network facilities.

448. *Description of TELRIC-Based Pricing Methodology.* Adopting a pricing methodology based on forward-looking economic costs best replicates, to the extent possible, the conditions of a competitive market. In addition, a forward-looking cost methodology reduces the ability of an incumbent LEC to engage in anti-competitive behavior. Congress recognized in the 1996 Act that access to the incumbent LECs' bottleneck facilities is critical to making meaningful competition possible. As a result of the availability to competitors of the incumbent LEC's unbundled elements at their economic cost, consumers will be able to reap the benefits of the incumbent LECs' economies of scale and scope, as well as the benefits of competition. Because a pricing methodology based on forward-looking costs simulates the conditions in a competitive marketplace, it allows the requesting carrier to produce efficiently and to compete effectively, which should drive retail prices to their competitive levels. We believe that our adoption of a forward-looking cost-based pricing methodology should facilitate competition on a reasonable and efficient basis by all firms in the industry by establishing prices for interconnection and unbundled elements based on costs similar to those incurred by the incumbents, which may be expected to reduce the regulatory burdens and economic impact of our decision for many parties, including both small entities seeking to enter the local exchange markets and small incumbent LECs.

449. We note that incumbent LECs have greater access to the cost information necessary to calculate the incremental cost of the unbundled elements of the network. Given this asymmetric access to cost data, we find that incumbent LECs must prove to the state commission the nature and magnitude of any forward-looking cost that it seeks to recover in the prices of interconnection and unbundled network elements.

450. Some parties express concern that the information required to compute prices based on forward-looking costs is inherently so hypothetical as to be of little or no practical value. Based on the record before us, we disagree. A number of states, which ultimately will have to review forward-looking cost studies in carrying out their duties under section 252, either have already implemented forward-looking, incremental costing methodologies to set prices for interconnection and unbundled network elements or support the use of such an approach. While these states have applied somewhat different definitions of, and approaches to setting prices developed on, an incremental cost methodology, the record demonstrates that such approaches are practical and implementable.

451. We conclude that, under a TELRIC methodology, incumbent LECs' prices for interconnection and unbundled network elements shall recover the forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs. Per-unit costs shall be derived from total costs using reasonably accurate ''fill factors'' (estimates of the proportion of a facility that will be ''filled'' with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element. Directly attributable forward-looking costs include the incremental costs of facilities and operations that are dedicated to the element. Such costs typically include the investment costs and expenses related to primary plant used to provide that element. Directly attributable forward-looking costs also include the incremental costs of shared facilities and operations. Those costs shall be attributed to specific elements to the greatest extent possible. *Telephone Company-Cable Television Cross-Ownership Rules, Memorandum Opinion and Order on Reconsideration and Third Further Notice of Proposed Rulemaking,* 59 FR 63909 (December 12, 1994). For example, the costs of conduits shared by both transport and local loops, and the costs of central office facilities shared by both local switching and tandem switching, shall be attributed to specific elements in reasonable proportions. More broadly, certain shared costs that have conventionally been treated as common costs (or overheads) shall be attributed directly to the individual elements to the greatest extent possible. The forward-looking costs directly attributable to local loops, for example, shall include not only the cost of the installed copper wire and telephone poles but also the cost of payroll and other back office operations relating to the line technicians, in addition to other attributable costs.

452. Forward-looking cost methodologies, like TELRIC, are intended to consider the costs that a carrier would incur in the future. Thus, a question arises whether costs should be computed based on the least-cost, most efficient network configuration and technology currently available, or whether forward-looking cost should be computed based on incumbent LECs' existing network infrastructures, taking into account changes in depreciation and inflation. The record indicates three general approaches to this issue. Under the first approach, the forward-looking economic cost for interconnection and unbundled elements would be based on the most efficient network architecture, sizing, technology, and operating decisions that are operationally feasible and currently available to the industry. Prices based on the least-cost, most efficient network design and technology replicate conditions in a highly competitive marketplace by not basing prices on existing network design and investments unless they represent the least-cost systems available for purchase. This approach, however, may discourage facilities-based competition by new entrants because new entrants can use the incumbent LEC's existing network based on the cost of a hypothetical least-cost, most efficient network.

453. Under the second approach, the cost of interconnection and unbundled network elements would be based on existing network design and technology that are currently in operation. Because this approach is not based on a hypothetical network in the short run, incumbent LECs could recover costs based on their existing operations, and prices for interconnection and unbundled elements that reflect inefficient or obsolete network design and technology. This is essentially an embedded cost methodology.

454. Under the third approach, prices for interconnection and access to unbundled elements would be developed from a forward-looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center locations. This approach mitigates incumbent LECs' concerns that a forward-looking pricing methodology ignores existing network design, while basing prices on efficient, new technology that is compatible with the existing infrastructure. This benchmark of forward-looking cost and existing network design most closely represents the incremental costs that incumbents actually expect to incur in making network elements available to new entrants. Moreover, this approach encourages facilities-based competition to the extent that new entrants, by designing more efficient network configurations, are able to provide the service at a lower cost than the incumbent LEC. We, therefore, conclude that the forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the incumbent LEC's current wire center locations, but that the reconstructed local network will employ the most efficient technology for reasonably foreseeable capacity requirements.

455. We agree with USTA, Bell Atlantic, and BellSouth that, as a theoretical matter, the combination of significant sunk investment, declining technology costs, and competitive entry may increase the depreciation costs and cost of capital of incumbent LECs. We do not agree, however, that TSLRIC does not or cannot account for risks that an incumbent LEC incurs because it has sunk investments in facilities. On the contrary, properly designed depreciation schedules should account for expected declines in the value of capital goods. Both AT&T and MCI appear to agree with this proposition. For example, AT&T states, ''[i]n order to estimate TSLRIC, one must perform a discounted cash flow analysis of the future costs associated with the decision to invest. * * * One-time costs associated with the acquisition of capital goods are amortized over the economic life of the assets using the user cost of capital * * *, which requires accounting for both expected capital good price changes and economic depreciation.'' Moreover, we are confident that parties to an arbitration with TELRIC studies can propose specific depreciation rate adjustments that reflect expected asset values over time.

456. As noted, we also agree that, as a matter of theory, an increase in risk due to entry into the market for local exchange service can increase a LEC's cost of capital. We believe that this increased risk can be partially mitigated, however, by offering term discounts, since long-term contracts can minimize the risk of stranded investment. In addition, growth in overall market demand can increase the potential of the incumbent LEC to use some of its displaced facilities for other purposes. Overall, we think that these factors can and should be captured in any LRIC model and therefore we do not agree that this requires a departure from the general principle of forward-looking cost-based pricing for network elements.

457. We are not persuaded by USTA's argument that forward looking methodologies fail to adjust the cost of capital to reflect the risks associated with irreversible investments and that they are ''biased downward by a factor of three.'' First, USTA's argument unrealistically assumes that competitive entry would be instantaneous. The more reasonable assumption of entry occurring over time will reduce the costs associated with sunk investment. Second, we find it unlikely that investment in communications

equipment is entirely irreversible or that such equipment would become valueless once facilities-based competition begins. In a growing market, there most likely would be demand for at least some embedded telecommunications equipment, which would therefore retain its value. Third, contractual arrangements between the new entrant and the incumbent that specifically address USTA's concerns and protect incumbent's investments during transition can be established.

458. Finally we are not persuaded that the use by firms of hurdle rates that exceed the market cost of capital is convincing evidence that sunk investments significantly increase a firm's cost of capital. An alternative explanation for this phenomenon is that the process that firms use to choose among investment projects results in overestimates of their returns. Firms therefore use hurdle rates in excess of the market cost of capital to account for these overestimates.

459. *Summary of TELRIC Methodology.* The following summarizes our conclusions regarding setting prices of interconnection and access to unbundled network elements based on the TELRIC methodology for such elements. The increment that forms the basis for a TELRIC study shall be the entire quantity of the network element provided. As we have previously stated, all costs associated with providing the element shall be included in the incremental cost. Only forward-looking, incremental costs shall be included in a TELRIC study. Costs must be based on the incumbent LEC's existing wire center locations and most efficient technology available.

460. Any function necessary to produce a network element must have an associated cost. The study must explain with specificity why and how specific functions are necessary to provide network elements and how the associated costs were developed. Only those costs that are incurred in the provision of the network elements in the long run shall be directly attributable to those elements. Costs must be attributed on a cost-causative basis. Costs are causally-related to the network element being provided if the costs are incurred as a direct result of providing the network elements, or can be avoided, in the long run, when the company ceases to provide them. Thus, for example, the forward-looking costs of capital (debt and equity) needed to support investments required to produce a given element shall be included in the forward-looking direct cost of that element. Directly attributable costs shall include costs such as certain administrative expenses, which have traditionally been viewed as common costs, if these costs vary with the provision of network elements. Retailing costs, such as marketing or consumer billing costs associated with retail services, are not attributable to the production of network elements that are offered to interconnecting carriers and must not be included in the forward-looking direct cost of an element.

461. In a TELRIC methodology, the ''long run'' used shall be a period long enough that all costs are treated as variable and avoidable. This ''long run'' approach ensures that rates recover not only the operating costs that vary in the short run, but also fixed investment costs that, while not variable in the short term, are necessary inputs directly attributable to providing the element.

462. States may review a TELRIC economic cost study in the context of a particular arbitration proceeding, or they may conduct such studies in a rulemaking and apply the results in various arbitrations involving incumbent LECs. In the latter case, states must replace any interim rates set in arbitration proceedings with the permanent rate resulting from the separate rulemaking. This permanent rate will take effect at or about the time of the conclusion of the separate rulemaking and will apply from that time forward.

463. *Forward-Looking Common Costs.* Certain common costs are incurred in the provision of network elements. As discussed above, some of these costs are common to only a subset of the elements or services provided by incumbent LECs. Such costs shall be allocated to that subset, and should then be allocated among the individual elements or services in that subset, to the greatest possible extent. For example, shared maintenance facilities and vehicles should be allocated only to the elements that benefit from those facilities and vehicles. Common costs also include costs incurred by the firm's operations as a whole, that are common to all services and elements (*e.g.*, salaries of executives involved in overseeing all activities of the business), although for the purpose of pricing interconnection and access to unbundled elements, which are intermediate products offered to competing carriers, the relevant common costs do not include billing, marketing, and other costs attributable to the provision of retail service. Given these common costs, setting the price of each discrete network element based solely on the forward-looking incremental costs directly attributable to the production of individual elements will not recover the total forward-looking costs of operating the wholesale network. Because forward-looking common costs are consistent with our forward-looking, economic cost paradigm, a reasonable measure of such costs shall be included in the prices for interconnection and access to network elements.

464. The incumbent LECs generally argue that common costs are quite significant, while several other parties maintain that these amounts are minimal. Because the unbundled network elements correspond, to a great extent, to discrete network facilities, and have different operating characteristics, we expect that common costs should be smaller than the common costs associated with the long-run incremental cost of a service. We expect that many facility costs that may be common with respect to the individual services provided by the facilities can be directly attributed to the facilities when offered as unbundled network elements. Moreover, defining the network elements at a relatively high level of aggregation, as we have done, should also reduce the magnitude of the common costs. A properly conducted TELRIC methodology will attribute costs to specific elements to the greatest possible extent, which will reduce the common costs. Nevertheless, there will remain some common costs that must be allocated among network elements and interconnection services. For example, at the sub-element level of study (*e.g.*, identifying the respective costs of 2-wire loops, 4-wire loops, ISDN loops, and so on), common costs may be a significant proportion of all the costs that must be recovered from sub-elements. Given the likely asymmetry of information regarding network costs, we conclude that, in the arbitration process, incumbent LECs shall have the burden to prove the specific nature and magnitude of these forward-looking common costs.

465. We conclude that forward-looking common costs shall be allocated among elements and services in a reasonable manner, consistent with the pro-competitive goals of the 1996 Act. One reasonable allocation method would be to allocate common costs using a fixed allocator, such as a percentage markup over the directly attributable forward-looking costs. We conclude that a second reasonable allocation method would allocate only a relatively small share of common costs to certain critical network elements, such as the local loop and collocation, that are most difficult for entrants to replicate promptly (*i.e.*, bottleneck facilities). Allocation of common costs

on this basis ensures that the prices of network elements that are least likely to be subject to competition are not artificially inflated by a large allocation of common costs. On the other hand, certain other allocation methods would not be reasonable. For example, we conclude that an allocation methodology that relies exclusively on allocating common costs in inverse proportion to the sensitivity of demand for various network elements and services may not be used. We conclude that such an allocation could unreasonably limit the extent of entry into local exchange markets by allocating more costs to, and thus raising the prices of, the most critical bottleneck inputs, the demand for which tends to be relatively inelastic. Such an allocation of these costs would undermine the pro-competitive objectives of the 1996 Act.

466. We believe that our treatment of forward-looking common costs will minimize regulatory burdens and economic impact for all parties involved in arbitration of agreements for interconnection and access to unbundled elements, and will advance the 1996 Act's pro-competitive objectives for local exchange and exchange access markets. In our decisionmaking, we have considered the economic impact of our rules in this section on small incumbent LECs. For example, although opposed to the use of a forward-looking, economic cost methodology, small incumbent LECs favor the recovery of joint and common costs in the event the Commission adopts forward-looking cost methodology. We are adopting such an approach. Moreover, the cost-based pricing methodology that we are adopting is designed to permit incumbent LECs to recover their economic costs of providing interconnection and unbundled elements, which may minimize the economic impact of our decisions on incumbent LECs, including small incumbent LECs. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.

467. We further conclude that, for the aggregate of all unbundled network elements, incumbent LECs must be given a reasonable opportunity to recover their forward-looking common costs attributable to operating the wholesale network. In no instance should prices exceed the stand-alone cost for a specific element, and in most cases they should be below stand-alone costs. Stand-alone costs are defined as the forward-looking cost that an efficient entrant would incur in providing a given element or any combination of elements. No price higher than stand-alone cost could be sustained in a market from which entry barriers were completely absent. Where there are few common costs, there is likely to be only a minimal difference between the forward-looking costs that are directly attributable to the particular element, which excludes these costs, and stand-alone cost, which includes all of them. Network elements should not, however, be priced at levels that would enable the incumbent LEC to recover the same common costs multiple times from different elements. Any multiple recovery would be unreasonable and thus in violation of the statutory standard. Further, we note that the sum of the direct costs and the forward-looking common costs of all elements will likely differ from the incumbent LEC's historical, fully distributed costs.

468. *Reasonable Return on Investment and ''Profit.''* Section 252(d)(1) states that rates for interconnection and access to unbundled elements ''may include a reasonable profit.'' We find that the TELRIC pricing methodology we are adopting provides for such a reasonable profit and thus no additional profit is justified under the statutory language. We note there are two types of profit. First, in plain English, profit is defined as ''the excess of returns over expenditure in a transaction or a series of transactions.'' This is also known as a ''normal'' profit, which is the total revenue required to cover all of the costs of a firm, including its opportunity costs. Second, there is ''economic'' profit, which is any return in excess of normal profit. Thus, for example, if the normal return in an industry is 10 percent and a firm earns a return of 14 percent, the economic profit for that firm is 4 percent. Economic is also referred to as ''supranormal'' profit. We conclude that the definition of ''normal'' profit is embodied in ''reasonable profit'' under Section 252(d)(1).

469. The concept of normal profit is embodied in forward-looking costs because the forward-looking cost of capital, *i.e.*, the cost of obtaining debt and equity financing, is one of the forward-looking costs of providing the network elements. This forward-looking cost of capital is equal to a normal profit. We conclude that allowing greater than normal profits would not be ''reasonable'' under sections 251(c) and 252(d)(1). *Bluefield Water Works & Improvement Co. v. Public Service Comm'n of West Virginia*, 262 U.S. 679 (1923); *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). Thus, contrary to the arguments put forth by several incumbent LECs, we find that adding an additional measure of profit to the risk-adjusted cost of capital in setting the prices for interconnection and access to unbundled elements would violate the requirements of sections 251(c) and 252(d)(1) of the 1996 Act.

470. Possible accounting losses from the sale of interconnection and unbundled network elements using a reasonable forward-looking cost-based methodology do not necessarily indicate that incumbent LECs are being denied a ''reasonable profit'' under the statute. The use of a forward-looking, economic, cost-based pricing methodology, including a reasonable allocation of legitimate joint and common costs, will permit incumbent LECs the opportunity to earn a reasonable return on their investment in network elements. Finally, contrary to PacTel's argument, and as discussed below in detail, we conclude that our forward-looking cost-based pricing methodology is consistent with the Fifth Amendment and is not confiscatory.

471. Based on the current record, we conclude that the currently authorized rate of return at the federal or state level is a reasonable starting point for TELRIC calculations, and incumbent LECs bear the burden of demonstrating with specificity that the business risks that they face in providing unbundled network elements and interconnection services would justify a different risk-adjusted cost of capital or depreciation rate. These elements generally are bottleneck, monopoly services that do not now face significant competition. We recognize that incumbent LECs are likely to face increased risks given the overall increases in competition in this industry, which generally might warrant an increased cost of capital, but note that, earlier this year, we instituted a preliminary inquiry as to whether the currently authorized federal 11.25 percent rate of return is too high given the current marketplace cost of equity and debt. On the basis of the current record, we decline to engage in a time-consuming examination to determine a new rate of return, which may well require a detailed proceeding. States may adjust the cost of capital if a party demonstrates to a state commission that either a higher or lower level of cost of capital is warranted, without that commission conducting a ''rate-of-return or other rate based proceeding.'' We note that the risk-adjusted cost of capital need not be uniform for all

elements. We intend to re-examine the issue of the appropriate risk-adjusted cost of capital on an ongoing basis, particularly in light of the state commissions' experiences in addressing this issue in specific situations.

472. We disagree with the conclusion that, when there are mostly sunk costs, forward-looking economic costs should not be the basis for pricing interconnection elements. The TELRIC of an element has three components, the operating expenses, the depreciation cost, and the appropriate risk-adjusted cost of capital. We conclude that an appropriate calculation of TELRIC will include a depreciation rate that reflects the true changes in economic value of an asset and a cost of capital that appropriately reflects the risks incurred by an investor. Thus, even in the presence of sunk costs, TELRIC-based prices are an appropriate pricing methodology.

(b) Cost Measures Not Included in Forward-Looking Cost Methodology

473. *Embedded Costs.* We read section 252(d)(1)(A)(i) to prohibit states from conducting traditional rate-of-return or other rate-based proceedings to determine rates for interconnection and access to unbundled network elements. We find that the parenthetical, ''(determined without reference to a rate-of-return or other rate-based proceeding),'' does not further define the type of costs that may be considered, but rather specifies a type of proceeding that may not be employed to determine the cost of interconnection and unbundled network elements. The legislative history demonstrates that Congress was eager to set in motion expeditiously the development of local competition and intended to avoid imposing the costs and administrative burdens associated with a traditional rate case. Prior to the joint conference, the Senate version of the 1996 Act contained the parenthetical language. In addition, the Senate version of the 1996 Act eliminated rate-of-return regulation, as did the House version. Conferees removed the provisions eliminating rate-of-return regulation, but retained the parenthetical.

474. Section 252(d)(1)(A)(i) does not specify whether historical or embedded costs should be considered or whether only forward-looking costs should be considered in setting arbitrated rates. We are not persuaded by incumbent LEC arguments that prices for interconnection and unbundled network elements must or should include any difference between the embedded costs they have incurred to provide those elements and their current economic costs. Neither a methodology that establishes the prices for interconnection and access to network elements directly on the costs reflected in the regulated books of account, nor a price based on forward looking costs plus an additional amount reflecting embedded costs, would be consistent with the approach we are adopting. The substantial weight of economic commentary in the record suggests that an ''embedded cost''-based pricing methodology would be pro-competitor—in this case the incumbent LEC—rather than pro-competition. We therefore decline to adopt embedded costs as the appropriate basis of setting prices for interconnection and access to unbundled elements. Rather, we reiterate that the prices for the interconnection and network elements critical to the development of a competitive local exchange should be based on the pro-competition, forward-looking, economic costs of those elements, which may be higher or lower than historical embedded costs. Such pricing policies will best ensure the efficient investment decisions and competitive entry contemplated by the 1996 Act, which should minimize the regulatory burdens and economic impact of our decisions on small entities.

475. Incumbent LECs contend generally that, in order to ensure they will recover their total investment costs and earn a profit, they must recover embedded costs. These costs, they argue, were incurred under federal and regulatory oversight and therefore should be recoverable. We are not convinced by the incumbent LECs' principal arguments for recognizing embedded cost in setting section 251 pricing rules. Even if the incumbent LECs' contention is correct, increasing the rates for interconnection and unbundled elements offered to competitors would interfere with the development of efficient competition, and is not the proper remedy for any past under-depreciation. Moreover, contrary to assertions by some incumbent LECs, regulation does not and should not guarantee full recovery of their embedded costs. Such a guarantee would exceed the assurances that we or the states have provided in the past. We have considered the economic impact of precluding recovery of small incumbent LECs' embedded costs. We do not believe that basing the prices of interconnection and unbundled elements on an incumbent LEC's embedded costs would advance the pro-competitive goals of the statute. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.

476. We acknowledge that some incumbent LECs may have incurred certain embedded costs reasonably before the passage of the 1996 Act, based on different regulatory regimes. Some incumbent LECs may assert that they have made certain historical investments required by regulators that they have been denied a reasonable opportunity to recover in the past and that the incumbent LECs may no longer have a reasonable opportunity to recover in the new environment of the 1996 Act. The record before us, however, does not support the conclusion that significant residual embedded costs will necessarily result from the availability of network elements at economic costs. To the extent that any such residual consists of costs of meeting universal service obligations, the recovery of such costs can and should be considered in our ongoing universal service proceeding. *Universal Service NPRM.* To the extent a significant residual exists within the interstate jurisdiction that does not fall within the ambit of section 254, we intend that to address that issue in our upcoming proceeding on access reform.

477. *Opportunity Cost—Efficient Component Pricing Rule.* A number of incumbent LECs advocate using the ''efficient component pricing rule'' (ECPR) to set the prices that incumbent LECs charge new entrants for inputs required to produce the same retail services the incumbent produces. Under the ECPR, the price of an input should be equal to the incremental cost of the input plus the opportunity cost that the incumbent carrier incurs when the new entrant provides the services instead of the incumbent. The opportunity cost, which is computed as revenues less all incremental costs, represents both profit and contribution to common costs of the incumbent, given the existing retail prices of the services being sold.

478. We conclude that ECPR is an improper method for setting prices of interconnection and unbundled network elements because the existing retail prices that would be used to compute incremental opportunity costs under ECPR are not cost-based. Moreover, the ECPR does not provide any mechanism for moving prices towards competitive levels; it simply takes prices as given. The record indicates that both incumbents and new entrants agree that

retail prices are not based on costs. Incumbents generally argue that local residential retail prices are below costs while new entrants contend that they exceed competitive levels. In either case, application of ECPR would result in input prices that would be either higher or lower than those which would be generated in a competitive market and would not lead to efficient retail pricing.

479. In markets where retail prices exceed competitive levels, entry would take place if network element prices were set at efficient competitive levels. The ECPR, however, will serve to discourage competition in these very markets because it relies on the prevailing retail price in setting the price which new entrants pay the incumbent for inputs. While ECPR establishes conditions for efficient entry given existing retail prices, as its advocates contend, the ECPR provides no mechanism that will force retail prices to their competitive levels. We do not believe that Congress envisioned a pricing methodology for interconnection and network elements that would insulate incumbent LECs' retail prices from competition. Instead, Congress specifically determined that input prices should be based on costs because this would foster competition in the retail market. Therefore, we reject the use of ECPR for establishing prices for interconnection and unbundled elements.

480. As discussed above, the record in this docket shows that end user prices are not cost-based. In *Open Video Systems*, in contrast, we did not find that there would be a problem with the determination of end user prices. *Implementation of Section 302 of the Telecommunications Act of 1996—Open Video Systems, Second Report and Order*, 61 FR 28698 (June 5, 1996). We concluded that ''[u]se of [an ECPR] approach is appropriate in circumstances where the pricing is applicable [sic] to a new market entrant (the open video system operator) that will face competition from an existing incumbent provider (the incumbent cable operator), as opposed to circumstances where the pricing is used to establish a rate for an essential input service that is charged to a competing new entrant by an incumbent provider.'' In addition, in *Open Video Systems*, we concluded that the ECPR is appropriate because it encourages entry for open video system operators and also enhances the availability of carriage for unaffiliated programmers. The ECPR generally protects the provider's profits and provides opportunities for third parties to use the provider's inputs. The ECPR does not provide a mechanism to drive retail prices to competitive levels, however. In *Open Video Systems*, we wanted to encourage entry by open video system providers and to encourage them to have incentives to open their systems to unaffiliated programmers. Here, our goal is to ensure that competition between providers, including third party providers using interconnection and unbundled elements, will drive prices toward competitive levels and thus use of the ECPR is inappropriate.

481. *Universal Service Subsidies.* We conclude that funding for any universal service mechanisms adopted in the universal service proceeding may not be included in the rates for interconnection, network elements, and access to network elements that are arbitrated by the states under sections 251 and 252. Sections 254(d) and 254(e) of the 1996 Act mandate that universal service support be recovered in an equitable and nondiscriminatory manner from all providers of telecommunications services. We conclude that permitting states to include such costs in rates arbitrated under sections 251 and 252 would violate that requirement by requiring carriers to pay specified portions of such costs solely because they are purchasing services and elements under section 251. Section 252(d)(1) requires that rates for interconnection, network elements, and access to network elements reflect the costs of providing those network elements, not the costs of supporting universal service.

482. Section 254(f) provides that a state may adopt equitable, nondiscriminatory, specific, and predictable mechanisms to advance universal service within that state. If a state collects universal service funding in rates for elements and services pursuant to sections 251 and 252, it will be imposing non-cost based charges in those rates. Including non-cost based charges in the rates for interconnection and unbundled elements is inconsistent with our rules implementing sections 251 and 252 which require that these rates be cost-based. It is also inconsistent with the requirement of section 254(f) that telecommunications carriers contribute to state universal service on a nondiscriminatory basis, because telecommunications carriers requesting interconnection or access to unbundled network elements will be required to make contributions to universal service support through such surcharges. States may not, therefore, include universal service support funding in the rates for elements and services pursuant to sections 251 and 252, nor may they implement mechanisms that have the same effect. For example, states may not fund universal service support by imposing higher rates for interconnection, unbundled elements, or transport and termination on carriers that offer service to different types of customers or different geographic areas. To the extent that New York's ''pay or play'' system funds universal service in this manner, it violates sections 251, 252, and 254 of the 1996 Act. Nothing in the 1996 Act or in this Order, however, precludes a state from adopting a universal service funding mechanism, whether interim or otherwise, if such funds are collected in accordance with section 254(f) on an ''equitable and nondiscriminatory basis'' through ''specific, predictable, and sufficient mechanisms that do not rely on or burden Federal universal service support mechanisms.''

483. Our decision here does not exempt carriers purchasing elements or services under section 251 from contributing to (or possibly receiving) universal service support. Rather, the recovery of universal service support costs from telecommunications carriers, including carriers requesting unbundled network elements, will be governed by section 254 of the 1996 Act. Federal universal service support mechanisms will be determined by our decisions reached in CC Docket 96–45, based on the recommendations of the Federal/State Universal Service Joint Board, and states may adopt additional universal service support mechanisms consistent with section 254(f).

484. We are mindful that the requirements of the 1996 Act may be disruptive to existing state universal service support mechanisms during the period commencing with this order and continuing until we complete our universal service proceeding to implement section 254. As discussed in the subsection immediately below, we permit incumbent LECs to continue to recover certain non-cost-based interstate access charge revenues for a limited period of time, largely because of concerns about possible deleterious impacts on universal service. We also authorize incumbent LECs, for a similar limited period of time, to continue to recover explicit intrastate universal service subsidy revenues based on intrastate access charges. This mechanism minimizes any possibility that implementation of sections 251 and 252 will unduly harm universal service during the interim period prior to completion of our universal service and access reform proceedings. Because we conclude this action should adequately provide for the continuation of a portion

of existing subsidy flows during a transition period until completion of our proceeding implementing section 254, we decline to permit any additional funding of universal service support through rates for interconnection, unbundled elements, and transport and termination during the interim period.

485. *Interim Application of Access Charges to Purchasers of Unbundled Local Switching Element.* In the introduction of this Order, we emphasize that implementation of section 251 of the 1996 Act is integrally related to both universal service reform as required under section 254, and to reform of the interstate access charge system. In order to achieve pro-competitive, deregulatory markets for all telecommunications services, we must create a new system of funding universal service that is specific, explicit, predictable, sufficient, and competitively neutral. We also must move access charges to more cost-based and economically efficient levels. We intend to fulfill both of these goals in the coming months, by completing our pending universal service proceeding to implement section 254 by our statutory deadline of May 1997, and by addressing access charge issues in an upcoming access reform proceeding. The 1996 Act, however, requires us to adopt rules implementing section 251 by August 1996. We are concerned that implementation of the requirements of section 251 now, without taking into account the effects of the new rules on our existing access charge and universal service regimes, may have significant, immediate, adverse effects that were neither intended nor foreseen by Congress.

486. Specifically, as we conclude above, the 1996 Act permits telecommunications carriers that purchase access to unbundled network elements from incumbent LECs to use those elements to provide telecommunications services, including the origination and termination of interstate calls. Without further action on our part, section 251 would allow entrants to use those unbundled network facilities to provide access services to customers they win from incumbent LECs, without having to pay access charges to the incumbent LECs. This result would be consistent with the long term outcome in a competitive market. In the short term, however, while other aspects of our regulatory regime are in the process of being reformed, such a change may have detrimental consequences.

487. The access charge system includes non-cost-based components and elements that at least in part may represent subsidies, such as the carrier common line charge (CCLC) and the transport interconnection charge (TIC). The CCLC recovers part of the allocated interstate costs for incumbent LECs to provide local loops to end users. In the universal service NPRM, we observed that the CCLC may result in higher-volume toll users paying rates that exceed cost, and some customers paying rates that are below cost. We sought comment on whether that subsidy should be continued, and on whether and how it should be restructured. *Universal Service NPRM.* The nature of most of the revenues recovered through the TIC is unclear and subject to dispute, although a portion of the TIC is associated with certain costs related to particular transport facilities. Although the TIC was not created to subsidize local rates, some parties have argued in the *Transport* proceeding and elsewhere that some portion of the revenues now recovered through the TIC may be misallocated local loop or intrastate costs that operate to support universal service. *First Transport Order.* 57 FR 54717 (November 20, 1992). In the forthcoming access reform proceeding, we intend to consider the appropriate disposition of the TIC, including the development of cost-based transport rates as directed by the United States Court of Appeals for the District of Columbia Circuit in *Competitive Telecommunications Association* v. *FCC*, 87 F.3d 522 (1996) (*CompTel* v. *FCC*).

488. Without a temporary mechanism such as the one we adopt below, the implementation of section 251 would permit competitive local service providers that also provide interstate long-distance service to avoid totally the CCLC and the TIC, which in part represent contributions toward universal service, by serving their local customers solely through the use of unbundled network elements rather than through resale. We believe that allowing such a result before we have reformed our universal service and access charge regimes would be undesirable as a matter of both economics and policy, because carrier decisions about how to interconnect with incumbent LECs would be driven by regulatory distortions in our access charge rules and our universal service scheme, rather than the unfettered operation of a competitive market. Because of our desire to err on the side of caution where universal service may be implicated, we conclude that some action is needed during the interim period before we complete our access reform and universal service proceedings.

489. We conclude that we should establish a temporary transitional mechanism to help complete all of the steps toward the pro-competitive goal of the 1996 Act, including the implementation of a new, competitively-neutral system to fund universal service and a comprehensive review of our system of interstate access charges. Therefore, for a limited period of time, incumbent LECs may recover from interconnecting carriers the CCLC and a charge equal to 75 percent of the TIC for all interstate minutes traversing the incumbent LECs' local switches for which the interconnecting carriers pay unbundled local switching element charges. Incumbent LECs may recover these charges only until the earliest of: (1) June 30, 1997; (2) the effective date of final decisions by the Commission in both the universal service and access reform proceedings; or (3) if the incumbent LEC is a BOC, the date on which that BOC is authorized under section 271 of the 1996 Act to offer in-region interLATA service. The end date for BOCs that are authorized to offer interLATA service shall apply only to the recovery of access charges in those states in which the BOC is authorized to offer such service.

490. We tentatively concluded in the NPRM that purchasers of unbundled network elements should not be required to pay access charges. We reaffirm our conclusion above in our discussion of unbundled network elements that nothing on the face of sections 251(c)(3) and 252(d)(1) compels telecommunications carriers that use unbundled elements to pay these charges, nor limits these carriers' ability to use unbundled elements to originate or terminate interstate calls, and that payment of rates based on TELRIC plus a reasonable allocation of common costs, pursuant to section 251(d)(1), represents full compensation to the incumbent LEC for use of the network elements that telecommunications carriers purchase. Because of the unique situation described in the preceding paragraphs, however, we conclude, contrary to our proposal in the NPRM, that during a time-limited period, interconnecting carriers should not be able to use unbundled elements to avoid access charges in all cases. As detailed below, this temporary mechanism will apply only to carriers that purchase the local switch as an unbundled network element, and use that element to originate or terminate interstate traffic. We are applying these transitional charges to the unbundled local switching element, rather than to any

other network elements, because such an approach is most closely analogous to the manner in which the CCLC and TIC are recovered in the interstate access regime. Currently, the CCLC and TIC apply to interstate switched access minutes that traverse incumbent LECs' local switches. Applying the CCLC and 75 percent of the TIC to the unbundled local switching element is consistent with our goal of minimizing disruptions while we reform our universal service system and consider changes to our access charge mechanisms. Moreover, the CCLC and the TIC are recovered on a per-minute basis, and the local switch is the primary point at which incumbent LECs are capable of recording interstate minutes for traffic associated with end user customers of requesting carriers.

491. We have crafted this short-term continuation of certain access charge revenue flows to minimize the possibility that incumbent LECs will be able to ''double recover'' through access charges the facility costs that new entrants have already paid to purchase unbundled elements. For that reason, we do not permit incumbent LECs to assess on purchasers of the unbundled local switching element any interstate access charges other than the CCLC and 75 percent of the TIC. The other access charges are all designed to recover the cost of particular facilities involved in the provision of interstate access services, such as local switching, dedicated interoffice transport circuits, and tandem switching. Imposition of these facility-based access charges in addition to the cost-based charges for comparable network elements established under Section 252 could result in double recovery. The mechanism we establish will ensure that incentives created by non-cost-based elements of access charges do not result in harmful consequences prior to completion of access reform and our universal service proceeding. Imposition of additional access charges is therefore not necessary. We note that this mechanism serves to minimize the potentially disruptive effects of our decisions on incumbent LECs, including small incumbent LECs.

492. For the same reason, we permit incumbent LECs to recover only 75 percent of the TIC. Some portion of the TIC recovers revenues associated with specific transport facilities. To the extent that these costs can be identified clearly, they should not be imposed on new entrants through the TIC. Incumbent LECs will be fully compensated for any transport facilities that new entrants purchase from them through the unbundled element rates states establish under 252(d)(1), which, as we have stated, must be based on economic cost rather than access charges. In our interim transport rate restructuring, we explicitly set the initial tandem switching rate at 20 percent of the interstate revenue requirement, with the remainder included in the TIC. *Transport Rate Structure and Pricing, Report and Order and Further Notice of Proposed Rulemaking*, 57 FR 54717 (November 20, 1992). In addition, certain costs of upgrading incumbent LEC networks to support SS7 signaling were allocated to transport through then-existing separations procedures. In our interim transport rate restructuring, we did not create any facility-based charges to recover these costs, so the associated revenues presumably were incorporated into the TIC. There may also be other revenues associated with transport facilities that are recovered today through the TIC. While we are uncertain of the precise magnitude of these revenues, in our best judgment, based on the record in the *Transport* proceeding and other information before us, we find that it is likely that these revenues approach, but probably do not exceed 25 percent of the TIC for most incumbent LECs. Thus, we believe that 25 percent is a conservative amount to exclude from the TIC to ensure that incumbent LECs do not double recover revenues associated with transport facilities from new entrants. Moreover, the Court in *CompTel* v. *FCC* remanded our *Transport* decision, in part, because of the inclusion of tandem switching revenues in the TIC rather than in the rate element for tandem switching. We find that excluding 25 percent of the TIC represents a reasonable exercise of our discretion to prevent revenues associated with the tandem switching revenue requirement from being recovered from purchasers or unbundled local switching.

493. We strongly emphasize that these charges will apply to purchasers of the unbundled switching element only for a very limited period, to avoid the possible harms that might arise if we were to ignore the effects on access charges and universal service of implementation of section 251. BOCs shall not be permitted to recover these revenues once they are authorized to offer in-region interLATA service, because at that time the potential loss of access charge revenues faced by a BOC most likely will be able to be offset by new revenues from interLATA services. Moreover, although we do not prejudge the conditions necessary to grant BOC petitions under section 271 to offer in-region interLATA service, we do decide that BOCs should not be able to charge the CCLC and the TIC, which are not based on forward-looking economic costs, to competitors that use unbundled elements under section 251 once they are authorized to provide in-region interLATA service. Only BOCs are subject to special restrictions in the 1996 Act to ensure that their entry into the in-region interLATA market does not have an adverse impact on competition. We conclude that this additional trigger date after which BOCs may not continue to receive access charges from purchasers of unbundled local switching is consistent with this Congressional design.

494. We have selected June 30, 1997 as an ultimate end date for this transitional mechanism to coincide with the effective date for LEC annual access tariffs, and because we believe it is imperative that this transitional requirement be limited in duration. We can conceive of no circumstances under which the requirement that certain entrants pay the CCLC or a portion of the TIC on calls carried over unbundled network elements would be extended further. The fact that access or universal service reform have not been completed by that date would not be a sufficient justification, nor would any actual or asserted harm to the financial status of the incumbent LECs. By June 30, 1997, the industry will have had sufficient time to plan for and adjust to potential revenue shifts that may result from competitive entry. Thus, the economic impact of our decision on competitive local service providers, including those that are small entities, should be minimized.

495. We believe that we have ample legal authority to implement this temporary transitional measure, and we find that this approach is consistent with the letter and spirit of the 1996 Act. We recognize that the CCLC and TIC have not been developed in accordance with the pricing standards of section 252(d)(1), and that to comply with the 1996 Act, the rates that states establish for interconnection and unbundled network elements may not include non-cost-based amounts or subsidies. The 1934 and 1996 Acts do, however, give us legal authority to determine, for policy reasons, that users of LEC facilities should pay certain access charges for a period of time. *New England Tel. and Tel . Co.* v. *FCC*, 826 F.2d 1101 (DC. Cir 1987); *North American Telecommunications Association* v. *FCC*, 772 F.2d (7th Cir. 1085); *Lincoln Tel. and Tel. Co.* v. *FCC*, 659 F.2d (DC. Cir. 1989). Section 4(i) of the 1934 Act authorizes the Commission to ''perform any and all acts * * * not

inconsistent with this Act, as may be necessary in the execution of its functions.'' Given the extraordinary upheaval in the industry's structure set in motion by the 1996 Act, and the specific concerns described above, we believe that a temporary mechanism is necessary in order to ensure that the policy goals underlying the access charge system and the Communications Act itself are not undermined. Further, we believe section 251(g) of the 1996 Act lends support to our decision. As discussed above, section 251(g) does not require that incumbent LECs continue to receive access charge revenues when telecommunications carriers use unbundled incumbent LEC network elements to originate and terminate interstate traffic. That section does, however, provide evidence of Congressional recognition of the potential tension between existing interconnection obligations, such as access charges, and the new methods of interconnection mandated by section 251, and therefore supports our decision to create a limited-duration mechanism to address this tension.

496. The decision of the court in *CompTel* v. *FCC* to remand our decision to adopt the TIC is not inconsistent with this approach. The Court's concern stemmed, in part, from the inclusion of a portion of the interstate tandem switching revenue requirement in the TIC. We have excluded from the charges that purchasers of unbundled local switching must pay a percentage of the TIC that, at a minimum, includes these allocated tandem switching revenues from the transitional charges that incumbent LECs may assess on IXCs. Furthermore, the Court directed the Commission to develop a cost-based transport rate structure, or to explain why it chose not to do so. *Competitive Telecommunications Association* v. *FCC*, 87 F.3d 522 (DC. Cir 1996). We intend to fulfill this obligation in the forthcoming access reform proceeding. The charge equal to 75 percent of the TIC will be applied only as an interim measure for a brief, clearly-identified period, until that restructuring of access charges is completed. The court expressly acknowledged that the 1996 Act would have implications for the access charge system. For the reasons described above, we conclude that these effects necessitate temporary application of a portion of the TIC to entrants that win end user customers from LECs, and that purchase the local switch as an unbundled element to originate and terminate interstate and intrastate toll traffic for such end users. In the access reform proceeding, we intend to determine the appropriate disposition for these revenues. Until we have had the opportunity to do so, however, we permit incumbent LECs to recover a transitional charge equal to 75 percent of the TIC under the limited circumstances described herein.

497. The interim mechanism we establish here differs from the waiver relief we have previously granted to NYNEX and Ameritech to permit them to recover certain interstate access charge revenues through ''bulk billing'' of revenues to all interstate switched access customers. Those orders responded to waiver requests filed prior to the passage of the 1996 Act. Our responsibility in those proceedings was to determine whether special circumstances existed, and whether the specific relief requested better served the public interest than continued application of our general rules. By constrast, the action we take today addresses industry-wide issues that arise from the new regime put into place by section 251 of the 1996 Act, which allows states to establish unbundled network element rates that recover the full unseparated cost of elements. Our response to the Ameritech and NYNEX waiver petitions does not, simply because those petitions also concerned access charge recovery, constrain our decision in this proceeding.

498. It would be unreasonable to provide such a transitional mechanism on the federal level, but to deny similar authority to the states. Therefore, states may continue existing explicit universal service support mechanisms based on intrastate access charges for an interim period of a similar brief, clearly-defined length. During that period, unless decided otherwise by the state, incumbent LECs may continue to recover such revenues from purchasers of unbundled local switching elements that use those elements to originate or terminate intrastate toll calls for end user customers they win from incumbent LECs. States may terminate these mechanisms at any time. We define mechanisms based on intrastate access charges as those mechanisms that require purchasers of intrastate access services from incumbent LECs to pay non-cost-based charges for those access services on the basis of their intrastate access minutes of use.

499. We do not intend, however, that such a transitional mechanism eviscerate the requirements of sections 252 and 254, which, as we have stated, prohibit funding of universal service subsidies through rates for interconnection and unbundled network elements. Mechanisms such as New York's ''pay or play'' system, which would impose intrastate access charges on non-access services rather than allowing incumbent LECs to recover non-cost-based revenues from purchasers of access services, may not be included in this interim system. Such a result is justified because state ''pay or play'' mechanisms do not at present constitute a significant revenue stream to incumbent LECs, and therefore elimination of this mechanism is unlikely, in the short term, to have significant detrimental effects on universal service support.

500. These state mechanisms must end on the earlier of: (1) June 30, 1997; or (2) if the incumbent LEC that receives the transitional access charge revenues is a BOC, the date on which that BOC is authorized under section 271 of the 1996 Act to offer in-region interLATA service. With one exception, the analysis provided above as to the rationale for the end dates for the transitional interstate access charge mechanism applies here as well. Because our access reform proceeding focuses on federal charges, and because the full extent of the section 254 universal service mechanism remains to be determined in that proceeding, intrastate access charge-based universal service support mechanisms should not now be required to terminate upon the completion of those proceedings.

501. As with our decision to permit incumbent LECs to continue to receive certain interstate access charge revenues from some purchasers of unbundled local switching for a limited period of time, we believe our decision to allow states to preserve certain intrastate universal service support mechanisms based on access charges is within our authority under section 251(d)(1) of the 1996 Act, and section 4(i) of the 1934 Act. Moreover, although section 251(g) does not directly refer to intrastate access charge mechanisms, it would be incongruous to conclude that Congress was concerned about the effects of potential disruption to the interstate access charge system, but had no such concerns about the effects on analogous intrastate mechanisms.

(c) Fifth Amendment Issues

502. We conclude that our decision that prices for incumbent LECs' unbundled elements and interconnection offerings be based on forward-looking economic cost does not violate the incumbent LECs' rights under the Fifth Amendment of the Constitution. The Supreme Court has recognized that public utilities owned and operated by private investors, even though their assets are employed in the public interest to provide consumers

with service, may assert their rights under the Takings Clause of the Fifth Amendment. *Duquesne Light Co.* v. *Barasch*, 488 U.S. 299, 307 (1989). In applying the Takings Clause to rate setting for public utilities, the Court has stated that ''[t]he guiding principle has been that the Constitution protects utilities from being limited to a charge for their property serving the public which is so 'unjust' as to be confiscatory.''

503. The Supreme Court has held that the determination of whether a rate is confiscatory depends on whether that rate is just and reasonable, and not on what methodology is used. *In re Permian Basin Area Rate Cases*, 390 U.S. 747 (1968); *Federal Power Commission* v. *Memphis Light, Gas & Water Division*, 411 U.S. 458 (1973); *Jersey Central Power & Light* v. *FERC*, 810 F.2d 1168 (D.C. Cir. 1987). In *Federal Power Comm'n* v. *Hope Natural Gas Co.*, 320 U.S. 591 (1944), the Court upheld the Federal Power Commission's order that required the company to make a large reduction in wholesale gas rates. The commission based its determination of a reasonable rate of return on a plant valuation determined by using a historical cost methodology that was only half as large as the company's own valuation based on forward-looking reproduction costs. In its decision, the Court set forth the governing legal standard for determining whether a rate is constitutional:

> Under the statutory standard of ''just and reasonable'' it is the result reached not the method employed that is controlling. It is not the theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important.

504. The Court went on to explain that, in determining whether a rate is reasonable, the regulatory body must balance the interests of both the investor and consumer. ''From the investor or company point of view, it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business * * *. [T]he return on the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks.''

505. Under sections 251(c) (2) and (3) of the 1996 Act, incumbent LECs must establish rates for interconnection and unbundled elements that are just and reasonable. In adopting the rules that govern those rates, under *Hope Natural Gas* we must consider whether the end result of incumbent LEC rates is just and reasonable. Incumbent LECs argue that establishing a rate structure that does not permit recovery of historical or embedded costs is confiscatory. We disagree. As stated above, the Court has consistently held since *Hope Natural Gas* that it is the end result, not the method used to achieve that result, that is the issue to be addressed. Indeed, the Court has found that the ''fixing of prices, like other applications of the police power, may reduce the value of the property which is being regulated. But the fact that the value is reduced does not mean that the regulation is invalid.'' Moreover, the Court has upheld as reasonable changes in ratemaking methodology when the change resulted in the exclusion of historical costs prudently incurred. Thus, the mere fact that an incumbent LEC may not be able to set rates that will allow it to recover a particular cost incurred in establishing its regulated network does not, in and of itself, result in confiscation.

506. Moreover, *Hope Natural Gas* requires only that the end result of our overall regulatory framework provides LECs a reasonable opportunity to recover a return on their investment. In other words, incumbent LECs' overall rates must be considered, including the revenues for other services under our jurisdiction.

507. In this proceeding, we are establishing pricing rules that should produce rates for monopoly elements and services that approximate what the incumbent LECs would be able to charge if there were a competitive market for such offerings. We believe that a forward-looking economic cost methodology enables incumbent LECs to recover a fair return on their investment, *i.e.*, just and reasonable rates. The record does not compel a contrary conclusion. No incumbent LEC has provided persuasive evidence that prices based on a forward-looking economic cost methodology would have a significant impact on its ''financial integrity.'' We further note that at least one federal appellate court has held incremental cost-based pricing constitutional. *Metropolitan Transp. Auth.* v. *Interstate Commerce Commission*, 792 F.2d 287, 297 (2d Cir.), *cert. denied*, 479 U.S. 1017 (1986).

508. Incumbent LECs may seek relief from the Commission's pricing methodology if they provide specific information to show that the pricing methodology, as applied to them, will result in confiscatory rates. We also do not completely foreclose the possibility that incumbent LECs will be afforded an opportunity to recover, to some extent, their embedded costs through a mechanism separate from rates for interconnection and unbundled network elements. As stated above, we intend to explore this issue in detail in our upcoming access reform proceeding.

509. GTE argues that the proper standard to review our ratemaking methodology is the just compensation standard generally reserved for takings of property. This is in effect a contention that the 1996 Act's physical collocation and unbundled network facility requirements constitute physical occupation of their property that should be deemed a taking and that must be subject to ''just compensation.'' Assuming for the sake of argument that the physical collocation and unbundled facilities requirements do result in a taking, we nevertheless find that the ratemaking methodology we have adopted satisfies the just compensation standard. Just compensation is normally measured by the fair market value of the property subject to the taking. Just compensation is not, however, intended to permit recovery of monopoly rents. The just and reasonable rate standard of TELRIC plus a reasonable allocation of the joint and common costs of providing network elements that we are adopting attempts to replicate, with respect to bottleneck monopoly elements, the rates that would be charged in a competitive market, *Policy and Rules Concerning Rates for Dominant Carriers, Further Notice of Proposed Rulemaking*, 53 FR 22356 (June 15, 1988), and, we believe, is entirely consistent with the just compensation standard. Indeed, a similar rate methodology based on incremental costs has been found to satisfy the just compensation requirement. For these reasons, we conclude that, even if the 1996 Act's physical collocation and unbundled network facility requirements constitute a taking, a forward-looking economic cost methodology satisfies the Constitution's just compensation standard.

3. Rate Structure Rules

a. General Rate Structure Rules

(1) Background

510. In addition to applying our economic pricing methodology to determine the rate level of a specific element or interconnection, the state must also determine the appropriate rate structure. We discuss in this section general principles for analyzing rate structure questions, such as in what circumstances charges should be flat-rated or usage sensitive and in what circumstances they should be recurring or non-recurring. These rate structure

rules will apply as well if a state sets rates based on default proxies discussed in Section VII.C.2 below, where we also discuss the appropriate rate structure for specific network elements. Network providers incur costs in providing two broad categories of facilities, dedicated and shared. Dedicated facilities are those that are used by a single party—either an end user or an interconnecting network. Shared facilities are those used by multiple parties. In the NPRM, we proposed that costs should be recovered in a manner that reflects the way they are incurred. We also sought comment on whether we should require states to provide for recovery of dedicated facility costs on a flat-rated basis, or at a minimum, require LECs to offer a flat-rate option.

(2) Discussion

511. We conclude, as a general rule, that incumbent LECs' rates for interconnection and unbundled elements must recover costs in a manner that reflects the way they are incurred. This will conform to the 1996 Act's requirement that rates be cost-based, ensure requesting carriers have the right incentives to construct and use public network facilities efficiently, and prevent incumbent LECs from inefficiently raising costs in order to deter entry. We note that this conclusion should facilitate competition on a reasonable and efficient basis by all firms in the industry by establishing prices for interconnection and unbundled elements based on costs similar to those incurred by the incumbents, which may be expected to reduce the regulatory burdens and economic impact of our decision for many parties, including both small entities seeking to enter the local exchange markets and small incumbent LECs. We also adopt some more specific rules that follow from this general rule.

512. First, we require that the charges for dedicated facilities be flat-rated, including, but not limited to, charges for unbundled loops, dedicated transport, interconnection, and collocation. These charges should be assessed for fixed periods, such as a month. We are requiring flat-rated charges for dedicated facilities. Usage-based charges for dedicated facilities would give purchasers of access to network elements an uneconomic incentive to reduce their traffic volumes. Moreover, purchasers of access to network elements with low volumes of traffic would pay below-cost prices, and therefore have an incentive to add lines that they would not add if they had to pay the full cost. As stated in the NPRM, a flat-rated charge is most efficient for dedicated facilities, because it ensures that a customer will pay the full cost of the facility, and no more. It ensures that an entrant will, for example, purchase the exclusive right to use additional loops only if the entrant believes that the benefits of the additional loops will exceed its costs. It also ensures that the entrant will not face an additional (and non-cost-based) usage charge.

513. Second, if we apply our general rule that costs should be recovered in a manner that reflects the way they are incurred, then recurring costs must be recovered through recurring charges, rather than through a nonrecurring charge. A recurring cost is one incurred periodically over time. A LEC may not recover recurring costs such as income taxes, maintenance expenses, and administrative expenses through a nonrecurring charge because these are costs that are incurred in connection with the asset over time. For example, we determine that maintenance expenses relating to the local loop must be recovered through the recurring loop charge, rather than through a nonrecurring charge imposed upon the entrant.

514. We find that recovering a recurring cost through a nonrecurring charge would be unjust and unreasonable because it is unlikely that incumbent LECs will be able to calculate properly the present value of recurring costs. To calculate properly the present value of recurring costs, an incumbent LEC would have to project accurately the duration, level, and frequency of the recurring costs and estimate properly its overall cost of capital. We find that, in practice, the present value of the recurring costs cannot be calculated with sufficient accuracy to warrant up-front recovery of these costs because incumbent LECs lack sufficient experience with the provision of interconnection and unbundled rate elements. Without sufficient experience, incumbent LECs are unable to project the length of time that an average entrant would interconnect with, or take an unbundled element from, the incumbent LEC, or how expenses associated with interconnection and unbundled rate elements would change over time. In contrast, a recurring charge for a recurring cost would ensure that a customer is only charged for the costs the entrant incurs while that entrant is taking interconnection service or unbundled rate elements from the incumbent LEC. Moreover, when costs associated with the interconnection and particular unbundled rate elements change, the incumbent LEC can make appropriate adjustments to the charges at the time such cost changes occur.

515. Accordingly, we find that imposing nonrecurring charges for recurring costs could pose a barrier to entry because these charges may be excessive, reflecting costs that may (1) not actually occur; (2) be incurred later than predicted; (3) not be incurred for as long as predicted; (4) be incurred at a level that is lower than predicted; (5) be incurred less frequently than predicted; and (6) be discounted to the present using a cost of capital that is too low.

516. Notwithstanding the foregoing, where recurring costs are *de minimis,* we will permit incumbent LECs to recover such costs through nonrecurring charges. We find that recurring costs are *de minimis* where the costs of administering the recurring charge would be excessive in relation to the amount of the recurring costs.

517. Third, states may, but need not, require incumbent LECs in an arbitrated agreement to recover nonrecurring costs, costs that are incurred only once, through recurring charges over a reasonable period of time. The recovery of such nonrecurring costs through recurring charges is a common practice for telecommunications services. Construction of an interconnector's physical collocation cage is an example of a nonrecurring cost. We find that states may, where reasonable, require an incumbent LEC to recover construction costs for an interconnector's physical collocation cage as a recurring charge over a reasonable period of time in lieu of a nonrecurring charge. This arrangement would decrease the size of the entrant's initial capital outlay, thereby reducing financial barriers to entry. At the same time, any such reasonable arrangement would ensure that incumbent LECs are fully compensated for their nonrecurring costs.

518. We require, however, that state commissions take steps to ensure that incumbent LECs do not recover nonrecurring costs twice and that nonrecurring charges are imposed equitably among entrants. A state commission may, for example, decide to permit incumbent LECs to charge the initial entrants the full amount of costs incurred for shared facilities for physical collocation service, even if future entrants may benefit. A state commission may, however, require subsequent entrants, who take physical collocation service in the same central office and receive benefits as a result of costs for shared facilities, to pay the incumbent LEC for their proportionate share of those costs, less depreciation (if

an asset is involved). Under this approach, the state commission could require the incumbent LEC to provide the initial entrants *pro rata* refunds, reflecting the full amount of the charges collected from the subsequent entrants. Alternatively, a state commission may decide to permit incumbent LECs to charge initial entrants a proportionate fraction of the costs incurred, based on a reasonable estimate of the total demand by entrants for the particular interconnection service or unbundled rate elements.

519. In addition, state commissions must ensure that nonrecurring charges imposed by incumbent LECs are equitably allocated among entrants where such charges are imposed on one entrant for the use of an asset and another entrant uses the asset after the first entrant abandons the asset. For example, when an entrant pays a nonrecurring charge for construction of a physical collocation cage and the entrant discontinues occupying the cage before the end of the economic life of the cage, a state commission could require that the initial entrant receive a *pro rata* refund from the incumbent LEC for the undepreciated value of the cage in the event that a subsequent entrant takes physical collocation service and uses the asset. Under this approach, the state commission could require that the subsequent entrant pay the incumbent LEC a nonrecurring charge equal to the remaining unamortized value of the cage and the initial entrant will receive a credit from the incumbent LEC equal to the unamortized value of the cage at the time the subsequent entrant takes service and utilizes the cage.

520. BellSouth's concern that rate structure rules could preclude mutually agreeable alternative structures is misplaced. The rate structure rules we adopt here apply only to rates imposed by the states in arbitration among the parties and to state review of BOC statements of generally available terms. Our rules do not restrict parties from agreeing to alternative rate structures. On the contrary, our intent, following the clear pro-negotiation spirit of the 1996 Act, is for parties to use the backdrop of state arbitrations conducted under our rules, to negotiate more efficient, mutually agreeable arrangements, subject, of course, to the antitrust laws and to the 1996 Act's requirements that voluntarily negotiated agreements not unreasonably discriminate against third parties.

b. Additional Rate Structure Rules for Shared Facilities

(1) Background

521. In the NPRM, we stated our belief that the costs of shared facilities should be recovered in a manner that efficiently apportions costs among users that share the facility. The NPRM noted that, for shared facilities, it may be efficient to set prices using any of the following: a usage-sensitive charge; a usage-sensitive charge for peak-time usage and a lower charge for off-peak usage; or a flat charge for the peak capacity that an interconnector wishes to pay for and use as though that portion of the facility were dedicated to the interconnector.

(2) Discussion

522. The costs of shared facilities including, but not limited to, much of local switching, tandem switching, transmission facilities between the end office and the tandem switch, and signaling, should be recovered in a manner that efficiently apportions costs among users. Because the cost of capacity is determined by the volume of traffic that the facilities are able to handle during peak load periods, we believe, as a matter of economic theory, that if usage-sensitive rates are used, then somewhat higher rates should apply to peak period traffic, with lower rates for non-peak usage. The peak load price would be designed to recover at least the cost of the incremental network capacity added to carry peak period traffic. Pricing traffic during peak periods based on the cost of the incremental capacity needed to handle additional traffic would be economically efficient because additional traffic would be placed on the network if and only if the user or interconnecting network is willing to pay the cost of the incremental network capacity required to handle this additional traffic. Such pricing would ensure that a call made during the peak period generates enough revenue to cover the cost of the facilities expansion it requires, and would thus give carriers an incentive to expand and develop the network efficiently. In contrast, off-peak traffic imposes relatively little additional cost because it does not require any incremental capacity to be added to base plant, and consequently, the price for carrying off-peak traffic should be lower.

523. We recognize, however, that there are practical problems associated with a peak-sensitive pricing system. For example, different parts of a given provider's network may experience peak traffic volumes at different times (*e.g.*, business districts may experience their peak period between 10:00 and 11:00 a.m., while suburban areas may have their peak periods between 7:00 and 8:00 p.m.) Moreover, peak periods may change over time. For instance, growth in Internet usage may create new peak periods in the late evening. Further, charging different prices for calls made during different parts of the day may cause some customers to shift their calling to the less expensive time periods, which could shift the peak or create new peaks. Thus, to design an efficient peak-sensitive pricing system requires detailed knowledge of both the structure of costs as well as demand.

524. We conclude that the practical problems associated with peak-sensitive pricing make it inappropriate for us to require states to impose such a rate structure for unbundled local switching or other shared facilities whose costs vary with capacity. Because we believe that such a structure may be the most economically efficient, however, we do not prohibit states from imposing peak-sensitive pricing. We also expect that parties may be able to negotiate agreements with peak/off-peak differences if the benefits of such distinctions are sufficiently high. We conclude that states may use either usage-sensitive rates or flat capacity-based rates for shared facilities, if a state finds that such rates reasonably reflect the costs imposed by the various users. States may consider for guidance rate structures developed in competitive markets for shared facilities. We note that our decisions in this section may benefit small entity entrants in local exchange and exchange access markets by minimizing the extent to which purchasers of interconnection and unbundled access pay rates that diverge from the costs of those facilities and services.

c. Geographic/Class-of-Service Averaging

(1) Background

525. In the NPRM, we asked about the appropriate level of aggregation for rates for interconnection and access to unbundled elements. We noted that geographic averaging is simple to administer and prevents unreasonable or unlawful rate differences but, where averaging covers high and low cost areas, it could distort competitors' decisions whether to lease unbundled elements or build their own facilities. We sought comment on the geographic deaveraging of interconnection and unbundled element rates by zone, LATA, or other area.

526. We also inquired about disaggregation by class of service. We questioned whether business and residential loops, or loops deployed using different technologies should be charged different rates, and how large a differential should be allowed.

(2) Discussion

527. *Geographic Deaveraging.* The 1996 Act mandates that rates for interconnection and unbundled elements be ''based on the cost * * * of providing the interconnection of network elements.'' We agree with most parties that deaveraged rates more closely reflect the actual costs of providing interconnection and unbundled elements. Thus, we conclude that rates for interconnection and unbundled elements must be geographically deaveraged.

528. The record reflects that at least two states have implemented geographically-deaveraged rate zones. These rate zone pricing systems have generally included a minimum of three zones. In the *Expanded Interconnection* proceeding, the Commission also permitted LECs to implement a three zone structure. *Expanded Interconnection Order.* 57 FR 54323 (November 18, 1992); *Expanded Interconnection Second Report and Order and Third Notice of Proposed Rulemaking.* 58 FR 48756 (September 17, 1993). We conclude that three zones are presumptively sufficient to reflect geographic cost differences in setting rates for interconnection and unbundled elements, and that states may, but need not, use these existing density-related rate zones. Where such systems are not in existence, states shall create a minimum of three cost-related rate zones to implement deaveraged rates for interconnection and unbundled elements. A state may establish more than three zones where cost differences in geographic regions are such that it finds that additional zones are needed to adequately reflect the costs of interconnection and access to unbundled elements.

529. *Class-of-Service Deaveraging.* The record leads us to the opposite conclusion for class-of-service deaveraging. Under the 1996 Act, wholesale rates for resold services will be based on retail rates less avoided costs. Rates for interconnection and access to unbundled elements, however, are to be based on costs. We conclude that the pricing standard for interconnection and unbundled elements prohibits deaveraging that is not cost based. Interconnection and unbundled elements are intermediate services provided by incumbent LECs to other telecommunications carriers, and there is no evidence that the cost of providing these intermediate services varies with the class of service the telecommunications carrier is providing to its end-user customers. We conclude that states may not impose class-of-service deaveraging on rates for interconnection and unbundled elements. We disagree with the Ohio Consumers' Counsel's position that the 1996 Act's explicit permission of class-of-service deaveraging of resold services implies that class-of-service deaveraging should be permitted for interconnection and unbundled elements. Finally, we note that these decisions concerning averaging may be expected to lead to increased competition and a more efficient allocation of resources, which should benefit the entire industry, including small entities and small incumbent LECs.

C. Default Proxy Ceilings and Ranges

530. As previously discussed, we strongly encourage state commissions, as a general rule, to set arbitrated rates for interconnection and access to unbundled network elements pursuant to the forward-looking, economic cost pricing methodology we adopt in this Order. Such rates would approximate levels charged in a competitive market, would be economically efficient, and would be based on the forward-looking, economic cost of providing interconnection and unbundled elements. We recognize, however, that, in some cases, it may not be possible for carriers to prepare, or the state commission to review, economic cost studies within the statutory time frame for arbitration and thus here first address situations in which a state has not approved a cost study. States that do not complete their review of a forward-looking economic cost study within the statutory time periods but must render pricing decisions, will be able to establish interim arbitrated rates based on the proxies we provide in this Order. A proxy approach might provide a faster, administratively simpler, and less costly approach to establishing prices on an interim basis than a detailed forward-looking cost study.

531. The default proxies we establish will, in most cases, serve as presumptive ceilings. States may set prices below those ceilings if the record before them supports a lower price. States should provide a reasoned basis for selecting a particular default price. In one case, for local switching, the default proxy is a range within which a state may set prices.

532. States that set prices based upon the default proxies must also require the parties to update the prices in the interconnection agreement on a going-forward basis, either after the state conducts or approves an economic study according to the cost-based pricing methodology or pursuant to any revision of the default proxy. We believe generic economic cost models, in principle, best comport with the preferred economic cost approach described previously, and we intend to examine further such models by the first quarter of 1997 to determine whether any of those models, with any appropriate modifications, could serve as better default proxies. Any updated price would take effect beginning at the time of the completed and approved study or the application of the revised default proxy.

533. Second, if a state has approved or conducted an economic cost study, prior to this Order, that complies with the methodology we adopt in this Order, the state may continue to apply the resulting rate even when not consistent with our default proxies. There must, however, be a factual record, including the cost study, sufficient for purposes of review after notice and opportunity for the affected parties to participate.

534. Finally, while we provide for the use by states of default proxies, we recognize that certain states that are unable to utilize an economic cost study may wish to obtain the benefits of setting rates pursuant to such a study for its residents. The Commission will therefore entertain requests by states to review an economic cost study, to assist the state in conducting or reviewing such a study, or to conduct such a study.

1. Use of Proxies Generally

a. Background

535. In the NPRM, we discussed the possibility of setting certain outside limits for interconnection and unbundled element rates, in particular, by the use of proxies. We invited parties to comment on whether the use of certain proxies to set outer boundaries on the prices for interconnection and unbundled elements would be consistent with the pricing principles of the 1996 Act. Specifically, in the NPRM, we asked parties to comment on the benefits of various types of proxies: (1) generic cost studies, such as the Benchmark Cost Model and the Hatfield models; (2) some measure of nationally-averaged cost data; (3) rates in existing interconnection and unbundling arrangements between incumbent LECs and other providers of local service, such as neighboring incumbent LECs, CMRS providers, or other entrants in the

same service area; (4) a subset of the incumbent LECs' existing interstate access rates, charged for interconnection with IXCs and other access customers, or an intrastate equivalent; (5) use of the interstate prices established in the *ONA* proceeding for unbundled features and functions of the local switch as ceilings for the same unbundled elements under section 251; and (6) any other administratively simple methods for establishing a ceiling for interconnection and unbundled network element rates. As a counterpart to ceilings, we also sought comment on whether it would be necessary or appropriate for us to establish floors for interconnection and unbundled element prices.

b. Discussion

536. We adopt, in the section below, default proxies for particular network elements. We believe that these default proxies generally will result in reasonable price ceilings or price ranges and, for administrative and practical reasons, will be beneficial to the states in conducting initial rate arbitrations, especially in the time period prior to completion of a cost study. The proxies we adopt are designed to approximate prices that will enable competitors to enter the local exchange market swiftly and efficiently and will constrain the incumbent LECs' ability to preclude efficient entry by manipulating the allocation of common costs among services and elements. States that utilize the default proxies we establish to set prices in an arbitration should revise those prices on a going-forward basis when they are able to utilize the preferred economic costing methodology we describe in Section VII.B.2.a. above, or if we subsequently adopt new proxies.

537. We have considered the economic impact of the adoption of default proxy ceilings and ranges on small entities, including new entrants and small incumbent LECs. The adoption of proxies for interim arbitrated rates should minimize regulatory burdens on the parties to arbitration, including small entities seeking to enter the local exchange markets and small incumbent LECs, by permitting states to implement the 1996 Act more quickly and facilitating competition on a reasonable and efficient basis by all firms in the industry. We therefore believe that the adoption of default proxy ranges and ceilings advances the pro-competitive goals of the 1996 Act. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.

538. The proxies that we establish represent the price ceiling or price ranges for the particular element on an averaged basis. In Section VII.B.3.c. above, we required that rates be set on a geographically-deaveraged basis. Consequently, states utilizing the proxies shall set rates such that the average rate for the particular element in a study area does not exceed the applicable proxy ceiling or lie outside the proxy range.

539. We reject the use of rates in interconnection agreements that predate the 1996 Act as a proxy-based ceiling for interconnection and unbundled element rates. These existing interconnection agreements were not reached in a competitive market environment. Further, such agreements may reflect the divergent bargaining power of the parties to the agreement, various public policy initiatives to advance rural telephone service, or non-monetary *quid pro quos* often found in voluntarily negotiated business arrangements that may be difficult to quantify. There is little basis for us to conclude that rates in these interconnection agreements reflect the forward-looking, incremental cost of interconnection and unbundled network elements. Prices in agreements reached since the 1996 Act are more likely than prior agreements to provide useful information about forward-looking costs, which together with other information may be useful in establishing proxies.

540. In the NPRM, we also raised the issue of using some measure of nationally-averaged cost data as a proxy. No such study has been submitted into the record in this proceeding.

2. Proxies for Specific Elements

a. Overview

541. Although we encourage states to use an economic cost methodology to set rates for interconnection, unbundled network elements, and collocation, we will permit states unable to analyze an economic costing study within the statutory time constraints to use default proxies in setting and reviewing rates. We set forth below the default proxies for specific network elements. These proxies are interim only. They will apply only until a state sets rates in arbitrations on the basis of an economic cost study, or until we promulgate new proxies based on economic cost models. We also set forth below the rate structure rules that apply to each of network elements. These rate structure requirements are applicable regardless of whether a state uses an economic cost study or the proxy approach to set rate levels.

b. Discussion

(1) Loops

(a) Discussion

542. Most loop costs are associated with a single customer. *MTS and WATS Market Structure, Third Report and Order.* 48 FR 10319 (March 11, 1983). Outside plant between a customer's premises and ports on incumbent LEC switches is typically either physically separate for each individual customer, or has costs that can easily be apportioned among users. We therefore conclude that costs associated with unbundled loops should be recovered on a flat-rated basis. Usage-based rates for an unbundled loop would most likely translate into usage-based rates for new entrants' retail local customers. A retail usage-based rate would distort incentives for efficient use. Customers that had to pay a usage charge would have an incentive not to use the network in situations where the benefit of using the network exceeds the true cost of using the network. Usage-based loop prices would put an entrant at an artificial cost disadvantage when competing for high-volume customers. We note that MFS has filed a separate petition asking the Commission to preempt certain provisions of the Texas statute, which it contends requires incumbent LECs to sell unbundled local loops on a usage-sensitive basis. We will rule specifically on the Texas statute when we consider the *MFS Texas Petition*.

543. In general, we believe that states should use a TELRIC methodology to establish geographically deaveraged, flat-rate charges for access to unbundled loops. As discussed above, however, we recognize that, in some cases, it may not be possible for carriers to prepare, or for state commissions to review, economic cost studies within the statutory time frame for arbitration proceedings. Because reviewing and approving such cost studies takes time and because many states have not yet begun, or have only recently begun, to develop and examine such studies, it is critical for the near-term development of local competition to have proxies that provide an approximation of forward-looking economic costs and can be used by states almost immediately. These proxies would be used by a state commission until it is able either to complete a cost study or to evaluate and adopt the results of a study or studies

submitted in the record. In an NPRM to be issued shortly, we will investigate more fully various long-run incremental cost models in the record with an eye to developing a model that can be used to generate proxies for the forward looking economic costs of network elements. Until such time as we can develop such a model, we have developed the following default proxy ceilings that state commissions that have not completed forward looking economic cost studies may use in the interim as an approximation to the forward looking cost of the local loop.

544. State commissions may use this proxy to derive a maximum (or ceiling) loop rate for each incumbent LEC operating within their state, and may establish actual unbundled loop rates at any level less than or equal to this maximum rate in specific arbitrations or other proceedings. Of course, we are encouraging states to have economic studies completed wherever feasible. Moreover, states will have to replace this proxy ceiling with the results of their own forward looking economic cost study or the results produced by a generic economic cost model that the Commission has approved.

545. We are adopting a proxy ceiling based on two cost models and rates for unbundled loops allowed by six states that had available to them the results of forward-looking economic cost studies at the time they considered either interim or permanent rates for the unbundled loop element. These states are Colorado, Connecticut, Florida, Illinois, Michigan, and Oregon. Each of these states has used a standard that appears to be reasonably close to the forward-looking economic cost methodology that we require to be used, although possibly not consistent in every detail with our TELRIC methodology. Generally, these states appear to have included an allocation of forward-looking common costs in their unbundled loop prices. The individual state studies resulted in the following average rates for unbundled local loops: Colorado, $18; Connecticut, $12.95; Florida, $17.28; Illinois, $10.93; Michigan, $10.03; and Oregon, $12.45, computed as set forth below.

546. The Colorado Commission set an interim rate of $18 per month for unbundled loops terminated at the main distribution frame of the LEC switch. The Connecticut Commission ruled that SNET must provide the following interim unbundled loop prices varying by four zones: metro $10.18; urban $11.33; suburban $15.33; and rural $14.97. In the absence of further information about customer density or average loop length by zone, we used a simple average equal to $12.95. The Florida Commission set an interim rate for 2-wire loops at $17.00 per month for BellSouth, $15.00 for United/Centel, and $20.00 for GTE. Using weights equal to the number of loops served by each company in 1994 as reported in the Monitoring Report, we computed a weighted average price equal to $17.28. Pursuant to its *Customers First* Order, the Illinois Commerce Commission approved tariffs establishing business rates equal to $7.08, $10.92, and $14.45, and residential rates equal to $4.59, $8.67, and $12.14 in three density zones. Based on data from Table 2.5, page 20 of the Common Carrier Statistics, 1995 Preliminary, we found a 36 percent–64 percent business residential split. Using Illinois Commission data for number of households in each density zone (996,750 in zone A; 2,788,759 in zone B; 4,594,567 in zone C), we computed an average loop cost of $10.93. The Michigan Commission approved transitional rates of $8.00 per loop for business and $11 per loop for residence. Based on Common Carrier Statistics, 1995 Preliminary data, we computed a 32 percent–68 percent business-residential split in Michigan, which leads to an average rate of $10.03. The Oregon Commission set the rate for a ''basic 2-wire loop set'' at $11.95 plus $0.50 for a network access channel connection, for a total price of $12.45.

547. In order to set a proxy ceiling for unbundled loop elements we make use of the two cost models for which nationwide data are available and upon which parties have had the opportunity to comment in this proceeding. These models are the Benchmark Cost Model (*BCM*) and the *Hatfield 2.2*. Based on our current information, we believe that both these models are based on detailed engineering and demographic assumptions that vary among states, and that the outputs of these models represent sufficiently reasonable predictions of relative cost differences among states to be used as set forth below to set a proxy ceiling on unbundled loop prices for each state. We do not believe, however, that these model outputs by themselves necessarily represent accurate estimates of the absolute magnitude of loop costs. As we discuss below, further analysis is necessary in order to evaluate fully the procedures and input assumptions that the models use in order to derive cost estimates. Furthermore, in the case of *BCM*, model outputs include costs in addition to the cost of the local loop. In order to correct for these considerations, we have developed a hybrid cost proxy in the following manner. First, we have applied a scaling factor to the cost estimates of each model. This scaling is based on the actual rates computed for unbundled loop elements in the six states referred to above. Specifically we have multiplied the cost estimate produced by each model in each state by a factor equal to the unweighted average of rates adopted by state commissions in the six states, divided by the unweighted average of the model cost estimates for the same six states. Our hybrid cost proxy is computed as the simple average of the scaled cost estimates for the two models in each of the 48 contiguous states and the District of Columbia. Neither *BCM* nor *Hatfield 2.2* provide cost estimates for Alaska and only the *BCM* provides an estimate for Hawaii. Our default loop cost proxies for Hawaii and Puerto Rico are based on the default loop cost proxies of the states that most closely approximate them in population density per square mile. We are not setting default loop cost proxies in this Order for Alaska or for any of the remaining non-contiguous areas subject to the 1996 Act requirement that incumbent LECs offer unbundled loop elements. We are not establishing default loop cost proxies for these areas because we are unsure that comparisons of the population densities of the continental states and of Alaska and other non-contiguous areas subject to the 1996 Act fully capture differences in loop costs. Regulatory authorities in those areas may seek assistance from this Commission should default loop cost proxies be needed before they have completed their investigations of the forward-looking costs of providing unbundled loop elements. Since our intention is to establish a ceiling for unbundled loop rates, we believe that it is necessary to take account of the variation in the data that we have used for scaling. While the six states that we considered appear to have based their rates on forward-looking economic cost pricing principles, the actual rates that they approved appear to reflect other factors as well. Furthermore, because only a small number of states have conducted such studies, some upward adjustment is warranted as a safety margin to ensure that the ceiling captures the variation in forward-looking economic costing prices on a state-by-state basis. We have therefore chosen to adjust the hybrid cost estimates upward by five percent for each state. A table listing the proxy ceilings on a statewide average basis is contained in Appendix D.

548. A number of parties have opposed the use of either the *Hatfield* model or *BCM*. Some critics, for example, have argued that the models may lead to inaccurate cost estimates since these estimates assume that a network is built ''from scratch.'' Others have criticized specific procedures that have been used in the models to estimate both operating expenses and capital costs. As discussed below in Section VII.C.3., we believe that these criticisms may have merit. In a future rulemaking proceeding, we intend to examine in greater detail various forward looking economic cost models. For the purposes of setting an interim proxy, however, we note that the criticisms have been directed largely toward the absolute level of cost estimates produced by the models, rather than the relative cost estimates across states. Since our hybrid proxy ceiling explicitly scales the model cost estimates based on existing state decisions and uses the model results simply to compute relative prices, we believe that these criticisms do not apply in the present context.

549. We also note that a third model, the *BCM 2*, could have been used in the construction of our interim cost proxy by simply taking the scaled cost estimates from three cost models instead of two. We have chosen not to follow this approach since parties have not had an opportunity to comment on the possible deficiencies of the *BCM 2*. For comparison purposes, however, we have computed the corresponding ceiling cost estimates, and have found that the scaled costs using the three model proxy are very similar to the estimated costs that were derived using the two models.

550. As discussed above, we believe that cost-based rates should be implemented on a geographically deaveraged basis. We allow states to determine the number of density zones within the state, provided that they designate at least three zones, but require that in all cases the weighted average of unbundled loop prices, with weights equal to the number of loops in each zone, should be less than the proxy ceiling set for the statewide average loop cost set forth in Appendix D.

551. As noted above, we have not yet had sufficient time to evaluate fully any of the cost models that have been submitted in the record, and our hybrid proxy is therefore intended to be used only on an interim basis. We believe that the methodology is consistent with forward-looking cost studies, but we also recognize that there may be situations in which forward looking loop costs will differ from computed costs, and accordingly, we have increased the state average loop costs by five percent and established the proxy as a ceiling. We emphasize that use of the hybrid proxy model can be superseded at any time by a full forward looking economic cost study that follows the guidelines set forth in this order. In addition, we are currently in the process of evaluating the more detailed cost models that have been submitted in the record, and will issue a further notice on the use of these models in the near future.

(2) Local Switching

(a) Discussion

552. We conclude that a combination of a flat-rated charge for line ports, which are dedicated to a single new entrant, and either a flat-rate or per-minute usage charge for the switching matrix and for trunk ports, which constitute shared facilities, best reflects the way costs for unbundled local switching are incurred and is therefore reasonable. We find that there is an insufficient basis in the record to conclude that we should require two flat rates for unbundled local switching charges as proposed by Sprint.

553. Based on the record in this proceeding and in the *LEC–CMRS Interconnection* proceeding, we conclude that a range between 0.2 cents ($0.002) per minute of use and 0.4 cents ($0.004) per minute of use for unbundled local switching is a reasonable default proxy. In setting this default price range, we consider the range of evidence in the record, and believe that the most credible studies fall at the lower end of this range. However, so as to minimize disruption for any state that has set a rate only marginally outside this range, we will grandfather any state that has set a rate at 0.5 cents ($0.005) per minute of use or less pending completion of an economic study pursuant to the methodology set forth in this Order.

554. The forward-looking cost studies contained in the record estimate that the average cost of end-office switching ranges from 0.18 cents ($0.0018) per minute of use to 0.35 cents ($0.0035) per minute of use. Maryland and Florida have adopted rates based on forward-looking economic cost studies that fall within the default price range we are adopting. NYNEX's estimate of 0.129 cents ($0.00129) per minute of use, in the Massachusetts proceeding, is an estimate of the marginal cost of end-office switching. As discussed above, we generally expect studies estimating marginal costs to generate estimates that are less than estimates derived from TELRIC-based studies. We, therefore, conclude that 0.2 cents ($0.002) per minute of use is a reasonable lower end of the price range for end-office switching.

555. USTA's estimate of 1.3 cents ($0.013) appears to be an outlier that is significantly higher than the other estimates. We find that USTA's estimate does not represent an appropriate cost model for termination of traffic. USTA's estimate is based on the high end of a set of econometric estimates of LEC-reported cost data rather than an independent cost estimate, and USTA gives no explanation of why we should regard this as the best estimate. In addition, USTA's figure is derived, at least in part, from studies that attempt to measure the incremental cost of end-to-end use of the network for local calls, not the cost of local switching. Pacific Bell's study of the average LRIC of a call terminating under ''Feature Group B'' apparently includes terminations at tandem switches in addition to end-office terminations.

556. Michigan and Illinois have adopted rates for transport and termination of traffic that are higher than the default price range we adopt for end-office switching. Michigan, which established mutual compensation rates of 1.5 cents ($0.015) per minute of use, did not review a forward-looking cost study. Illinois's 0.5 cents ($0.005) per minute rate for termination through the end office is just outside the range we are establishing. First, as previously stated, we are grandfathering rates of 0.5 cents ($0.005) per minute or lower. Further, we do not believe Illinois's rate overrides the weight of evidence in the record, which supports the range we are establishing.

557. States that do not calculate the rate for the unbundled local switching element pursuant to a forward-looking economic cost study may, in the interim, set the rate so that the sum of the flat-rated charge for line ports and the product of the projected minutes of use per port and the usage-sensitive charges for switching and trunk ports, all divided by the projected minutes of use, does not exceed 0.4 cents ($0.004) per minute of use and is not lower than 0.2 cents ($0.002) per minute of use. A state may impose a rate for unbundled local switching that is outside this range if it finds that a forward-looking economic cost study shows a higher or lower rate is justified. States that use our proxy and impose flat-rated charges for unbundled local switching should set rates so that the price falls within the range of 0.2 cents ($0.002) per minute of use and 0.4 cents ($0.004) per minute of use if converted through use of a geographically disaggregated average

usage factor. A default price range of 0.2 cents ($0.002) per minute of use and 0.4 cents ($0.004) per minute of use should allow carriers the opportunity to recover fully their additional cost of terminating a call including, according to Maryland's study, a reasonable allocation of common costs. We observe that the most credible studies in the record before us fall at the lower end of this range and we encourage states to consider such evidence in their analysis.

558. With respect to the argument that vertical features should be priced pursuant to the resale price standards, we concluded earlier that vertical features are part of the unbundled local switching element, because they are provided through the operation of hardware and software comprising the ''facility'' that is the switch. Accordingly, the pricing standard in 252(d)(1) applies to vertical features as part of the functionality of the switch. As previously discussed, allowing new entrants to purchase switching and vertical features as part of the local switching network element is an integral part of a separate option Congress has provided for new entrants to compete against incumbent LECs.

559. The 1996 Act establishes different pricing standards for these two options available to new entrants—resale of services pursuant to section 251(c)(4) and unbundled elements pursuant to section 251(c)(3). Where the new entrant purchases vertical features as part of its purchase of an unbundled local switching element, the price of that element, including associated vertical features, should be determined according to section 252(d)(1). The availability of vertical services as part of a wholesale service offering is distinct from their availability as part of the local switching network element. In these circumstances, allowing the new entrant to combine unbundled elements with wholesale services is an option that is not necessary to permit the new entrant to enter the local market.

560. As to Bell Atlantic's takings argument, we concluded above that the pricing of unbundled elements according to the just and reasonable standard in section 251 (c)(2) and (c)(3), and applied in section 252(d)(1), is not an unconstitutional taking. That analysis, which looks at the overall rates established by our regulations, applies with equal force to the pricing of unbundled local switching, inclusive of associated vertical features. A forward-looking economic cost methodology enables incumbent LECs to recover a fair return on their investments and Bell Atlantic has provided no specific evidence to the contrary. We conclude that our pricing methodology for unbundled local switching, inclusive of associated vertical features, provides just compensation to incumbent LECs.

(3) Other Elements

(a) Discussion

561. The primary categories of network elements identified in this Order, other than loops and switching, are transport, signaling, and collocation. Our rule that dedicated facilities shall be priced on a flat-rated basis applies to dedicated transmission links because these facilities are dedicated to the use of a specific customer.

562. For dedicated transmission links, states must use existing rates for interstate dedicated switched transport as a default proxy ceiling. We believe these rates are currently at or close to economic cost levels. Such rates were set based on interstate special access rates, which we found based on the record in the *Transport* proceeding were relatively close to costs. *First Transport Order.* 57 FR 54717 (November 20, 1992); *Transport Rate Structure and Pricing, Third Memorandum Opinion and Order on Reconsideration and Supplemental Notice of Proposed Rulemaking.* 60 FR 2068 (January 6, 1995). These interstate access rates originally were based on incumbent LEC accounting costs, rather than a forward-looking economic cost model. Since 1991, however, incumbent LEC interstate access rates have been subject to price cap regulation, and have therefore been disengaged from embedded costs. Interstate access rates for dedicated transport vary by region, type of circuit, mileage, and other factors. For example, BellSouth's entrance facility charge, for transport from an IXC's point of presence to a BellSouth serving wire center, is $134 monthly per DS1 circuit ($5.58 per derived voice grade circuit) and $2,100 monthly per DS3 circuit ($3.13 per derived voice grade circuit). Dedicated transport for 10 miles of interoffice transmission between a serving wire center and an end office is $325 monthly per DS1 circuit ($13.54 per derived voice grade circuit) and $2,950 monthly per DS3 circuit ($4.39 per derived voice grade circuit). Installation, multiplexing, and other transport-related charges may also apply.

563. Typically, transmission facilities between tandem switches and end offices are shared facilities. Pursuant to our rate structure guidelines, states may establish usage-sensitive or flat-rate charges to recover those costs. For shared transmission facilities between tandem switches and end offices, states may use as a default proxy ceiling the rate derived from the incumbent LEC's interstate direct trunked transport rates in the same manner that we derive presumptive price caps for tandem switched transport under our interstate price cap rules, using the same weighting and loading factors. Specifically, when the transport rate restructure was implemented, the initial levels of tandem-switched transmission rates were presumed reasonable if they were based on a weighted per-minute equivalent of direct-trunked transport DS1 and DS3 rates that reflects the relative number of DS1 and DS3 circuits used in the tandem to end office links, calculated using a loading factor of 9000 minutes per month per voice-grade circuit. 47 CFR § 69.111. We conclude above that interstate direct-trunked transport rates provide a reasonable default proxy ceiling for unbundled dedicated transport rates. *First Transport Order.* Interstate access rates for tandem-switched transport vary by region and mileage. The average charge by RBOCs in Density Zone 1 for transport termination and one mile of switched common transport facility between a tandem switching office and end office equals 0.033 cents ($0.000331) per minute. For a five-mile facility, the average charge is 0.048 cents ($0.000479) per minute; for a ten-mile facility, 0.066 cents ($0.000664) per minute. When we restructured the incumbent LECs' interstate transport rates to be more closely aligned with cost, we derived presumptive tandem-switched transmission rate levels from direct-trunked transport rates. This proxy ceiling for shared transmission facilities between tandem switches and end offices, therefore, should be similarly derived.

564. The United States Court of Appeals for the District of Columbia Circuit recently remanded our interim transport rules. The court concluded that the Commission had not provided sufficient justification for its method of establishing the rate level of the interstate switched access rate element for tandem switching. We do not believe, however, that the *CompTel* v. *FCC* decision is inconsistent with the rules we establish here because the decision did not address or criticize the Commission's determination of the rates for dedicated transport or tandem-switched transport links. Because our proxies do not involve the interstate access rate for tandem switching, they are not inconsistent with the court's analysis.

565. Tandem switching also employs shared facilities. States may, therefore,

establish usage-sensitive charges to recover tandem-switching costs. For those states that cannot complete a forward-looking economic cost study within the arbitration period or cannot devote the necessary resources to such a review, we establish a default rate ceiling of 0.15 cents ($0.0015) per minute of use. The additional cost of termination at a tandem in comparison to termination at an end office consists of the cost of tandem switching and the cost of tandem-switched transport transmission. Illinois and Maryland have adopted rates for the transport and termination of traffic from the tandem switch that are, respectively, 0.25 cents ($0.0025) per minute of use and 0.2 cents ($0.002) per minute of use, higher than rates for termination at end office switches. In both instances, our default rate ceiling for tandem switching constitutes at least 60 percent of the implicit tandem switching and transport to the end office switch. We, therefore, find the default rate ceiling we adopt for tandem switching to be consistent with both Illinois's and Maryland's adopted rates for transport and switching of traffic from the tandem office. States that use our proxy and impose flat-rated charges for tandem switching should set rates so that the price does not exceed 0.15 cents ($0.0015) per minute of use if converted through use of a geographically disaggregated usage factor.

566. Rates for signaling and database services should be usage-sensitive, based either on the number of queries or the number of messages, with the exception of the dedicated circuits known as signaling links, which should be charged on a flat-rated basis. Usage charges of this type appear to reflect most accurately the underlying costs of these services. Interstate access rates for most of these elements have been justified using the price caps new services test, which roughly approximates the results of a forward-looking economic cost study. *Amendments of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Supplements for Open Network Architecture,* CC Docket Nos. 89–79 and 87–313, Report and Order, Order on Reconsideration, and Supplemental Notice of Proposed Rulemaking. 56 FR 33879 (July 24, 1991), *modified on recon.* 57 FR 37720 (August 20, 1992). In addition, the costs of these services were forward-looking, in that the services were completely new and hence, by definition, used the best-available technology. Thus, we establish as a default proxy ceiling for these elements corresponding interstate access charges for these elements. Interstate database services consist of Line Information Database (LIDB) and 800 Database. Deployment of SS7 (out-of-band signaling) has enabled LECs to offer these services. The average charge for RBOCs for LIDB in Density Zone 1 equals 3.34 cents ($0.034) per database query. For elements that have not been subject to the new services test, states may establish proxy ceilings by identifying the direct costs of providing the element and adding a reasonable allocation of joint and common costs. Because we expect that the joint and common costs associated with the forward-looking cost of network elements are substantially less than those associated with traditional service-based costs, allowing a reasonable allocation is sufficient to protect against possible anticompetitive pricing. Absent any proxy, this approach will provide the most reasonable approximation of forward-looking economic cost.

567. We have established rate structure rules for collocation elements in connection with our *Expanded Interconnection* proceeding. *Expanded Interconnection with Local Telephone Company Facilities.* 59 FR 38922 (August 1, 1994). Many collocation elements established under section 251(c)(6) are likely to represent the same facilities, and should have the same cost characteristics, as existing interstate expanded interconnection services, and therefore we require states to use the same rate structure rules for those collocation elements that we established in the *Expanded Interconnection* proceeding. As a proxy ceiling, states may use the rates the LEC has in effect in its federal expanded interconnection tariff for the equivalent services. Expanded interconnection services are subject to the new services test, which, as discussed above, uses a forward-looking methodology. Although LECs have filed expanded interconnection tariffs, we have not yet completed our investigation into those tariffs. Any price for unbundled collocation elements set based on LEC expanded interconnection tariffs would therefore be subject to any modification of those tariffs that results from our pending investigation, and any state-imposed prices based on those tariffs will need to be adjusted accordingly.

568. We find it unnecessary to specify rate structures for other unbundled elements. The states shall make those determinations by applying our general rate structure principles described above. In the absence of an acceptable forward-looking cost study, states may establish default proxy ceilings for other unbundled elements by identifying the direct costs of providing the element and adding a reasonable allocation of joint and common costs.

3. Forward-Looking Cost Model Proxies

a. Background

569. In the NPRM, we sought comment on the use of certain generic cost studies. Commenters discussed several such models. These models include: (1) the *Hatfield 2;* (2) the *Hatfield 2.2;* (3) the *BCM;* (4) the *BCM 2;* and (5) the *CPM*.

b. Discussion

570. We believe that the generic forward-looking costing models, in principle, appear best to comport with the preferred economic cost approach discussed previously. Several such models were placed in the record, including *Hatfield 2, Hatfield 2.2, BCM, BCM 2,* and the *CPM*. The *BCM* is designed to produce ''benchmark'' costs for the provision of basic telephone service within specific geographic regions defined by the Bureau of the Census as Census Block Groups. The *Hatfield 2* model combines output from the *BCM* with independently-developed investment data to produce annual cost estimates for eleven basic network functions. The *CPM* is similar in structure to the *BCM* and *Hatfield 2* models, although it uses different algorithms.

571. These models appear to offer a method of estimating the cost of network elements on a forward-looking basis that is practical to implement and that allows state commissions the ability to examine the assumptions and parameters that go into the cost estimates. Although these models were submitted too late in this proceeding for the Commission and parties to evaluate them fully, our initial examination leads us to believe that the remaining practical and empirical issues can be resolved in the near future. In light of the advantages of such a generic approach, we will further examine these generic economic cost models by the first quarter of 1997 to determine whether we should use one of them to replace the default proxies we adopt in this proceeding. In that event, states would have the option of setting rates in arbitrations on the basis of an economic cost study or by using a generic forward-looking cost model approved at that time.

572. Finally, we note that Commission staff developed a model of the telecommunications industry that they designed to simulate industry demand and supply characteristics. In

order to encourage an open-ended discussion of the utility of the staff model, the Common Carrier Bureau sought comment on a working draft of the model that was released. Almost all parties commenting on the staff model urged the Commission not to rely upon the staff model as record evidence in this proceeding. We are not relying on the staff model to develop the requirements imposed by this Order.

D. Other Issues

1. Future Adjustments to Interconnection and Unbundled Element Rate Levels

a. Background

573. In the NPRM, we sought comment on whether some cost index or price cap system would be appropriate to ensure that rates reflect expected changes in costs over time.

b. Discussion

574. As noted earlier, we will continue to review our pricing methodology, and will make revisions as appropriate. Accordingly, there is no present need to establish a Commission price cap or cost index system to adjust interconnection and unbundled element rate levels.

2. Imputation

a. Background

575. We sought comment in the NPRM on whether we should require an ''imputation rule'' in establishing rates for unbundled network elements. An imputation rule would require that the sum of prices charged for a basket of unbundled network elements not exceed the retail price for a service offered using the same basket of elements. We further solicited comment on any other rules that could be adopted regarding pricing of unbundled network elements that would help to promote the pro-competitive goals of the 1996 Act.

b. Discussion

576. Although we recognize, as several commenters observe, that an imputation rule could help detect and prevent price squeezes, we decline to impose an imputation requirement. Adoption of an imputation rule could force states to engage in a major rate rebalancing effort at this time, because it would impose substantial additional burdens on states at a time when they will need to devote significant resources to implementing the 1996 Act.

577. In addition to our practical concerns regarding implementation of an imputation rule, we find that an imputation rule may not be necessary to achieve the pro-competitive goals of the 1996 Act. As some commenters, including several state commissions, suggest, competing providers may be able to provide basic service, at less than the cost of facilities and associated management, just as incumbent LECs do currently, by selling customers higher profit vertical or intrastate toll services, or through receipt of access revenues and subsidies. Further, the Ohio Consumers' Counsel suggest that below-cost rates may not be sufficiently prevalent to justify a national imputation rule. The Joint Consumer Advocates and the Ohio Consumers' Counsel question whether local service is, in fact, underpriced.

578. We give special weight to the comments of several state commissions that currently employ imputation rules. These state commissions endorse imputation as a tool to prevent price squeezes, but urge us only to provide states with the flexibility to adopt imputation rules. We agree with those state commission commenters that argue that nothing in the 1996 Act prohibits individual states from adopting imputation rules. While an imputation rule may be pro-competitive, we will leave the implementation of such rules to individual states for the time being.

3. Discrimination

a. Background

579. In the NPRM, we noted the different usages of the term ''discrimination'' in the 1996 Act and the 1934 Act. Sections 251 and 252 require that interconnection and unbundled element rates be ''nondiscriminatory.'' Similarly, section 251(c)(4) requires that, in making resale available, carriers not impose ''discriminatory conditions or limitations on resale.'' Finally, section 252(e) provides that states may reject a negotiated agreement or a portion of the agreement if it ''discriminates'' against a carrier not a party to the agreement and section 252(i) requires incumbent LECs to ''make available any interconnection, service, or network element provided under an agreement * * * to which it is a party to any requesting telecommunications carrier upon the same terms and conditions.'' In contrast, section 202(a) of the 1934 Act provides that ''(i)t shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges * * * for * * * like communication service.''

580. We sought comment on ''the meaning of the term 'nondiscriminatory' in the 1996 Act compared with the phrase 'unreasonable discrimination' in the 1934 Act.'' We asked specifically whether Congress intended to prohibit all price discrimination, including measures such as density zone pricing or volume and term discounts, by choosing the word ''nondiscriminatory.'' We further asked whether sections 251 and 252 could be interpreted to prohibit only unjust or unreasonable discrimination. Finally, we sought comment on whether the 1996 Act prohibited carriers from charging different rates to parties that are not similarly situated.

b. Discussion

581. We conclude that the term ''nondiscriminatory'' in the 1996 Act is not synonymous with ''unjust and unreasonable discrimination'' in section 202(a), but rather is a more stringent standard. Finding otherwise would fail to give meaning to Congress's decision to use different language. We agree, however, with those parties that argue that cost-based differences in rates are permissible under sections 251 and 252.

582. Section 252(d)(1), for example, requires carriers to base interconnection and network element charges on costs. Where costs differ, rate differences that accurately reflect those differences are not discriminatory. This is consistent with the economic definition of price discrimination, which is ''the practice of selling the same product at two or more prices where the price differences do not reflect cost differences * * * An important feature of the economic definition of price discrimination is that it occurs not only when prices are different in the presence of similar costs but also *when the prices are the same and the costs of supplying customers are different*.'' As one economist has recognized, differential pricing is ''one of the most prevalent forms of marketing practices'' of competitive enterprises. Strict application of the term ''nondiscriminatory'' as urged by those commenters who argue that prices must be uniform would itself be discriminatory according to the economic definition of price discrimination. If the 1996 Act is read to allow no price distinctions between companies that impose very different interconnection costs on LECs, competition for all competitors, including small companies, could be impaired. Thus, we find that price differences, such as volume and term discounts, when based upon legitimate variations in costs are permissible under the 1996 Act, if justified.

583. On the other hand, price differences based not on cost differences but on such considerations as competitive relationships, the

technology used by the requesting carrier, the nature of the service the requesting carrier provides, or other factors not reflecting costs, the requirements of the Act, or applicable rules, would be discriminatory and not permissible under the new standard. Such examples include the imposition of different rates, terms and conditions based on the fact that the competing provider does or does not compete with the incumbent LEC, or offers service via wireless rather than wireline facilities. We find that it would be unlawfully discriminatory, in violation of sections 251 and 252, if an incumbent LEC were to charge one class of interconnecting carriers, such as CMRS providers, higher rates for interconnection than it charges other carriers, unless the different rates could be justified by differences in the costs incurred by the incumbent LEC.

584. State regulations permitting non-cost based discriminatory treatment are prohibited by the 1996 Act. This conclusion is consistent with both the letter and the spirit of the 1996 Act and our determination that the pricing for interconnection, unbundled elements, and transport and termination of traffic should not vary based on the identity or classification of the interconnector.

VIII. Resale

585. Section 251(c)(4) imposes a duty on incumbent LECs to offer certain services for resale at wholesale rates. Specifically, section 251(c)(4) requires an incumbent LEC:

(A) to offer for resale at wholesale rates any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers; and

(B) not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of such telecommunications service, except that a State commission may, consistent with regulations prescribed by the Commission under this section, prohibit a reseller that obtains at wholesale rates a telecommunications service that is available at retail only to a category of subscribers from offering such service to a different category of subscribers.

586. The requirement that incumbent LECs offer services at wholesale rates is described in section 252(d)(3), which sets forth the pricing standard that states must use in arbitrating agreements and reviewing rates under BOC statements of generally available terms and conditions:

[A] State commission shall determine wholesale rates on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier.

Section VIII.A. of this Order discusses the scope of section 251(c)(4). Section VIII.B. addresses the determination of ''wholesale rates.'' Section VIII.C. considers the issue of conditions or limitations on resale under this section, Section VIII.D. discusses the resale obligations under section 251(b)(1), and Section VIII.E. considers the application of access charges in the resale environment.

A. Scope of Section 251(c)(4)

1. Background

587. In the NPRM, we sought comment generally on the scope of section 251(c)(4).

2. Discussion

588. Section 251(c)(4)(A) imposes on all incumbent LECs the duty to offer for resale ''any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers.'' We conclude that an incumbent LEC must establish a wholesale rate for each retail service that: (1) meets the statutory definition of a ''telecommunications service;'' and (2) is provided at retail to subscribers who are not ''telecommunications carriers.'' We thus find no statutory basis for limiting the resale duty to basic telephone services, as some suggest.

589. We need not prescribe a minimum list of services that are subject to the resale requirement. State commissions, incumbent LECs, and resellers can determine the services that an incumbent LEC must provide at wholesale rates by examining that LEC's retail tariffs. The 1996 Act does not require an incumbent LEC to make a wholesale offering of any service that the incumbent LEC does not offer to retail customers. State commissions, however, may have the power to require incumbent LECs to offer specific intrastate services.

590. Exchange access services are not subject to the resale requirements of section 251(c)(4). The vast majority of purchasers of interstate access services are telecommunications carriers, not end users. It is true that incumbent LEC interstate access tariffs do not contain any limitation that prevents end users from buying these services, and that end users do occasionally purchase some access services, including special access, Feature Group A, and certain Feature Group D elements for large private networks. Despite this fact, we conclude that the language and intent of section 251 clearly demonstrates that exchange access services should not be considered services an incumbent LEC ''provides at retail to subscribers who are not telecommunications carriers'' under section 251(c)(4). We note that virtually all commenters in this proceeding agree, or assume without stating, that exchange access services are not subject to the resale requirements of section 251(c)(4).

591. We find several compelling reasons to conclude that exchange access services should not be subject to resale requirements. First, these services are predominantly offered to, and taken by, IXCs, not end users. Part 69 of our rules defines these charges as ''carrier's carrier charges,'' and the specific part 69 rules that describe each interstate switched access element refer to charges assessed on ''interexchange carriers'' rather than end users. The mere fact that fundamentally non-retail services are offered pursuant to tariffs that do not restrict their availability, and that a small number of end users do purchase some of these services, does not alter the essential nature of the services. Moreover, because access services are designed for, and sold to, IXCs as an input component to the IXC's own retail services, LECs would not avoid any ''retail'' costs when offering these services at ''wholesale'' to those same IXCs. Congress clearly intended section 251(c)(4) to apply to services targeted to end user subscribers, because only those services would involve an appreciable level of avoided costs that could be used to generate a wholesale rate. Furthermore, as explained in the following paragraph, section 251(c)(4) does not entitle subscribers to obtain services at wholesale rates for their own use. Permitting IXCs to purchase access services at wholesale rates for their own use would be inconsistent with this requirement.

592. We conclude that section 251(c)(4) does not require incumbent LECs to make services available for resale at wholesale rates to parties who are not ''telecommunications carriers'' or who are purchasing service for their own use. The wholesale pricing requirement is intended to facilitate competition on a resale basis. Further, the negotiation process established by Congress for the implementation of section 251 requires incumbent LECs to negotiate agreements, including resale agreements, with ''requesting telecommunications carrier or carriers,'' not with end users or other entities. We further discuss the definition of

''telecommunications carrier'' in Section IX. of the Order.

593. With regard to independent public payphone providers, however, we agree with the American Public Communication Council's argument that such carriers are not ''telecommunications carriers'' under section 3(44). We therefore also agree with the American Public Communications Council's contention that the services independent public payphone providers obtain from incumbent LECs are telecommunications services that incumbent LECs provide ''at retail to subscribers who are not telecommunications carriers'' and that such services should be available at wholesale rates to telecommunications carriers. Because we conclude that independent public payphone providers are not ''telecommunications carriers,'' however, we conclude that incumbent LECs need not make available service to independent public payphone providers at wholesale rates. This is consistent with our finding that wholesale offerings must be purchased for the purpose of resale by ''telecommunications carriers.''

594. We conclude that the plain language of the 1996 Act requires that the incumbent LEC make available at wholesale rates retail services that are actually composed of other retail services, *i.e.*, bundled service offerings. Section 251(c)(4) states that the incumbent LEC must offer for resale ''any telecommunications service'' provided at retail to subscribers who are not telecommunications carriers. The resale provision of the 1996 Act does not contain any language exempting services if those services can be duplicated or approximated by combining other services. On the other hand, section 251(c)(4) does not impose on incumbent LECs the obligation to disaggregate a retail service into more discrete retail services. The 1996 Act merely requires that any retail services offered to customers be made available for resale.

B. Wholesale Pricing

1. Background

595. As discussed above, section 251(c)(4) requires incumbent LECs to offer at ''wholesale rates'' any telecommunications services that the carrier provides at retail to subscribers who are not telecommunications carriers. Section 252(d)(3) establishes the standard that states must use in determining wholesale rates in arbitrations or in reviewing wholesale rates under BOC statements of generally available terms and conditions. Specifically, section 252(d)(3) provides that wholesale rates shall be set ''on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier.''

596. In the NPRM, we generally sought comment on the meaning of the term ''wholesale rates'' in section 251(c)(4). We asked if we could and should establish principles for the states to apply in order to determine wholesale prices in an expeditious and consistent manner. We also sought comment on whether we should issue rules for states to apply in determining avoided costs. We stated that we could, for example, determine that states are permitted under the 1996 Act to direct incumbent LECs to quantify their costs for any marketing, billing, collection, and similar activities that are associated with offering retail, but not wholesale, services. We also sought comment on whether avoided costs should include a share of common costs and general overhead or ''markup'' assigned to such costs. LECs would then reduce retail rates by this amount, offset by any portion of expenses that they incur in the provision of wholesale rates. We noted that this approach appeared to be consistent with the 1996 Act, but would create certain administrative difficulties because all of the information regarding costs is under the control of the incumbent LECs. We also asked for comment on several alternative approaches. For example, we asked whether we could establish a uniform set of presumptions regarding avoided costs that states could adopt and that would apply in the absence of a quantification of such costs by incumbent LECs. Additionally, we asked whether we should identify specific accounts or portions of accounts in the Commission's Uniform System of Accounts (''USOA'') that the states should include as avoided costs. We also requested comment on whether we should establish rules that allocate avoided costs across services. We asked whether incumbent LECs should be allowed, or required, to vary the percentage wholesale discounts across different services based on the degree the avoided costs relate to those services. Finally, we asked whether we should adopt a uniform percentage discount off of the retail rate of each service.

2. Discussion

597. Resale will be an important entry strategy for many new entrants, especially in the short term when they are building their own facilities. Further, in some areas and for some new entrants, we expect that the resale option will remain an important entry strategy over the longer term. Resale will also be an important entry strategy for small businesses that may lack capital to compete in the local exchange market by purchasing unbundled elements or by building their own networks. In light of the strategic importance of resale to the development of competition, we conclude that it is especially important to promulgate national rules for use by state commissions in setting wholesale rates. For the same reasons discussed in Section II.D of the Order, we believe that we have legal authority under the 1996 Act to articulate principles that will apply to the arbitration or review of wholesale rates. We also believe that articulating such principles will promote expeditious and efficient entry into the local exchange market. Clear resale rules will create incentives for parties to reach agreement on resale arrangements in voluntary negotiations. Clear rules will also aid states in conducting arbitrations that will be administratively workable and will produce results that satisfy the intent of the 1996 Act. The rules we adopt and the determinations we make in this area are crafted to achieve these purposes. We also note that clear resale rules should minimize regulatory burdens and uncertainty for all parties, including small entities and small incumbent LECs.

598. The statutory pricing standard for wholesale rates requires state commissions to (1) identify what marketing, billing, collection, and other costs will be avoided by incumbent LECs when they provide services at wholesale; and (2) calculate the portion of the retail prices for those services that is attributable to the avoided costs. Our rules provide two methods for making these determinations. The first, and preferred, method requires state commissions to identify and calculate avoided costs based on avoided cost studies. The second method allows states to select, on an interim basis, a discount rate from within a default range of discount rates adopted by this Commission. They may then calculate the portion of a retail price that is attributable to avoided costs by multiplying the retail price by the discount rate.

599. We adopt a minimum set of criteria for avoided cost studies used to determine wholesale discount rates. The record before us demonstrates that avoided cost studies can produce widely varying results, depending in large part upon how the proponent of the study interprets the language of section 252(d)(3). The criteria we adopt are designed to ensure that states apply consistent interpretations of the 1996 Act in setting wholesale rates based on avoided cost studies which should facilitate swift entry by national and regional resellers, which may include small entities. At the same time, our criteria are intended to leave the state commissions broad latitude in selecting costing methodologies that comport with their own ratemaking practices for retail services. Thus, for example, our rules for identifying avoided costs by USOA expense account are cast as rebuttable presumptions, and we do not adopt as presumptively correct any avoided cost model.

600. Based on the comments filed in this proceeding and on our analysis of state decisions setting wholesale discounts, we adopt a default range of rates that will permit a state commission to select a reasonable default wholesale rate between 17 and 25 percent below retail rate levels. A default wholesale discount rate shall be used if: (1) an avoided cost study that satisfies the criteria we set forth below does not exist; (2) a state commission has not completed its review of such an avoided cost study; or (3) a rate established by a state commission before release of this Order is based on a study that does not comply with the criteria described in the following section. A state commission must establish wholesale rates based on avoided cost studies within a reasonable time from when the default rate was selected. This approach will enable state commissions to complete arbitration proceedings within the statutory time frames even if it is infeasible to conduct full-scale avoided cost studies that comply with the criteria described below for each incumbent LEC.

a. Criteria for Cost Studies

601. There has been considerable debate on the record in this proceeding and before the state commissions on whether section 252(d)(3) embodies an ''avoided'' cost standard or an ''avoidable'' cost standard. We find that ''the portion [of the retail rate] * * * attributable to costs that will be avoided'' includes all of the costs that the LEC incurs in maintaining a retail, as opposed to a wholesale, business. In other words, the avoided costs are those that an incumbent LEC would no longer incur if it were to cease retail operations and instead provide all of its services through resellers. Thus, we reject the arguments of incumbent LECs and others who maintain that the LEC must actually experience a reduction in its operating expenses for a cost to be considered ''avoided'' for purposes of section 252(d)(3). We do not believe that Congress intended to allow incumbent LECs to sustain artificially high wholesale prices by declining to reduce their expenditures to the degree that certain costs are readily avoidable. We therefore interpret the 1996 Act as requiring states to make an objective assessment of what costs are reasonably avoidable when a LEC sells its services wholesale. We note that Colorado, Georgia, Illinois, New York, and Ohio commissions have all interpreted the 1996 Act in this manner.

602. We find that, under this ''reasonably avoidable'' standard discussed above, an avoided cost study must include indirect, or shared, costs as well as direct costs. We agree with MCI, AT&T, and the California, Illinois, Ohio, Colorado, and Georgia commissions that some indirect or shared costs are avoidable and likely to be avoided when a LEC provides retail services to a reseller instead of to the end user. This is because indirect or shared costs, such as general overheads, support all of the LEC's functions, including marketing, sales, billing and collection, and other avoided retail functions. Therefore, a portion of indirect costs must be considered ''attributable to costs that will be avoided'' pursuant to section 252(d)(3). It is true that expenses recorded in indirect or shared expense accounts will continue to be incurred for wholesale operations. It is also true, however, that the overall level of indirect expenses can reasonably be expected to decrease as a result of a lower level of overall operations resulting from a reduction in retail activity.

603. A portion of contribution, profits, or mark-up may also be considered ''attributable to costs that will be avoided'' when services are sold wholesale. MCI's model makes this attribution by means of a calculation that applies the same mark-up to wholesale services as to retail services. The Illinois Commission achieved a similar effect by removing a *pro rata* portion of contribution from the retail rate for each service. In AT&T's model, the portion of return on investment (profits) that was attributable to assets used in avoided retail activities was treated as an avoided cost. We find that these approaches are consistent with the 1996 Act.

604. An avoided cost study may not calculate avoided costs based on non-cost factors or policy arguments, nor may it make disallowances for reasons not provided for in section 252(d)(3). The language of section 252(d)(3) makes no provision for selecting a wholesale discount rate on policy grounds. We therefore reject NCTA's argument that discount rates should be ten percent or less in order to avoid discouraging facilities-based competition, as well as AT&T's suggestion that wholesale discount rates should be set at levels that ensure the viability of the reseller's business. We also reject, for example, MCI's assertion that no external relations or research and development costs should be allowed in wholesale rates because the activities represented by those costs are contrary to the interests of the LEC competitors that purchase wholesale services. Our analysis also precludes a state commission from adopting AT&T's suggestion that an increment should be added to the base discount rate to compensate resellers for alleged deficiencies in the provisioning of services.

605. The 1996 Act requires that wholesale rates be based on existing retail rates, and thus clearly precludes use of a ''bottom up'' TSLRIC study to establish wholesale rates that are not related to the rates for the underlying retail services. We thus reject the suggestions of those parties that ask us to require use of TSLRIC to set wholesale rates. The 1996 Act does not, however, preclude use of TSLRIC cost studies to identify the portion of a retail rate that is attributable to avoided retail costs. TSLRIC studies would be entirely appropriate in states where the retail rates were established using a TSLRIC method. For example, the Illinois Commission calculated its wholesale rate using an avoided cost formula and long run incremental cost studies. Embedded cost studies, such as the studies used by the Georgia Commission, may also be used to identify avoided costs. Ideally, a state would use a study methodology that is consistent with the manner in which it sets retail rates.

606. We neither prohibit nor require use of a single, uniform discount rate for all of an incumbent LEC's services. We recognize that a uniform rate is simple to apply, and avoids the need to allocate avoided costs among services. Therefore, our default wholesale discount is to be applied uniformly. On the other hand, we also agree with parties who observe that avoided costs

may, in fact, vary among services. Accordingly, we allow a state to approve nonuniform wholesale discount rates, as long as those rates are set on the basis of an avoided cost study that includes a demonstration of the percentage of avoided costs that is attributable to each service or group of services.

607. All costs recorded in accounts 6611 (product management), 6612 (sales), 6613 (product advertising) and 6623 (customer services) are presumed to be avoidable. The costs in these accounts are the direct costs of serving customers. All costs recorded in accounts 6621 (call completion services) and 6622 (number services) are also presumed avoidable, because resellers have stated they will either provide these services themselves or contract for them separately from the LEC or from third parties. These presumptions regarding accounts 6611–6613 and 6621–6623 may be rebutted if an incumbent LEC proves to the state commission that specific costs in these accounts will be incurred with respect to services sold at wholesale, or that costs in these accounts are not included in the retail prices of the resold services.

608. General support expenses (accounts 6121–6124), corporate operations expenses (accounts 6711, 6712, 6721–6728), and telecommunications uncollectibles (account 5301) are presumed to be avoided in proportion to the avoided direct expenses identified in the previous paragraph. Expenses recorded in these accounts are tied to the overall level of operations in which an incumbent LEC engages. Because the advent of wholesale operations will reduce the overall level of operations—for example, staffing should decrease because customer inquiries and billing and collection activity will decrease—overhead and support expenses are in part avoided. We select the revenue offset account of 5301 rather than accounts 5300 or 6790 because account 5301 most directly represents overheads attributable to the services being resold.

609. Plant-specific and plant non-specific expenses (other than general support expenses) are presumptively not avoidable.

610. In the case of carriers designated as Class B under section 32.11 of our rules that use certain summary accounts in lieu of accounts designated in this subsection of the Order, our avoided cost study criteria shall apply to the relevant summary account in its entirety.

b. Default Range of Wholesale Discount Rates

611. Parties to this proceeding present evidence or arguments supporting wholesale discount rates ranging from 4.76 percent to 55 percent:

	Percent
Sprint/United Telephone study:	
Simple Access service	4.76
Other services	7.19
NCTA	10.0
Comcast	10.0
Massachusetts Attorney General.	25.0
ACTA	25.0
MCI Model	25.6–33.2
Telecommunications Resellers Ass'n.	30.0–50.0
AT&T Model	23.05–55.52

612. States applying wholesale pricing standards similar to the standards in section 252(d)(3) have set the following wholesale discounts:

	Percent
California:	
PacTel:	
Business	17.0
Residential	10.0
GTE:	
Business	12.0
Residential	7.0
Colorado:	
Residential	9.0
Business	16.0
Toll Services	30.0
Central Office-Based Features	50.0
All other services	18.0
Georgia:	
Residential	20.3
Business	17.3
Illinois	20.07
New York:	
NYNEX:	
Business	17.0
Residential	11.0
Rochester Telephone	13.5

613. We find unpersuasive various arguments presented by parties at the lower and higher ends of the range of possible discounts. The Sprint/United Telephone study produces unreasonably low measures of avoided costs because the study considers only avoided direct expenses in five accounts. As explained above, we interpret the statutory language providing for a wholesale price that excludes the ''portion [of a retail rate] attributable to any marketing, billing, collection, and other costs that will be avoided'' to include indirect as well as direct costs. The proposals of NCTA and Comcast for a maximum discount of 10 percent are premised on the view that any greater discount would unduly discourage facilities-based competition. Section 252(d)(3), however, requires wholesale prices to be set based on avoided costs, not on any policy preference for facilities-based competition. For the same statutory reason, we reject as inconsistent with section 252(d)(3) the policy arguments of the Telecommunications Resellers Association and AT&T that we should establish national wholesale discounts at levels that will ensure that resale of local exchange services is a viable business.

614. We find AT&T's model unsuitable for purposes of establishing in this proceeding a range for default wholesale discount rates. The AT&T model does in many respects satisfy the general criteria we establish above for avoided cost studies. The model, however, incorporates numerous assumptions, cost allocation factors, and studies, and because AT&T submitted its model with its reply comments, and other parties have not analyzed the model in detail. We find that we would need to develop a more complete record on the AT&T model before deciding whether to endorse it. We do not, however, preclude a state commission from considering in a wholesale rate proceeding evidence developed using this model.

615. We find that we can use MCI's model, with some modifications, along with the results of certain state proceedings, to establish a range of rates that would produce an acceptable default wholesale discount rate that reasonably approximates the amount of avoided costs that should be subtracted from the retail rate. A default rate is to be used only in three instances: (1) in a state arbitration proceeding if an avoided cost study that satisfies the criteria we set forth above does not exist; (2) where a state has not completed its review of such an avoided cost study; (3) where a rate established by a state before the release date of this Order is based on a study that does not comply with the criteria described in the previous section. We emphasize that the default rate is to be used as an interim measure only, and should be replaced with an avoided cost study within a reasonable time. The MCI model is a reasonable attempt at estimating avoided cost in accordance with section 252(d)(3) using only publicly-available data. We find, however, that we should modify certain features of the model.

616. First, MCI treats account 6722 (external relations) and account 6727 (research and development) as avoidable costs. MCI argues that purchasers of wholesale services are competing with LECs and, therefore, should not be forced to fund regulatory

activities reflected in account 6722. MCI claims that research and development are not of practical use for the services that resellers will purchase. As explained above, this type of disallowance is not contemplated by the avoided cost standard of section 252(d)(3). We therefore adjust the model to treat these costs in the same manner as other overhead expense accounts.

617. Second, MCI treats a number of accounts as ''other avoided costs'' on the grounds that the expenses in those accounts are not relevant to the provision of telecommunications services that an incumbent LEC currently provides. Based on this rationale, MCI excludes account 6113 (aircraft expense), account 6341 (large PBX expense), account 6511 (property held for future telecommunications use expense), account 6351 (public telephone terminal equipment expense), account 6512 (provisioning expense), account 6562 (depreciation expense for property held for future telecommunications use), and account 6564 (amortization expense, intangible). Public telephone terminal equipment expense and large PBX expense are not ''avoided'' precisely because they are unrelated to the retail services being discounted. We would not expect these expenses to be included in retail service rates for resold services; but if these expenses were included in retail rates, they would not be avoided when the services are purchased by resellers. The rest of MCI's ''other'' accounts contain costs that support all of the telecommunications services offered by the company. MCI has not shown that any of these costs are either reduced or eliminated when services are sold at wholesale. We, therefore, adjust the MCI model so as not to treat these accounts as avoidable costs.

618. Third, MCI treats accounts 6611 (product management), 6612 (sales), 6613 (product advertising), and 6623 (customer services) as costs that are entirely avoided with respect to services purchased at wholesale. We agree that a large portion of the expenses in these accounts is avoided when service is sold at wholesale. We also agree, however, with parties that argue that some expenses in these accounts will continue to be incurred with respect to wholesale products and customers, and that some new expenses may be incurred in addressing the needs of resellers as customers. No party in this proceeding has suggested a specific adjustment to the MCI model that would account for these costs of the wholesale operation. We note that, in their own proceedings, several states have made varying estimates concerning the level of wholesale-related expenses in these accounts. Colorado, for example, estimated that none of the costs in accounts 6611–6613 would relate to wholesale services, and that only five percent of the costs in account 6623 would be incurred in a wholesale operation. The Georgia Commission, on the other hand, decided that 25 percent of sales and product advertising expenses would continue to be incurred in the wholesale operation. Given the lack of evidence, and the wide range of estimates that have been made by these states, we find it reasonable to assume, for purposes of determining a default range of wholesale discount rates, that ten percent of costs in accounts 6611, 6612, 6613, and 6623 are not avoided by selling services at wholesale.

619. Fourth, MCI uses a complex formula to calculate the portions of overhead and general support expense that are attributable to avoided costs. We find that this formula is constructed in a way that tends to inflate the results of the calculation. We have, therefore, substituted a more straightforward approach in which we apply to each indirect expense category the ratio of avoided direct expense to total expenses. We also identify a slightly different list of accounts representing indirect costs than that proposed by MCI.

620. With the modifications described above, and using actual 1995 data, MCI's model produces the following results for the RBOCs and GTE:

	Percent
U S West	18.80
GTE	18.81
BellSouth	19.20
Bell Atlantic	19.99
SBC	20.11
NYNEX	21.31
Pacific	23.87
Ameritech	25.98

621. We also take into account the experience of those state commissions, Illinois and Georgia, that have undertaken or approved detailed avoided cost studies under the pricing standard of section 252(d)(3) of the 1996 Act. Applying the statutory standard to the examination of significant cost studies, those commissions derived average wholesale discounts of 18.74 percent and 20.07 percent. We find that these decisions present evidence of an appropriate wholesale discount that should be given more weight than state commission decisions that have set their discounts under other pricing standards or only on an interim basis.

622. Accordingly, based on the record before us, we establish a range of default discounts of 17–25 percent that is to be used in the absence of an avoided cost study that meets the criteria set forth above. A state commission that has not set wholesale prices based on avoided cost studies that meet the criteria set forth above as of the release date of this Order shall use a default wholesale discount rate between 17 and 25 percent. A state should articulate the basis for selecting a particular discount rate. If this default discount rate is used, the state commission must establish wholesale rates based on avoided cost studies within a reasonable time. The avoided cost study must comply with the criteria for avoided cost studies described above. A state commission may submit an avoided cost study to this Commission for a determination of whether it complies with these criteria. If a party (either a reseller or an incumbent LEC) believes that a state commission has failed to act within a reasonable period of time, that party may file a petition for declaratory ruling with this Commission, asking us to determine whether the state has failed to comply with this rule. We will, in making such determinations, consider the particular circumstances in the state involved. If a state commission has adopted as of the release date of this Order an interim wholesale pricing decision that relies on an avoided cost study that meets the criteria set forth above, the state commission may continue to require an incumbent LEC to offer services for resale under such interim wholesale prices in lieu of the default discount range, so long as the state commission's interim pricing rules are fully enforceable by resellers and followed by a final decision within a reasonable period of time that adopts an avoided cost study that meets the criteria set forth above.

623. We select the 17 to 25 percent range of default discounts based on our evaluation of the record. The adjusted results of the MCI model taken together with the results of those state proceedings discussed above that indicated they applied the statutory standard produces, a range between 18.74 and 25.98 percent. A majority of these wholesale discount rates fall between 18.74 and 21.11 percent. Other state commissions, such as California and New York, that have employed avoided cost studies have produced wholesale discount rates somewhat below the low end of this range. Furthermore, it has been argued that smaller incumbent LECs' avoided costs are likely to be less than those of the larger incumbent LECs, whose data was used by MCI. Therefore, to allow for

these considerations, we select 17 percent as the lower end of the range. We select 25 percent as the top of the range because it approximates the top of the range of results produced by the modified MCI model. This range gives state commissions flexibility in addressing circumstances of incumbent LECs serving their states and permits resale to proceed until such time as the state commission can review a fully-compliant avoided cost study.

624. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, Bay Springs, *et al.*, argues that national wholesale pricing rules will insufficiently consider operational differences between small and large incumbent LECs. We take this into consideration in setting the default discount rate and in requiring state commissions to perform carrier-specific avoided cost studies within a reasonable period of time that will reflect carrier-to-carrier differences. We believe, however, that the procompetitive goals of the 1996 Act require us to establish a default discount rate for state commissions to use in the absence of avoided cost studies that comply with the criteria we set forth above. The presumptions we establish in conducting avoided cost studies regarding the avoidability of certain expenses may be rebutted by evidence that certain costs are not avoided, which should minimize any economic impact of our decisions on small incumbent LECs. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.

C. Conditions and Limitations

625. Section 251(c)(4) requires incumbent LECs to make their services available for resale without unreasonable or discriminatory conditions or limitations. This portion of this Order addresses various issues relating to conditions or limitations on resale. It first discusses restrictions, generally, in Section VIII.C.1. Next, it turns to promotional and discounted offerings and the conditions that may attach to such offerings in Section VIII.C.2., and then to refusals to resell residential and below-cost services in Section VIII.C.3. Limitations on the categories of customers to whom a reseller may sell incumbent LEC services are discussed in VIII.C.4. Resale restrictions in the form of withdrawal of service are discussed in VIII.C.5. Finally, Section VIII.C.6. discusses resale restrictions relating to provisioning.

1. Restrictions, Generally, and Burden of Proof

a. Background

626. In the NPRM, we asked whether incumbent LECs should have the burden of proving that restrictions on resale are reasonable and nondiscriminatory. We stated our belief that, given the pro-competitive goals of the 1996 Act and the view that restrictions and conditions were likely to be evidence of an exercise of market power, the range of permissible restrictions should be quite narrow.

b. Discussion

627. We conclude that resale restrictions are presumptively unreasonable. Incumbent LECs can rebut this presumption, but only if the restrictions are narrowly tailored. Such resale restrictions are not limited to those found in the resale agreement. They include conditions and limitations contained in the incumbent LEC's underlying tariff. As we explained in the NPRM, the ability of incumbent LECs to impose resale restrictions and conditions is likely to be evidence of market power and may reflect an attempt by incumbent LECs to preserve their market position. In a competitive market, an individual seller (an incumbent LEC) would not be able to impose significant restrictions and conditions on buyers because such buyers turn to other sellers. Recognizing that incumbent LECs possess market power, Congress prohibited unreasonable restrictions and conditions on resale. We, as well as state commissions, are unable to predict every potential restriction or limitation an incumbent LEC may seek to impose on a reseller. Given the probability that restrictions and conditions may have anticompetitive results, we conclude that it is consistent with the procompetitive goals of the 1996 Act to presume resale restrictions and conditions to be unreasonable and therefore in violation of section 251(c)(4). This presumption should reduce unnecessary burdens on resellers seeking to enter local exchange markets, which may include small entities, by reducing the time and expense of proving affirmatively that such restrictions are unreasonable. We discuss several specific restrictions below including certain restrictions for which we conclude the presumption of unreasonableness shall not apply. We also discuss certain restrictions that we will presume are reasonable.

2. Promotions and Discounts

a. Background

628. In the NPRM, we asked whether an incumbent LEC's obligation to make their services available for resale at wholesale rates applies to discounted and promotional offerings and, if so, how. We also asked, if the wholesale pricing obligation applies to promotions and discounts, whether the reseller entrant's customer must take service pursuant to the same restrictions that apply to the incumbent LEC's retail customers.

b. Discussion

629. Section 251(c)(4) provides that incumbent LECs must offer for resale at wholesale rates ''any telecommunications service'' that the carrier provides at retail to noncarrier subscribers. This language makes no exception for promotional or discounted offerings, including contract and other customer-specific offerings. We therefore conclude that no basis exists for creating a general exemption from the wholesale requirement for all promotional or discount service offerings made by incumbent LECs. A contrary result would permit incumbent LECs to avoid the statutory resale obligation by shifting their customers to nonstandard offerings, thereby eviscerating the resale provisions of the 1996 Act. In discussing promotions here, we are only referring to price discounts from standard offerings that will remain available for resale at wholesale rates, *i.e.*, temporary price discounts. Limited time offerings of service are still subject to resale pursuant to Section VIII.A.

630. There remains, however, the question of whether all short-term promotional prices are ''retail rates'' for purposes of calculating wholesale rates pursuant to section 252(d)(3). The 1996 Act does not define ''retail rate;'' nor is there any indication that Congress considered the issue. In view of this ambiguity, we conclude that ''retail rate'' should be interpreted in light of the pro-competitive policies underlying the 1996 Act. We recognize that promotions that are limited in length may serve procompetitive ends through enhancing marketing and sales-based competition and we do not wish to unnecessarily restrict such offerings. We believe that, if promotions are of limited duration, their procompetitive effects will outweigh any potential anticompetitive effects. We therefore conclude that short-term promotional

prices do not constitute retail rates for the underlying services and are thus not subject to the wholesale rate obligation.

631. We must also determine when a promotional price ceases to be ''short term'' and must therefore be treated as a retail rate for an underlying service. Incumbent LEC commenters support 120 days as the maximum period for such promotions. This has been criticized as being too long. We are concerned that excluding promotions that are offered for as long as four months may unreasonably hamper the efforts of new competitors that seek to enter local markets through resale. We believe that promotions of up to 90 days, when subjected to the conditions outlined below, will have significantly lower anticompetitive potential, especially as compared to the potential procompetitive marketing uses of such promotions. We therefore establish a presumption that promotional prices offered for a period of 90 days or less need not be offered at a discount to resellers. Promotional offerings greater than 90 days in duration must be offered for resale at wholesale rates pursuant to section 251(c)(4)(A). To preclude the potential for abuse of promotional discounts, any benefit of the promotion must be realized within the time period of the promotion, *e.g.*, no benefit can be realized more than ninety days after the promotional offering is taken by the customer if the promotional offering was for ninety days. In addition, an incumbent LEC may not use promotional offerings to evade the wholesale obligation, for example by consecutively offering a series of 90-day promotions.

632. We find unconvincing the arguments that the offerings under section 251(c)(4) should not apply to volume-based discounts. The 1996 Act on its face does not exclude such offerings from the wholesale obligation. If a service is sold to end users, it is a retail service, even if it is priced as a volume-based discount off the price of another retail service. The avoidable costs for a service with volume-based discounts, however, may be different than without volume contracts.

633. We are concerned that conditions that attach to promotions and discounts could be used to avoid the resale obligation to the detriment of competition. Allowing certain incumbent LEC end user restrictions to be made automatically binding on reseller end users could further exacerbate the potential anticompetitive effects. We recognize, however, that there may be reasonable restrictions on promotions and discounts. We conclude that the substance and specificity of rules concerning which discount and promotion restrictions may be applied to resellers in marketing their services to end users is a decision best left to state commissions, which are more familiar with the particular business practices of their incumbent LECs and local market conditions. These rules are to be developed, as necessary, for use in the arbitration process under section 252.

634. With respect to volume discount offerings, however, we conclude that it is presumptively unreasonable for incumbent LECs to require individual reseller end users to comply with incumbent LEC high-volume discount minimum usage requirements, so long as the reseller, in aggregate, under the relevant tariff, meets the minimal level of demand. The Commission traditionally has not permitted such restrictions on the resale of volume discount offers. *Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities*, 41 FR 30657 (July 26, 1976). We believe restrictions on resale of volume discounts will frequently produce anticompetitive results without sufficient justification. We, therefore, conclude that such restrictions should be considered presumptively unreasonable. We note, however, that in calculating the proper wholesale rate, incumbent LECs may prove that their avoided costs differ when selling in large volumes.

3. Below-Cost and Residential Service

a. Background

635. Responding to our general questions regarding the scope of limitations that may be placed on competitors' resale of incumbent LEC services, parties addressed in their comments whether below-cost and residential services are subject to section 251(c)(4).

b. Discussion

636. Subject to the cross-class restrictions discussed below, we believe that below-cost services are subject to the wholesale rate obligation under section 251(c)(4). First, the 1996 Act applies to ''any telecommunications service'' and thus, by its terms, does not exclude these types of services. Given the goal of the 1996 Act to encourage competition, we decline to limit the resale obligation with respect to certain services where the 1996 Act does not specifically do so. Second, simply because a service may be priced at below-cost levels does not justify denying customers of such a service the benefits of resale competition. We note that, unlike the pricing standard for unbundled elements, the resale pricing standard is not based on cost plus a reasonable profit. The resale pricing standard gives the end user the benefit of an implicit subsidy in the case of below-cost service, whether the end user is served by the incumbent or by a reseller, just as it continues to take the contribution if the service is priced above cost. So long as resale of the service is generally restricted to those customers eligible to receive such service from the incumbent LEC, as discussed below, demand is unlikely to be significantly increased by resale competition. Thus, differences in incumbent LEC revenue resulting from the resale of below-cost services should be accompanied by proportionate decreases in expenditures that are avoided because the service is being offered at wholesale.

637. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, MECA argues that services incumbent LECs offer at below-cost rates should not be subject to resale under section 251(c)(4). We do not adopt MECA's proposal. As explained above, we conclude that the 1996 Act provides that below-cost services are subject to the section 251(c)(4) resale obligation and that differences in incumbent LEC revenue resulting from the resale of below-cost services should be accompanied by decreases in expenditures that are avoided because the service is being offered at wholesale. Therefore, resale of below-cost services at wholesale rates should not adversely impact small incumbent LECs. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.

4. Cross-Class Selling

a. Background

638. In the NPRM, we sought comment on the meaning of section 251(c)(4)(B) which provides that ''[a] State commission may, consistent with regulations prescribed by the Commission under this section, prohibit a reseller that obtains at wholesale rates a telecommunications service that is available at retail only to a category of subscribers from offering such service to a different category of subscribers.'' We suggested that competing telecommunications carriers should not be allowed to purchase a subsidized service that is offered to a specific

category of subscribers and then resell such service to other customers. We tentatively concluded, for example, that it might be reasonable for a state to restrict the resale of a residential exchange service that is limited to low-income consumers, such as the existing Lifeline program. We noted that we have generally not allowed carriers to prevent other carriers from purchasing high-volume, low-price offerings to resell to a broad pool of lower volume customers. Similarly, we inquired into the propriety of practices such as limiting the resale of flat-rated service.

b. Discussion

639. There is general agreement that residential services should not be resold to nonresidential end users, and we conclude that restrictions prohibiting such cross-class reselling of residential services are reasonable. We conclude that section 251(c)(4)(B) permits states to prohibit resellers from selling residential services to customers ineligible to subscribe to such services from the incumbent LEC. For example, this would prevent resellers from reselling wholesale-priced residential service to business customers. We also conclude that section 251(c)(4)(B) allows states to make similar prohibitions on the resale of Lifeline or any other means-tested service offering to end users not eligible to subscribe to such service offerings. State commissions have established rate structures that take into account certain desired balances between residential and business rates and the goal of maximizing access by low-income consumers to telecommunications services. We do not wish to disturb these efforts by prohibiting or overly narrowing state commissions' ability to impose such restrictions on resale.

640. Shared tenant services are made possible through the resale and trunking of flat-rated services to multiple customers. We do not believe that these or other efficient uses of technology should be discouraged through restrictions on the resale of flat-rated offerings to multiple end users, even if incumbent LECs have not always priced such offerings assuming these usage patterns. We therefore conclude that such restrictions are presumptively unreasonable.

641. We also conclude that all other cross-class selling restrictions should be presumed unreasonable. Without clear statutory direction concerning potentially allowable cross-class restrictions, we are not inclined to allow the imposition of restrictions that could fetter the emergence of competition. As with volume discount and flat-rated offerings, we will allow incumbent LECs to rebut this presumption by proving to the state commission that the class restriction is reasonable and nondiscriminatory.

5. Incumbent LEC Withdrawal of Services

a. Background

642. In the NPRM, we sought comment on whether an incumbent LEC can avoid making a service available at wholesale rates by ceasing to offer the retail service on a retail basis, or whether the incumbent should first be required to make a showing that withdrawing the offering is in the public interest or that competitors will continue to have an alternative way of providing service. We also asked if access to unbundled elements addresses the concern that incumbent LECs could withdraw retail services.

b. Discussion

643. We are concerned that the incumbent LECs' ability to withdraw services may have anticompetitive effects where resellers are purchasing such services for resale in competition with the incumbent. We decline to issue general rules on this subject because we conclude that this is a matter best left to state commissions. Many state commissions have rules regarding the withdrawal of retail services and have experience regulating such matters. States can assess, for example, the universal service implications of an incumbent LEC's proposal to withdraw a retail service. Therefore, we conclude that our general presumption that incumbent LEC restrictions on resale are unreasonable does not apply to incumbent LEC withdrawal of service. States must ensure that procedural mechanisms exist for processing complaints regarding incumbent LEC withdrawals of services. We find it important, however, to ensure that grandfathered customers—subscribers to the service being withdrawn who are allowed by an incumbent LEC to continue purchasing services—not be denied the benefits of competition. We conclude that, when an incumbent LEC grandfathers its own customers of a withdrawn service, such grandfathering should also extend to reseller end users. For the duration of any grandfathering period, all grandfathered customers should have the right to purchase such grandfathered services either directly from the incumbent LEC or indirectly through a reseller. The incumbent LEC shall offer wholesale rates for such grandfathered services to resellers for the purpose of serving grandfathered customers.

6. Provisioning

644. We conclude that service made available for resale be at least equal in quality to that provided by the incumbent LEC to itself or to any subsidiary, affiliate, or any other party to which the carrier directly provides the service, such as end users. Practices to the contrary violate the 1996 Act's prohibition of discriminatory restrictions, limitations, or prohibitions on resale. This requirement includes differences imperceptible to end users because such differences may still provide incumbent LECs with advantages in the marketplace. Additionally, we conclude that incumbent LEC services are to be provisioned for resale with the same timeliness as they are provisioned to that incumbent LEC's subsidiaries, affiliates, or other parties to whom the carrier directly provides the service, such as end users. This equivalent timeliness requirement also applies to incumbent LEC claims of capacity limitations and incumbent LEC requirements relating to such limitations, such as potential down payments. We note that common carrier obligations, established by federal and state law and our rules, continue to apply to incumbent LECs in their relations with resellers. With regard to customer changeover charges, we conclude that states should determine reasonable and nondiscriminatory rates for such charges.

645. Brand identification is likely to play a major role in markets where resellers compete with incumbent LECs for the provision of local and toll service. This brand identification is critical to reseller attempts to compete with incumbent LECs and will minimize consumer confusion. Incumbent LECs are advantaged when reseller end users are advised that the service is being provided by the reseller's primary competitor. We therefore conclude that where operator, call completion, or directory assistance service is part of the service or service package an incumbent LEC offers for resale, failure by an incumbent LEC to comply with reseller branding requests presumptively constitutes an unreasonable restriction on resale. This presumption may be rebutted by an incumbent LEC proving to the state commission that it lacks the capability to comply with unbranding or rebranding requests. We recognize that an incumbent LEC may incur costs in complying with a request for unbranding or rebranding. Because we

do not have a record on which to determine the level of fees or wholesale pricing offsets that may reasonably be assessed to recover these costs, we leave such determinations to the state commissions.

D. Resale Obligations of LECs Under Section 251(b)(1)

646. Section 251(b)(1) imposes a duty on all LECs to offer certain services for resale. Specifically, section 251(b)(1) requires LECs ''not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on, the resale of its telecommunications services.''

1. Background

647. In the NPRM, we sought comment generally on the relationship of section 251(b)(1) to section 251(c)(4). We sought comment on whether all LECs are prohibited from imposing unreasonable restrictions on resale of their services, but only incumbent LECs that provide retail services to subscribers that are not telecommunications carriers are required to make such services available at wholesale rates to requesting telecommunications carriers. We also sought comment on what types of resale restrictions should be permitted under section 251(b)(1) and stated our belief that few, if any, conditions or limitations should be permitted for the same reasons that resale restrictions are sharply limited under section 251(c)(4). We also asked what standards should be adopted for determining whether resale restrictions should be permitted, and whether presumptions should be established.

2. Discussion

648. There are two differences between the resale obligations in section 251(b)(1) and in section 251(c)(4): the scope of services that must be resold and the pricing of such resale offerings. Section 251(b)(1) requires resale of all telecommunications services offered by the carrier while section 251(c)(4) only applies to telecommunications services that the carrier provides at retail to subscribers who are not telecommunications carriers. Thus, the scope of services to which section 251(b)(1) applies is larger and necessarily includes all services subject to resale under section 251(c)(4). We need not prescribe a minimum list of services that are subject to the 251(b)(1) resale requirement for the same reasons that we specified for not prescribing such a list in Section VIII.A. of this Order. We note that section 251(b)(1) clearly omits a wholesale pricing requirement. We therefore conclude that the 1996 Act does not impose wholesale pricing requirements on nonincumbent LECs. Nonincumbent LECs definitionally lack the market power possessed by incumbent LECs and were therefore not made subject to the wholesale pricing obligation in the 1996 Act. Their wholesale rates will face competition by incumbent LECs, making a wholesale pricing requirement for nonincumbent LECs unnecessary.

649. Sections 251(b)(1) and 251(c)(4) contain the same statutory standards regarding resale restrictions. Therefore, we conclude that our rules concerning resale restrictions under section 251(b)(1), such as the general presumption that all resale restrictions are unreasonable, should be the same as under section 251(c)(4). We conclude that any restriction of a type that has been found reasonable for incumbent LECs should be deemed reasonable for all other LECs as well.

E. Application of Access Charges

1. Background

650. In the NPRM, we suggested that an entrant that merely resold a bundled retail service purchased at wholesale rates would not receive access revenues. In other words, IXCs must still pay access charges to incumbent LECs for originating and terminating interstate traffic of an end user served by a telecommunications carrier that resells incumbent LEC services under section 251(c)(4).

2. Discussion

651. We conclude that the 1996 Act requires that incumbent LECs continue to receive access charge revenues when local services are resold under section 251(c)(4). IXCs must still pay access charges to incumbent LECs for originating or terminating interstate traffic, even when their end user is served by a telecommunications carrier that resells incumbent LEC retail services. Resale, as defined in section 251(b)(1) and 251(c)(4), involves services, in contrast to section 251(c)(3), which governs sale of network elements. New entrants that purchase retail local exchange services from an incumbent LEC at wholesale rates are entitled to resell only those retail services, and not any other services—such as exchange access—the LEC may offer using the same facilities. IXCs must therefore still purchase access services from incumbent LECs outside of the resale framework of 251(c)(4), through existing interstate access tariffs.

652. Most existing interstate access charges are recovered from IXCs, and therefore can easily be recovered by incumbent LECs whether or not the incumbent LEC retains its billing relationship with the end user subscriber. To allow incumbent LECs to continue recovering the subscriber line charge (SLC), however, the mechanism for assessment of the SLC must be modified. The SLC is currently assessed directly on end users as a monthly charge. When an end user customer receives local exchange service from a reseller, however, the incumbent LEC will have no direct commercial relationship with that end user. Because the end user would not be a customer of the incumbent LEC, the incumbent LEC could not bill SLC directly to the end user as specified under our existing rules.

653. In March 1995, in the *Rochester Waiver Order,* we granted Rochester Telephone waivers to permit Rochester Telephone to recover the SLC from carriers that purchase local exchange service for resale, rather than recovering the SLC directly from end users. In that order, we stated that by offering the local exchange service for resale and by unbundling subscriber lines from other network functions, Rochester Telephone created a situation where it would no longer have a direct relationship with end users, IXCs, or both, and that such a situation was not contemplated when the Commission created the rules governing the recovery of access charges. We also permitted Rochester Telephone to bill to resellers the PIC change charge, which is assessed by incumbent local exchange carriers on end users that wish to change their primary interexchange carrier (PIC).

654. The resale requirements of the 1996 Act create a situation for the entire industry that is analogous to the situation Rochester Telephone faced in 1995. We therefore conclude that similar relief is warranted here with respect to the SLC, so that incumbent LECs can recover the SLC from resellers, as we conclude the 1996 Act mandates. Although the PIC change charge is not a part of access charges, and is assessed only when an end user changes his or her primary interexchange carrier, this charge has similar characteristics to the SLC and therefore should also be subject to the rule we adopt. Incumbent LECs may assess the SLC and the PIC change charge on telecommunications carriers that resell incumbent LEC services under section 251(c)(4).

655. Although incumbent LECs may continue to recover the SLC when other carriers resell their local exchange services, the SLC is not subject to the wholesale pricing standard of section 252(d)(3). As described above, resellers

of local exchange service are not reselling access services; they are purchasing these services from incumbent LECs in the same manner they do today. The SLC is a component of interstate access charges, not of intrastate local service rates. Consistent with the principles of cost-causation and economic efficiency, we have required the portion of interstate allocated loop costs represented by the SLC to be recovered from end users, rather than from carriers as with other access charges. Although the SLC is listed on end user monthly local service bills, this charge does not represent a ''telecommunications service [an incumbent LEC] provides at retail to subscribers.'' Rather, the SLC, like other interstate access charges, relates solely to incumbent LEC interstate access services, which are provided to other carriers rather than retail subscribers and which we have concluded are not subject to the resale requirements of section 251(c)(4). Therefore, the reseller shall pay the SLC to the incumbent LEC for each subscriber taking resold service. The specific SLC that applies depends upon the identity of the end user served by the reselling telecommunications carrier.

IX. Duties Imposed on ''Telecommunications Carriers'' by Section 251(a)

A. Background

656. Section 251(a) imposes two fundamental duties on all telecommunications carriers: (1) ''to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers;'' and (2) ''not to install network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to sections 255 or 256.'' 47 U.S.C. 251(a). Section 255 addresses access by persons with disabilities and ensures that manufacturers and providers of telecommunications will design equipment and provide service that is accessible to, and usable by, individuals with disabilities. Section 256 provides for coordination for interconnectivity ''to promote nondiscriminatory accessibility by the broadest number of users and vendors of communications products and services.'' 47 U.S.C. §§ 255, 256. In this proceeding we determine which carriers are ''telecommunications carriers'' as defined in section 3(44) of the Act. The term telecommunications carrier means ''any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226). A telecommunications carrier shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage.'' 47 U.S.C. 153(44). In the NPRM, we tentatively concluded that, pursuant to the statute's definition of ''telecommunications carrier'' and ''telecommunications service,'' to the extent a carrier is engaged in providing for a fee local, interexchange, or international services, directly to the public or to such classes of users as to be effectively available directly to the public, that carrier falls within the definition of ''telecommunications carrier.'' We sought comment on which carriers are included under this definition, and on whether a provider may qualify as a telecommunications carrier for some purposes but not others.

657. We also tentatively concluded that we should determine whether the provision of mobile satellite services is Commercial Mobile Radio Services (CMRS) or Private Mobile Radio Service (PMRS) based on the factors set forth in the *CMRS Second Report and Order.* NPRM at para 247. The Commission makes this determination by looking at an array of public interest considerations (*e.g.,* the types of services being offered and the number of licensees being authorized). *See, e.g., Amendment of Parts 2, 22 and 25 of the Commission's Rules to Allocate Spectrum for, and To Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile Satellite Service for the Provision of Various Common Carrier Services,* GEN Docket No. 84–1234, Second Report and Order, 52 FR 4017 (February 9, 1987); *Amendment to the Commission's Rules to Allocate Spectrum for, and to Establish Other Rules and Policies Pertaining to a Radiodetermination Satellite Service,* GEN Docket No. 84–689, Second Report and Order, 51 FR 18444 (May 20, 1986). We sought comment on the meaning of offering service ''directly or indirectly'' to the public in the context of section 251(a)(1) and on whether section 251(a) allows non-incumbent LECs discretion to interconnect directly or indirectly with a requesting carrier. We also sought comment on what other actions we should take to ensure that carriers do not install network features, functions, or capabilities that are inconsistent with guidelines and standards established pursuant to sections 255 and 256.

B. Discussion

658. A ''telecommunications carrier'' is defined as ''any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226).'' 47 U.S.C. 153(44). The term ''aggregator'' is defined as ''any person that, in the ordinary course of its operations, makes telephones available to the public or to transient users of its premises, for interstate telephone calls using a provider of operator services.'' 47 U.S.C. 226(a)(2). A telecommunications carrier shall be treated as a common carrier under the Act ''only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage.'' A ''telecommunications service'' is defined as the ''offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.'' We conclude that to the extent a carrier is engaged in providing for a fee domestic or international telecommunications, directly to the public or to such classes of users as to be effectively available directly to the public, the carrier falls within the definition of ''telecommunications carrier.'' We find that this definition is consistent with the 1996 Act, and there is nothing in the record in this proceeding that suggests that this definition should not be adopted. Also, enhanced service providers, to the extent that they are providing telecommunications services, are entitled to the rights under section 251(a).

659. We believe, as a general policy matter, that all telecommunications carriers that compete with each other should be treated alike regardless of the technology used unless there is a compelling reason to do otherwise. We agree with those parties that argue that all CMRS providers are telecommunications carriers and are thus obligated to comply with section 251(a). The term ''CMRS'' is defined as ''any mobile service * * * that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public.'' 47 U.S.C. § 332(d)(1). CMRS includes, among others, some private paging, personal communications services, business radio services, and

mobile service that is the functional equivalent of a commercial mobile radio service. 47 CFR § 20.9. These carriers meet the definition of ''telecommunications carrier'' because they are providers of telecommunications services as defined in the 1996 Act and are thus entitled to the benefits of section 251(c), which include the right to request interconnection and obtain access to unbundled elements at any technically feasible point in an incumbent LEC's network. PMRS is defined as any mobile service that is not a commercial service or the functional equivalent of a commercial mobile service. We conclude that to the extent a PMRS provider uses capacity to provide domestic or international telecommunications for a fee directly to the public, it will fall within the definition of ''telecommunications carrier'' under the Act and will be subject to the duties listed in section 251(a). The Commission held in the *CMRS Second Report and Order* that any PMRS provider that ''employs spectrum for not-for-profit services, such as an internal operation, but also uses its excess capacity to make available a service that is intended to receive compensation, will be deemed to be a 'for profit' service to the extent of such excess capacity activities.'' *Implementation of Section 3(n) and 332 of the Communications Act,* Second Report and Order, GN Docket No. 93–252, 59 FR 18493 (April 19, 1994) (*CMRS Second Report and Order*).

660. We conclude that cost-sharing for the construction and operation of private telecommunications networks is not within the definition of ''telecommunications services'' and thus such operators of private networks are not subject to the requirements of section 251(a). We believe that such methods of cost-sharing do not equate to a ''fee directly to the public'' under the definition of ''telecommunications service.'' Conversely, to the extent an operator of a private telecommunications network is offering ''telecommunications'' (the term ''telecommunications'' means ''the transmission, between or among points specified by the user, of information of the user's choosing, without change in form or content of the information as sent and received'' 47 U.S.C. § 153(43)) for a fee directly to the public, or to such classes of users as to be effectively available directly to the public (*i.e.*, providing a telecommunications service), the operator is a telecommunications carrier and is subject to the duties in section 251(a). Providing to the public telecommunications (*e.g.*, selling excess capacity on private fiber or wireless networks), constitutes provision of a telecommunications service and thus subjects the operator of such a network to the duties of section 251(a) to that extent.

661. We conclude that, if a company provides both telecommunications and information services, it must be classified as a telecommunications carrier for purposes of section 251, and is subject to the obligations under section 251(a), to the extent that it is acting as a telecommunications carrier. We also conclude that telecommunications carriers that have interconnected or gained access under sections 251(a)(1), 251(c)(2), or 251(c)(3), may offer information services through the same arrangement, so long as they are offering telecommunications services through the same arrangement as well. Under a contrary conclusion, a competitor would be precluded from offering information services in competition with the incumbent LEC under the same arrangement, thus increasing the transaction cost for the competitor. We find this to be contrary to the pro-competitive spirit of the 1996 Act. By rejecting this outcome we provide competitors the opportunity to compete effectively with the incumbent by offering a full range of services to end users without having to provide some services inefficiently through distinct facilities or agreements. In addition, we conclude that enhanced service providers that do not also provide domestic or international telecommunications, and are thus not telecommunications carriers within the meaning of the Act, may not interconnect under section 251.

662. Consistent with our tentative conclusion in the NPRM, we will determine whether the provision of mobile satellite service (MSS) is CMRS (and therefore common carriage) or PMRS based on the factors set forth in the*CMRS Second Report and Order.* Commenters have not raised objections to the Commission's tentative conclusion on this issue.

663. Regarding the issue of interconnecting ''directly or indirectly'' with the facilities of other telecommunications carriers, we conclude that telecommunications carriers should be permitted to provide interconnection pursuant to section 251(a) either directly or indirectly, based upon their most efficient technical and economic choices. The interconnection obligations under section 251(a) differ from the obligations under section 251(c). Unlike section 251(c), which applies to incumbent LECs, section 251(a) interconnection applies to all telecommunications carriers including those with no market power. Given the lack of market power by telecommunication carriers required to provide interconnection via section 251(a), and the clear language of the statute, we find that indirect connection (*e.g.*, two non-incumbent LECs interconnecting with an incumbent LEC's network) satisfies a telecommunications carrier's duty to interconnect pursuant to section 251(a). We decline to adopt, at this time, Metricom's suggestion to forbear under section 10 of the 1996 Act from imposing any interconnection requirements upon non-dominant carriers. We believe that, even for telecommunications carriers with no market power, the duty to interconnect directly or indirectly is central to the 1996 Act and achieves important policy objectives. Nothing in the record convinces us that we should forbear from imposing the provisions of section 251(a) on non-dominant carriers. In fact, section 251 distinguishes between dominant and non-dominant carriers, and imposes a number of additional obligations exclusively on incumbent LECs. Similarly, we also do not agree with the Texas Commission's argument that the obligations of section 251(a) should apply equally to all telecommunications carriers. Section 251 is clear in imposing different obligations on carriers depending upon their classification (*i.e.*, incumbent LEC, LEC, or telecommunications carrier). For example, section 251(c) specifically imposes obligations upon incumbent LECs to interconnect, upon request, at all technically feasible points. This direct interconnection, however, is not required under section 251(a) of all telecommunications carriers.

664. Section 251(a)(2) prohibits telecommunications carriers from installing network features, functions, and capabilities that do not comply with standards or guidelines established under sections 255 and 256. Because the Commission and the Architectural and Transportation Barriers Compliance Board have not developed standards or guidelines under section 255, we find that it would be premature at this point to attempt to delineate specific requirements or definitions of terms to implement Section 251(a)(2). The Illinois Commission lists several features which could provide access to individuals with disabilities, such as access to interrupt messages, directory assistance and operator services by users of text telephones (TTYs). Illinois

Commission comments at 82–83. Specific accessibility requirements such as those proposed by the Illinois Commission will need to be developed in proceedings to implement section 255, and therefore, we will not set forth any required ''features, functions, or capabilities'' in this proceeding. Similarly, the Commission has asked its federal advisory committee, the Network Reliability and Interoperability Council, for recommendations on how the Commission should implement Section 256. We intend to issue a further notice of proposed rulemaking seeking comment on what accessibility and compatibility requirements apply to telecommunications carriers who install network features, functions and capabilities.

X. Commercial Mobile Radio Service Interconnection

665. In the NPRM, we sought comment on whether interconnection arrangements between incumbent LECs and CMRS providers fall within the scope of sections 251 and 252. Application of sections 251 and 252 to LEC–CMRS interconnection arrangements involves two distinct issues. One is whether the terms and conditions of the physical interconnection between incumbent LECs and CMRS providers are governed under section 251(c)(2), and the corresponding pricing standards set forth in section 252(d)(1). The second, and perhaps more critical issue from the CMRS providers' perspective, is whether CMRS providers are entitled to reciprocal compensation for transport and termination under section 251(b)(5), and the corresponding pricing standards set forth in section 252(d)(2).

666. We tentatively concluded in the NPRM that CMRS providers are not obliged to provide to requesting telecommunications carriers either reciprocal compensation for transport and termination of telecommunications under section 251(b)(5), or interconnection under the provisions of section 251(c)(2), but that CMRS providers may be entitled to request interconnection under section 251(c)(2) for the purposes of providing ''telephone exchange service and exchange access.'' We sought comment on this tentative conclusion. We also asked for comment on the separate but related question of whether LEC–CMRS transport and termination arrangements fall within the scope of section 251(b)(5). In addition, we sought comment on the relationship between section 251 and section 332(c). 47 U.S.C. 332(c). This section sets forth the regulatory treatment for mobile services, including the common carrier treatment of CMRS providers (except for such provisions of Title II as the Commission may specify), the right of CMRS providers to request (and the Commission to order) physical interconnection with other common carriers and the preemption of state regulation of the entry of or the rates charged by any CMRS providers. We acknowledged that issues relating to LEC–CMRS interconnection pursuant to section 332(c) were part of an ongoing proceeding initiated before the passage of the 1996 Act, (*Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, Notice of Proposed Rulemaking, CC Docket No. 95–185, 61 FR 3644 (February 1, 1996) (*LEC–CMRS Interconnection NPRM*)), and retained the prerogative of incorporating by reference the comments filed in that docket to the extent necessary. We hereby do so.

A. CMRS Providers and Obligations of Local Exchange Carriers Under Section 251(b) and Incumbent Local Exchange Carriers Under Section 251(c)

1. Background

667. Section 251(b) imposes duties only on LECs, and section 251(c) imposes duties only on incumbent LECs. Section 3(26) of the Act defines ''local exchange carrier'' to mean ''any person that is engaged in the provision of telephone exchange service or exchange access,'' but ''does not include a person insofar as such person is engaged in the provision of a commercial mobile service under section 332(c), except to the extent that the Commission finds that such service should be included in the definition of such term.'' In the NPRM, we sought comment on whether, and to what extent, CMRS providers should be classified as ''local exchange carriers'' and therefore subject to the duties and obligations imposed by section 251(b).

2. Discussion

668. We are not persuaded by those arguing that CMRS providers should be treated as LECs, and decline at this time to treat CMRS providers as LECs. Section 3(26) of the Act, quoted above, makes clear that CMRS providers should not be classified as LECs until the Commission makes a finding that such treatment is warranted. We disagree with COMAV and National Wireless Resellers Association that CMRS providers are *de facto* LECs (and even incumbent LECs if they are affiliated with a LEC) simply because they provide telephone exchange and exchange access services. Congress recognized that some CMRS providers offer telephone exchange and exchange access services, and concluded that their provision of such services, by itself, did not require CMRS providers to be classified as LECs. We further note that, because the determination as to whether CMRS providers should be defined as LECs is within the Commission's sole discretion, states are preempted from requiring CMRS providers to classify themselves as ''local exchange carriers'' or be subject to rate and entry regulation as a precondition to participation in interconnection negotiations and arbitrations under sections 251 and 252.

669. NARUC argues that CMRS providers should be classified as LECs if they provide fixed service. We are currently seeking comment in our *CMRS Flexibility Proceeding, (Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services*, WT Docket No. 96–6, First Report and Order and Further Notice of Proposed Rulemaking, FCC 96–283 (released August 1, 1996)), on the regulatory treatment to be afforded CMRS providers when they provide fixed services. Thus, we believe that it would be premature to answer that question here, based only on the record in this proceeding. We also decline to adopt the Illinois Commission's suggestion that we find that a CMRS provider is a LEC if the CMRS provider seeks to compete directly with a wireline LEC. Even if we were to accept the Illinois Commission's underlying assumption, the record in this proceeding contains no evidence that wireless local loops have begun to replace wireline loops for the provision of local exchange service. Thus, until such time that we decide otherwise, CMRS providers will not be classified as LECs, and are not subject to the obligations of section 251(b). We further note that, even if we were to classify some CMRS providers as LECs, other types of CMRS providers, such as paging providers, might not be so classified because they do not offer local exchange service or exchange access.

670. We further note that, because CMRS providers do not fall within the definition of a LEC under section 251(h)(1), they are not subject to the duties and obligations imposed on incumbent LECs under section 251(c). An incumbent LEC is defined in section 251(h)(1), and includes only those LECs that were, on the date of enactment of the 1996 Act, deemed to be members of NECA pursuant to 47 CFR § 69.601(b), or the successor or assign of a NECA member. Similarly, we do not find that

CMRS providers satisfy the criteria set forth in section 251(h)(2), which grants the Commission the discretion to, by rule, provide for the treatment of a LEC as an incumbent LEC if certain conditions are met.

B. Reciprocal Compensation Arrangements Under Section 251(b)(5)

671. Some parties contend that LEC–CMRS transport and termination arrangements do not fall within the scope of 251(b)(5), which requires LECs to establish reciprocal compensation arrangements for transport and termination. Other commenters argue that because CMRS providers fall within the definition of ''telecommunications carriers,'' they fall within the scope of section 251(b)(5).

672. Under section 251(b)(5), LECs have a duty to establish reciprocal compensation arrangements for the transport and termination of ''telecommunications.'' Under section 3(43), ''[t]he term 'telecommunications' means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.'' All CMRS providers offer telecommunications. Accordingly, LECs are obligated, pursuant to section 251(b)(5) (and the corresponding pricing standards of section 252(d)(2)), to enter into reciprocal compensation arrangements with all CMRS providers, including paging providers, for the transport and termination of traffic on each other's networks, pursuant to the rules governing reciprocal compensation set forth in Section XI.B, below.

C. Interconnection Under Section 251(c)(2)

1. Background

673. Section 251(c)(2)(A) provides that an incumbent LEC must provide interconnection with its local exchange network to ''any requesting telecommunications carrier * * * for the transmission and routing of telephone exchange service and exchange access.'' In the NPRM, we tentatively concluded that CMRS providers may be entitled to request interconnection under section 251(c)(2) for the purposes of providing telephone exchange service and exchange access. We sought comment on this tentative conclusion.

2. Discussion

674. As discussed in the preceding section, CMRS providers meet the statutory definition of ''telecommunications carriers.'' We also agree with several commenters that many CMRS providers (specifically cellular, broadband PCS and covered SMR) also provide telephone exchange service and exchange access as defined by the 1996 Act. Incumbent LECs must accordingly make interconnection available to these CMRS providers in conformity with the terms of sections 251(c) and 252, including offering rates, terms, and conditions that are just, reasonable and nondiscriminatory.

675. The 1996 Act defines ''telephone exchange service'' as ''service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area * * * and which is covered by the exchange service charge, *or (B) comparable service* provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service.'' 47 U.S.C. 153(47) (emphasis added). This is a broader definition of ''telephone exchange service'' than had previously existed; Congress changed the definition in the 1996 Act to include services ''comparable'' to telephone exchange. At a minimum, we find that cellular, broadband PCS, and covered SMR providers fall within the second part of the definition because they provide ''comparable service'' to telephone exchange service. The services offered by cellular, broadband PCS, and covered SMR providers are comparable because, as a general matter, and as some commenters note, these CMRS carriers provide local, two-way switched voice service as a principal part of their business. Indeed, the Commission has described cellular service as exchange telephone service, (*See Need to Promote Competition and Efficient Use of Spectrum for Radio Common Carriers,* Memorandum Opinion and Order, 59 Rad. Reg. 2d 1275, 1278 (1986)), and cellular carriers as ''generally engaged in the provision of local exchange telecommunications in conjunction with local telephone companies * * *.'' *In the Matter of the Need to Promote Competition and Efficient Use of Spectrum For Radio Common Carrier Services,* Memorandum Opinion and Order, 59 Rad. Reg. 2d 1275, 1278 (1986) (*Competition Opinion); see also id.* at 1284 (cellular carriers are primarily engaged in the provision of local, intrastate exchange telephone service); *Equal Access and Interconnection Obligations Pertaining to Commercial Radio Services,* CC Docket No. 94–54, Notice of Proposed Rulemaking and Notice of Inquiry, 59 FR 35664 (July 13, 1994). In addition, although CMRS providers are not currently classified as LECs, the fact that most CMRS providers are capable, both technically and pursuant to the terms of their licenses, of providing fixed services, as LECs do, buttresses our conclusion that these CMRS providers offer services that are ''comparable'' to telephone exchange service and supports the notion that these services may become a true economic substitute for wireline local exchange service in the future. *See Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services,* WT Docket No. 96–6, First Report and Order and Further Notice of Proposed Rulemaking, FCC 96–283 (released August 1, 1996) (amending rules to allow providers of narrowband and broadband PCS, cellular, CMRS SMR, CMRS paging, CMRS 220 MHz service, and for-profit interconnected business radio services to offer fixed wireless services on their assigned spectrum on a co-primary basis with mobile services).

676. We also believe that other definitions in the Act support the conclusion that cellular, broadband PCS, and covered SMR licensees provide telephone exchange service. The fact that the 1996 Act's definition of a LEC excludes CMRS until the Commission finds that such service should be included in the definition,'' suggests that Congress found that some CMRS providers were providing telephone exchange service or exchange access, but sought to afford the Commission the discretion to decide whether CMRS providers should be treated as LECs under the new Act. Similarly, section 253(f) permits the states to impose certain obligations on ''telecommunications carrier[s] that seek[ ] to provide telephone exchange service'' in rural areas. The provision further provides that ''[t]his subsection shall not apply * * * to a provider of commercial mobile services.'' It would have been unnecessary for the statute to include this exception if some CMRS were not telephone exchange service. Similarly, section 271(c)(1)(A), which sets forth conditions for determining the presence of a facilities-based competitor for purposes of BOC applications to provide in-region, interLATA services, provides that Part 22 [cellular] services ''shall not be considered to be telephone exchange services,'' for purposes of that section. Again, if Congress did not believe that cellular providers were engaged in the provision of telephone exchange service, it would not have

been necessary to exclude cellular providers from this provision.

677. The arguments that CMRS traffic flows may differ from wireline traffic, that CMRS providers' termination costs may differ from LECs, that CMRS service areas do not coincide with wireline local exchange areas, or that CMRS providers are not LECs, do not alter our conclusion that cellular, broadband PCS, and covered SMR licensees provide telephone exchange service. These considerations are not relevant to the statutory definition of telephone exchange service in section 3(47). Incumbent LECs are required to provide interconnection to CMRS providers who request it for the transmission and routing of telephone exchange service or exchange access, under the plain language of section 251(c)(2).

D. Jurisdictional Authority for Regulation of LEC–CMRS Interconnection Rates

1. Background

678. In the NPRM, we sought comment on the relationship between section 251 and section 332(c). As noted above, we hereby incorporate by reference the comments filed in CC Docket No. 95–185 to the extent relevant to our analysis. In the NPRM, we noted that we had previously sought comment on the relationship of these two statutory provisions in the LEC–CMRS Interconnection proceeding. In the LEC–CMRS proceeding, we tentatively concluded that the Commission has sufficient authority to promulgate specific federal requirements for interstate and intrastate LEC–CMRS interconnection arrangements, including the adoption of a specific interim bill and keep arrangement. However, we reached that tentative conclusion before the enactment of the 1996 Act.

2. Discussion

679. Several parties in this proceeding argue that sections 251 and 252 provide the exclusive jurisdictional basis for regulation of LEC–CMRS interconnection rates. Other parties assert that sections 332 and 201 provide the exclusive jurisdictional basis for regulation of LEC–CMRS interconnection rates. Some parties have argued that jurisdiction resides concurrently under sections 251 and 252, on the one hand, and under sections 332 and 201 on the other.

680. Sections 251, 252, 332 and 201 are designed to achieve the common goal of establishing interconnection and ensuring interconnection on terms and conditions that are just, reasonable, and fair. It is consistent with the broad authority of these provisions to hold that we may apply sections 251 and 252 to LEC–CMRS interconnection. By opting to proceed under sections 251 and 252, we are not finding that section 332 jurisdiction over interconnection has been repealed by implication, or rejecting it as an alternative basis for jurisdiction. We acknowledge that section 332 in tandem with section 201 is a basis for jurisdiction over LEC–CMRS interconnection; we simply decline to define the precise extent of that jurisdiction at this time.

681. As a practical matter, sections 251 and 252 create a time-limited negotiation and arbitration process to ensure that interconnection agreements will be reached between incumbent LECs and telecommunications carriers, including CMRS providers. We expect that our establishment of pricing methodologies and default proxies which may be used as interim rates will help expedite the parties' negotiations and drive voluntary CMRS–LEC interconnection agreements. We also believe that sections 251 and 252 will foster regulatory parity in that these provisions establish a uniform regulatory scheme governing interconnection between incumbent LECs and all requesting carriers, including CMRS providers. Thus, we believe that sections 251 and 252 will facilitate consistent resolution of interconnection issues for CMRS providers and other carriers requesting interconnection.

682. Although we are applying sections 251 and 252 to LEC–CMRS interconnection at this time, we preserve the option to revisit this determination in the future. We note that Section 332 generally precludes states from rate and entry regulation of CMRS providers, and thus, differentiates CMRS providers from other carriers. In passing section 332 in 1993, Congress stated that it intended to ''foster the growth and development of mobile services that, by their nature, operate without regard to state lines as an integral part of the national telecommunications infrastructure.'' H.R. Report No. 103–11, 103d. Cong., 1st Sess. 260 (1993). We also recognize that, based on the combined record in CC Docket No. 95–185 and CC Docket No. 96–68, there have been instances in which state commissions have treated CMRS providers in a discriminatory manner with respect to the terms and conditions of interconnection. Should the Commission determine that the regulatory scheme established by sections 251 and 252 does not sufficiently address the problems encountered by CMRS providers in obtaining interconnection on terms and conditions that are just, reasonable and nondiscriminatory, the Commission may revisit its determination not to invoke jurisdiction under section 332 to regulate LEC–CMRS interconnection rates.

683. Our decision to proceed under section 251 as a basis for regulating LEC–CMRS interconnection rates should not be interpreted as undercutting our intent to enforce Section 332(c)(3), for example, where state regulation of interconnection rates might constitute regulation of CMRS entry. In such situations, state action might be precluded by either section 332 or section 253. Such circumstances would require a case-by-case evaluation. We note, however, that we are aware of numerous specific state requirements that may constitute CMRS entry or rate regulation preempted by section 332. For example, many states, such as California, require all telecommunications providers to certify that the public convenience and necessity will be served as a precondition to construction and operation of telecommunications services within the state. CAL. PUBLIC UTILITIES CODE Sections 1001,1005 (West 1995); ALASKA STAT. Section 42.05221 (1995); CONN. GEN. STAT. Section 16–247g (1995); HAW. REV. STAT. Section 269–7.5 (1995); NEB. REV. STAT. Section 86–805 (1995); N.M. STAT. ANN. Section 63–9B–4 (Michie 1996). Some states, such as Alaska and Connecticut, also require CMRS providers to certify as service providers other than CMRS in order to obtain the same treatment afforded other telecommunications providers under state law. *See In the Matter of Motion for a Declaratory Ruling Concerning Preemption of Alaska Call Routing and Interexchange Certification Regulation as Applies to Cellular Carriers,* File No. WTB/POL 95–2, *Motion for a Declaratory Ruling,* Alaska-3 Cellular d/b/a CellularOne, p.5, para. 11 (filed Sept. 22, 1995); *Decision, Investigation Into Wireless Mutual Compensation Plans,* State of Connecticut, Department of Public Utility control, at 15 (Connecticut Commission Sept. 22, 1995). Hawaii and Louisiana, in addition to imposing a certification requirement, require CMRS providers and other telecommunications carriers to file tariffs with the state commission. HAW. REV. STAT. Section 6–80–29 (1996); *see In re Regulations for Competition in the Local Telecommunications Market,* General

Order, Louisiana Public Service Commission, §§ 301, 401 (Louisiana Commission March 15, 1996). We will not permit entry regulation through the exercise of states' sections 251/252 authority or otherwise. In this regard, we note that states may not impose on CMRS carriers rate and entry regulation as a pre-condition to participation in interconnection agreements that may be negotiated and arbitrated pursuant to sections 251 and 252. We further note that the Commission is reviewing filings made pursuant to section 253 alleging that particular states or local governments have requirements that constitute entry barriers, in violation of section 253. We will continue to review any allegations on an ongoing basis, including any claims that states or local governments are regulating entry or imposing requirements on CMRS providers that constitute barriers to market entry.

XI. Obligations Imposed on LECs by Section 251(b)

A. Reciprocal Compensation for Transport and Termination of Telecommunications

1. Statutory Language

684. Section 251(b)(5) provides that all LECs, including incumbent LECs, have the duty to ''establish reciprocal compensation arrangements for the transport and termination of telecommunications.'' Section 252(d)(2) states that, for the purpose of compliance by an incumbent LEC with section 251(b)(5), a state commission shall not consider the terms and conditions for reciprocal compensation to be just and reasonable unless such terms and conditions both: (1) provide for the ''mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier,'' and (2) ''determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls.'' That subsection further provides that the foregoing language shall not be construed ''to preclude arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill and keep arrangements),'' or to authorize the Commission or any state to ''engage in any rate regulation proceeding to establish with particularity the additional costs of transporting or terminating calls, or require carriers to maintain records with respect to the additional costs of such calls.'' The legislative history indicates that ''mutual and reciprocal recovery of costs * * * may include a range of compensation schemes, such as in-kind exchange of traffic without cash payment (known as bill-and-keep arrangements).''

2. Definition of Transport and Termination of Telecommunications

a. Background

685. In the NPRM, we sought comment on whether ''transport and termination of telecommunications'' under section 251(b)(5) is limited to certain types of traffic. We noted that the statutory provision appears to encompass telecommunications traffic that originates on the network of one LEC and terminates on the network of a competing provider in the same local service area as well as traffic passing between LECs and CMRS providers. We sought comment on whether section 251(b)(5) also encompasses telecommunications traffic passing between neighboring LECs that do not compete with one another. We also observed in the NPRM that section 252(d)(2) is entitled ''Charges for Transport and Termination of Traffic,'' and it could be interpreted to permit separate charges for these two components of reciprocal compensation. We sought comment on this issue.

b. Discussion

(1) Distinction Between ''Transport and Termination'' and Access

686. We recognize that transport and termination of traffic, whether it originates locally or from a distant exchange, involves the same network functions. Ultimately, we believe that the rates that local carriers impose for the transport and termination of local traffic and for the transport and termination of long distance traffic should converge. We conclude, however, as a legal matter, that transport and termination of local traffic are different services than access service for long distance telecommunications. Transport and termination of local traffic for purposes of reciprocal compensation are governed by sections 251(b)(5) and 252(d)(2), while access charges for interstate long-distance traffic are governed by sections 201 and 202 of the Act. The Act preserves the legal distinctions between charges for transport and termination of local traffic and interstate and intrastate charges for terminating long-distance traffic.

687. We conclude that section 251(b)(5) reciprocal compensation obligations should apply only to traffic that originates and terminates within a local area, as defined in the following paragraph. We disagree with Frontier's contention that section 251(b)(5) entitles an IXC to receive reciprocal compensation from a LEC when a long-distance call is passed from the LEC serving the caller to the IXC. Access charges were developed to address a situation in which three carriers—typically, the originating LEC, the IXC, and the terminating LEC—collaborate to complete a long-distance call. As a general matter, in the access charge regime, the long-distance caller pays long-distance charges to the IXC, and the IXC must pay both LECs for originating and terminating access service. In addition, both the caller and the party receiving the call pay a flat-rated interstate access charge—the end-user common line charge—to the respective incumbent LEC to whose network each of these parties is connected. By contrast, reciprocal compensation for transport and termination of calls is intended for a situation in which two carriers collaborate to complete a local call. In this case, the local caller pays charges to the originating carrier, and the originating carrier must compensate the terminating carrier for completing the call. This reading of the statute is confirmed by section 252(d)(2)(A)(i), which establishes the pricing standards for section 251(b)(5). Section 251(d)(2)(A)(i) provides for ''recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier.'' We note that our conclusion that long distance traffic is not subject to the transport and termination provisions of section 251 does not in any way disrupt the ability of IXCs to terminate their interstate long-distance traffic on LEC networks. Pursuant to section 251(g), LECs must continue to offer tariffed interstate access services just as they did prior to enactment of the 1996 Act. We find that the reciprocal compensation provisions of section 251(b)(5) for transport and termination of traffic do not apply to the transport or termination of interstate or intrastate interexchange traffic.

688. With the exception of traffic to or from a CMRS network, state commissions have the authority to determine what geographic areas should be considered ''local areas'' for the purpose of applying reciprocal compensation obligations under section 251(b)(5), consistent with the state commissions' historical practice of defining local service areas for wireline LECs. Traffic originating or terminating

outside of the applicable local area would be subject to interstate and intrastate access charges. We expect the states to determine whether intrastate transport and termination of traffic between competing LECs, where a portion of their local service areas are not the same, should be governed by section 251(b)(5)'s reciprocal compensation obligations or whether intrastate access charges should apply to the portions of their local service areas that are different. This approach is consistent with a recently negotiated interconnection agreement between Ameritech and ICG that restricted reciprocal compensation arrangements to the local traffic area as defined by the state commission. Continental Cablevision, in an *ex parte* letter, states that many incumbent LECs offer optional expanded local area calling plans, in which customers may pay an additional flat rate charge for calls within a wider area than that deemed as local, but that terminating intrastate access charges typically apply to calls that originate from competing carriers in the same wider area. Continental Cablevision argues that local transport and termination rates should apply to these calls. We lack sufficient record information to address the issue of expanded local area calling plans; we expect that this issue will be considered, in the first instance, by state commissions. In addition, we expect the states to decide whether section 251(b)(5) reciprocal compensation provisions apply to the exchange of traffic between incumbent LECs that serve adjacent service areas.

689. On the other hand, in light of this Commission's exclusive authority to define the authorized license areas of wireless carriers, we will define the local service area for calls to or from a CMRS network for the purposes of applying reciprocal compensation obligations under section 251(b)(5). Different types of wireless carriers have different FCC-authorized licensed territories, the largest of which is the ''Major Trading Area'' (MTA). *See* Rand McNally, Inc., *1992 Commercial Atlas & Marketing Guide* 38–39 (1992). Because wireless licensed territories are federally authorized, and vary in size, we conclude that the largest FCC-authorized wireless license territory (*i.e.*, MTA) serves as the most appropriate definition for local service area for CMRS traffic for purposes of reciprocal compensation under section 251(b)(5) as it avoids creating artificial distinctions between CMRS providers. Accordingly, traffic to or from a CMRS network that originates and terminates within the same MTA is subject to transport and termination rates under section 251(b)(5), rather than interstate and intrastate access charges.

690. We conclude that section 251(b)(5) obligations apply to all LECs in the same state-defined local exchange service areas, including neighboring incumbent LECs that fit within this description. Contrary to the arguments of NYNEX and Pacific Telesis, neither the plain language of the Act nor its legislative history limits this subsection to the transport and termination of telecommunications traffic between new entrants and incumbent LECs. In addition, applying section 251(b)(5) obligations to neighboring incumbent LECs in the same local exchange area is consistent with our decision that all interconnection agreements, including agreements between neighboring LECs, must be submitted to state commissions for approval pursuant to section 252(e).

691. Under section 252, neighboring states may establish different rate levels for transport and termination of traffic. In cases in which territory in multiple states is included in a single local service area, and a local call from one carrier to another crosses state lines, we conclude that the applicable rate for any particular call should be that established by the state in which the call terminates. This provides an administratively convenient rule, and termination of the call typically occurs in the same state where the terminating carrier's end office switch is located and where the cost of terminating the call is incurred.

(2) Distinction Between ''Transport'' and ''Termination''

692. We conclude that transport and termination should be treated as two distinct functions. We define ''transport,'' for purposes of section 251(b)(5), as the transmission of terminating traffic that is subject to section 251(b)(5) from the interconnection point between the two carriers to the terminating carrier's end office switch that directly serves the called party (or equivalent facility provided by a non-incumbent carrier). Many alternative arrangements exist for the provision of transport between the two networks. These arrangements include: dedicated circuits provided either by the incumbent LEC, the other local service provider, separately by each, or jointly by both; facilities provided by alternative carriers; unbundled network elements provided by incumbent LECs; or similar network functions currently offered by incumbent LECs on a tariffed basis. Charges for transport subject to section 251(b)(5) should reflect the forward-looking cost of the particular provisioning method.

693. We define ''termination,'' for purposes of section 251(b)(5), as the switching of traffic that is subject to section 251(b)(5) at the terminating carrier's end office switch (or equivalent facility) and delivery of that traffic from that switch to the called party's premises. In contrast to transport, for which some alternatives exist, alternatives for termination are not likely to exist in the near term. A carrier or provider typically has no other mechanism for delivering traffic to a called party served by another carrier except by having that called party's carrier terminate the call. In addition, forward-looking costs are calculated differently for the transport of traffic and the termination of traffic, as discussed above in the unbundled elements section. As such, we conclude that we need to treat transport and termination as separate functions—each with its own cost. With respect to GST's contention that separate charges for transport and termination of traffic will allow incumbent LECs to ''game'' the system through network design decisions, we conclude in the interconnection section above that interconnecting carriers may interconnect at any technically feasible point. We find that this sufficiently limits LECs' ability to disadvantage interconnecting parties through their network design decisions.

(3) CMRS-Related Issues

694. Section 251(b)(5) obligates LECs to establish reciprocal compensation arrangements for the transport and termination of telecommunications traffic. Although section 252(b)(5) does not explicitly state to whom the LEC's obligation runs, we find that LECs have a duty to establish reciprocal compensation arrangements with respect to local traffic originated by or terminating to any telecommunications carriers. CMRS providers are telecommunications carriers and, thus, LECs' reciprocal compensation obligations under section 251(b)(5) apply to all local traffic transmitted between LECs and CMRS providers.

695. We conclude that, pursuant to section 251(b)(5), a LEC may not charge a CMRS provider or other carrier for terminating LEC-originated traffic. Section 251(b)(5) specifies that LECs and interconnecting carriers shall compensate one another for termination of traffic on a reciprocal basis. This section does not address charges payable to a carrier that originates traffic. We therefore conclude that

section 251(b)(5) prohibits charges such as those some incumbent LECs currently impose on CMRS providers for LEC-originated traffic. As of the effective date of this order, a LEC must cease charging a CMRS provider or other carrier for terminating LEC-originated traffic and must provide that traffic to the CMRS provider or other carrier without charge.

696. As noted above, CMRS providers' license areas are established under federal rules, and in many cases are larger than the local exchange service areas that state commissions have established for incumbent LECs' local service areas. We reiterate that traffic between an incumbent LEC and a CMRS network that originates and terminates within the same MTA (defined based on the parties' locations at the beginning of the call) is subject to transport and termination rates under section 251(b)(5), rather than interstate or intrastate access charges. Under our existing practice, most traffic between LECs and CMRS providers is not subject to interstate access charges unless it is carried by an IXC, with the exception of certain interstate interexchange service provided by CMRS carriers, such as some ''roaming'' traffic that transits incumbent LECs' switching facilities, which is subject to interstate access charges. ''[S]ome cellular carriers provide their customers with a service whereby a call to a subscriber's local cellular number will be routed to them over interstate facilities when the customer is ''roaming'' in a cellular system in another state. In this case, the cellular carrier is providing not local exchange service but interstate, interexchange service. In this and other situations where a cellular company is offering interstate, interexchange service, the local telephone company providing interconnection is providing exchange access to an interexchange carrier and may expect to be paid the appropriate access charge. * * * Therefore, to the extent that a cellular operator does provide interexchange service through switching facilities provided by a telephone company, its obligation to pay carrier's carrier [*i.e.*, access] charges is defined by § 69.5(b) of our rules.'' *See Regulatory Treatment of Mobile Services Second Report and Order*, 59 FR 18493 (April 19, 1994). Based on our authority under section 251(g) to preserve the current interstate access charge regime, we conclude that the new transport and termination rules should be applied to LECs and CMRS providers so that CMRS providers continue not to pay interstate access charges for traffic that currently is not subject to such charges, and are assessed such charges for traffic that is currently subject to interstate access charges.

697. CMRS customers may travel from location to location during the course of a single call, which could make it difficult to determine the applicable transport and termination rate or access charge. In the *LEC–CMRS Interconnection NPRM*, we observed that a significant amount of LEC–CMRS traffic crosses state lines, because CMRS service areas often cross state lines and CMRS customers are mobile. *LEC–CMRS Interconnection NPRM*, 61 FR 3644 (February 1, 1996). We recognize that, using current technology, it may be difficult for CMRS providers to determine, in real time, which cell site a mobile customer is connected to, let alone the customer's specific geographic location. *Enhanced 911 Emergency Calling Systems Report and Order and Further NPRM*, 61 FR 40374 (August 2, 1996). This could complicate the computation of traffic flows and the applicability of transport and termination rates, given that in certain cases, the geographic locations of the calling party and the called party determine whether a particular call should be compensated under transport and termination rates established by one state or another, or under interstate or intrastate access charges. We conclude, however, that it is not necessary for incumbent LECs and CMRS providers to be able to ascertain geographic locations when determining the rating for any particular call at the moment the call is connected. We conclude that parties may calculate overall compensation amounts by extrapolating from traffic studies and samples. For administrative convenience, the location of the initial cell site when a call begins shall be used as the determinant of the geographic location of the mobile customer. As an alternative, LECs and CMRS providers can use the point of interconnection between the two carriers at the beginning of the call to determine the location of the mobile caller or called party.

698. As discussed above, pursuant to section 251(b)(5) of the Act, all local exchange carriers, including small incumbent LECs and small entities offering competitive local exchange services, have a duty to establish reciprocal compensation arrangements for the transport and termination of local exchange service. CMRS providers, including small entities, and LECs, including small incumbent LECs and small entity competitive LECs, will receive reciprocal compensation for terminating certain traffic that originates on the networks of other carriers, and will pay such compensation for certain traffic that they transmit and terminate to other carriers. We believe that these arrangements should benefit all carriers, including small incumbent LECs and small entities, because it will facilitate competitive entry into new markets while ensuring reasonable compensation for the additional costs incurred in terminating traffic that originates on other carriers' networks. We also recognize that, to implement transport and termination pursuant to section 251(b)(5), carriers, including small incumbent LECs and small entities, may be required to measure the exchange of traffic, but we believe that the cost of such measurement to these carriers is likely to be substantially outweighed by the benefits of these arrangements.

3. Pricing Methodology

a. Background

699. In the NPRM, we sought comment on how to interpret section 252(d)(2) of the Act. Specifically, we asked if we should establish a generic pricing methodology or impose a ceiling to guide the states in setting the charge for the transport and termination of traffic. We also asked whether such a generic pricing methodology or ceiling should be established using the same principles we adopt for interconnection and unbundled elements. Additionally, we sought comment on the use of an interim and transitional pricing mechanism that would address concerns about unequal bargaining power in negotiations.

b. Discussion

(1) Statutory Standard

700. We conclude that the pricing standards established by section 252(d)(1) for interconnection and unbundled elements, and by section 252(d)(2) for transport and termination of traffic, are sufficiently similar to permit the use of the same general methodologies for establishing rates under both statutory provisions. Section 252(d)(2) states that reciprocal compensation rates for transport and termination shall be based on ''a reasonable approximation of the additional costs of terminating such calls.'' Moreover, there is some substitutability between the new entrant's use of unbundled network elements for transporting traffic and its use of transport under section 252(d)(2). Depending on the interconnection arrangements, carriers may transport traffic to the competing carriers' end offices or hand traffic off to competing carriers at meet points for termination

on the competing carriers' networks. Transport of traffic for termination on a competing carrier's network is, therefore, largely indistinguishable from transport for termination of calls on a carrier's own network. Thus, we conclude that transport of traffic should be priced based on the same cost-based standard, whether it is transport using unbundled elements or transport of traffic that originated on a competing carrier's network. We, therefore, find that the ''additional cost'' standard permits the use of the forward-looking, economic cost-based pricing standard that we are establishing for interconnection and unbundled elements.

(2) Pricing Rule

701. States have three options for establishing transport and termination rate levels. A state commission may conduct a thorough review of economic studies prepared using the TELRIC-based methodology outlined above in the section on the pricing of interconnection and unbundled elements. Alternatively, the state may adopt a default price pursuant to the default proxies outlined below. If the state adopts a default price, it must either commence review of a TELRIC-based economic cost study, request that this Commission review such a study, or subsequently modify the default price in accordance with any revised proxies we may adopt. As previously noted, we intend to commence a future rulemaking on developing proxies using a generic cost model, and to complete such proceeding in the first quarter of 1997. As a third alternative, in some circumstances states may order a ''bill and keep'' arrangement, as discussed below.

(3) Cost-Based Pricing Methodology

702. Consistent with our conclusions about the pricing of interconnection and unbundled network elements, we conclude that states that elect to set rates through a cost study must use the forward-looking economic cost-based methodology, which is described in greater detail above, in establishing rates for reciprocal transport and termination when arbitrating interconnection arrangements. We find that section 252(d)(2)(B)(ii), which indicates that section 252(d)(2) shall not be construed to ''authorize the Commission or any State to engage in any rate regulation proceeding to establish with particularity the additional costs of transporting or terminating calls,'' does not preclude states or this Commission from reviewing forward-looking economic cost studies. First, we believe that Congress intended the term ''rate regulation proceeding'' in section 252(d)(2)(B)(ii) to mean the same thing as ''a rate-of-return or other rate-based proceeding'' in section 252(d)(1)(A)(i). In the section on the pricing of interconnection and unbundled elements above, we conclude that the statutory prohibition of the use of such proceedings is intended to foreclose the use of traditional rate case proceedings using rate-of-return regulation. Moreover, forward-looking economic cost studies typically involve ''a reasonable approximation of the additional cost,'' rather than determining such costs ''with particularity,'' such as by measuring labor costs with detailed time and motion studies.

703. We find that, once a call has been delivered to the incumbent LEC end office serving the called party, the ''additional cost'' to the LEC of terminating a call that originates on a competing carrier's network primarily consists of the traffic-sensitive component of local switching. The network elements involved with the termination of traffic include the end-office switch and local loop. The costs of local loops and line ports associated with local switches do not vary in proportion to the number of calls terminated over these facilities. The duty to terminate calls that originate on the network of a competitor does not directly affect the number of calls routed to a particular end user and any costs that result from inadequate loop capacity are, therefore, not considered ''additional costs.'' We conclude that such non-traffic sensitive costs should not be considered ''additional costs'' when a LEC terminates a call that originated on the network of a competing carrier. For the purposes of setting rates under section 252(d)(2), only that portion of the forward-looking, economic cost of end-office switching that is recovered on a usage-sensitive basis constitutes an ''additional cost'' to be recovered through termination charges.

704. Rates for termination established pursuant to a TELRIC-based methodology may recover a reasonable allocation of common costs. A rate equal to incremental costs may not compensate carriers fully for transporting and terminating traffic when common costs are present. We therefore reject the argument by some commenters that ''additional costs'' may not include a reasonable allocation of forward-looking common costs. We recognize that, as noted by Time Warner, call termination is an essential element in completing calls because competitors are required to use the incumbent LECs' existing networks to terminate calls to incumbent LEC customers. The 1996 Act envisions a seamless interconnection of competing networks, rather than the development of redundant, ubiquitous networks throughout the nation. In order to terminate traffic ubiquitously to other companies' local customers, all LECs are given the right to use termination services from those companies rather than construct facilities to everyone. While, on the originating end, carriers have different options to reach their revenue-paying customers—including their own network facilities, purchasing access to unbundled elements of the incumbent LEC, or resale—they have no realistic alternatives for terminating traffic destined for competing carriers' subscribers other than to use those carriers' networks. Thus, all carriers—incumbent LECs as well as competing carriers—have a greater incentive and opportunity to charge prices in excess of economically efficient levels on the terminating end. To ensure that rates for reciprocal compensation make possible efficient competitive entry, we conclude that termination rates should include an allocation of forward-looking common costs that is no greater proportionally than that allocated to unbundled local loops, which, as discussed above, should be relatively low. Additionally, we conclude that rates for the transport and termination of traffic shall not include an element that allows incumbent LECs to recover any lost contribution to basic, local service rates represented by the interconnecting carriers' service, because such an element would be inconsistent with the statutory requirement that rates for transport and termination be based on additional costs. In the section addressing prices for unbundled elements we conclude that the ECPR, which would allow incumbent LECs to recover such lost contributions, or collection of universal service costs through interconnection rates, leads to significant distortions in markets when existing retail prices are not cost-based.

705. We also address the impact on small incumbent LECs. For example, the Western Alliance argues that it is especially important for small LECs to recover lost contributions and common costs through termination charges. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, we conclude that termination rates for all LECs should include an allocation of forward-looking common costs, but find that the inclusion of an element for the

recovery of lost contribution may lead to significant distortions in local exchange markets. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.

(4) Default Proxies

706. As with unbundled network elements, we recognize that it may not be feasible for some state commissions conducting or reviewing economic studies to establish transport and termination rates using our TELRIC-based pricing methodology within the time required for the arbitration process, particularly given some states' resource limitations. Thus, for the time being, we adopt a default price range of 0.2 cents ($0.002) to 0.4 cents ($0.004) per minute of use for calls handed off at the end-office switch. This default price range is based on the same proxies that apply to local switching as an unbundled network element. In establishing end-office termination rates, states may adopt a default termination price that is within our default price range or at either of the end points of the range. States should articulate the basis for selecting a particular price within this range. Thus, in arbitration proceedings, states must set the price for end office termination of traffic by: (1) using a forward-looking, economic cost study that complies with the forward-looking, economic-cost methodology set forth above; or (2) adopting a price less than or equal to 0.4 cents ($0.004) per minute, and greater than or equal to 0.2 cents ($0.002) per minute, pending the completion of such a forward-looking, economic cost study. We observe that the most credible studies in the record before us fall at the lower end of this range, and we encourage states to consider such evidence in their analysis. The adoption of a range of rates to serve as a default price range for interconnection agreements being arbitrated by the states provides carriers with a clearer understanding of the terms and conditions that will govern them if they fail to reach an agreement and helps to reduce the transaction costs of arbitration and litigation. We also find that states that have already adopted end-office termination rates based on an approach other than a full forward-looking cost study, either through arbitration or rulemaking proceedings, may keep such rates in effect, pending their review of a forward-looking cost study, as long as they do not exceed 0.5 cents ($0.005) per minute. As discussed below, a state may also order a ''bill and keep'' arrangement subject to certain limitations. Additionally, our adoption of a default price range temporarily relieves small and mid-sized carriers from the burden of conducting forward-looking economic cost studies.

707. Similarly, in establishing transport rates under sections 251(b)(5) and 252(d)(2), state commissions should be guided by the price proxies that we are establishing for unbundled transport elements discussed above. States should explain the basis for selecting a particular default price subject to the applicable ceiling. Specifically, when interconnecting carriers hand off traffic at an incumbent LEC's tandem switch (or equivalent facilities of a carrier other than an incumbent LEC), the rates for the tandem switching and transmission from the tandem switch to end offices—a portion of the ''transport'' component of transport and termination rates—should be subject to the proxies that apply to the analogous unbundled network elements. Thus, for the time being, when states set rates for tandem switching under section 252(d)(2), they may set a default price at or below the default price ceiling that applies to the tandem switching unbundled element as an alternative to reviewing a forward-looking economic cost study using our TELRIC methodology. Similarly, when states set rates for transmission facilities between tandem switches and end offices, they may establish rates equal to the default prices we are adopting for such transmission, as discussed above in the section on unbundled elements.

708. Finally, in establishing the rates for transmission facilities that are dedicated to the transmission of traffic between two networks, state commissions should be guided by the default price level we are adopting for the unbundled element of dedicated transport. For such dedicated transport, we can envision several scenarios involving a local carrier that provides transmission facilities (the ''providing carrier'') and another local carrier with which it interconnects (the ''interconnecting carrier''). The amount an interconnecting carrier pays for dedicated transport is to be proportional to its relative use of the dedicated facility. For example, if the providing carrier provides one-way trunks that the interconnecting carrier uses exclusively for sending terminating traffic to the providing carrier, then the interconnecting carrier is to pay the providing carrier a rate that recovers the full forward-looking economic cost of those trunks. The interconnecting carrier, however, should not be required to pay the providing carrier for one-way trunks in the opposite direction, which the providing carrier owns and uses to send its own traffic to the interconnecting carrier. Under an alternative scenario, if the providing carrier provides two-way trunks between its network and the interconnecting carrier's network, then the interconnecting carrier should not have to pay the providing carrier a rate that recovers the full cost of those trunks. These two-way trunks are used by the providing carrier to send terminating traffic to the interconnecting carrier, as well as by the interconnecting carrier to send terminating traffic to the providing carrier. Rather, the interconnecting carrier shall pay the providing carrier a rate that reflects only the proportion of the trunk capacity that the interconnecting carrier uses to send terminating traffic to the providing carrier. This proportion may be measured either based on the total flow of traffic over the trunks, or based on the flow of traffic during peak periods. Carriers operating under arrangements which do not comport with the principles we have set forth above, shall be entitled to convert such arrangements so that each carrier is only paying for the transport of traffic it originates, as of the effective date of this order.

(5) Rate Structure

709. Nearly all commenters agree that flat rates, rather than usage-sensitive rates, should apply to the purchase of dedicated facilities. As discussed in the NPRM, economic efficiency may generally be maximized when non-traffic sensitive services, such as the use of dedicated facilities for the transport of traffic, are priced on a flat-rated basis. We, therefore, require all interconnecting parties to be offered the option of purchasing dedicated facilities, for the transport of traffic, on a flat-rated basis. As discussed by Lincoln Telephone, the connection between an incumbent LEC's end or tandem office and an interconnecting LEC's network is likely to be a dedicated facility. We recognize that the facility itself can be provided in a number of different ways—by use of two service providers, by the other carrier, or jointly in a meet-point arrangement. We conclude first that, no matter what the specific arrangements, these costs should be recovered in a cost-causative manner and that usage-based charges should be limited to situations where costs are usage sensitive. In cases going to arbitration and in reviewing BOC statements of terms and conditions, the

carrier actually providing the facility should presumptively be entitled to a rate that is set based on the forward-looking economic cost of providing the portion of the facility that is used for terminating traffic that originates on the network of a competing carrier. We recognize that negotiated agreements may incorporate flat-rated charges when it is efficient to do so and find that the presence of the arbitration default rule is likely to lead parties to negotiate efficient rate structures.

710. We recognize that the costs of transporting and terminating traffic during peak and off-peak hours may not be the same. As suggested by the Massachusetts Attorney General, rates that are the same during peak and off-peak hours may not reflect the cost of using the network and could lead to inefficient use of the network. The differences in the cost of transporting and terminating traffic during peak and off-peak hours, however, are likely to vary depending on the network, and the amount and type of traffic terminated at a particular switch. For example, peak periods may vary within a local service area depending upon whether the switch is located in a business or residential area. As a result, there may be administrative difficulties in establishing peak-load pricing schemes that may outweigh the benefits of such schemes. The negotiating parties, however, are likely to be in a position to more accurately determine how traffic patterns will adjust to peak-load pricing schemes and we encourage parties to address such pricing schemes in the negotiation process. For similar reasons, we neither require nor forbid states from adopting rates that reflect peak and off-peak costs. We hope some states will evaluate the benefits and costs of pricing schemes that consist of different rates for peak and off-peak traffic. We do require, however, that peak-load pricing schemes, adopted through the arbitration process, comply with our default price level if not based on a forward-looking cost study (e.g., the average rate, weighted by the projected relative minutes of use during peak and off-peak periods, should fall within our default price range of 0.2 to 0.4 cents or the level determined by an incremental cost study).

(6) Interim Transport and Termination Rate Levels

711. We are concerned that some new entrants that do not already have interconnection arrangements with incumbent LECs may face delays in initiating service solely because of the need to negotiate transport and termination arrangements with the incumbent LEC. In particular, a new entrant that has already constructed facilities may have a relatively weak bargaining position because it may be forced to choose either to accept transport and termination rates not in accord with these rules or to delay its commencement of service until the conclusion of the arbitration and state approval process. To promote the Act's goal of rapid competition in the local exchange, we order incumbent LECs upon request from new entrants to provide transport and termination of traffic, on an interim basis, pending resolution of negotiation and arbitration regarding transport and termination prices, and approval by the state commission. A carrier may take advantage of this interim arrangement only after it has requested negotiation with the incumbent LEC. The interim arrangement shall cease to be in effect when one of the following occurs: (1) an agreement has been negotiated and approved; (2) an agreement has been arbitrated and approved; or (3) the period for requesting arbitration has passed with no such request. We also conclude that interim prices for transport and termination shall be symmetrical. Because the purpose of this interim termination requirement is to permit parties without existing interconnection agreements to enter the market expeditiously, this requirement shall not apply with respect to requesting carriers that have existing interconnection arrangements that provide for termination of local traffic by the incumbent LEC. The ability to interconnect with an incumbent LEC prior to the completion of a forward-looking, economic cost study, based on an interim presumptive price ceiling, allows carriers, including small entrants, to enter into local exchange service expeditiously.

712. In states that have already conducted or reviewed forward-looking economic cost studies and promulgated transport and termination rates based on such studies, an incumbent LEC receiving a request for interim transport and termination shall use these state-determined rates as interim transport and termination rates. In states that have not conducted or reviewed a forward-looking economic cost study, but have set rates for transport and termination of traffic consistent with the default price ranges and ceilings discussed above, an incumbent LEC shall use these state-determined rates as interim rates. In states that have neither set rates consistent with the default price ceilings and ranges nor reviewed or conducted forward-looking economic cost studies, we must establish an interim default price in order to facilitate rapid competition in the local exchange market. In those states, an incumbent LEC shall set interim rates at the default ceilings for end-office switching (0.4 cents per minute of use), tandem switching (0.15 cents per minute of use), and transport described above. Using the ceiling as a default interim price, pending a state commission's completion of a forward-looking economic cost analysis, should ensure that both the incumbent LEC and the competing provider recovers no less than their full transport and termination costs. We note, however, that the most credible evidence in the record suggests that the actual forward-looking economic cost of end-office switching is closer to 0.2 cents ($0.002) per minute of use than the ceiling of 0.4 cents ($0.004) per minute of use. States must adopt ''true-up'' mechanisms to ensure that no carrier is disadvantaged by an interim rate that differs from the final rate established pursuant to arbitration.

713. We conclude that section 251, in conjunction with our broad rulemaking authority under section 4(i), provides us with authority to create interim pricing rules to facilitate market entry. Because section 251(d)(1) gives the FCC authority ''to establish regulations to implement the requirements of this section,'' we find that section 251(d)(1) gives the Commission authority to establish interim regulations that address the ''just and reasonable'' rates for the ''reciprocal compensation'' requirement of section 251(b)(5), subject to the preservation requirements of section 251(d)(3). Courts have upheld our adoption of interim compensation arrangements pursuant to our authority under section 4(i) of the 1934 Communications Act on numerous occasions in the past. *See New England Tel. and Tel. Co. v. FCC,* 826 F.2d 1101 (D.C. Cir. 1987); *North American Telecommunications Association v. FCC,* 772 F.2d 1092 (7th Cir. 1085); *Lincoln Tel. and Tel. Co. v. FCC,* 659 F.2d (D.C. Cir. 1989). In particular, we have authority, under section 4(i), to set interim rates subject to a later ''true-up'' when final rates are established. ''[T]he Commission's establishment of an interim billing and collection arrangement was both a helpful and necessary step for the Commission to take in implementing its 'immediate' interconnection order.'' *Lincoln Telephone & Telegraph Co. v. FCC,* 659 F.2d 1092, 1107 (D.C. Cir. 1981) (upholding Commission decision requiring an incumbent LEC to interconnect with MCI immediately, in

order not to delay interconnection, at interim rates subject to later adjustment); *see also FTC Communications v. FCC,* 750 F.2d 226 (2d Cir. 1984) (affirming Commission's authority under Section 4(i) to set interim rates for interconnection between the domestic record carrier, Western Union, and international record carriers, subject to an accounting order, pending the conclusion of a rulemaking to set permanent rates replacing expired, contract-based rates). We therefore conclude that the default prices discussed above need not in all instances await the conclusion of the negotiation, arbitration, and state approval process set forth in section 252, but must nevertheless be in accordance with the requirements of section 251(d)(3) preserving state access regulations. We also observe that we proposed a similar interim transport and termination arrangement, albeit with different rate levels, in our NPRM in the *LEC–CMRS Interconnection* proceeding. *LEC–CMRS Interconnection NPRM,* 61 FR 3644 (February 1, 1996).

714. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, Cincinnati Bell asserts that interim mechanisms are not required because large corporations are not disadvantaged by unequal bargaining power in negotiations with small and mid-size incumbent LECs. We do not adopt Cincinnati Bell's position because some new entrants, regardless of their size, that do not already have interconnection arrangements with incumbent LECs may face delays in initiating service solely because of the need to negotiate transport and termination arrangements with the incumbent LEC. We believe that the adoption of interim rates, subject to a ''true-up,'' advances the pro-competitive goals of the statute. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.

4. Symmetry

a. Background

715. Symmetrical compensation arrangements are those in which the rate paid by an incumbent LEC to another telecommunications carrier for transport and termination of traffic originated by the incumbent LEC is the same as the rate the incumbent LEC charges to transport and terminate traffic originated by the other telecommunications carrier. Incumbent LECs are not likely to purchase interconnection or unbundled elements from competitive LECs, except for termination of traffic, and possibly transport. In the NPRM, we sought comment on whether rate symmetry requirements are consistent with the statutory requirement that rates set by states for transport and termination of traffic be based on ''costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier,'' and ''a reasonable approximation of the additional costs of terminating such calls.''

716. In addition, we noted in the NPRM that the Illinois, Maryland, and New York commissions have established different rates for termination of traffic on an incumbent LEC's network, depending upon whether the traffic is handed off at the incumbent LEC's end office or tandem switch. We also observed that California and Michigan have established one rate that applies to transport and termination of all competing local exchange carrier traffic on incumbent LEC networks, regardless of whether the traffic is handed off at the incumbent LEC's end office or tandem switch, although this rate does not currently apply to CMRS. We, therefore, address whether rates for transport and termination should be symmetrical and consist of only a single rate regardless of where the call is handed off, or if rates should be priced on an element-by-element basis.

717. In the *LEC–CMRS Interconnection NPRM,* we sought comment on whether incumbent LECs were utilizing their greater bargaining power to negotiate with wireless carriers interconnection agreements that did not reflect principles of mutual compensation. We sought comment on whether we should institute some procedure or mechanism in addition to our section 208 enforcement process to ensure that incumbent LECs comply with our existing rules requiring mutual compensation. *LEC–CMRS Interconnection NPRM,* 61 FR 3644 (February 1, 1996).

b. Discussion

(1) Symmetry in General

718. Regardless of whether the incumbent LEC's transport and termination prices are set using a TELRIC-based economic cost study or a default proxy, we conclude that it is reasonable to adopt the incumbent LEC's transport and termination prices as a presumptive proxy for other telecommunications carriers' additional costs of transport and termination. Both the incumbent LEC and the interconnecting carriers usually will be providing service in the same geographic area, so the forward-looking economic costs should be similar in most cases. We also conclude that using the incumbent LEC's forward-looking costs for transport and termination of traffic as a proxy for the costs incurred by interconnecting carriers satisfies the requirement of section 252(d)(2) that costs be determined ''on the basis of a reasonable approximation of the additional costs of terminating such calls.'' Using the incumbent LEC's cost studies as proxies for reciprocal compensation is consistent with section 252(d)(2)(B)(ii), which prohibits ''establishing with particularity the additional costs of transporting or terminating calls.'' If both parties are incumbent LECs (*e.g.*, an independent LEC and an adjacent BOC), we conclude that the larger LEC's forward-looking costs should be used to establish the symmetrical rate for transport and termination. We conclude that larger LECs are generally in a better position to conduct a forward-looking economic cost study than smaller carriers.

719. We conclude that imposing symmetrical rates based on the incumbent LEC's additional forward-looking costs will not substantially reduce carriers' incentives to minimize those costs. A symmetric compensation rule gives the competing carriers correct incentives to minimize its own costs of termination because its termination revenues do not vary directly with changes in its own costs. Moreover, symmetrical rates based on the incumbent LEC's costs should not seriously affect incumbent LECs' incentives to control costs. We expect that incumbent LECs will transport and terminate much more traffic that originates on their own networks than traffic that originates on competing carriers' networks. Even if, under the additional cost standard, incumbent LECs were required to reflect any improvements in operating efficiency, and consequent cost reductions, in reduced termination rates, the cost savings realized by the incumbent LEC are likely to be much greater than its reduction in net termination revenues, because the majority of traffic transported and terminated is likely to be its own. Even if a pass-through of incumbent LEC's cost reductions were instantaneous and complete, the number of minutes of use on which an incumbent LEC's net termination revenues is assessed is much smaller

than its overall number of minutes of switching and transport. Moreover, if a portion of the reduction in costs is specific to exchange traffic, under symmetrical rates, the LEC's revenues from terminating traffic originating from another local carrier are based on the net difference in traffic, which is likely to be much smaller than the total traffic it terminates. Consider a situation approximating traditional LEC–CMRS interconnection, in which traffic flows are substantially unbalanced: let us suppose, of 1,000,000 minutes of use, 750,000 are CMRS-to-LEC and 250,000 LEC-to-CMRS. Thus, under symmetric compensation at 0.3 cents per minute, the LEC receives 0.3 cents times 500,000, or $1,500.00. If it reduced its per-minute cost, for some reason only on terminating CMRS-to-LEC traffic, to 0.2 cents per minute, it would save 0.1 cent times 750,000, or $750.00, in reduced costs, whereas its terminating revenues would fall by only 0.1 cent times 500,000, or $500.00. Thus, it would still have substantial incentive to make the cost reduction in question. In situations closer to traffic balance, the incentive is even more favorable. And, of course, the LEC probably also reduces its cost of switching on many millions of other minutes that do not involve other networks at the same time. For example, in the case where traffic is balanced, net termination charges are zero, a figure that is unaffected by changes in the incumbent LEC's costs, and the incumbent LEC is provided with correct incentives to minimize termination costs.

720. We also find that symmetrical rates may reduce an incumbent LEC's ability to use its bargaining strength to negotiate excessively high termination charges that competitors would pay the incumbent LEC and excessively low termination rates that the incumbent LEC would pay interconnecting carriers. As discussed by commenters in the *LEC–CMRS Interconnection* proceeding, LECs have used their unequal bargaining position to impose asymmetrical rates for CMRS providers and, in some instances, have charged CMRS providers origination as well as termination charges. On the other hand, symmetrical rates largely eliminate such advantages because they require incumbent LECs, as well as competing carriers, to pay the same rate for reciprocal compensation.

721. Symmetrical compensation rates are also administratively easier to derive and manage than asymmetrical rates based on the costs of each of the respective carriers. In addition, we believe that using the incumbent LEC's cost studies to establish the presumptive symmetrical rates will establish reasonable opportunities for local competition, including opportunities for small telecommunications companies entering the local exchange market. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, RTC argues that symmetrical rates do not consider the costs involved in the use of another carrier's network. We find, however, that incumbent LECs' costs, including small incumbent LECs' costs, serve as reasonable proxies for other carriers' costs of transport and termination for the purpose of reciprocal compensation. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act. In addition, symmetry will avoid the need for small businesses to conduct forward-looking economic cost studies in order for the states to arbitrate reciprocal compensation disputes.

722. Given the advantages of symmetrical rates, we direct states to establish presumptive symmetrical rates based on the incumbent LEC's costs for transport and termination of traffic when arbitrating disputes under section 252(d)(2) and in reviewing BOC statements of generally available terms and conditions. If a competing local service provider believes that its cost will be greater than that of the incumbent LEC for transport and termination, then it must submit a forward-looking economic cost study to rebut this presumptive symmetrical rate. In that case, we direct state commissions, when arbitrating interconnection arrangements, to depart from symmetrical rates only if they find that the costs of efficiently configured and operated systems are not symmetrical and justify a different compensation rate. In doing so, however, state commissions must give full and fair effect to the economic costing methodology we set forth in this order, and create a factual record, including the cost study, sufficient for purposes of review after notice and opportunity for the affected parties to participate. In the absence of such a cost study justifying a departure from the presumption of symmetrical compensation, reciprocal compensation for the transport and termination of traffic shall be based on the incumbent local exchange carrier's cost studies.

723. We find that the ''additional costs'' incurred by a LEC when transporting and terminating a call that originated on a competing carrier's network are likely to vary depending on whether tandem switching is involved. We, therefore, conclude that states may establish transport and termination rates in the arbitration process that vary according to whether the traffic is routed through a tandem switch or directly to the end-office switch. In such event, states shall also consider whether new technologies (*e.g.*, fiber ring or wireless networks) perform functions similar to those performed by an incumbent LEC's tandem switch and thus, whether some or all calls terminating on the new entrant's network should be priced the same as the sum of transport and termination via the incumbent LEC's tandem switch. Where the interconnecting carrier's switch serves a geographic area comparable to that served by the incumbent LEC's tandem switch, the appropriate proxy for the interconnecting carrier's additional costs is the LEC tandem interconnection rate.

724. We disagree with TCI's claim that higher charges for routing calls through tandem switches rather than directly through incumbent LECs' end offices will materially discourage carriers from routing traffic through tandem switches, even when it is efficient to do so. New entrants will only be encouraged to interconnect at end-office switches, rather than tandem switches, when the decrease in incumbent LEC transport charges justifies the extra costs incurred by the new entrant to route traffic directly through the incumbent LEC's end-office switches. Carriers will interconnect in a way that minimizes their costs of interconnection, including the use of cost-based LEC network elements. In addition, the flexibility given to states may allow carriers, including small entities, with different network architectures to establish rates for terminating calls originating on other carriers' networks that are asymmetrical, if they can show that the costs of efficiently configured and operated systems are not symmetrical and justify different compensation rates, instead of being based on competitors' network architectures.

725. We believe, with respect to interconnection between LECs and paging providers, that there should be an exception to our rule that states must establish presumptive symmetrical rates based on the incumbent LEC's costs for transport and termination of traffic. While paging providers, as telecommunications carriers, are entitled to mutual compensation for the

transport and termination of local traffic, and should not be required to pay charges for traffic that originates on other carriers' networks, we believe that incumbent LECs' forward-looking costs may not be reasonable proxies for the costs of paging providers. Paging is typically a significantly different service than wireline or wireless voice service and uses different types and amounts of equipment and facilities. PageNet's own network, for example, is based on a regional hub and spoke network that transmits paging calls from radio transmitters to provide regional or national coverage. This configuration is distinctly different from either LEC wireline networks, with their hierarchy of switches and transmission facilities, or cellular carriers, with their multiple cells and sophisticated systems for handing off calls as a vehicle moves across cell boundaries. In addition, most calls terminated by paging companies are brief (averaging 15 seconds) in duration and contain no voice message, but only an alpha-numeric message of a few characters. Using incumbent LEC's costs for termination of traffic as a proxy for paging providers' costs, when the LECs' costs are likely higher than paging providers' cost, might create uneconomic incentives for paging providers to generate traffic simply in order to receive termination compensation. Thus, using LEC costs for termination of voice calls thus may not be a reasonable proxy for paging costs as the types of switching and transport that paging carriers perform are different from those of LECs and other voice carriers.

726. Given the lack of information in the record concerning paging providers' costs to terminate local traffic, we have decided to initiate a further proceeding to try to determine what an appropriate proxy for paging costs would be and, if necessary, to set a specific paging default proxy. In the interim, however, in the event that LECs and paging companies cannot negotiate agreed-upon rates, we direct states, when arbitrating disputes under section 252(d)(2), to establish rates for the termination of traffic by paging providers based on the forward-looking economic costs of such termination to the paging provider. The paging provider seeking termination fees must prove to the state commission the costs of terminating local calls. Given the lack of information in the record concerning paging providers' costs, we further conclude that the default price for termination of traffic from the end office that we adopt in this proceeding in Section XI.B.3., *supra,* does not apply to termination of traffic by paging providers. This default price is based on estimates in the record of the costs to LECs of termination from the end office or end-office switching. There are no such estimates with respect to paging in the record, and as discussed above, we find that estimates of LEC costs may not reflect paging providers' costs.

(2) Existing Non-Reciprocal Agreements Between Incumbent LECs and CMRS Providers

727. Section 20.11 of our rules, which predates enactment of the 1996 Act, requires that interconnection agreements between incumbent LECs and CMRS providers comply with principles of mutual compensation, and that each carrier pay reasonable compensation for transport and termination of the other carrier's calls. Based on the extensive record in the *LEC–CMRS Interconnection* proceeding, as well as that in this proceeding, we conclude that, in many cases, incumbent LECs appear to have imposed arrangements that provide little or no compensation for calls terminated on wireless networks, and in some cases imposed charges for traffic originated on CMRS providers' networks, both in violation of section 20.11 of our rules. Accordingly, we conclude that CMRS providers that are party to pre-existing agreements with incumbent LECs that provide for non-mutual compensation have the option to renegotiate these agreements with no termination liabilities or other contract penalties. Pending the successful completion of negotiations or arbitration, symmetrical reciprocal compensation provisions shall apply, with the transport and termination rate that the incumbent LEC charges the CMRS provider from the pre-existing agreement applying to both carriers, as of the effective date of the rules we adopt pursuant to this order.

728. In addition, we conclude that this opportunity for CMRS providers currently operating under arrangements with non-mutual transport and termination rates to renegotiate such arrangements advances the mutual compensation regime contemplated under section 251(b)(5) of the 1996 Act. We use the term ''reciprocal compensation'' and ''mutual compensation'' synonymously to mean that compensation flows in both directions between interconnecting networks. *LEC–CMRS Interconnection NPRM.* We find that extending the opportunity to establish symmetrical reciprocal compensation for the transport and termination of traffic addresses inequalities in bargaining power that incumbent LECs may use to disadvantage interconnecting wireless carriers. At the same time, our rule will place wireless carriers with non-mutual, existing agreements on the same footing as other new entrants, who will be able to negotiate more equitable interconnection agreements because of the rules we put in place with this Report and Order. We find that we have ample authority under section 4(i) of the 1934 Act as well as section 251 of the 1996 Act, to order this remedy. Courts have held that ''the Commission has the power to prescribe a change in contract rates when it finds them to be unlawful * * * and to modify other provisions of private contracts when necessary to serve the public interest.'' *Western Union Tel. Co.* v. *FCC,* 815 F.2d 1495, 1501 (D.C. Cir. 1987). The Commission has adopted similar ''fresh look'' requirements in the past. The opportunity that we are affording to CMRS providers in this context is consistent with similar ''fresh look'' requirements that we have adopted in the past. *See, e.g., Expanded Interconnection with Local Telephone Company Facilities Report and Order and NPRM,* 57 FR 54323 (November 18, 1992), *recon.,* 58 FR 48752 (September 17, 1993) (fresh look to enable customers to take advantage of new competitive opportunities under special access expanded interconnection), vacated on other grounds and remanded for further proceedings sub nom. *Bell Atlantic Tel. Cos.* v. *FCC,* 24 F.3d 1441 (1994); *Competition in the Interstate Interexchange Marketplace Memorandum Opinion and Order on Reconsideration,* 57 FR 20206 (May 12, 1992) (''fresh look'' in context of 800 bundling with interexchange offerings); *Amendment of the Commission's Rules Relative to Allocation of the 849–851/894–896 MHz Bands Memorandum Opinion and Order on Reconsideration,* 56 FR 37853 (August 9, 1991) (''fresh look'' requirements imposed in context of air-ground radiotelephone service as condition of grant of Title III license).

5. Bill and Keep

a. Background

729. *Local Competition NPRM.* In the NPRM, we defined bill-and-keep arrangements as those in which neither of two interconnecting networks charges the other network for terminating traffic that originated on the other network. Instead, each network recovers from its own end users the cost of both originating traffic delivered to the other network and terminating traffic received from the other network. A bill-and-keep approach for termination of traffic does

not, however, preclude a positive flat-rated charge for transport of traffic between carriers' networks.

730. We sought comment on what guidance we should give state commissions regarding the use of bill-and-keep arrangements in arbitrated interconnection arrangements. We sought comment on whether section 252(d)(2)(B)(ii) specifically authorizes states to impose bill-and-keep arrangements in the arbitration process, at least when certain conditions are met. We also sought comment on whether we should interpret the statute as placing any limits on the circumstances in which states may adopt bill-and-keep arrangements. We also asked for comment on the meaning of the statutory description of bill-and-keep arrangements as ''arrangements that waive mutual recovery.'' In addition, we sought comment on whether there are any circumstances in which the statute requires states to establish bill-and-keep arrangements.

731. *LEC–CMRS Interconnection NPRM.* In the *LEC–CMRS Interconnection NPRM,* we proposed bill and keep as an interim arrangement. *LEC–CMRS Interconnection NPRM,* 61 FR 3644 (February 1, 1996). We noted there that proponents have argued that bill-and-keep would be economically efficient if either of two conditions are met: (1) traffic flows between competing LECs are balanced; or (2) the per-unit cost of interconnection is *de minimis.* We, therefore, address whether interim bill-and-keep arrangements for LEC–CMRS traffic should be imposed.

b. Discussion

732. As an additional option for reciprocal compensation arrangements for termination services, we conclude that state commissions may impose bill-and-keep arrangements if neither carrier has rebutted the presumption of symmetrical rates and if the volume of terminating traffic that originates on one network and terminates on another network is approximately equal to the volume of terminating traffic flowing in the opposite direction, and is expected to remain so, as defined below. We disagree with commenters who contend that the Commission and states do not have the authority to mandate bill-and-keep arrangements under any circumstances. Section 252(d)(2)(B)(i) provides that the definition of what may be considered ''just and reasonable'' terms and conditions for reciprocal compensation ''shall not be construed to preclude arrangements that afford mutual recovery (such as bill-and-keep arrangements).'' We conclude that section 252(d)(2) would be superfluous if bill-and-keep arrangements were limited to negotiated agreements, because none of the standards in section 252(d) apply to voluntarily-negotiated agreements. Therefore, it is clear that bill-and-keep arrangements may be imposed in the context of the arbitration process for termination of traffic, at least in some circumstances.

733. Section 252(d)(2)(A)(i) provides that to be just and reasonable, reciprocal compensation must ''provide for the mutual and reciprocal recovery by each carrier of costs associated with transport and termination.'' In general, we find that carriers incur costs in terminating traffic that are not *de minimis,* and consequently, bill-and-keep arrangements that lack any provisions for compensation do not provide for recovery of costs. In addition, as long as the cost of terminating traffic is positive, bill-and-keep arrangements are not economically efficient because they distort carriers' incentives, encouraging them to overuse competing carriers' termination facilities by seeking customers that primarily originate traffic. On the other hand, when states impose symmetrical rates for the termination of traffic, payments from one carrier to the other can be expected to be offset by payments in the opposite direction when traffic from one network to the other is approximately balanced with the traffic flowing in the opposite direction. In such circumstances, bill-and-keep arrangements may minimize administrative burdens and transaction costs. We find that, in certain circumstances, the advantages of bill-and-keep arrangements outweigh the disadvantages, but no party has convincingly explained why, in such circumstances, parties themselves would not agree to bill-and-keep arrangements. We are mindful, however, that negotiations may fail for a variety of reasons. We conclude, therefore, that states may impose bill-and-keep arrangements if traffic is roughly balanced in the two directions and neither carrier has rebutted the presumption of symmetrical rates.

734. We further conclude that states may adopt specific thresholds for determining when traffic is roughly balanced. If state commissions impose bill-and-keep arrangements, those arrangements must either include provisions that impose compensation obligations if traffic becomes significantly out of balance or permit any party to request that the state commission impose such compensation obligations based on a showing that the traffic flows are inconsistent with the threshold adopted by the state. For example, the Michigan Commission adopted a five percent threshold for the difference between the traffic flows in the two directions. States may, however, also apply a general presumption that traffic between carriers is balanced and is likely to remain so. In that case, a party asserting imbalanced traffic arrangements must prove to the state commission that such imbalance exists. Under such a presumption, bill-and-keep arrangements would be justified unless a carrier seeking to rebut this presumption satisfies its burden of proof. We also find that states that have adopted bill-and-keep arrangements prior to the date that this order becomes effective, either in arbitration or rulemaking proceedings, may retain such arrangements, unless a party proves to the state commission that traffic is not roughly balanced. In that case, the state commission is to determine the transport and termination rates based either on the forward-looking economic cost-based methodology or consistent with the default proxies in this order. Finally, we observe that carriers have an incentive to agree to bill-and-keep arrangements if it is economically efficient to do so, and that nothing in the Act prevents parties from agreeing to bill-and-keep arrangements even if a state declines to mandate such arrangements. For example, we note that Time Warner/BellSouth interconnection agreement provides for a bill-and-keep arrangement based on a ''roughly balanced traffic'' concept.

735. In determining whether traffic is balanced, we find that precise traffic measurement is not necessary. It is sufficient to use approximations based on samples and studies comparable to reports on percentages of interstate use often used for access charge billing. Such an approach is likely to reduce implementation costs and complexities. Alternatively, state commissions may require that traffic flowing in the two directions be measured as accurately as possible during some defined period of time, which may commence no later than six months after an interconnection arrangement goes into effect. All affected carriers are required to cooperate with the state commission in implementing this measurement. A state commission that adopts a traffic flow measurement approach may adopt a ''true-up'' mechanism to ensure that no carrier is disadvantaged by an interim rate that differs from the rate established once such a measurement is undertaken. Finally, state commissions may require that local traffic and access traffic be carried on separate trunk groups if they deem such measures to be necessary to

ensure accurate measurement and billing.

736. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, RTC argues that bill-and-keep arrangements fail to adequately deal with each carrier's costs. In addition to basing reciprocal compensation on the incumbent LECs costs, we believe that by allowing carriers to rebut a presumption of balanced traffic volumes, the concern that bill-and-keep arrangements fail to adequately deal with each carrier's costs are addressed. We also note that certain small incumbent LECs are not subject to our rules under section 251(f)(1) of the 1996 Act, unless otherwise determined by a state commission, and certain other small incumbent LECs may seek relief from their state commissions from our rules under section 251(f)(2) of the 1996 Act.

737. We disagree with commenters that argue that mandating bill-and-keep arrangements in these circumstances violates the taking clause of Fifth Amendment. We reject BellSouth's argument that mandating bill-and-keep mechanisms would constitute a physical intrusion of LEC property. As NCTA observes, bill-and-keep arrangements are not a ''physical occupation'' of incumbent LEC property and thus *per se* takings cases are irrelevant. *See Loretto* v. *Telepromter Manhattan CATV Corp.*, 458 U.S. 419, 426 (1982); *Lucas* v. *South Carolina Coastal Council*, 112 S.Ct. 2886, 2893 (1992). We also reject arguments that the bill-and-keep arrangements we adopt here would not adequately compensate incumbent LECs for transport and termination. As Congress recognized, bill-and-keep arrangements allow each carrier compensation ''in-kind'' in the form of access to the other carrier's network. Therefore, the type of bill-and-keep arrangements that we have permitted states to adopt are not unconstitutionally confiscatory.

738. Commenters in the *LEC–CMRS Interconnection NPRM* assert that the estimated per minute cost of LEC termination ranges from 0.2 to 1.3 cents, and most of the estimates are clustered near the lower end of this range. These estimates are based primarily on interconnection at a LEC end office, while most interconnections occur at tandem offices where LECs' costs of call completion are higher than terminations routed directly through the end office switch. Moreover, the record contains no estimates of the cost of CMRS termination. That cost is generally considered to be greater than the cost of LEC termination; but only one oral, *ex parte* estimate of CMRS cost has been offered: 2.25 to 4.0 cents per minute. Further, there is no showing that the transaction costs of measuring traffic flows and making net payments would be so high that a bill-and-keep regime would be more efficient. Moreover, no party has demonstrated that aggregate cost flows between interconnecting LECs and CMRS providers are in balance.

739. In light of the overall transport and termination policy we are adopting, we do not adopt the interim bill and keep arrangement tentatively proposed in the LEC–CMRS Interconnection NPRM. Notwithstanding our conclusions about bill and keep above, under which states may rule on bill and keep for particular pairs of firms based on the circumstances prevailing between them, we conclude that we are correct in not adopting bill and keep as a single, nationwide policy that would govern all LEC–CMRS transport and termination of traffic. Thus, we reject our tentative conclusion in the LEC–CMRS Interconnection NPRM. We expect, however, that when it is economically efficient to do so, parties will adopt bill and keep arrangements in the negotiation process. Also, as described above, a state commission may impose bill-and-keep arrangements with respect to CMRS–LEC traffic when it finds that traffic is roughly balanced and is expected to remain so.

B. Access to Rights of Way

1. Overview

740. Section 251(b)(4) imposes upon each LEC the ''duty to afford access to the poles, ducts, conduits, and rights-of-way of such carrier to competing providers of telecommunications services on rates, terms, and conditions that are consistent with section 224.'' The access provisions of section 224, as amended by the 1996 Act, differ from the requirements of section 251(b)(4) with respect to both the entities required to grant access and the entities that may demand access. Section 224(f)(1) imposes upon all utilities, including LECs, the duty to ''provide a cable television system or any telecommunications carrier with nondiscriminatory access to any pole, duct, conduit, or right-of-way owned or controlled by it.'' For purposes of section 224, the term ''telecommunications carrier'' excludes any incumbent LEC as that term is defined in section 251(h).

741. In the NPRM, we sought comment on various aspects of this access requirement, as well as on section 224(f)(2) which creates the following limited exception to the obligations of section 224(f)(1):

> Notwithstanding paragraph (1), a utility providing electric service may deny a cable television system or any telecommunications carrier access to its poles, ducts, conduits, or rights-of-way, on a non-discriminatory basis where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes.

742. Additionally, we sought comment on section 224(h), which provides:

> Whenever the owner of a pole, duct, conduit, or right-of-way intends to modify or alter such pole, duct, conduit, or right-of-way, the owner shall provide written notification of such action to any entity that has obtained an attachment to such conduit or right-of-way so that such entity may have a reasonable opportunity to add to or modify its existing attachment. Any entity that adds to or modifies its existing attachment after receiving such notification shall bear a proportionate share of the costs incurred by the owner in making such pole, duct, conduit, or right-of-way accessible.

743. In this Order, we establish rules implementing these provisions. Based on the comments received and the plain language of the statute, and in furtherance of our original mandate to institute an expeditious procedure for determining just and reasonable pole attachment rates with a minimum of administrative costs and consistent with fair and efficient regulation, we adopt herein a program for nondiscriminatory access to poles, ducts, conduits and rights-of-way. This Order includes several specific rules as well as a number of more general guidelines that are designed to give parties flexibility to reach agreements on access to utility-controlled poles, ducts, conduits, and rights-of-way, without the need for regulatory intervention. We provide for expedited dispute resolution when good faith negotiations fail, and we establish requirements concerning modifications to pole attachments and the allocation of the cost of such modifications. We also explain the division of responsibility between federal and state regulation envisioned by the 1996 Act.

2. Section 224(f): Non-Discriminatory Access

a. Background

744. Pursuant to section 224(f)(1), a utility must grant telecommunications carriers and cable operators nondiscriminatory access to all poles, ducts, conduits, and rights-of-way owned or controlled by the utility. This directive seeks to ensure that no party can use its control of the enumerated facilities and property to impede, inadvertently or otherwise, the

installation and maintenance of telecommunications and cable equipment by those seeking to compete in those fields. Section 224(f)(1) appears to mandate access every time a telecommunications carrier or cable operator seeks access to the utility facilities or property identified in that section, with a limited exception allowing electric utilities to deny access ''where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes.'' While Congress recognized the legitimate interests of utilities in protecting and promoting the safety and reliability of their core services, on balance we believe section 224(f) reflects Congress' determination that utilities generally must accommodate requests for access by telecommunications carriers and cable operators.

b. Discussion

(1) Generally

745. We conclude that the reasonableness of particular conditions of access imposed by a utility should be resolved on a case-specific basis. We discuss below the forum for such resolutions. The record makes clear that there are simply too many variables to permit any other approach with respect to access to the millions of utility poles and untold miles of conduit in the nation. The broader access mandated by the Act, in conjunction with the reasonableness variables mentioned here, will likely increase the number of disputes over access. In turn, this may cause small incumbent LECs and small entities to incur the need for additional resources to evaluate, process, and resolve such disputes, as well as to make poles and conduits physically accessible. We will not enumerate a comprehensive regime of specific rules, but instead establish a few rules supplemented by certain guidelines and presumptions that we believe will facilitate the negotiation and mutual performance of fair, pro-competitive access agreements. We will monitor the effect of this approach and propose more specific rules at a later date if reasonably necessary to facilitate access and the development of competition in telecommunications and cable services. We believe that the rules, guidelines and presumptions established herein strike the appropriate balance between the need for uniformity, on the one hand, and the need for flexibility, on the other, which should minimize the regulatory burdens and economic impact for both small entities and small incumbent LECs.

746. We also address the impact on small incumbent LECs. For example, the Rural Telephone Coalition opposes adoption of sweeping national rules because local circumstances will be relevant to disputes over access to poles or rights-of-way. We have considered the economic impact of our rules in this section on small incumbent LECs. For example, we have adopted a flexible regulatory approach to pole attachment disputes that ensures consideration of local conditions and circumstances.

747. Our determination not to prescribe numerous specific rules is supported by acknowledgements in the relevant national industry codes that no single set of rules can take into account all of the issues that can arise in the context of a single installation or attachment. The NESC, one of the national codes that virtually all commenters regard as containing reasonable attachment requirements, contains thousands of rules and dozens of tables and figures, all designed to ensure ''the practical safeguarding of persons during the installation, operation, or maintenance of electric supply and communication lines and associated equipment.''

748. For example, with respect to overhead wires, the NESC contains 64 pages of rules dictating minimum ''clearances,'' i.e., the minimum separations between a particular wire, cable, or other piece of equipment and other wires, cables, equipment, structures, and property. A short list of only a few of the variables in that discussion includes: the type of wire or equipment in question; the type of current being transmitted; the nature of the structure supporting the wires; the proximity and nature of other equipment and structures; the temperature of the conducting element; and the use of the land below the wires. These separation requirements dictate the required distances between various wires and other transmission and distribution equipment, as well as distances between such equipment and other objects that are not a part of the transmission and distribution network. Prescribed separations between wires will vary between the point at which wires are attached to a pole and at mid-points between poles, with the latter separations dictated by the predicted amount of sag that the wires will experience. The amount of sag will itself depend upon additional variables. Changing just one variable can radically alter the separation requirements. Other rules dictate: electrical loading requirements that vary depending upon wind and ice conditions and the predicted sag of the lines being installed; structural strength requirements that vary depending upon the amount and type of installations and the nature of the supporting structure; and line insulation requirements. A wholly separate and equally extensive array of rules apply to underground lines.

749. Despite this specificity, the introduction to the NESC states that the code ''is not intended as a design specification or an instruction manual.'' Indeed, utilities typically impose requirements more stringent than those prescribed by NESC and other industry codes. In some cases stricter requirements and restrictions are dictated by federal, state, or local law. Potentially applicable federal regulations include rules promulgated by the Federal Energy Regulatory Commission (''FERC'') and by the Occupational Safety and Health Administration (''OSHA''). Various restrictions can apply at the state level as well. Some local requirements governing zoning, aesthetics, or road clearances impose more stringent or more specific requirements than those of the national industry codes or of federal or state law.

750. In addition to operating under federal, state, and local requirements, a utility normally will have its own operating standards that dictate conditions of access. Utilities have developed their own individual standards and incorporated them into pole attachment agreements because industry-wide standards and applicable legal requirements are too general to take into account all of the variables that can arise. A utility's individual standards cover not simply its policy with respect to attachments, but all aspects of its business. Standards vary between companies and across different regions of the country based on the experiences of each utility and on local conditions. As Duquesne notes, the provision of electricity is the result of varied engineering factors that continue to evolve. Because there is no fixed manner in which to provide electricity, there is no way to develop an exhaustive list of specific safety and reliability standards. In addition, increasing competition in the provision of electricity is forcing electric utilities to engineer their systems more precisely, in a way that is tailored to meet the specific needs of the electric company and its customers. As a result, each utility has developed its own internal operating standards to suit its individual needs and experiences.

751. The record contains numerous factors that may vary from region to region, necessitating different operating

procedures particularly with respect to attachments. Extreme temperatures, ice and snow accumulation, wind, and other weather conditions all affect a utility's safety and engineering practices. In some instances, machinery used by local industries requires higher than normal clearances. Particular utility work methods and equipment may require specific separations between attachments and may restrict the height of the poles that a utility will use. The installation and maintenance of underground facilities raise distinct safety and reliability concerns. It is important that such variables be taken into account when drafting pole attachment agreements and considering an individual attachment request. The number of variables makes it impossible to identify and account for them all for purposes of prescribing uniform standards and requirements. Universally accepted codes such as the NESC do not attempt to prescribe specific requirements applicable to each attachment request and neither shall we.

752. We are sensitive to concerns of cable operators and telecommunications carriers regarding utility-imposed restrictions that could be used unreasonably to prevent access. We note in particular that a utility that itself is engaged in video programming or telecommunications services has the ability and the incentive to use its control over distribution facilities to its own competitive advantage. A number of utilities have obtained, or are seeking, the right and ability to provide telecommunications or video programming services. We agree, however, with Duquesne that the best safeguard is not the adoption of a comprehensive set of substantive engineering standards, but the establishment of procedures that will require utilities to justify any conditions they place on access. These procedures are outlined in section E below. In the next two sections, we set forth rules of general applicability and broader guidelines relating to specific issues that are intended to govern access negotiations between the parties.

(2) Specific Rules

753. We establish five rules of general applicability. First, in evaluating a request for access, a utility may continue to rely on such codes as the NESC to prescribe standards with respect to capacity, safety, reliability, and general engineering principles. We have no reason to question the reasonableness of the virtually unanimous judgment of the commenters, many of whom have otherwise diverse and conflicting interests, in this regard. Utilities may incorporate such standards into their pole attachment agreements in accordance with section 224(f)(2). Other industry codes also will be presumed reasonable if shown to be widely-accepted objective guides for the installation and maintenance of electrical and communications facilities.

754. Second, federal requirements, such as those imposed by FERC and OSHA, will continue to apply to utilities to the extent such requirements affect requests for attachments to utility facilities under section 224(f)(1). We see no reason to supplant or modify applicable federal regulations promulgated by FERC, OSHA, or other federal agencies acting in accordance with their lawful authority.

755. Third, we will consider state and local requirements affecting pole attachments. We note that section 224(c)(1) provides:

> Nothing in this section shall be construed to apply to, or to give the Commission jurisdiction with respect to rates, terms and conditions, or access to poles, ducts, conduits, and rights-of-way as provided in subsection (f), for pole attachments in any case where such matters are regulated by the State.

756. In a separate section we discuss the authority of a state to preempt federal regulation of pole attachments. For present purposes, we conclude that state and local requirements affecting attachments are entitled to deference even if the state has not sought to preempt federal regulations under section 224(c). The 1996 Act increased significantly the Commission's role with respect to attachments by creating federal access rights and obligations, which for decades had been the subject of state and local regulation. Such regulations often relate to matters of local concern that are within the knowledge of local authorities and are not addressed by standard codes such as the NESC. We do not believe that regulations of this sort necessarily conflict with the scheme established in this Order. More specifically, we see nothing in the statute or in the record that compels us to preempt such local regulations as a matter of course. Regulated entities and other interested parties are familiar with existing state and local requirements and have adopted operating procedures and practices in reliance on those requirements. We believe it would be unduly disruptive to invalidate summarily all such local requirements. We thus agree with commenters who suggest that such state and local requirements should be presumed reasonable. Thus, even where a state has not asserted preemptive authority in accordance with section 224(c), state and local requirements affecting pole attachments remain applicable, unless a complainant can show a direct conflict with federal policy. Where a local requirement directly conflicts with a rule or guideline we adopt herein, our rules will prevail. We note that a standard prescribed by the NESC is not a specific Commission rule, and therefore a state requirement that is more restrictive than the corresponding NESC standard may still apply.

757. It is important to note that the discretion of state and local authorities to regulate in the area of pole attachments is tempered by section 253, which invalidates all state or local legal requirements that ''prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.'' This restriction does not prohibit a state from imposing ''on a competitively neutral basis and consistent with section 254, requirements necessary to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers.'' In addition, section 253 specifically recognizes the authority of state and local governments to manage public rights-of-way and to require fair and reasonable compensation for the use of such rights-of-way.

758. Fourth, where access is mandated, the rates, terms, and conditions of access must be uniformly applied to all telecommunications carriers and cable operators that have or seek access. Except as specifically provided herein, the utility must charge all parties an attachment rate that does not exceed the maximum amount permitted by the formula we have devised for such use, and that we will revise from time to time as necessary. Other terms and conditions also must be applied on a nondiscriminatory basis.

759. Fifth, except as specifically noted below, a utility may not favor itself over other parties with respect to the provision of telecommunications or video programming services. We interpret the statutory requirement of nondiscriminatory access as compelling this result, particularly when read in the context of other provisions of the statute. This element of nondiscrimination is evident in section 224(g), which requires a utility to impute to itself or to its affiliate the pole attachment rate such entity would be charged were it a non-affiliated entity. Further, we believe it unlikely that Congress intended to allow an

incumbent LEC to favor itself over its competitors with respect to attachments to the incumbent LEC's facilities, given that section 224(a)(5) has just the opposite effect in that it operates to preclude the incumbent LEC from obtaining access to the facilities of other LECs. A utility will be able to discriminate in favor of itself with respect to the provision of telecommunications or cable services only as expressly provided herein.

760. Aside from the conditions described above, we will not adopt specific rules to determine when access may be denied because of capacity, safety, reliability, or engineering concerns. In addition, we reject the contention of some utilities that they are the primary arbiters of such concerns, or that their determinations should be presumed reasonable. We recognize that the public welfare depends upon safe and reliable provision of utility services, yet we also note that the 1996 Act reinforces the vital role of telecommunications and cable services. As noted above, section 224(f)(1) in particular reflects Congress' intention that utilities must be prepared to accommodate requests for attachments by telecommunications carriers and cable operators.

(3) Guidelines Governing Certain Issues

761. In addition to the rules articulated above, we will establish guidelines concerning particular issues that have been raised in this proceeding. These guidelines are intended to provide general ground rules upon which we expect the parties to be able to implement pro-competitive attachment polices and procedures through arms-length negotiations, rather than having to rely on multiple adjudications by the Commission in response to complaints or by other forums. We do not discuss herein every issue raised in the comments. Rather, we discuss only major issues that we believe will arise often. Issues not discussed herein may be important in a particular case, but are not susceptible to any general observation or presumption.

762. We note that a utility's obligation to permit access under section 224(f) does not depend upon the execution of a formal written attachment agreement with the party seeking access. We understand that such agreements are the norm and encourage their continued use, subject to the requirements of section 224. Complaint or arbitration procedures will, of course, be available when parties are unable to negotiate agreements.

(a) Capacity Expansions

763. When a utility cannot accommodate a request for access because the facility in question has no available space, it often must modify the facility to increase its capacity. In some cases, a request for access can be accommodated by rearranging existing facilities to make room for a new attachment. Another method of maximizing useable capacity is to permit ''overlashing,'' by which a new cable is wrapped around an existing wire, rather than being strung separately. A utility pole filled to capacity often can be replaced with a taller pole. New underground installations can be accommodated by the installation of new duct, including subducts that divide a standard duct into four separate, smaller ducts. Cable companies and others contend that there is rarely a lack of capacity given the availability of taller poles and additional conduits. These commenters suggest that utilities should rarely be permitted to deny access on the basis of a lack of capacity, particularly since under section 224(h) the party or parties seeking to increase capacity will be responsible for all associated costs. Utilities argue that neither the statute nor its legislative history requires facility owners to expand or alter their facilities to accommodate entities seeking to lease space. These commenters argue that, if Congress intended such a result, the statute would have imposed the requirement explicitly.

764. A utility is able to take the steps necessary to expand capacity if its own needs require such expansion. The principle of nondiscrimination established by section 224(f)(1) requires that it do likewise for telecommunications carriers and cable operators. In addition, we note that section 224(f)(1) mandates access not only to physical utility facilities (i.e., poles, ducts, and conduit), but also to the rights-of-way held by the utility. The lack of capacity on a particular facility does not necessarily mean there is no capacity in the underlying right-of-way that the utility controls. For these reasons, we agree with commenters who argue that a lack of capacity on a particular facility does not automatically entitle a utility to deny a request for access. Since the modification costs will be borne only by the parties directly benefitting from the modification, neither the utility nor its ratepayers will be harmed, despite the assertions of utilities to the contrary.

765. In some cases, however, increasing capacity involves more than rearranging existing attachments or installing a new pole or duct. For example, the record suggests that utility poles of 35 and 40 feet in height are relatively standard, but that taller poles may not always be readily available. The transportation, installation, and maintenance of taller poles can entail different and more costly practices. Many utilities have trucks and other service equipment designed to maintain poles of up to 45 feet, but no higher. Installing a 50 foot pole may require the utility to invest in new and costly service equipment. Expansion of underground conduit space entails a very complicated procedure, given the heightened safety and reliability concerns associated with such facilities. Local regulators may seek to restrict the frequency of underground excavations. We find it inadvisable to attempt to craft a specific rule that prescribes the circumstances in which, on the one hand, a utility must replace or expand an existing facility in response to a request for access and, on the other hand, it is reasonable for the utility to deny the request due to the difficulties involved in honoring the request. We interpret sections 224 (f)(1) and (f)(2) to require utilities to take all reasonable steps to accommodate requests for access in these situations. Before denying access based on a lack of capacity, a utility must explore potential accommodations in good faith with the party seeking access.

766. We will not require telecommunications providers or cable operators seeking access to exhaust any possibility of leasing capacity from other providers, such as through a resale agreement, before requesting a modification to expand capacity. As indicated elsewhere in this Order, resale will play an important role in the development of competition in telecommunications. However, as we also have noted, there are benefits to facilities-based competition as well. We do not wish to discourage unduly the latter form of competition solely because the former might better suit the preferences of incumbent utilities with respect to pole attachments.

(b) Reservation of Space by Utility

767. Utilities routinely reserve space on their facilities to meet future needs. Local economic growth and property development may require an electric utility to install additional lines or transformers that use previously available space on the pole. A utility may install an underground duct in which it can later install additional distribution lines, if necessitated by a subsequent increase in demand or by

damage to the original lines. Reserving space allows the utility to respond quickly and efficiently to changed circumstances. This practice, however, also can result in a utility denying access to a telecommunications carrier or a cable operator even though there is unused capacity on the pole or duct.

768. This issue is of particular concern because section 224(h) imposes the cost of modifying attachments on those parties that benefit from the modification. If, for example, a cable operator seeks to make an attachment on a facility that has no available capacity, the operator would bear the full cost of modifying the facility to create new capacity, such as by replacing an existing pole with a taller pole. Other parties with attachments would not share in the cost, unless they expanded their own use of the facilities at the same time. If the electric utility decides to change a pole for its own benefit, and no other parties derive a benefit from the modification, then the electric company would bear the full cost of the new pole.

769. Some commenters contend that utilities will reserve space on a pole and then claim there is no capacity available, as a way of forcing cable operators and telecommunications carriers to pay for new utility facilities. These commenters contend that we should restrict or eliminate the authority of utilities to reserve space. Utilities respond that it is unfair to force a utility to accommodate full occupation of its facility by third parties and then to saddle the utility with the cost of modifying the facility when the utility's own needs change and require a costly increase in capacity.

770. The near-universal public demand for their core utility services, while imposing certain obligations, arguably entitles utilities to certain prerogatives vis-a-vis other parties, including the right to reserve capacity to meet anticipated future demand for those utility services. Recognition of such a right, however, could conflict with the nondiscrimination requirement of section 224(f)(1) which prohibits a utility from favoring itself or its affiliates with respect to the provision of telecommunications and video services. In addition, allowing space to go unused when a cable operator or telecommunications carrier could make use of it is directly contrary to the goals of Congress.

771. Balancing these concerns leads us to the following conclusions. We will permit an electric utility to reserve space if such reservation is consistent with a bona fide development plan that reasonably and specifically projects a need for that space in the provision of its core utility service. The electric utility must permit use of its reserved space by cable operators and telecommunication carriers until such time as the utility has an actual need for that space. At that time, the utility may recover the reserved space for its own use. The utility shall give the displaced cable operator or telecommunications carrier the opportunity to pay for the cost of any modifications needed to expand capacity and to continue to maintain its attachment. An electric utility may not reserve or recover reserved space to provide telecommunications or video programming service and then force a previous attaching party to incur the cost of modifying the facility to increase capacity, even if the reservation of space were pursuant to a reasonable development plan. The record does not contain sufficient data for us to establish a presumptively reasonable amount of pole or conduit space subject that an electric utility may reserve. If parties cannot agree, disputes will be resolved on a case-by-case approach based on the reasonableness of the utility's forecast of its future needs and any additional information that is relevant under the circumstances.

772. With respect to a utility providing telecommunications or video services, we believe the statute requires a different result. Section 224(f)(1) requires nondiscriminatory treatment of all providers of such services and does not contain an exception for the benefit of such a provider on account of its ownership or control of the facility or right-of-way. Congress seemed to perceive such ownership and control as a threat to the development of competition in these areas, thus leading to the enactment of the provision in question. Allowing the pole or conduit owner to favor itself or its affiliate with respect to the provision of telecommunications or video services would nullify, to a great extent, the nondiscrimination that Congress required. Permitting an incumbent LEC, for example, to reserve space for local exchange service, to the detriment of a would-be entrant into the local exchange business, would favor the future needs of the incumbent LEC over the current needs of the new LEC. Section 224(f)(1) prohibits such discrimination among telecommunications carriers. As indicated above, this prohibition does not apply when an electric utility asserts a future need for capacity for electric service, to the detriment of a telecommunications carrier's needs, since the statute does not require nondiscriminatory treatment of all utilities; rather, it requires nondiscriminatory treatment of all telecommunications and video providers.

(c) Definition of ''Utility''

773. The access obligations of section 224(f) apply to any ''utility,'' which is defined as:

> any person who is a local exchange carrier or an electric, gas, water, steam, or other public utility, and who owns or controls poles, ducts, conduits, or other rights-of-way used, in whole or in part, for any wire communications. Such term does not include any railroad, any person who is cooperatively organized, or any person owned by the Federal Government or any State.

774. Arguably a provider of utility service does not fall within this definition if it has refused to permit any wired communications use of its facilities and rights-of-way since, in that case, its facilities and rights-of-way are not ''used, in whole or in part, for wire communications.'' Under this construction, an electric utility would have no obligation to grant access under section 224(f) until the utility voluntarily has granted access to one communications provider or has used its facilities for wire communications. Only after its facilities were being used for wire communications would the utility have to grant access to all telecommunications carriers and cable operators on a nondiscriminatory basis.

775. We conclude that this construction of the statute is mandated by its plain language and is indeed nondiscriminatory, since denial of access to all discriminates against none. We see no statutory basis, however, for the argument made by some utilities that they should be permitted to devote a portion of their poles, ducts, conduits, and rights-of-way to wire communications without subjecting all such property to the access obligations of section 224(f)(1). Those obligations apply to any ''utility,'' which section 224(a)(1) defines to include an entity that controls ''poles, ducts, conduits, or rights-of-way used, in whole or in part, for any wire communications.'' The use of the phrase ''in whole or in part'' demonstrates that Congress did not intend for a utility to be able to restrict access to the exact path used by the utility for wire communications. We further conclude that use of any utility pole, duct, conduit, or right-of-way for wire communications triggers access to all poles, ducts, conduits, and rights-of-way owned or controlled by the utility, including those not currently used for wire communications.

776. We reject the contention that, because an electric utility's internal communications do not pose a competitive threat to third party cable operators or telecommunications carriers, such internal communications are not ''wire communications'' and do not trigger access obligations. Although internal communications are used solely to promote the efficient distribution of electricity, the definition of ''wire communication'' is broad and clearly encompasses an electric utility's internal communications.

(d) Application of Section 224(f)(2) to Non-Electric Utilities

777. While all utilities are subject to the access obligations of section 224(f)(1), the provisions of section 224(f)(2), permitting a utility to deny access due to a lack of capacity or for reasons of safety, reliability, and generally applicable engineering purposes, apply only to ''a utility providing electric service * * *.'' Based on this statutory language, some commenters suggest that LECs and other utilities that do not provide electric service must grant requests for access, regardless of any concerns relating to safety, reliability, and general engineering principles. If there is a lack of capacity, a LEC must create more capacity, according to these commenters.

778. While the express language of sections 224 (f)(1) and (f)(2) suggests that only utilities providing electric service can take into consideration concerns relating to safety and reliability, we are reluctant to ignore these concerns simply because the pole owner is not an electric utility. Even parties seeking broad access rights under section 224 recognize that, in some circumstances, a LEC will have legitimate safety or engineering concerns that may need to be accommodated. We believe that Congress could not have intended for a telecommunications carrier to ignore safety concerns when making pole attachment decisions. Rather than reach this dangerous result which would require us to ignore the dictates of sections 1 and 4(o) of the Communications Act, we conclude that any utility may take into account issues of capacity, safety, reliability and engineering when considering attachment requests, provided the assessment of such factors is done in a nondiscriminatory manner.

779. Nevertheless, we believe that section 224(f)(2) reflected Congress' acknowledgment that issues involving capacity, safety, reliability and engineering raise heightened concerns when electricity is involved, because electricity is inherently more dangerous than telecommunications services. Accordingly, although we determine that it is proper for non-electric utilities to raise these matters, they will be scrutinized very carefully, particularly when the parties concerned have a competitive relationship.

(e) Third-Party Property Owners

780. Section 224(f)(1) mandates that the utility grant access to any pole, duct, conduit, or right-of-way that is ''owned or controlled by it.'' Some utilities and LECs argue that certain private easement agreements, when interpreted under the applicable state property laws, deprive the utilities of the ownership or control that triggers their obligation to accommodate a request for access. Moreover, they contend, access to public rights-of-way may be restricted by state law or local ordinances. Opposing commenters contend that the addition of cable television or telecommunications facilities is compatible with electric service and therefore does not violate easements that have been granted for the provision of electric service. These commenters also assert that the statute does not draw specific distinctions between private and public easements. Further, some cable operators contend that utility easements are accessible to cable operators pursuant to section 621(a)(2) of the Communications Act as long as the easements are physically compatible with such use, regardless of the terms of a written easement agreement. Another commenter suggests utilities are best positioned to determine when access requests would affect a private easement, foreclosing the need to determine whether a private owner would consent to the requested attachment. As for local ordinances restricting access to public rights-of-way, one commenter suggests that such restrictions would violate section 253(a) of the Act, which blocks state or local rules that prohibit competition.

781. The scope of a utility's ownership or control of an easement or right-of-way is a matter of state law. We cannot structure general access requirements where the resolution of conflicting claims as to a utility's control or ownership depends upon variables that cannot now be ascertained. We reiterate that the access obligations of section 224(f) apply when, as a matter of state law, the utility owns or controls the right-of-way to the extent necessary to permit such access.

782. Section 621(a)(2) states that a cable franchise shall be construed as authorizing the construction of cable facilities in public rights-of-way and ''through easements * * * which have been dedicated for compatible uses * * *.'' The scope of a cable operator's access to easements under this provision has been the subject of a number of court opinions. To the extent section 621(a)(2) has been construed to permit access to easements, a cable operator must be permitted to attach to utility poles, ducts, and conduits within such easements in accordance with section 224(f).

783. Finally, we disagree with those utilities that contend that they should not be forced to exercise their powers of eminent domain to establish new rights-of-way for the benefit of third parties. We believe a utility should be expected to exercise its eminent domain authority to expand an existing right-of-way over private property in order to accommodate a request for access, just as it would be required to modify its poles or conduits to permit attachments. Congress seems to have contemplated an exercise of eminent domain authority in such cases when it made provisions for an owner of a right-of-way that ''intends to modify or alter such * * * right-of-way * * *.''

(f) Other Matters

784. Utilities stress the importance of ensuring that only qualified workers be permitted in the proximity of utility facilities. Some utilities seek to limit access to their facilities to the utility's own specially trained employees or contractors, particularly with respect to underground conduits. According to these commenters, parties seeking to make attachments to utility facilities should be required to pay for the use of the utility's workers if the utility concludes that only its workers are fit for the job. While we agree that utilities should be able to require that only properly trained persons work in the proximity of the utilities' lines, we will not require parties seeking to make attachments to use the individual employees or contractors hired or pre-designated by the utility. A utility may require that individuals who will work in the proximity of electric lines have the same qualifications, in terms of training, as the utility's own workers, but the party seeking access will be able to use any individual workers who meet these criteria. Allowing a utility to dictate that only specific employees or contractors be used would impede the access that Congress sought to bestow on telecommunications providers and cable operators and would inevitably lead to disputes over rates to be paid to the workers.

785. Some electric utilities argue that high voltage transmission facilities should not be accessible by telecommunications carriers or cable operators under section 224(f)(1). These commenters contend that transmission facilities, which are used for high voltage transmissions over great distances, are far more delicate and dangerous than local distribution facilities. Permitting attachments to transmission facilities, they argue, poses a greater risk to the safety and reliability of the electric distribution system than is the case with distribution lines. They further state that transmission facilities generally are not located where cable operators and telecommunications carriers need to install facilities. ConEd suggests that transmission towers do not even fall within the scope of the statute.

786. Section 224(f)(1) mandates access to ''any pole, duct, conduit, or right-of-way,'' owned or controlled by the utility. The utilities do not suggest that transmission facilities do not use poles or rights-of-way, for which the statute does mandate the right of access. The utilities' arguments for excepting transmission facilities from access requirements are based on safety and reliability concerns. We believe that the breadth of the language contained in section 224(f)(1) precludes us from making a blanket determination that Congress did not intend to include transmission facilities. As with any facility to which access is sought, however, section 224(f)(2) permits the electric utility to impose conditions on access to transmission facilities, if necessary for reasons of safety and reliability. To the extent safety and reliability concerns are greater at a transmission facility, the statute permits a utility to impose stricter conditions on any grant of access or, in appropriate circumstances, to deny access if legitimate safety or reliability concerns cannot be reasonably accommodated.

787. We note that some commenters favor a broad interpretation of ''pole, duct, conduit, or right-of-way'' because that approach would minimize the risk that a ''pathway'' vital to competition could be shut off to new competitors. Others argue for a narrow construction of this statutory phrase, contending that Congress addressed access to other LEC facilities elsewhere in the 1996 Act. We recognize that an overly broad interpretation of this phrase could impact the owners and mangers of small buildings, as well as small incumbent LECs, by requiring additional resources to effectively control and monitor such rights-of-way located on their properties. We do not believe that section 224(f)(1) mandates that a utility make space available on the roof of its corporate offices for the installation of a telecommunications carrier's transmission tower, although access of this nature might be mandated pursuant to a request for interconnection or for access to unbundled elements under section 251(c)(6). The intent of Congress in section 224(f) was to permit cable operators and telecommunications carriers to ''piggyback'' along distribution networks owned or controlled by utilities, as opposed to granting access to every piece of equipment or real property owned or controlled by the utility.

788. The statute does not describe the specific type of telecommunications or cable equipment that may be attached when access to utility facilities is mandated. We do not believe that establishing an exhaustive list of such equipment is advisable or even possible. We presume that the size, weight, and other characteristics of attaching equipment have an impact on the utility's assessment of the factors determined by the statute to be pertinent—capacity, safety, reliability, and engineering principles. The question of access should be decided based on those factors.

3. Constitutional Takings

a. Background

789. The access provisions of section 224(f) restrict the right of a utility to exclude third parties from its property and therefore may raise Fifth Amendment issues. While we have no jurisdiction to determine the constitutionality of a federal statute, constitutional concerns are relevant for purposes of construing a statute.

b. Discussion

790. Section 224(f)(1) mandates that a utility grant access to a requesting telecommunications provider or cable system operator, subject to certain conditions that we discuss elsewhere in this Order. That provision is not reasonably susceptible of a reading that gives the pole owner the choice of whether to grant telecommunications carriers or cable television systems access. Even if such mandatory access results in a taking, we cannot agree that it necessarily raises a constitutional issue. The Fifth Amendment permits takings as long the property owner receives just compensation for the property taken.

791. As for the amount of compensation provided under the statute, GTE suggests that mandatory access will result in an unconstitutional taking when considered in conjunction with the methodology for pole attachment rates set forth in section 224(e)(2). We, of course, have no power to declare any provision of the Communications Act unconstitutional. In any event, we cannot agree. Congress has provided for compensation to pole owners, in the event that they cannot resolve a dispute with telecommunications carriers regarding the charges for use of the owners' poles, that would allow them to recover the cost of providing usable space to each entity and two-thirds of the cost of the unusable space apportioned among such users. The Commission soon will initiate a separate rulemaking proceeding that will give greater content to this statutory standard. GTE and others may present their just compensation arguments with respect to the ratemaking standards the Commission adopts in that proceeding. GTE has not shown here, however, how the statutory standard contained in section 224(e) necessarily would deny pole owners just compensation.

4. Modifications

a. Background

792. In the NPRM we sought comment on section 224(h) which provides:

> Whenever the owner of a pole, duct, conduit, or right-of-way intends to modify or alter such pole, duct, conduit, or right-of-way, the owner shall provide written notification of such action to any entity that has obtained an attachment to such conduit or right-of-way so that such entity may have a reasonable opportunity to add to or modify its existing attachment. Any entity that adds to or modifies its existing attachment after receiving such notification shall bear a proportionate share of the costs incurred by the owner in making such pole, duct, conduit, or right-of-way accessible.

793. The NPRM requested comments addressing the manner and timing of the notice that must be provided to ensure a reasonable opportunity to add to or modify its attachment. In addition, we sought comment regarding the establishment of rules apportioning the cost of a modification among the various users of the modified facility. Finally, we requested comment on whether any payment of costs should be offset by the potential increase in revenues to the owner. If, for example, an owner modifies a pole to allow additional attachments that generate additional fees for the owner, should such revenues offset the share of modification costs borne by entities with preexisting access to the pole?

b. Discussion

794. We recognize that, when a modification is planned, parties with preexisting attachments to a pole or conduit need time to evaluate how the proposed modification affects their interest and whether activity related to the modification presents an opportunity to adjust the attachment in a desirable manner. At the same time, we also recognize that not all adjustments to utility facilities are alike. Some adjustments may be sufficiently routine or minor as to not create the type of opportunity that triggers the notice requirement. Indeed, it is possible that in some cases lengthy notice requirements could delay unnecessarily the kinds of modifications that would expedite the onset of meaningful competition in the provision of telecommunications services. Although the period of advance notice has varied widely among commenters, we note that 60 days has been advocated by several parties.

795. Several commenters expressed a preference for negotiated notification terms. They have explained that circumstances will vary among owners of facilities. The time needed to commence a modification could vary according to pole conditions, technological improvements and demand growth. Attaching parties in rural markets may need more time to study facilities than facility users in urban markets. To demonstrate their ability to develop appropriate negotiated agreements, some commenters have described notice requirements in existing agreements. Such cases, they contend, illustrate that notification rules are unnecessary.

796. We conclude that, absent a private agreement establishing notification procedures, written notification of a modification must be provided to parties holding attachments on the facility to be modified at least 60 days prior to the commencement of the physical modification itself. Notice should be sufficiently specific to apprise the recipient of the nature and scope of the planned modification. These notice requirements should provide small entities with sufficient time to evaluate the impact of or opportunities made possible by the proposed modifications on their interests and plan accordingly. If the contemplated modification involves an emergency situation for which advanced written notice would prove impractical, the notice requirement does not apply except that notice should be given as soon as reasonably practicable, which in some cases may be after the modification is completed. Further, we believe that the burden of requiring specific written notice of routine maintenance activities would not produce a commensurate benefit. Utilities and parties with attachments should exchange maintenance handbooks or other written descriptions of their standard maintenance practices. Changes to these practices should be made only upon 60 days written notice. Recognizing that the parties themselves are best able to determine the circumstances where notice would be reasonable and sufficient, as well as the types of modifications that should trigger notice obligations, we encourage the owner of a facility and parties with attachments to negotiate acceptable notification terms.

797. Even with the adoption of a specific notice period, however, we still encourage communication among owners and attaching parties. Indeed, in cases where owners and users routinely share information about upgrades and modifications, agreements regarding notice periods and procedures are ancillary matters.

798. With respect to the allocation of modification costs, we conclude that, to the extent the cost of a modification is incurred for the specific benefit of any particular party, the benefiting party will be obligated to assume the cost of the modification, or to bear its proportionate share of cost with all other attaching entities participating in the modification. If a user's modification affects the attachments of others who do not initiate or request the modification, such as the movement of other attachments as part of a primary modification, the modification cost will be covered by the initiating or requesting party. Where multiple parties join in the modification, each party's proportionate share of the total cost shall be based on the ratio of the amount of new space occupied by that party to the total amount of new space occupied by all of the parties joining in the modification. For example, a CAP's access request might require the installation of a new pole that is five feet taller than the old pole, even though the CAP needs only two feet of space. At the same time, a cable operator may claim one foot of the newly-created capacity. If these were the only parties participating in the modification, the CAP would pay two-thirds of the modification costs and the cable operator one-third.

799. As a general approach, requiring that modification costs be paid only by entities for whose benefit the modification is made simplifies the modification process. For these purposes, however, if an entity uses a proposed modification as an opportunity to adjust its preexisting attachment, the ''piggybacking'' entity should share in the overall cost of the modification to reflect its contribution to the resulting structural change. A utility or other party that uses a modification as an opportunity to bring its facilities into compliance with applicable safety or other requirements will be deemed to be sharing in the modification and will be responsible for its share of the modification cost. This will discourage parties from postponing necessary repairs in an effort to avoid the associated costs.

800. We recognize that limiting cost burdens to entities that initiate a modification, or piggyback on another's modification, may confer incidental benefits on other parties with preexisting attachments on the newly modified facility. Nevertheless, if a modification would not have occurred absent the action of the initiating party, the cost should not be borne by those that did not take advantage of the opportunity by modifying their own facilities. Indeed, the Conference Report accompanying the passage of the 1996 Act imposes cost sharing obligations on an entity ''that takes advantage of such opportunity to modify its own attachments.'' This suggests that an attaching party, incidentally benefiting from a modification, but not initiating or affirmatively participating in one, should not be responsible for the resulting cost. As for pole owners themselves, the imposition of cost burdens for modifications they do not initiate could be particularly cumbersome if excess space created by modifications remained unused for extended periods.

801. Apart from entities that initiate modifications and preexisting attachers that use the opportunity to modify their own attachments, some entities may seek to add new attachments to the modified facility after the modification is completed to avoid any obligation to share in the cost. If this occurs, the entity initiating and paying for the modification might pay the entire cost of expanding a facility's capacity only to see a new competitor take advantage of the additional capacity without sharing in the cost. Moreover, entities with preexisting attachments may, due to cost considerations, forgo the opportunity to adjust their attachment only to see a new entrant attach to a pole without sharing the modification cost. To protect the initiators of modifications from absorbing costs that should be shared by others, we will allow the modifying party or parties to

recover a proportionate share of the modification costs from parties that later are able to obtain access as a result of the modification. The proportionate share of the subsequent attacher should be reduced to take account of depreciation to the pole or other facility that has occurred since the modification. These provisions are intended to ensure that new entrants, especially small entities with limited resources, bear only their proportionate costs and are not forced to subsidize their later-entering competitors. To the extent small entities avail themselves of this cost-saving mechanism, however, they will incur certain record keeping obligations.

802. Parties requesting or joining in a modification also will be responsible for resulting costs to maintain the facility on an ongoing basis. We believe determining the method by which to allocate such costs can best be resolved in the context of a proceeding addressing the determination of appropriate rates for pole attachments or other facility uses. We will postpone consideration of these issues until such time.

803. We recognize that in some cases a facility modification will create excess capacity that eventually becomes a source of revenue for the facility owner, even though the owner did not share in the costs of the modification. We do not believe that this requires the owner to use those revenues to compensate the parties that did pay for the modification. Section 224(h) limits responsibility for modification costs to any party that ''adds to or modifies its existing attachment after receiving notice'' of a proposed modification. The statute does not give that party any interest in the pole or conduit other than access. Creating a right for that party to share in future revenues from the modification would be tantamount to bestowing an interest that the statute withholds. Requiring an owner to offset modification costs by the amount of future revenues emanating from the modification expands the category of responsible parties based on factors that Congress did not identify as relevant. Since Congress did not provide for an offset, we will not impose it ourselves. Indeed, a requirement that utilities pass additional attachment fees back to parties with preexisting attachments may be a disincentive to add new competitors to modified facilities, in direct contravention of the general intent of Congress.

5. Dispute Resolution

a. Background

804. Implementation of the access requirements of sections 224 and 251(b)(4) require the adoption of enforcement procedures. In the NPRM, we sought comment on, among other things, whether to impose upon a utility the burden of justifying its denial of access to its poles, ducts, conduits, and rights-of-way due to lack of capacity, safety, reliability, and engineering issues.

b. Discussion

(1) General Complaint Procedures Under Section 224

805. Section 224(f)(2) provides that an electric utility may deny non-discriminatory access ''where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes.'' We have determined that other utilities also may consider these concerns when faced with an access request. A denial of access, while proper in some cases, is an exception to the general mandate of section 224(f). We note that utilities contend that they are in the best position to determine when access should be denied, because they possess the information and expertise to make such decisions and because of the varied circumstances impacting these decisions. We think it appropriate that the utility bear the burden of justifying why its denial of access to a cable television or telecommunications carrier fits within that exception. We therefore agree that utilities have the ultimate burden of proof in denial-of-access cases. We believe this will minimize uncertainty and reduce litigation and transaction costs, because new entrants generally, and small entities in particular, are unlikely to have access to the relevant information without cooperation from the utilities.

806. We also agree with Virginia Power that a telecommunications carrier or cable television provider filing a complaint with the Commission must establish a prima facie case. A petitioner's complaint, in addition to showing that it is timely filed, must state the grounds given for the denial of access, the reasons those grounds are unjust or unreasonable, and the remedy sought. The complaint must be supported by the written request for access, the utility's response, and information supporting its position. The Commission will deny the petitioner's claim if a prima facie case is not established. A complaint will not be dismissed if a petitioner is unable to obtain a utility's written response, or if a petitioner is denied any other relevant information by the utility needed to establish a prima facie case. Thus, we expect a utility that receives a legitimate inquiry regarding access to its facilities or property to make its maps, plats, and other relevant data available for inspection and copying by the requesting party, subject to reasonable conditions to protect proprietary information. This provision eliminates the need for costly discovery in pursuing a claim of improper denial of access, allowing attaching parties, including small entities with limited resources, to seek redress of such denials.

807. We agree with the Joint Cable Commenters that ''time is of the essence.'' The Joint Cable Commenters contend that the Commission should implement an expedited review process for denial of access cases. By implementing specific complaint procedures for denial of access cases, we seek to establish swift and specific enforcement procedures that will allow for competition where access can be provided. In order to provide a complete record, written requests for access must be provided to the utility. If access is not granted within 45 days of the request, the utility must confirm the denial in writing by the 45th day. Although these written requirements involve some recordkeeping obligations, which could impose a burden on small incumbent LECs and small entities, we believe that burden is outweighed by the benefits of certainty and expedient resolution of disputes which this procedure encourages. The denial must be specific, and include all relevant evidence or information supporting its denial. It must enumerate how the evidence relates to one of the reasons that access can be denied under section 224(f)(2), *i.e.*, lack of capacity, safety, reliability or engineering standards.

808. For example, a utility may attempt to deny access because of lack of capacity on a 40-foot pole. We would expect a utility to provide the information demonstrating why there is no capacity. In addition, the utility should show why it declined to replace the pole with a 45-foot pole. Upon the receipt of a denial notice from the utility, the requesting party shall have 60 days to file its complaint with the Commission. We anticipate that by following this procedure the Commission will, upon receipt of a complaint, have all relevant information upon which to make its decision. The petition must be served pursuant to section 1.1404(b) of the Commission's rules. Final decisions relating to access will be resolved by the Commission

expeditiously. Because we are using the expedited process described herein, we do not believe stays or other equitable relief will be granted in the absence of a specific showing, beyond the prima facie case, that such relief is warranted.

(2) Procedures Under Section 251

809. A telecommunications carrier seeking access to the facilities or property of a LEC may invoke section 251(b)(4) in lieu of, or in addition to, section 244(f)(1). Because section 251(b)(4) mandates access ''on rates terms, and conditions that are consistent with section 224,'' we believe that the section 224 complaint procedures established above should be available regardless of whether a telecommunications provider invokes section 224(f)(1) or section 251(b)(4), or both.

810. If a telecommunications carrier seeks access to the facilities or property of an incumbent LEC, however, it shall have the option of invoking the procedures established by section 252 in lieu of filing a complaint under section 224. Section 252 governs procedures for the negotiation, arbitration, and approval of certain agreements between incumbent LECs and telecommunications carriers. In pertinent part, section 252(a)(1) provides:

> Upon receiving a request for interconnection, services, or network elements pursuant to section 251, an incumbent local exchange carrier may negotiate and enter into a binding agreement with the requesting telecommunications carrier or carriers without regard to the standards set sforth in subsections (b) or (c) of section 251.

811. Where parties are unable to reach an agreement under this section, any party may petition the relevant state commission to arbitrate the open issues. In resolving the dispute, the state commission must ensure, among other things, that the ultimate resolution ''meet[s] the requirements of section 251, including the regulations prescribed by the Commission pursuant to section 251 * * *.'' The Commission may assume the state's authority under section 252 if the state ''fails to carry out its responsibility'' under that section.

812. Section 251(c)(1) creates an obligation on the part of an incumbent LEC ''to negotiate in good faith in accordance with section 252 the particular terms and conditions of agreements * * *'' to fulfill its section 251(b)(4) obligation. Therefore, a telecommunications carrier may seek access to the facilities or property of an incumbent LEC pursuant to section 251(b)(4) and trigger the negotiation and arbitration procedures of section 252. If a telecommunications carrier intends to invoke the section 252 procedures, it should affirmatively state such intent in its formal request for access to the incumbent LEC. We impose this requirement because the two procedures have separate deadlines by which the parties may or must take certain steps, and therefore the incumbent LEC receiving the request has a need to know which procedure has been invoked. Section 224 shall be the default procedure that will apply if the telecommunications carrier fails to make an affirmative election.

813. We note that section 252 does not impose any obligations on utilities other than incumbent LECs, and does not grant rights to entities that are not telecommunications providers. Therefore, section 252 may be invoked in lieu of section 224 only by a telecommunications carrier and only if it is seeking access to the facilities or property of an incumbent LEC.

814. In addition, incumbent LECs cannot use section 251(b)(4) as a means of gaining access to the facilities or property of a LEC. A LEC's obligation under section 251(b)(4) is to afford access ''on rates, terms, and conditions that are consistent with section 224.'' Section 224 does not prescribe rates, terms, or conditions governing access by an incumbent LEC to the facilities or rights-of-way of a competing LEC. Indeed, section 224 does not provide access rights to incumbent LECs. We cannot infer that section 251(b)(4) restores to an incumbent LEC access rights expressly withheld by section 224. We give deference to the specific denial of access under section 224 over the more general access provisions of section 251(b)(4). Accordingly, no incumbent LEC may seek access to the facilities or rights-of-way of a LEC or any utility under either section 224 or section 251(b)(4).

6. Reverse Preemption

a. Background

815. Even prior to enactment of the 1996 Act, section 224(b)(1) gave the Commission jurisdiction to ''regulate the rates, terms, and conditions for pole attachments * * *.'' Under former section 224(c)(1), that jurisdiction was preempted where a state regulated such matters. Such reverse preemption was conditioned upon the state following a certification procedure and meeting certain compliance requirements set forth in sections 224(c) (2) and (3). The 1996 Act expanded the Commission's jurisdiction to include not just rates, terms, and conditions, but also the authority to regulate non-discriminatory access to poles, ducts, conduits and rights-of-way under section 224(f). At the same time, the 1996 Act expanded the preemptive authority of states to match the expanded scope of the Commission's jurisdiction. Section 224(c)(1) now provides:

> Nothing in this section shall be construed to apply to, or to give the Commission jurisdiction with respect to rates, terms and conditions, or access to poles, ducts, conduits, and rights-of-way as provided in subsection (f), for pole attachments in any case where such matters are regulated by the State.

b. Discussion

816. To resolve this issue, we will begin with access requests that can arise solely under section 224(f)(1). These circumstances include when a cable system or telecommunications carrier seeks access to the facilities or rights-of-way of a non-LEC utility. In such cases, the expansion of the Commission's authority to require utilities to provide nondiscriminatory access under section 224(f) is countered by a corresponding expansion in the scope of a state's authority under section 224(c)(1) to preempt federal requirements. The authority of a state under section 224(c)(1) to preempt federal regulation in these cases is clear.

817. The issue becomes more complicated when a telecommunications carrier seeks access to LEC facilities or property under section 251(b)(4). By its express terms, section 251(b)(4) imposes upon LECs, ''[t]he duty to afford access to the poles, ducts, conduits, and rights-of-way of such a carrier to competing providers of telecommunications services on rates, terms and conditions that are consistent with section 224.'' We believe the reference in section 251(b)(4) to section 224 incorporates all aspects of the latter section, including the state preemption authority of section 224(c)(1). This interpretation is consistent not only with the plain meaning of the statute but with the overall application of sections 251 and 252.

818. In the 1996 Act, Congress expanded section 224(c)(1) to reach access issues. Congress' clear grant of authority to the states to preempt federal regulation in these cases undercuts the suggestion that Congress sought to establish federal access regulations of universal applicability. Moreover, we do not find it significant that the access provisions of sections 251 and 271 contain no specific reference to the preemptive authority of states under section 224(c)(1), since both provisions expressly refer to section 224 generally.

819. Thus, when a state has exercised its preemptive authority under section 224(c)(1), a LEC satisfies its duty under section 251(b)(4) to afford access by complying with the state's regulations. If a state has not exercised such preemptive authority, the LEC must comply with the federal rules. Similarly, when a telecommunications carrier seeks access rights from an incumbent LEC by choosing to avail itself of the negotiation and arbitration procedures established in section 252, a state that has exercised its preemption rights will apply its own set of regulations in the arbitration process pursuant to section 252 (c)(1). Finally, we note that state regulation in this area is subject to the provisions of section 253.

820. We note that Congress did not amend section 224(c)(2) to prescribe a certification procedure with respect to access (as distinct from the rates, terms, and conditions of access). Therefore, upon the filing of an access complaint with the Commission, the defending party or the state itself should come forward to apprise us whether the state is regulating such matters. If so, we shall dismiss the complaint without prejudice to it being brought in the appropriate state forum. A party seeking to show that a state regulates access issues should cite to state laws and regulations governing access and establishing a procedure for resolving access complaints in a state forum. Especially probative will be a requirement that the relevant state authority resolve an access complaint within a set period of time following the filing of the complaint.

C. Imposing Additional Obligations on LECS

1. Background

821. Section 251(c) imposes obligations on incumbent LECs in addition to the obligations set forth in sections 251 (a) and (b). It establishes obligations of incumbent LECs regarding: (1) good faith negotiation; (2) interconnection; (3) unbundling network elements; (4) resale; (5) providing notice of network changes; and (6) collocation.

822. Section 251(h)(1) defines an incumbent LEC as a LEC within a particular service area that: (1) as of the enactment of the 1996 Act, provided telephone exchange service in such area; and (2) as of the enactment of the 1996 Act, was deemed to be a member of the exchange carrier association pursuant to 47 CFR § 69.601(b) or, on or after the enactment of the 1996 Act, became a successor or assign of such carrier. Section 252(h)(2) provides that, ''[t]he Commission may, by rule, provide for the treatment of a local exchange carrier (or class or category thereof) as an incumbent local exchange carrier for purposes of this section if (A) such carrier occupies a position in the market for telephone exchange service within an area that is comparable to the position occupied by a carrier described in paragraph (1); (B) such carrier has substantially replaced an incumbent local exchange carrier described in paragraph (1); and (C) such treatment is consistent with the public interest, convenience, and necessity and the purposes of this section.''

823. In the NPRM, we sought comment on whether we should establish at this time standards and procedures by which interested parties could prove that a particular LEC should be treated as an incumbent LEC. We also sought comment on whether carriers that are not deemed to be incumbent LECs under section 251(h) may be required to comply with any or all of the obligations that apply to incumbent LECs, and whether states may impose on non-incumbent LECs the obligations that are imposed on incumbent LECs under section 251(c).

2. Discussion

824. We conclude that allowing states to impose on non-incumbent LECs obligations that the 1996 Act designates as ''Additional Obligations on Incumbent Local Exchange Carriers,'' distinct from obligations on all LECs, would be inconsistent with the statute. We understand that some states may be imposing on non-incumbent LECs obligations set forth in section 251(c). *See, e.g.,* Colorado Commission comments at 11–12; Draft Decision, State of Connecticut Department of Public Utility Control, Docket No. 94–10–04 at 60, 65 (Connecticut Commission July 11, 1996); Illinois Commission comments at 19. We believe that these actions may be inconsistent with the 1996 Act. Some parties assert that certain provisions of the 1996 Act, such as sections 252(e)(3) and 253(b), explicitly permit states to impose additional obligations. Such additional obligations, however, must be consistent with the language and purposes of the 1996 Act.

825. Section 251(h)(2) sets forth a process by which the FCC may decide to treat LECs as incumbent LECs. Thus, when the conditions set forth in section 251(h)(2) are met, the 1996 Act contemplates that new entrants will be subject to the same obligations imposed on incumbents. While we find that states may not unilaterally impose on non-incumbent LECs obligations the 1996 Act expressly imposes only on incumbent LECs, we find that state commissions or other interested parties could ask the FCC to classify a carrier as an incumbent LEC pursuant to section 251(h)(2). At this time, we decline to adopt specific procedures or standards for determining whether a LEC should be treated as an incumbent LEC. Instead, we will permit interested parties to ask the FCC to issue an order declaring a particular LEC or a class or category of LECs to be treated as incumbent LECs. We expect to give particular consideration to filings from state commissions. We further anticipate that we will not impose incumbent LEC obligations on non-incumbent LECs absent a clear and convincing showing that the LEC occupies a position in the telephone exchange market comparable to the position held by an incumbent LEC, has substantially replaced an incumbent LEC, and that such treatment would serve the public interest, convenience, and necessity and the purposes of section 251.

XI. Exemptions, Suspensions, and Modifications of Section 251 Requirements

A. Background

826. Section 251(f)(1) grants rural telephone companies an exemption from section 251(c), until the rural telephone company has received a bona fide request for interconnection, services, or network elements, and the state commission determines that the exemption should be terminated. A rural telephone company is defined as a local exchange carrier operating entity to the extent that such entity ''(A) provides common carrier service to any local exchange carrier study area that does not include either— (i) any incorporated place of 10,000 inhabitants or more, or any part thereof * * *; or (ii) any territory, incorporated or unincorporated, included in an urbanized area * * *; (B) provides telephone exchange service, including exchange access, to fewer than 50,000 access lines; (C) provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or (D) has less than 15 percent of its access lines in communities of more than 50,000 on the date of enactment of the Telecommunications Act of 1996.'' 47 U.S.C. 153(37). Section 251(f)(2) allows LECs with fewer than two percent of the nation's subscriber lines to petition a state commission for a suspension or modification of any requirements of sections 251 (b) and (c). Section 251(f)

imposes a duty on state commissions to make determinations under this section, and establishes the criteria and procedures for the state commissions to follow. In the NPRM, we tentatively concluded that state commissions have the sole authority to make determinations under section 251(f). In addition, we sought comment on whether we should issue guidelines to assist state commissions when they make determinations regarding exemptions, suspensions, or modifications under section 251(f).

827. Although subsections (f)(1) and (f)(2) both address the circumstances under which an incumbent LEC could be relieved of duties otherwise imposed by section 251, subsection 251(f)(2) also applies to non-incumbent LECs. The standard for determining whether to exempt a carrier under subsection 251(f)(1) is different from the standard for determining whether to grant a suspension or modification under subsection (f)(2). Subsection 251(f)(1)(B) requires state commissions to determine that terminating a rural exemption is consistent with the universal service provisions of the 1996 Act. Subsection 251(f)(2)(A)(i) requires state commissions to grant a suspension or modification if it is necessary to ''avoid a significant adverse economic impact on users of telecommunications services generally,'' and subsection 251(f)(2)(B) requires a suspension or modification to be ''consistent with the public interest, convenience, and necessity.'' Although we address these two subsections together, we highlight instances in which we believe that differences in statutory language require different treatment by state commissions.

828. We discuss below issues raised by the commenters, and establish some rules regarding the requirements of section 251(f) that we believe will assist state commissions as they carry out their duties under section 251(f). For the most part, however, we expect that states will interpret the requirements of section 251(f) through rulemaking and adjudicative proceedings. We may in the future initiate a Notice of Proposed Rulemaking on certain additional issues raised by section 251(f) if it appears that further action by the Commission is warranted.

B. Need for National Rules

1. Discussion

829. We agree with parties, including small incumbent LECs, who argue that determining whether a telephone company is entitled, pursuant to section 251(f), to exemption, suspension, or modification of the requirements of section 251 generally should be left to state commissions. Requests made pursuant to section 251(f) seek to carve out exceptions to application of the section 251 rules that we are establishing in this proceeding. We find that Congress intended the section 251 requirements, and the Commission's implementing rules thereunder, to apply to all carriers throughout the country, except in the circumstances delineated in the statute. We find convincing assertions that it would be an overwhelming task at this time for the Commission to try to anticipate and establish national rules for determining when our generally-applicable rules should *not* be imposed upon carriers. Therefore, we establish in this Order a very limited set of rules that will assist states in their application of the provisions in section 251(f).

830. Many parties have proposed varying interpretations of the provisions in section 251(f), and have asked for Commission determination or a statement of agreement. Because it appears that many parties welcome some guidance from the Commission, we briefly set forth our interpretation of certain provisions of section 251(f). Such statements will assist parties and, in particular, state commissions that must make determinations regarding requests for exemption, suspension, and modification.

C. Application of Section 251(f)

1. Discussion

831. Congress generally intended the requirements in section 251 to apply to carriers across the country, but Congress recognized that in some cases, it might be unfair or inappropriate to apply all of the requirements to smaller or rural telephone companies. We believe that Congress intended exemption, suspension, or modification of the section 251 requirements to be the exception rather than the rule, and to apply only to the extent, and for the period of time, that policy considerations justify such exemption, suspension, or modification. We believe that Congress did not intend to insulate smaller or rural LECs from competition, and thereby prevent subscribers in those communities from obtaining the benefits of competitive local exchange service. Thus, we believe that, in order to justify continued exemption once a bona fide request has been made, or to justify suspension, or modification of the Commission's section 251 requirements, a LEC must offer evidence that application of those requirements would be likely to cause undue economic burdens beyond the economic burdens typically associated with efficient competitive entry. State commissions will need to decide on a case-by-case basis whether such a showing has been made.

832. Given the pro-competitive focus of the 1996 Act, we find that rural LECs must prove to the state commission that they should continue to be exempt pursuant to section 251(f)(1) from requirements of section 251(c), once a bona-fide request has been made, and that smaller companies must prove to the state commission, pursuant to section 251(f)(2), that a suspension or modification of requirements of sections 251 (b) or (c) should be granted. We conclude that it is appropriate to place the burden of proof on the party seeking relief from otherwise applicable requirements. Moreover, the party seeking exemption, suspension, or modification is in control of the relevant information necessary for the state to make a determination regarding the request. A rural company that falls within section 251(f)(1) is not required to make any showing until it receives a bona fide request for interconnection, services, or network elements. We decline at this time to establish guidelines regarding what constitutes a bona fide request. We also decline in this Report and Order to adopt national rules or guidelines regarding other aspects of section 251(f). For example, we will not rule in this proceeding on the universal service duties of requesting carriers that seek to compete with rural LECs. We may offer guidance on these matters at a later date, if we believe it is necessary and appropriate.

833. We find that Congress intended section 251(f)(2) only to apply to companies that, at the holding company level, have fewer than two percent of subscriber lines nationwide. This is consistent with the fact that the standard is based on the percent of subscriber lines that a carrier has ''*in the aggregate nationwide*.'' Moreover, any other interpretation would permit almost any company, including Bell Atlantic, Ameritech, and GTE affiliates, to take advantage of the suspension and modification provisions in section 251(f)(2). Such a conclusion would render the two percent limitation virtually meaningless.

834. We note that some parties recommend that, in adopting rules pursuant to section 251, the Commission provide different treatment or impose different obligations on smaller or rural carriers. We conclude that section 251(f) adequately provides for varying treatment for smaller or rural LECs where such variances are justified in particular instances. We conclude

that there is no basis in the record for adopting other special rules, or limiting the application of our rules to smaller or rural LECs.

XIII. Advanced Telecommunications Capabilities

835. Section 706(a) provides that the Commission ''shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.'' In the NPRM, we sought comment on how we can advance Congress's section 706(a) goal within the context of our implementation of sections 251 and 252.

836. A number of parties suggest that rules allowing them to compete effectively and earn a profit in the telecommunications industry would assist the industry in providing telecommunications services to all Americans. MFS suggests that ''all LECs should be required, as a condition of eligibility for universal service subsidies, to meet network modernization standards for rural telephone companies.'' Several state commissions indicate that they have already established programs to assist institutions eligible under section 706 in deploying advanced telecommunications services. The Alliance for Public Technology asserts that section 706 should underlie all of the FCC's proceedings. Ericsson states that the industry should work with government agencies to promote leading edge technology to ensure that it is introduced on a reasonably timely basis. For example, it contends that ''Plug and Play Internet use'' will greatly help the public and schools access information, and that advanced technology such as asynchronous transfer mode (ATM), wireless data/video, and AIN will enhance interconnection capabilities of public and private networks. The Illinois Commission contends that, depending on the pricing standard the Commission adopts for interconnection and access to unbundled elements, and the Commission's interpretation of the prohibition against discrimination, the Commission should adopt special rules for carriers when they provide interconnection or access to unbundled network elements to serve a school, library, or healthcare provider.

837. We decline to adopt rules regarding section 706 in this proceeding. We intend to address issues related to section 706 in a separate proceeding.

XIV. Provisions of Section 252

A. Section 252(e)(5)

1. Background

838. Section 252(e)(5) directs the Commission to assume responsibility for any proceeding or matter in which the state commission ''fails to act to carry out its responsibility'' under section 252. In the NPRM, we asked whether the Commission should establish rules and regulations necessary to carry out our obligation under section 252(e)(5). In addition, we sought comment on whether in this proceeding we should establish regulations necessary and appropriate to carry out our obligations under section 252(e)(5). In particular, we sought comment on what constitutes notice of failure to act, what procedures, if any, we should establish for parties to notify the Commission, and what are the circumstances under which a state commission should be deemed to have ''fail[ed] to act'' under section 252(e)(5).

839. Section 252(e)(4) provides that, if the state commission does not approve or reject (1) a negotiated agreement within 90 days, or (2) an arbitrated agreement within 30 days, from the time the agreement is submitted by the parties, the agreement shall be ''deemed approved.'' We sought comment on the relationship between this provision and our obligation to assume responsibility under section 252(e)(5). We also sought comment on whether the Commission, once it assumes the responsibility of the state commission, is bound by all of the laws and standards that would have applied to the state commission, and whether the Commission is authorized to determine whether an agreement is consistent with applicable state law as the state commission would have been under section 252(e)(3). In addition, we sought comment on whether, once the Commission assumes responsibility under section 252(e)(5), it retains jurisdiction, or whether that matter or proceeding subsequently should be remanded to the state.

840. Finally, we sought comment on whether we should adopt, in this proceeding, some standards or methods for arbitrating disputes in the event we must conduct an arbitration under section 252(e)(5). We noted some of the benefits and drawbacks of both ''final offer'' arbitration and open-ended arbitration, and asked for comment on both.

2. Discussion

841. After careful review of the record, we are convinced that establishing regulations to carry out our obligations under section 252(e)(5) will provide for an efficient and fair transition from state jurisdiction should we have to assume the responsibility of the state commission under Section 252(e)(5). The rules we establish in this section with respect to arbitration under section 252 apply only to instances where the Commission assumes jurisdiction under section 252(e)(5); we do not purport to advise states on how to conduct arbitration when the Commission has not assumed jurisdiction. The rules we establish will give notice of the procedures and standards the Commission would apply to mediation and arbitration, avoid delay if the Commission had to arbitrate disputes in the near future, and may also offer guidance the states may, at their discretion, wish to consider in implementing their own mediation and arbitration procedures and standards. We decline to adopt national rules governing state arbitration procedures. We believe the states are in a better position to develop mediation and arbitration rules that support the objectives of the 1996 Act. States may develop specific measures that address the concerns of small entities and small incumbent LECs participating in mediation or arbitration.

842. The rules we adopt herein are minimum, interim procedures. Adopting minimum interim procedures now will allow the Commission to learn from the initial experiences and gain a better understanding of what types of situations may arise that require Commission action. We note that the Commission is not required to adopt procedures and standards for mediation and arbitration within the six-month statutory deadline and that, by adopting minimum interim procedures, the Commission can better direct its resources to more pressing matters that fall within the six-month statutory deadline.

843. Regarding what constitutes a state's ''failure to act to carry out its responsibility under'' section 252, the Commission was presented with numerous options. The Commission will not take an expansive view of what constitutes a state's ''failure to act.'' Instead, the Commission interprets ''failure to act'' to mean a state's failure to complete its duties in a timely manner. This would limit Commission action to instances where a state commission fails to respond, within a reasonable time, to a request for

mediation or arbitration, or fails to complete arbitration within the time limits of section 252(b)(4)(C). The Commission will place the burden of proof on parties alleging that the state commission has failed to respond to a request for mediation or arbitration within a reasonable time frame. We note the work done by states to date in putting in place procedures and regulations governing arbitration and believe that states will meet their responsibilities and obligations under the 1996 Act. *See, e.g., In the Matter of the Implementation of the Mediation and Arbitration Provisions of the Federal Telecommunications Act of 1996*, Case No. 96–463–TP–UNC, Ohio Commission, (May 30, 1996); *Illinois Commerce Commission On Its Own Motion Adoption of 83 Ill. Adm. Code 761 to Implement the Arbitration Provisions of Section 252 of the Telecommunications Act of 1996*, Docket No. 96–0297, Illinois Commission (June 14, 1996).

844. We agree with the majority of commenters that argue that our authority to assume the state commission's responsibilities is not triggered when an agreement is ''deemed approved'' under section 252(e)(4) due to state commission inaction. Section 252(e)(4) provides for automatic approval if a state fails to approve or reject a negotiated or arbitrated agreement within 90 days or 30 days, respectively. Rules of statutory construction require us to give meaning to all provisions and to read provisions consistently, where it is possible to do so. We thus conclude that the most reasonable interpretation is that automatic approval under section 252(e)(4) does not constitute a failure to act.

845. We also believe that we should establish interim procedures for interested parties to notify the Commission that a state commission has failed to act under section 252. We believe that parties should be required to file a detailed written petition, backed by affidavit, that will, at the outset, give the Commission a better understanding of the issues involved and the action, or lack of action, taken by the state commission. Allowing less detailed notification increases the likelihood that frivolous requests will be made. With less detailed notification, the Commission's investigations would be broader and more burdensome. A detailed written petition will facilitate a decision about whether the Commission should assume jurisdiction based on section 252(e)(5).

846. The moving party should submit a petition to the Secretary of the Commission stating with specificity the basis for the petition and any information that supports the claim that the state has failed to act, including, but not limited to the applicable provision(s) of the Act and the factual circumstances which support a finding that a state has failed to act. The moving party must ensure that the applicable state commission and the parties to the proceeding or matter for which preemption is sought are served with the petition on the same date the party serves the petition on the Commission. The petition will serve as notice to parties to the state proceeding and the state commission who will have fifteen days from the date the petition is filed with the Commission to comment. Under section 252(e)(5), the Commission must ''issue an order preempting the state commission's jurisdiction of that proceeding or matter'' no later than 90 days from the date the petition is filed. If the Commission takes notice, as section 252(e)(5) permits, that a state commission has failed to act, it will, on its own motion, issue a public notice and provide fifteen days for interested parties to submit comment on whether the Commission should assume responsibility under section 252(e)(5).

847. If the Commission assumes authority under section 252(e)(5), the Commission must also decide whether it retains authority for that proceeding or matter. We agree with those parties who argue that, once the Commission assumes jurisdiction of a proceeding or matter, it retains authority for that proceeding or matter. For example, if the Commission obtains jurisdiction after a state commission fails to respond to a request for arbitration, the Commission maintains jurisdiction over the arbitration proceeding. Therefore, once the proceeding is before the Commission, any and all further action regarding that proceeding or matter will be before the Commission. We note that there is no provision in the Act for returning jurisdiction to the state commission; moreover, the Commission, with significant knowledge of the issues at hand, would be in the best position efficiently to conclude the matter. Thus, as both a legal and policy matter, we believe that the Commission retains jurisdiction over any matter and proceeding for which it assumes responsibility under Section 252(e)(5).

848. We reject the suggestion by some parties that, once the Commission has mediated or arbitrated an agreement, the agreement must be submitted to the state commission for approval under state law. We note that section 252(e)(5) provides for the Commission to ''assume the responsibility of the State commission under this section with respect to the proceeding or matter and act for the State commission.'' This includes acting for the state commission under section 252(e)(1), which calls for state commission approval of ''any interconnection agreement adopted by negotiation or arbitration.'' We, therefore, do not read section 252(e)(1) or any other provision as calling for state commission approval or rejection of agreements mediated or arbitrated by the Commission. In those instances where a state has failed to act, the Commission acts on behalf of the state and no additional state approval is required.

849. Requirements set forth in section 252(c) for arbitrated agreements would apply to arbitration conducted by the Commission. We see no reason, and no party has suggested a policy or legal basis, for not applying such standards when the Commission conducts arbitration. Thus, arbitrated agreements must: (1) meet the requirements of section 251, including regulations prescribed by the Commission pursuant to section 251; (2) establish any rates for interconnection, services, or network elements according to section 252(d); and (3) provide a schedule for implementation of the terms and conditions by the parties to the agreement. We reject the suggestion made by some parties that, if the Commission steps into the state commission role, it is bound by state laws and standards that would have applied to the state commission. While states are permitted to establish and enforce other requirements, these are not binding standards for arbitrated agreements under section 252(c). Moreover, the resources and time potentially needed to review adequately and interpret the different laws and standards of each state render this suggestion untenable. Finally, we conclude that it would not make sense to apply to the Commission the timing requirements that section 252(b)(4)(c) imposes on state commissions. The Commission, in some instances, might not even assume jurisdiction until nine months (or more) have lapsed since a section 251 request was initiated.

850. Based on the comments of the parties, we conclude that a ''final offer'' method of arbitration, similar to the approach recommended by Vanguard, would best serve the public interest. Under ''final offer'' arbitration, each party to the negotiation proposes its best and final offer and the arbitrator determines which of the proposals become binding. The arbitrator would

have the option of choosing one of the two proposals in its entirety, or the arbitrator could decide on an issue-by-issue basis. Each final offer must: (1) meet the requirements of section 251, including the Commission's rules thereunder; (2) establish rates for interconnection, services, or network elements according to section 252(d); and (3) provide a schedule for implementation of the terms and conditions by the parties to the agreement. If a final offer submitted by one or more parties fails to comply with these requirements, the arbitrator would have discretion to take steps designed to result in an arbitrated agreement that satisfies the requirements of section 252(c), including requiring parties to submit new final offers within a time frame specified by the arbitrator, or adopting a result not submitted by any party that is consistent with the requirements in section 252(c).

851. The parties could continue to negotiate an agreement after they submit their proposals and before the arbitrator makes a decision. Under this approach, the Commission will encourage negotiations, with or without the assistance of the arbitrator, to continue after arbitration offers are exchanged. Parties are not precluded from submitting subsequent final offers following such negotiations. We believe that permitting post-offer negotiations will increase the likelihood that the parties will reach consensus on unresolved issues. In addition, permitting post-offer negotiations will increase flexibility and will allow parties to tailor counter-proposals after arbitration offers are exchanged. To provide an opportunity for final post-offer negotiation, the arbitrator will not issue a decision for at least 15 days after submission of the final offers by the parties. In addition, the offers must be consistent with section 251, including the regulations prescribed by the Commission. We reject SBC's suggestion that an arbitrated agreement is not binding on the parties. Absent mutual agreement to different terms, the decision reached through arbitration is binding. We conclude that it would be inconsistent with the 1996 Act to require incumbent LECs to provide interconnection, services, and unbundled elements, impose a duty to negotiate in good faith and a right to arbitration, and then permit incumbent LECs to not be bound by an arbitrated determination. We also believe that, although competing providers do not have an affirmative duty to enter into agreements under section 252, a requesting carrier might face penalties if, by refusing to enter into an arbitrated agreement, that carrier is deemed to have failed to negotiate in good faith. Such penalties should serve as a disincentive for requesting carriers to force an incumbent LEC to expand resources in arbitration if the requesting carrier does not intend to abide by the arbitrated decision.

852. Adopting a ''final offer'' method of arbitration and encouraging negotiations to continue allows us to maintain the benefits of final offer arbitration, giving parties an incentive to submit realistic ''final offers,'' while providing additional flexibility for the parties to agree to a resolution that best serves their interests. To the extent that these procedures encourage parties to negotiate voluntarily rather than arbitrate, such negotiated agreements will be subject to review pursuant to section 252(e)(2)(A), which would allow the Commission to reject agreements if they are inconsistent with the public interest. This approach also addresses the argument that under ''final offer'' arbitration neither offer might best serve the public interest, because it allows the parties to obtain feedback from the arbitrator on public interest matters.

853. We believe that the arbitration proceedings generally should be limited to the requesting carrier and the incumbent local exchange provider. This will allow for a more efficient process and minimize the amount of time needed to resolve disputed issues. We believe that opening the process to all third parties would be unwieldy and would delay the process. We will, however, consider requests by third parties to submit written pleadings. This may, in some instances, allow interested parties to identify important public policy issues not raised by parties to an arbitration.

B. Requirements of Section 252(i)

1. Background

854. Section 251 requires that interconnection, unbundled element, and collocation rates be ''nondiscriminatory'' and prohibits the imposition of ''discriminatory conditions'' on the resale of telecommunications services. Section 252(i) of the 1996 Act provides that a ''local exchange carrier shall make available any interconnection, service, or network element provided under an agreement approved under [section 252] to which it is a party to any other requesting telecommunications carrier upon the same terms and conditions as those provided in the agreement.'' In the NPRM, we expressed the view that section 252(i) appears to be a primary tool of the 1996 Act for preventing discrimination under section 251, and we sought comment on whether we should adopt national standards for resolving disputes under section 252(i) in the event that we must assume the state's responsibilities pursuant to section 252(e)(5). In addition, because we may need to interpret section 252(i) if we assume the state commission's responsibilities, we sought comment on the meaning of section 252(i).

855. We also sought comment in the NPRM on whether section 252(i) requires that only similarly-situated carriers may enforce against incumbent LECs provisions of agreements filed with state commissions, and, if so, how ''similarly-situated carrier'' should be defined. In particular, we asked whether section 252(i) requires that the same rates for interconnection must be offered to all requesting carriers regardless of the cost of serving that carrier, or whether it would be consistent with the statute to permit different rates if the costs of serving carriers are different. We also asked whether the section can be interpreted to allow incumbent LECs to make available interconnection, services, or network elements only to requesting carriers serving a comparable class of subscribers or providing the same service (*i.e.*, local, access, or interexchange) as the original parties to the agreement. In the NPRM, we tentatively concluded that the language of the statute appears to preclude such differential treatment among carriers.

856. Additionally, we sought comment in the NPRM on whether section 252(i) permits requesting telecommunications carriers to choose among individual provisions of publicly-filed interconnection agreements or whether they must subscribe to an entire agreement. We also sought comment regarding what time period an agreement must remain available for use by other requesting telecommunications carriers.

2. Discussion

857. We conclude that it will assist the carriers in determining their respective obligations, facilitate the development of a single, uniform legal interpretation of the Act's requirements and promote a procompetitive, national policy framework to adopt national standards to implement section 252(i). Issues such as whether section 252(i) allows requesting telecommunications carriers to choose among provisions of prior interconnection agreements or requires them to accept an entire agreement are issues of law that should not vary from state to state and are also central to the statutory scheme and to

the emergence of competition. National standards will help state commissions and parties to expedite the resolution of disputes under section 252(i).

858. We conclude that the text of section 252(i) supports requesting carriers' ability to choose among individual provisions contained in publicly filed interconnection agreements. As we note above, section 252(i) provides that a ''local exchange carrier shall make available any interconnection, service, or network element provided under an agreement * * * to which it is a party to any other requesting telecommunications carrier upon the same terms and conditions as those provided in the agreement.'' Thus, Congress drew a distinction between ''any interconnection, service, or network element[s] provided under an agreement,'' which the statute lists individually, and agreements in their totality. Requiring requesting carriers to elect entire agreements, instead of the provisions relating to specific elements, would render as mere surplusage the words ''any interconnection, service, or network element.''

859. We disagree with BellSouth regarding the significance of the legislative history quoted in the NPRM. The Conference Committee amended section 251(g), S. 652's predecessor to section 252(i), and changed ''service, facility, or function'' to ''interconnection, service, or element.'' The House of Representatives' bill did not contain a version of section 252(i). Although H.R. 1555's section 244(d) contained similar ideas, its language and structure are sufficiently different from that of section 252(i) that we do not consider section 244(d) to be a prior version of section 252(i). We find that section 252(i)'s language does not differ substantively from the text of the Senate bill's section 251(g). The Senate Commerce Committee stated its provision, section 251(g), was intended to ''make interconnection more efficient by making available to other carriers the individual elements of agreements that have been previously negotiated.''

860. We also find that practical concerns support our interpretation. As observed by AT&T and others, failure to make provisions available on an unbundled basis could encourage an incumbent LEC to insert into its agreement onerous terms for a service or element that the original carrier does not need, in order to discourage subsequent carriers from making a request under that agreement. In addition, we observe that different new entrants face differing technical constraints and costs. Since few new entrants would be willing to elect an entire agreement that would not reflect their costs and the specific technical characteristics of their networks or would not be consistent with their business plans, requiring requesting carriers to elect an entire agreement would appear to eviscerate the obligation Congress imposed in section 252(i).

861. We also choose this interpretation despite concerns voiced by some incumbent LECs that allowing carriers to choose among provisions will harm the public interest by slowing down the process of reaching interconnection agreements by making incumbent LECs less likely to compromise. In reaching this conclusion, we observe that new entrants, who stand to lose the most if negotiations are delayed, generally do not argue that concern over slow negotiations would outweigh the benefits they would derive from being able to choose among terms of publicly filed agreements. Unbundled access to agreement provisions will enable smaller carriers who lack bargaining power to obtain favorable terms and conditions—including rates—negotiated by large IXCs, and speed the emergence of robust competition.

862. We conclude that incumbent LECs must permit third parties to obtain access under section 252(i) to any individual interconnection, service, or network element arrangement on the same terms and conditions as those contained in any agreement approved under section 252. We find that this level of disaggregation is mandated by section 252(a)(1), which requires that agreements shall include ''charges for interconnection and each service or network element included in the agreement,'' and section 251(c)(3), which requires incumbent LECs to provide ''non-discriminatory access to network elements on an unbundled basis.'' In practical terms, this means that a carrier may obtain access to individual elements such as unbundled loops at the same rates, terms, and conditions as contained in any approved agreement. We agree with ALTS that such a view comports with the statute, and lessens the concerns of carriers that argue that unbundled availability will delay negotiations.

863. We reject GTE's argument that section 252(i)'s statement, that requesting carriers must receive individual elements ''upon the same terms and conditions'' as those contained in the agreement, precludes unbundled availability of individual elements. GTE's argument fails to give meaning to Congress's distinction between agreements and elements, and ignores the 1996 Act's prime goals of nondiscriminatory treatment of carriers and promotion of competition. Instead, we conclude that the ''same terms and conditions'' that an incumbent LEC may insist upon shall relate solely to the individual interconnection, service, or element being requested under section 252(i). For instance, where an incumbent LEC and a new entrant have agreed upon a rate contained in a five-year agreement, section 252(i) does not necessarily entitle a third party to receive the same rate for a three-year commitment. Similarly, that one carrier has negotiated a volume discount on loops does not automatically entitle a third party to obtain the same rate for a smaller amount of loops. Given the primary purpose of section 252(i) of preventing discrimination, we require incumbent LECs seeking to require a third party agree to certain terms and conditions to exercise its rights under section 252(i) to prove to the state commission that the terms and conditions were legitimately related to the purchase of the individual element being sought. By contrast, incumbent LECs may not require as a ''same'' term or condition the new entrant's agreement to terms and conditions relating to other interconnection, services, or elements in the approved agreement. Moreover, incumbent LEC efforts to restrict availability of interconnection, services, or elements under section 252(i) also must comply with the 1996 Act's general nondiscrimination provisions. *See* Section VII.d.3.

864. We further conclude that section 252(i) entitles all parties with interconnection agreements to ''most favored nation'' status regardless of whether they include ''most favored nation'' clauses in their agreements. Congress's command under section 252(i) was that parties may utilize any individual interconnection, service, or element in publicly filed interconnection agreements and incorporate it into the terms of their interconnection agreement. This means that any requesting carrier may avail itself of more advantageous terms and conditions subsequently negotiated by any other carrier for the same individual interconnection, service, or element once the subsequent agreement is filed with, and approved by, the state commission. We believe the approach we adopt will maximize competition by ensuring that carriers' obtain access to terms and elements on a nondiscriminatory basis.

865. We find that section 252(i) permits differential treatment based on the LEC's cost of serving a carrier. We

further observe that section 252(d)(1) requires that unbundled element rates be cost-based, and sections 251(c)(2) and (c)(3) require incumbent LECs to provide only technically-feasible forms of interconnection and access to unbundled elements, while section 252(i) mandates that the availability of publicly-filed agreements be limited to carriers willing to accept the same terms and conditions as the carrier who negotiated the original agreement with the incumbent LEC. We conclude that these provisions, read together, require that publicly-filed agreements be made available only to carriers who cause the incumbent LEC to incur no greater costs than the carrier who originally negotiated the agreement, so as to result in an interconnection arrangement that is both cost-based and technically feasible. However, as discussed in Section VII regarding discrimination, where an incumbent LEC proposes to treat one carrier differently than another, the incumbent LEC must prove to the state commission that that differential treatment is justified based on the cost to the LEC of providing that element to the carrier.

866. We conclude, however, that section 252(i) does not permit LECs to limit the availability of any individual interconnection, service, or network element only to those requesting carriers serving a comparable class of subscribers or providing the same service (*i.e.*, local, access, or interexchange) as the original party to the agreement. In our view, the class of customers, or the type of service provided by a carrier, does not necessarily bear a direct relationship with the costs incurred by the LEC to interconnect with that carrier or on whether interconnection is technically feasible. Accordingly, we conclude that an interpretation of section 252(i) that attempts to limit availability by class of customer served or type of service provided would be at odds with the language and structure of the statute, which contains no such limitation.

867. We agree with those commenters who suggest that agreements remain available for use by requesting carriers for a reasonable amount of time. Such a rule addresses incumbent LEC concerns over technical incompatibility, while at the same time providing requesting carriers with a reasonable time during which they may benefit from previously negotiated agreements. In addition, this approach makes economic sense, since the pricing and network configuration choices are likely to change over time, as several commenters have observed. Given this reality, it would not make sense to permit a subsequent carrier to impose an agreement or term upon an incumbent LEC if the technical requirements of implementing that agreement or term have changed.

868. We observe that section 252(h) expressly provides that state commissions maintain for public inspection copies of interconnection agreements approved under section 252(e). We therefore decline Jones Intercable's suggestion that we require carriers to file agreements at the FCC, in addition to section 252(h)'s filing requirement. However, when the Commission performs the state's responsibilities under section 252(e)(5), parties must file their agreements with the Commission, as well as with the state commission. We note section 22.903(d) of our rules, which remains in effect, requires the BOCs to file with us their interconnection agreements with their affiliated cellular providers. 47 CFR § 22.903(d).

869. We further conclude that a carrier seeking interconnection, network elements, or services pursuant to section 252(i) need not make such requests pursuant to the procedures for initial section 251 requests, but shall be permitted to obtain its statutory rights on an expedited basis. We find that this interpretation furthers Congress's stated goals of opening up local markets to competition and permitting interconnection on just, reasonable, and nondiscriminatory terms, and that we should adopt measures that ensure competition occurs as quickly and efficiently as possible. We conclude that the nondiscriminatory, pro-competition purpose of section 252(i) would be defeated were requesting carriers required to undergo a lengthy negotiation and approval process pursuant to section 251 before being able to utilize the terms of a previously approved agreement. Since agreements shall necessarily be filed with the states pursuant to section 252(h), we leave to state commissions in the first instance the details of the procedures for making agreements available to requesting carriers on an expedited basis. Because of the importance of section 252(i) in preventing discrimination, however, we conclude that carriers seeking remedies for alleged violations of section 252(i) shall be permitted to obtain expedited relief at the Commission, including the resolution of complaints under section 208 of the Communications Act, in addition to their state remedies.

870. We conclude as well that agreements negotiated prior to enactment of the 1996 Act must be available for use by subsequent, requesting carriers. Section 252(i) must be read in conjunction with section 252(a)(1), which clearly states that ''agreement'' for purposes of section 252, ''includ[es] any interconnection agreement negotiated before the date of enactment * * *.'' We conclude that this language demonstrates that Congress intended 252(i) to apply to agreements negotiated prior to enactment of the 1996 Act and approved by the state commission pursuant to section 252(e), as well as those approved under the section 251/252 negotiation process. Accordingly, we find that agreements negotiated prior to enactment of the 1996 Act must be disclosed publicly, and be made available to requesting telecommunications carriers pursuant to section 252(i).

871. We also find that section 252(i) applies to interconnection agreements between adjacent, incumbent LECs. We note that section 252(i) requires a local exchange carrier to make available to requesting telecommunications carriers ''any interconnection service, or network element *provided under an agreement approved under this section* * * *.'' The plain meaning of this section is that any interconnection agreement approved by a state commission, including one between adjacent LECs, must be made available to requesting carriers pursuant to section 252(i). Requiring availability of such agreements will provide new entrants with a realistic benchmark upon which to base negotiations, and this will further the Congressional purpose of increasing competition. As stated in Section III of this Order, adjacent, incumbent LECs will be given an opportunity to renegotiate such agreements before they become subject to section 252(i)'s requirements. In Section III, we also consider, and reject, the Rural Tel. Coalition's argument that making agreements between adjacent, non-competing LECs available under section 252 will have a detrimental effect on small, rural carriers. *See* Section III, *supra.*

XV. Final Regulatory Flexibility Analysis

872. As required by Section 603 of the Regulatory Flexibility Act (RFA), 5 U.S.C. § 603, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the NPRM. The Commission sought written public comment on the proposals in the NPRM. The Commission's Final Regulatory Flexibility Analysis (FRFA) in this Order conforms to the RFA, as amended by the Contract With America Advancement Act of 1996 (CWAAA),

Public Law No. 104–121, 110 Stat. 847 (1996).

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

873. The Commission, in compliance with section 251(d)(1) of the Communications Act of 1934, as amended by the Telecommunications Act of 1996 (the 1996 Act), promulgates the rules in this Order to ensure the prompt implementation of sections 251 and 252 of the 1996 Act, which are the local competition provisions. Congress sought to establish through the 1996 Act ''a pro-competitive, de-regulatory national policy framework'' for the United States telecommunications industry. Three principal goals of the telephony provisions of the 1996 Act are: (1) opening local exchange and exchange access markets to competition; (2) promoting increased competition in telecommunications markets that are already open to competition, particularly long distance services markets; and, (3) reforming our system of universal service so that universal service is preserved and advanced as local exchange and exchange access markets move from monopoly to competition.

874. The rules adopted in this Order implement the first of these goals—opening local exchange and exchange access markets to competition. The objective of the rules adopted in this Order is to implement as quickly and effectively as possible the national telecommunications policies embodied in the 1996 Act and to promote the development of competitive, deregulated markets envisioned by Congress. In doing so, we are mindful of the balance that Congress struck between this goal of bringing the benefits of competition to all consumers and its concern for the impact of the 1996 Act on small incumbent local exchange carriers, particularly rural carriers, as evidenced in section 251(f) of the 1996 Act.

B. Analysis of Significant Issues Raised in Response to the IRFA

875. Summary of the Initial Regulatory Flexibility Analysis (IRFA). In the NPRM, the Commission performed an IRFA. In the IRFA, the Commission found that the rules it proposed to adopt in this proceeding may have a significant impact on a substantial number of small business as defined by section 601(3) of the RFA. The Commission stated that its regulatory flexibility analysis was inapplicable to incumbent LECs because such entities are dominant in their field of operation. The Commission noted, however, that it would take appropriate steps to ensure that the special circumstances of smaller incumbent LECs are carefully considered in our rulemaking. The Commission also found that the proposed rules may overlap or conflict with the Commission's Part 69 access charge and Expanded Interconnection rules. Finally, the IRFA solicited comment on alternatives to our proposed rules that would minimize the impact on small entities consistent with the objectives of this proceeding.

1. Treatment of Small LECs

876. Discussion. In essence, SBA and Rural Tel. Coalition argue that we exceeded our authority under the RFA by certifying all incumbent LECs as dominant in their field of operation, and concluding on that basis that they are not small businesses under the RFA. SBA and Rural Tel. Coalition contend that the authority to make a size determination rests solely with SBA and that, by excluding a group (small incumbent LECs) from coverage under the RFA, the Commission made an unauthorized size determination. Neither SBA nor Rural Tel. Coalition cites any specific authority for this latter proposition.

877. We have found incumbent LECs to be ''dominant in their field of operation'' since the early 1980's, and we consistently have certified under the RFA that incumbent LECs are not subject to regulatory flexibility analyses because they are not small businesses. We have made similar determinations in other areas. We recognize SBA's special role and expertise with regard to the RFA, and intend to continue to consult with SBA outside the context of this proceeding to ensure that the Commission is fully implementing the RFA. Although we are not fully persuaded on the basis of this record that our prior practice has been incorrect, in light of the special concerns raised by SBA and Rural Tel. Coalition in this proceeding, we will, nevertheless, include small incumbent LECs in this FRFA to remove any possible issue of RFA compliance. We, therefore, need not address Rural Tel. Coalition's arguments that incumbent LECs are not dominant.

2. Other Issues

878. Discussion. We disagree with SBA's assessment of our IRFA. Although the IRFA referred only generally to the reporting and recordkeeping requirements imposed on incumbent LECs, our Federal Register notice set forth in detail the general reporting and recordkeeping requirements as part of our Paperwork Reduction Act statement. The IRFA also sought comment on the many alternatives discussed in the body of the NPRM, including the statutory exemption for certain rural telephone companies. The numerous general public comments concerning the impact of our proposal on small entities in response to the NPRM, including comments filed directly in response to the IRFA, enabled us to prepare this FRFA. Thus, we conclude that the IRFA was sufficiently detailed to enable parties to comment meaningfully on the proposed rules and, thus, for us to prepare this FRFA. We have been working with, and will continue to work with SBA, to ensure that both our IRFAs and FRFAs fully meet the requirements of the RFA.

879. SBA also objects to the NPRM's requirement that responses to the IRFA be filed under a separate and distinct heading, and proposes that we integrate RFA comments into the body of general comments on a rule. Almost since the adoption of the RFA, we have requested that IRFA comments be submitted under a separate and distinct heading. Neither the RFA nor SBA's rules prescribe the manner in which comments may be submitted in response to an IRFA and, in such circumstances, it is well established that an administrative agency can structure its proceedings in any manner that it concludes will enable it to fulfill its statutory duties. Based on our past practice, we find that separation of comments responsive to the IRFA facilitates our preparation of a compulsory summary of such comments and our responses to them, as required by the RFA. Comments on the impact of our proposed rules on small entities have been integrated into our analysis and consideration of the final rules. We, therefore, reject SBA's argument that we improperly required commenters to include their comments on the IRFA in a separate section.

880. We also reject SBA's assertion that none of the alternatives in the NPRM is designed to minimize the impact of the proposed rules on small businesses. For example, we proposed that incumbent LECs be required to offer competitors access to unbundled local loop, switching, and transport facilities. These proposals permit potential competitors to enter the market by relying, in part or entirely, on the incumbent LEC's facilities. Reduced economic entry barriers are designed to provide reasonable opportunities for new entrants, particularly small entities, to enter the market by minimizing the initial investment needed to begin providing service. In addition, we

believe section 251(f) and our rules provide states with significant flexibility to ''deal with the needs of individual companies in light of public interest concerns,'' as requested by the Idaho Commission. With regard to the potential burdens on small entities other than incumbent LECs, we believe our rules permit states to structure arbitration procedures, for example, in ways that minimize filing or other burdens on new entrants that are small entities.

881. We also disagree with SCBA's assertion that the IRFA was deficient because it did not identify small cable operators as entities that would be affected by the proposed rules. The IRFA in the NPRM states: ''Insofar as the proposals in this Notice apply to telecommunications carriers other than incumbent LECs (generally interexchange carriers and new LEC entrants), they may have a significant impact on a substantial number of small entities.'' The phrase ''new LEC entrants'' clearly encompasses small cable operators that become providers of local exchange service. The NPRM even identifies cable operators as potential new entrants.

882. We agree with SCBA's argument that the Commission should identify certain minimum standards to provide guidance on the requirement that parties negotiate in good faith. As discussed in Section III.B, we conclude that we should establish minimum standards that will offer parties guidance in determining whether they are acting in good faith. We believe that these minimum standards address SCBA's assertion that federal guidelines for good faith negotiations may be particularly important for small entities because unreasonable delays in negotiations could represent an entry barrier for small entities.

883. We also agree with SCBA's recommendation that we should establish guidelines for the application of section 251(f) regarding exemptions, suspensions, and modifications of our rules governing interconnection with rural carriers. As discussed in section XII.B, we find that a rural incumbent LEC should not be able to obtain an exemption, suspension, or modification of its obligations under section 251 unless it offers evidence that the application of those requirements would be likely to cause injury beyond the financial harm typically associated with efficient competitive entry. We are also persuaded by the suggestion of SCBA and others that incumbent LECs should bear the burden of showing that they should be exempt pursuant to section 251(f)(1) from national interconnection requirements. We believe that this finding is consistent with the pro-competitive goals of the 1996 Act and our determination in Section XII that Congress did not intend to withhold from consumers the benefits of local telephone competition that could be provided by small entities, such as small cable operators.

884. We do not adopt SCBA's proposal to establish abbreviated arbitration procedures. Most commenters oppose adoption of federal rules to govern state mediation and arbitration proceedings. As set out in Section XIV.A, we conclude that state commissions are better positioned to develop rules for mediation and arbitration that support the objectives of the 1996 Act. The rules we adopt in Section XIV.A apply only where the Commission assumes a state commission's responsibilities pursuant to section 252(e)(5). States may develop specific measures that address the concerns of small entities participating in mediation or arbitration, as suggested by SCBA. In addition, although we do not specifically incorporate SCBA's request that the Commission designate a ''small company contact person at incumbent LECs and state commissions,'' we find that a refusal throughout the negotiation process to designate a representative with authority to make binding representations on behalf of the party, and thereby significantly delay resolution of issues, would constitute failure to negotiate in good faith. Therefore, we conclude that the potential benefits of SCBA's proposal are achieved by our determination that the failure of an incumbent LEC to designate a person authorized to bind his or her company in negotiations is a violation of the good faith obligation of section 251.

C. Description and Estimates of the Number of Small Entities Affected by this Report and Order

885. For the purposes of this Order, the RFA defines a ''small business'' to be the same as a ''small business concern'' under the Small Business Act, 15 U.S.C. 632, unless the Commission has developed one or more definitions that are appropriate to its activities. Under the Small Business Act, a ''small business concern'' is one that: (1) Is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any additional criteria established by the Small Business Administration (SBA). SBA has defined businesses for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone Communications) and 4813 (Telephone Communications, Except Radiotelephone) to be small entities when they have fewer than 1,500 employees. We first discuss generally the total number of small telephone companies falling within both of those SIC categories. Then, we discuss the number of small businesses within the two subcategories, and attempt to refine further those estimates to correspond with the categories of telephone companies that are commonly used under our rules.

886. Consistent with our prior practice, we shall continue to exclude small incumbent LECs from the definition of a small entity for the purpose of this FRFA. Nevertheless, as mentioned above, we include small incumbent LECs in our FRFA. Accordingly, our use of the terms ''small entities'' and ''small businesses'' does not encompass ''small incumbent LECs.'' We use the term ''small incumbent LECs'' to refer to any incumbent LECs that arguably might be defined by SBA as ''small business concerns.''

1. Telephone Companies (SIC 481)

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

888. Wireline Carriers and Service Providers. SBA has developed a definition of small entities for telephone communications companies other than radiotelephone (wireless) companies.

The Census Bureau reports that, there were 2,321 such telephone companies in operation for at least one year at the end of 1992. According to SBA's definition, a small business telephone company other than a radiotelephone company is one employing fewer than 1,500 persons. All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees. Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 2,295 small entity telephone communications companies other than radiotelephone companies that may be affected by the decisions and rules adopted in this Order.

889. Local Exchange Carriers. Neither the Commission nor SBA has developed a definition of small providers of local exchange services (LECs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of LECs nationwide of which we are aware appears to be the data that we collect annually in connection with the Telecommunications Relay Service (TRS). According to our most recent data, 1,347 companies reported that they were engaged in the provision of local exchange services. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,347 small incumbent LECs that may be affected by the decisions and rules adopted in this Order.

890. Interexchange Carriers. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of interexchange services (IXCs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of IXCs nationwide of which we are aware appears to be the data that we collect annually in connection with TRS. According to our most recent data, 97 companies reported that they were engaged in the provision of interexchange services. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of IXCs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 97 small entity IXCs that may be affected by the decisions and rules adopted in this Order.

891. Competitive Access Providers. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of competitive access services (CAPs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of CAPs nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS. According to our most recent data, 30 companies reported that they were engaged in the provision of competitive access services. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of CAPs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 30 small entity CAPs that may be affected by the decisions and rules adopted in this Order.

892. Operator Service Providers. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of operator services. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of operator service providers nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS. According to our most recent data, 29 companies reported that they were engaged in the provision of operator services. Although it seems certain that some of these companies are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of operator service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 29 small entity operator service providers that may be affected by the decisions and rules adopted in this Order.

893. Pay Telephone Operators. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to pay telephone operators. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of pay telephone operators nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS. According to our most recent data, 197 companies reported that they were engaged in the provision of pay telephone services. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of pay telephone operators that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 197 small entity pay telephone operators that may be affected by the decisions and rules adopted in this Order.

894. Wireless (Radiotelephone) Carriers. SBA has developed a definition of small entities for radiotelephone (wireless) companies. The Census Bureau reports that there were 1,176 such companies in operation for at least one year at the end of 1992. According to SBA's definition, a small business radiotelephone company is one employing fewer than 1,500 persons. The Census Bureau also reported that 1,164 of those radiotelephone companies had fewer than 1,000 employees. Thus, even if all of the remaining 12 companies had more than 1,500 employees, there would still be 1,164 radiotelephone companies that might qualify as small entities if they are independently owned or operated. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of radiotelephone carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,164 small entity radiotelephone companies that may be

affected by the decisions and rules adopted in this Order.

895. Cellular Service Carriers. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of cellular services. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of cellular service carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS. According to our most recent data, 789 companies reported that they were engaged in the provision of cellular services. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of cellular service carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 789 small entity cellular service carriers that may be affected by the decisions and rules adopted in this Order.

896. Mobile Service Carriers. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to mobile service carriers, such as paging companies. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of mobile service carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS. According to our most recent data, 117 companies reported that they were engaged in the provision of mobile services. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of mobile service carriers that would qualify under SBA's definition. Consequently, we estimate that there are fewer than 117 small entity mobile service carriers that may be affected by the decisions and rules adopted in this Order.

897. Broadband PCS Licensees. The broadband PCS spectrum is divided into six frequency blocks designated A through F. As set forth in 47 CFR § 24.720(b), the Commission has defined ''small entity'' in the auctions for Blocks C and F as a firm that had average gross revenues of less than $40 million in the three previous calendar years. Our definition of a ''small entity'' in the context of broadband PCS auctions has been approved by SBA. The Commission has auctioned broadband PCS licenses in Blocks A, B, and C. We do not have sufficient data to determine how many small businesses bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auction. Based on this information, we conclude that the number of broadband PCS licensees affected by the decisions in this Order includes, at a minimum, the 90 winning bidders that qualified as small entities in the Block C broadband PCS auction.

898. At present, no licenses have been awarded for Blocks D, E, and F of broadband PCS spectrum. Therefore, there are no small businesses currently providing these services. However, a total of 1,479 licenses will be awarded in the D, E, and F Block broadband PCS auctions, which are scheduled to begin on August 26, 1996. Eligibility for the 493 F Block licenses is limited to entrepreneurs with average gross revenues of less than $125 million. We cannot estimate, however, the number of these licenses that will be won by small entities under our definition, nor how many small entities will win D or E Block licenses. Given that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective D, E, and F Block licensees can be made, we assume for purposes of this FRFA, that all of the licenses in the D, E, and F Block Broadband PCS auctions may be awarded to small entities under our rules, which may be affected by the decisions and rules adopted in this Order.

899. SMR Licensees. Pursuant to 47 CFR § 90.814(b)(1), the Commission has defined ''small entity'' in auctions for geographic area 800 MHz and 900 MHz SMR licenses as a firm that had average annual gross revenues of less than $15 million in the three previous calendar years. This definition of a ''small entity'' in the context of 800 MHz and 900 MHz SMR has been approved by the SBA. The rules adopted in this Order may apply to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of less than $15 million. We assume, for purposes of this FRFA, that all of the extended implementation authorizations may be held by small entities, which may be affected by the decisions and rules adopted in this Order.

900. The Commission recently held auctions for geographic area licenses in the 900 MHz SMR band. There were 60 winning bidders who qualified as small entities in the 900 MHz auction. Based on this information, we conclude that the number of geographic area SMR licensees affected by the rule adopted in this Order includes these 60 small entities. No auctions have been held for 800 MHz geographic area SMR licenses. Therefore, no small entities currently hold these licenses. A total of 525 licenses will be awarded for the upper 200 channels in the 800 MHz geographic area SMR auction. However, the Commission has not yet determined how many licenses will be awarded for the lower 230 channels in the 800 MHz geographic area SMR auction. There is no basis, moreover, on which to estimate how many small entities will win these licenses. Given that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective 800 MHz licensees can be made, we assume, for purposes of this FRFA, that all of the licenses may be awarded to small entities who, thus, may be affected by the decisions in this Order.

901. Resellers. Neither the Commission nor SBA has developed a definition of small entities specifically applicable to resellers. The closest applicable definition under SBA rules is for all telephone communications companies. The most reliable source of information regarding the number of resellers nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS. According to our most recent data, 206 companies reported that they were engaged in the resale of telephone services. Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of resellers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 206 small entity resellers that may be affected by the decisions and rules adopted in this Order.

2. Cable System Operators (SIC 4841)

902. SBA has developed a definition of small entities for cable and other pay television services, which includes all such companies generating less than

$10 million in revenue annually. This definition includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems and subscription television services. According to the Census Bureau, there were 1,323 such cable and other pay television services generating less than $11 million in revenue that were in operation for at least one year at the end of 1992.

903. The Commission has developed its own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a ''small cable company'' is one serving fewer than 400,000 subscribers nationwide. The Commission developed this definition based on its determination that a small cable system operator is one with annual revenues of $100 million or less. Implementation of Sections of the 1992 Cable Act: Rate Regulation, Sixth Report and Order and Eleventh Order on Reconsideration, 60 FR 544919 (September 15, 1995). Based on our most recent information, we estimate that there were 1,439 cable operators that qualified as small cable system operators at the end of 1995. Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,468 small entity cable system operators that may be affected by the decisions and rules adopted in this Order.

904. The Communications Act also contains a definition of a small cable system operator, which is ''a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000.'' There were 63,196,310 basic cable subscribers at the end of 1995, and 1,450 cable system operators serving fewer than one percent (631,960) of subscribers. Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed $250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

D. Summary Analysis of the Projected Reporting, Recordkeeping, and Other Compliance Requirements and Steps Taken to Minimize the Significant Economic Impact of this Report and Order on Small Entities and Small Incumbent LECs, Including the Significant Alternatives Considered and Rejected

905. Structure of the Analysis. In this section of the FRFA, we analyze the projected reporting, recordkeeping, and other compliance requirements that may apply to small entities and small incumbent LECs as a result of this Order. As a part of this discussion, we mention some of the types of skills that will be needed to meet the new requirements. We also describe the steps taken to minimize the economic impact of our decisions on small entities and small incumbent LECs, including the significant alternatives considered and rejected. Due to the size of this Order, we set forth our analysis separately for individual sections of the item, using the same headings as were used above in the corresponding sections of the Order.

906. We provide this summary analysis to provide context for our analysis in this FRFA. To the extent that any statement contained in this FRFA is perceived as creating ambiguity with respect to our rules or statements made in preceding sections of this Order, the rules and statements set forth in those preceding sections shall be controlling.

Summary Analysis of Section II—Scope of the Commission's Rules

907. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. As discussed in Section II.E, a common carrier, which may be a small entity or a small incumbent LEC, may be subject to an action for relief in several different fora if a party believes that small entity or incumbent LEC violated the standards under section 251 or 252. Should a small entity or a small incumbent LEC be subjected to such an action for relief, it will require the use of legal skills.

908. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. We believe that our actions establishing minimum national rules will facilitate the development of competition in the local exchange and exchange access markets for the reasons discussed in Sections II.A and II.B above. For example, national rules may: help equalize bargaining power; minimize the need for duplicative marketing strategies and multiple network configurations; lower administrative costs; lessen the need to re-litigate the same issue in multiple jurisdictions; and reduce delay and transaction costs, which can pose particular burdens for small businesses. In addition, our rules are designed to accommodate differences among regions and carriers, and the reduced regulatory burdens and increased certainty produced by national rules may be expected to minimize the economic impact of our decisions for all parties, including any small entities and small incumbent LECs. As set forth in Section II.A above, we reject suggestions to adopt more, or fewer, national rules than we ultimately adopt in this Order. We reject the arguments that we should establish ''preferred outcomes'' from which parties could deviate upon an adequate showing, or that we establish a process by which state commissions could seek a waiver from the Commission's rules, for the reasons set forth in Section II.B above.

909. We believe that our determination that there are multiple methods for bringing enforcement actions against parties regarding their obligations under sections 251 and 252 will assist all parties, including small entities and small incumbent LECs, by providing a variety of methods and fora for seeking enforcement of such obligations. (Section II.E—Authority to Take Enforcement Action.) Similarly, our conclusion that Bell Operating Company (BOC) statements of generally available terms and conditions are governed by the same national rules that apply to agreements arbitrated under section 252 should ease administrative burdens for all parties in markets served by BOCs, which may include small entities, because they will not need to evaluate and comply with different sets of rules. (Section II.F—BOC Statements of Generally Available Terms.) Finally, we decline to adopt different requirements for agreements arbitrated under section 252 and BOC statements of generally available terms and conditions for the reasons set forth in section II.F above.

Summary Analysis of Section III—Duty To Negotiate in Good Faith

910. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. Incumbent LECs, including small incumbent LECs that receive requests for access to network elements and/or services pursuant to sections 251 and 252 of the Act will be required to negotiate in good faith over the terms of interconnection agreements. As set forth in section III.C, above, this Order identifies several practices as violations of the duty to

negotiate in good faith, including: (1) a party's seeking or entering into an agreement prohibiting disclosure of information requested by the FCC or a state commission, or supplied in support of a request for arbitration pursuant to section 252(b)(2)(B); (2) seeking or entering into an agreement precluding amendment of the agreement to account for changes in federal or state rules; (3) an incumbent's denial of a reasonable request for cost data during negotiations; and (4) an entrant's failure to provide to the incumbent LEC information necessary to reach agreement. Complying with the projected requirements of this section may require the use of legal skills. In addition, incumbent LECs and new entrants having interconnection agreements that predate the 1996 Act must file such agreements with the state commission for approval under section 252(e), as discussed above in section III.D.

911. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. As set forth above, we believe our decision to establish national rules and a review process concerning parties' duties to negotiate in good faith are designed to facilitate good faith negotiations, which should minimize regulatory burdens and the economic impact of our decisions for all parties, including small entities and small incumbent LECs. (Section III.B—Advantages and Disadvantages of National Rules.) We also expect economic impacts to be minimized for small entities seeking to enter into agreements with incumbent LECs as a result of the decision that incumbent LECs may not impose a bona fide request requirement on carriers seeking agreements pursuant to sections 251 and 252. (Section III.C—Specific Practices that may Constitute a Violation of Good Faith Negotiation.) For the reasons set forth in Section III.C above, we also find that certain additional practices are not always violations of the duty to negotiate in good faith, including the suggested alternative that all nondisclosure agreements violate the good faith duty.

912. We do not require immediate filing of preexisting interconnection agreements, including those involving small incumbent LECs and small entities. We set an outer time limit of June 30, 1997, by which preexisting agreements between Class A carriers must be filed with the relevant state commission. This decision will ensure that third parties, including small entities, are not prevented indefinitely from reviewing and taking advantage of the terms of preexisting agreements. It also limits burdens that a national filing deadline might impose on small carriers. In addition, the determination that preexisting agreements must be filed with state commissions seems likely to foster opportunities for small entities and small incumbent LECs to gain access to such agreements without requiring investigation or discovery proceedings or other administrative burdens that could increase regulatory burdens. (Section III.C—Applicability of Section 252 to Preexisting Agreements). For the reasons set forth in Section III.C above, we reject the alternative of not requiring certain agreements to be filed with state commissions.

Summary Analysis of Section IV—Interconnection

913. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. Incumbent LECs, including small incumbent LECs, are required by section 251(c) to provide interconnection to all requesting telecommunications carriers for the transmission and routing of telephone exchange service and exchange access service. Such interconnection must be: (1) provided at any technically feasible point; (2) at least equal in quality to that provided to the incumbent LEC itself and to any other parties with interconnection agreements; and (3) provided on rates, terms, and conditions that are ''just, reasonable, and nondiscriminatory * * *.'' We conclude that interconnection refers solely to the physical linking of networks for the mutual exchange of traffic, and identify a minimum set of technically feasible points of interconnection. The minimum points at which an incumbent LEC, which may be a small incumbent LEC, must provide interconnection are: (1) the line side of a local switch; (2) the trunk side of a local switch; (3) the trunk interconnection points for a tandem switch; (4) central office cross-connect points; and (5) out-of-band signaling facilities. In addition, the points of access to unbundled elements (discussed below) are also technically feasible points of interconnection. Compliance with these requests may require the use of engineering, technical, operational, accounting, billing, and legal skills.

914. To obtain interconnection pursuant to section 251(c)(2), telecommunications carriers must seek interconnection for the purpose of transmitting and routing telephone exchange traffic, or exchange access traffic, or both. (Section IV.D.—Definition of ''Technically Feasible.'') This will require new entrants to provide either local exchange service or exchange access service to obtain section 251(c)(2) interconnection. A requesting carrier will be required to bear the additional costs imposed on incumbent LECs as a result of interconnection. (Section IV.E.—Technically Feasible Points of Interconnection.) Carriers seeking interconnection, including small entities, may be required to collect information to refute claims by incumbent LECs that the requested interconnection poses a legitimate threat to network reliability. (Id.)

915. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. The decision to adopt clear national rules in this section of the Order is also intended to help equalize bargaining power between incumbent LECs and requesting carriers, expedite and simplify negotiations, and facilitate comprehensive business and network planning. This could decrease entry barriers and provide reasonable opportunities for all carriers, including small entities and small incumbent LECs, to provide service in markets for local exchange and exchange access services. (Section IV.B.—National Interconnection Rules). National rules should also facilitate the consistent development of standards and resolution of issues, such as technical feasibility, without imposing additional litigation costs on parties, including small entities and small incumbent LECs. We determine that successful interconnection at a particular point in a network creates a rebuttable presumption that interconnection is technically feasible at other comparable points in the network. (Section IV.E—Definition of ''Technically Feasible.'') We also identify minimum points of interconnection where interconnection is presumptively technically feasible: (1) the line side of a switch; (2) the trunk side of a switch; (3) trunk interconnection points at a tandem switch; (4) central office cross-connect points; and (5) out-of-band signaling facilities. (Section IV.F—Technically Feasible Points of Interconnection.) These decisions may be expected to facilitate negotiations by promoting certainty and reducing transaction costs, which should minimize regulatory burdens and the economic impact of our decisions for all parties, including small entities and small incumbent LECs. We decline, however, to identify additional points where interconnection is technically feasible for the reasons set forth in section IV.F above.

916. The ability to enter local markets by offering only telephone exchange service or only exchange access service may minimize regulatory burdens and the economic impact of our decisions for some entrants, including small entities. We decline, however, to interpret section 251(c)(2) as requiring incumbent LECs to provide interconnection to carriers seeking to offer only interexchange services for the reasons set forth in section IV.C above. In addition, we determine that an incumbent LEC may refuse to interconnect on the grounds that specific, significant, and demonstrable network reliability concerns may make interconnection at a particular point sufficiently infeasible. We further determine that the incumbent LEC must prove such infeasibility to the state commission. (Section IV.E. Definition of ''Technically Feasible.'')

917. Competitive carriers, many of whom may be small entities, will be permitted to request interconnection at any technically feasible point, and the determination of feasibility must be conducted without consideration of the cost of providing interconnection at a particular point. (Section IV.D.—Definition of ''Technically Feasible.'') Consequently, our rules permit the party requesting interconnection, which may be a small entity, and not the incumbent LEC to decide the points that are necessary to compete effectively. (Section IV.E.—Definition of ''Technically Feasible.'') We decline, however, to impose reciprocal terms and conditions for interconnection on carriers requesting interconnection. Our decision that a party requesting interconnection must pay the costs of interconnecting should minimize regulatory burdens and the economic impact of our interconnection decisions for small incumbent LECs. Similarly, regulatory burdens and the economic impact of our decisions may be minimized through the decision that, while a requesting party is permitted to obtain interconnection that is of higher quality than that which the incumbent LEC provides to itself, the requesting party must pay the additional costs of receiving the higher quality interconnection. (Section IV.H.—Interconnection that is Equal in Quality.)

Summary Analysis of Section V—Access to Unbundled Network Elements

918. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. Under section 251(c), incumbent LECs are required to provide nondiscriminatory access to unbundled network elements. We identify a minimum set of network elements: (1) local loops; (2) local and tandem switches; (3) interoffice transmission facilities; (4) network interface devices; (5) signaling and call-related database facilities; (6) operations support systems and functions; and (7) operator and directory assistance facilities. (Section V.J.—Specific Unbundling Requirements.) Incumbent LECs are required to provide nondiscriminatory access to operations support systems and information by January 1, 1997. States may require incumbent LECs to provide additional network elements on an unbundled basis. As discussed in Section V.F., above, LECs must perform the functions necessary to combine unbundled elements in a manner that allows requesting carriers to offer a telecommunications service, and the incumbent LEC may not impose restrictions on the subsequent use of network elements. Compliance with these requests may require the use of engineering, technical, operational, accounting, billing, and legal skills.

919. If a requesting carrier, which may be a small entity, seeks access to an incumbent LEC's unbundled elements, the requesting carrier is required to compensate the incumbent LEC for any costs incurred to provide such access. For example, in the case of operation support systems functions, such work may include the development of interfaces for competing carriers to access incumbent LEC functions for pre-ordering, ordering, provisioning, maintenance and repair, and billing. Requesting carriers may also have to deploy their own operations support systems interfaces, including electronic interfaces, in order to access the incumbent LEC's operations support systems functions. The development of interfaces may require new entrants, including small entities, to perform engineering work. (Section V.J.5—Operations Support Systems Unbundling.)

920. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. The establishment of minimum national requirements for unbundled elements should facilitate negotiations and reduce regulatory burdens and uncertainty for all parties, including small entities and small incumbent LECs. National requirements for unbundling may allow new entrants, including small entities, to take advantage of economies of scale in network design, which may minimize the economic impact of our decision. As set forth in Section V.B, above, we reject several alternatives in making this determination, including proposals suggesting that the Commission should: (1) not identify any required elements; (2) allow the states exclusively to identify required elements; or (3) adopt an exhaustive list of elements.

921. As set forth above, the 1996 Act defines a network element to include ''all facilit(ies) or equipment used in the provision of a telecommunications service,'' and all ''features, functions, and capabilities that are provided by means of such facility or equipment, including subscriber numbers, databases, signaling systems and information sufficient for billing and collection or used in the transmission, routing or other provision of a telecommunications service.'' (Section V.C—Network Elements.) As a result, new entrants, which may include small entities, should have access to the same technologies and economies of scale and scope that are available to incumbent LECs. In reaching our determination, we reject for the reasons set forth in Section V.C above, the following alternatives: (1) that we should not adopt a method for identifying elements beyond those identified in the 1996 Act; and (2) that features sold directly to end users as retail services are not network elements. Finally, we reject the argument that requesting carriers, which may include small entities, are required to provide all services typically furnished by means of an element they purchase. (Id.) Our rejection of this last alternative may reduce burdens for some small entities by permitting them to offer some, but not all, of the services provided by the incumbent LEC.

922. We conclude that the requirement to provide ''access'' to unbundled network elements is independent of the interconnection duty imposed by section 251(c)(2), and that such ''access'' must be provisioned under the rates, terms and conditions applicable to unbundled network elements. We believe these conclusions may provide small entities seeking to compete with incumbent LECs with the flexibility to offer other telecommunications services in addition to local exchange and exchange access services. (Section V.D.—Access to Network Elements.) For the reasons set forth above in Section V.D, we reject the argument that incumbent LECs are not required to provide access to an element's functionality, and that ''access'' to unbundled elements can only be achieved by interconnecting under the terms of section 251(c)(2).

923. As set forth above, we conclude that an incumbent LEC, which may be a small incumbent LEC, may decline to provide a network element beyond

those identified by the Commission where it can demonstrate that the network element is proprietary, and that the competing provider could offer the proposed telecommunications service using other nonproprietary elements within the incumbent's network. (Section V.E—Standards Necessary to Identify Unbundled Network Elements.) This should minimize regulatory burdens and the economic impact of our decisions for incumbent LECs, including small incumbent LECs, by permitting such entities to retain exclusive use of certain proprietary network elements.

924. We conclude that incumbent LECs: (1) cannot impose restrictions, requirements or limitations on requests for, or the sale or use of, unbundled network elements; (2) must provide requesting carriers with all of the functionalities of a particular element so that requesting carriers can provide any telecommunications services that can be offered by means of that element; (3) must permit new entrants to combine network elements which new entrants purchase access to, if so requested; (4) must prove to a state commission that they cannot combine elements that are not ordinarily combined within their network, or that are not ordinarily combined in that manner, because such combination is not technically feasible or it would impair the ability of other carriers to access unbundled elements and interconnect with the incumbent LEC; and (5) must provide the operational and support systems necessary to purchase and combine network elements. As a result of these conclusions, many small entities should face significantly reduced barriers to entry in markets for local exchange services. (Section V.F—Provision of a Telecommunications Service Using Unbundled Elements.) For the reasons set forth in section V.F, we reject the following alternatives: (1) that incumbent LECs, in all instances, must combine elements that are not ordinarily combined in their networks; and (2) that incumbent LECs are not obligated to combine elements for requesting carriers.

925. By establishing minimum national rules concerning nondiscriminatory access to unbundled network elements, requesting carriers, including small entities, may face reduced transaction and regulatory costs in seeking to enter local telecommunications markets. Among these minimum rules are: (1) access and elements which new entrants receive are to be equal in quality between carriers; (2) incumbent LECs must prove technical infeasibility; (3) the rates, terms and conditions established for the provisioning of unbundled elements must be equal between all carriers, and where applicable, between requesting carriers and the incumbent LEC itself, and they must provide efficient competitors with a meaningful opportunity to compete; and (4) incumbent LECs must provide carriers purchasing unbundled elements with access to electronic interfaces if incumbents use such functions themselves in provisioning telecommunications services. (Section V.G—Nondiscriminatory Access to Unbundled Network Elements.)

926. As set forth above, we conclude that section 251(c)(3) does not require new entrants to own or control their own local exchange facilities in order to purchase and use unbundled network elements and, thus, new entrants can provide services solely by recombining unbundled network elements. (Section V.H—The Relationship Between Sections 251(c)(3) and 251(c)(4).)

927. As discussed in Section V.J above, we adopt a minimum list of required unbundled network elements that incumbent LECs, including small incumbent LECs, must make available to requesting carriers. In adopting this list, we sought to minimize the regulatory burdens and economic impact for small incumbent LECs. For example, we declined to adopt a detailed list including many additional elements, as set forth in Section V.B. We also provided for the fact that certain LECs may possess switches that are incapable of performing customized routing for competitors, as discussed in Section V.J.2.(c).(ii).

Summary Analysis of Section VI—Methods of Obtaining Interconnection and Access to Unbundled Network Elements

928. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements. We conclude that Section 251(c)(6) requires incumbent LECs, including small incumbent LECs, to provide for any technically feasible method of interconnection or access to unbundled network elements, including physical collocation, virtual collocation, and meet-point interconnection. With certain modifications, we adopt some of the requirements concerning physical and virtual collocation that we adopted in the Expanded Interconnection proceeding. Compliance with these requests may require the use of engineering, technical, operational, accounting, billing, and legal skills.

929. In a meet-point arrangement the new entrant will build out facilities to the agreed-upon point, which will likely entail the use of engineering and installation personnel as well as the acquisition of equipment. We allow incumbent LECs to impose reasonable restrictions on the warehousing of space by collocators. Therefore, small entities collocating equipment may be required to use the provided space for the collocation of equipment necessary for interconnection or access to unbundled network elements or risk losing the right to use that space. (Section VI.B.1.e—Allocation of Space.) To take advantage of its right to collocate equipment on an incumbent LEC's premises, competitive entrants, which may include small entities, will be required to build or lease transmission facilities between their own equipment, located outside of the incumbent LECs' premises, and the collocated space. (Section VI.B.1.f—Leasing Transport Facilities.) We allow incumbent LECs to require reasonable security arrangements to separate an entrant's collocation space from the incumbent LEC's facilities. Small entities collocating equipment may therefore be required to pay for such security arrangements. (Section VI.B.1.h—Security Arrangements.)

930. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. By readopting our Expanded Interconnection terms and conditions, which allow competitors to collocate equipment for interconnection with the incumbent LEC, regulatory burdens have likely been reduced because the terms and conditions for collocation have already been established. (Section VI.B.1.b—Readoption of Expanded Interconnection Terms and Conditions.) This seems likely to benefit all parties, including small entities and small incumbent LECs, since it should reduce the time and expense of negotiation, and reduce the costs of adapting to new terms and conditions for collocation.

931. Due to our conclusion that requesting carriers may choose any method of technically feasible interconnection or access to unbundled elements, new entrants, including small entities, should have the flexibility to obtain interconnection or access in the manner that best suits their needs. (Section VI.A.—Methods of Obtaining Interconnection and Access to Unbundled Elements.) In particular, as discussed in Section VI.A.3, we recognize that carriers, including small entities, may find virtual collocation or meet-point arrangements more efficient than physical collocation in certain circumstances, particularly if they lack the resources to collocate physically in

a large number of incumbent LEC premises.

932. We adopt a broad definition of the term ''premises,'' which should allow carriers, including small entities, to collocate equipment for interconnection and access to unbundled network elements at a range of incumbent LEC locations. (Section VI.B.1.c—The Meaning of the Term ''Premises.'') For the reasons set forth in Section VI.B above, we interpret the term ''premises'' broadly to include incumbent LEC central offices, serving wire centers and tandem offices, as well as all buildings or similar structures owned or leased by the incumbent LEC that house incumbent LEC facilities. However, as set forth above, we reject the suggestion that security measures be provided only at the request of the entrant, which should minimize regulatory burdens and the economic impact of our decisions for small incumbent LECs. (Id.)

933. We interpret the statute broadly to allow collocation of any equipment used for interconnection or access to unbundled network elements. (Section VI.B.1.d—Collocation Equipment.) This standard should offer all competitors, including small entities, flexibility in collocating equipment they need to interconnect their networks to those of incumbent LECs. Incumbent LECs will also be required to make space available to requesting carriers on a first-come, first-served basis, and collocators seeking to expand their collocated space should be allowed to use contiguous space where available. (Section VI.B.1.e—Allocation of Space.) These provisions should minimize regulatory burdens and economic impacts for small entity entrants by reducing opportunities for discriminatory treatment based on the size of the requesting carrier. We decline, however, to require incumbent LECs to file reports on the status, planned increase, and use of space for the reasons set forth in Section VI.B.1. above, which will reduce the regulatory burdens and economic impact of our decisions for small incumbent LECs.

934. We conclude that a competitive entrant should be permitted to lease transmission facilities from the incumbent LEC. (Section VI.B.1.f—Leasing Transport Facilities). This provision will allow small entities to lease transmission facilities from incumbent LECs to transmit traffic between the collocated space and their own networks, which may be comparatively less burdensome for small entities than the alternative of bringing their own facilities to the collocated equipment on the incumbent LEC's premises. We also require incumbent LECs to permit two or more carriers that are collocating at the incumbent LEC's premises to interconnect their networks. (Section VI.B.1.g—Co-Carrier Cross-Connect.) This requirement should make it easier for new entrants to interconnect their networks with those of competitors.

935. We require incumbent LECs to provide the relevant state commissions with detailed floor plans or diagrams of any premises where the incumbent LEC alleges that there are space constraints. (Section VI.B.1.i.—Allowing Virtual Collocation in Lieu of Physical). This requirement may reduce burdens for all parties, including small entities and small incumbent LECs, by aiding state commissions with their evaluation of incumbent LEC refusals to allow physical collocation on the grounds of space constraints. For the reasons set forth in Section VI.B.1 above, however, we decline to require incumbent LECs to lease additional space or provide trunking at no cost where they have insufficient space for physical collocation, which should minimize the regulatory burdens and economic impact of our decisions for incumbent LECs, including small incumbent LECs.

Summary Analysis of Section VII—Pricing of Interconnection and Unbundled Network Elements

936. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements. Pursuant to sections 251(c) and 252(d) of the 1996 Act, incumbent LECs must provide interconnection and access to unbundled network elements on rates, terms, and conditions that are just, reasonable, and nondiscriminatory. In Section VII above, we adopt a methodology for setting arbitrated prices for interconnection and unbundled elements on the basis of forward-looking economic cost studies prepared in conformance with a methodology prescribed by the Commission. Until states utilize economic studies to develop cost-based prices, they must use default proxies established by the Commission. Small incumbent LECs may be required, therefore, to prepare economic cost studies. In addition, small entities seeking arbitration for rates for interconnection or unbundled elements may find it useful to prepare economic cost studies or prepare critiques of cost studies prepared by incumbent LECs and others. In both cases, this may entail the use of economic experts, legal advice, and possibly accounting personnel.

937. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. Our conclusion that prices for interconnection and unbundled elements should be set at forward-looking long-run economic cost, including a reasonable share of forward-looking joint and common costs, should permit new entrants, including small entities, to interconnect with, and acquire unbundled elements from, incumbent LECs at prices that replicate, to the extent possible, those in a competitive market. (Section VII.B.2—Pricing of Interconnection and Unbundled Elements, Cost-Based Pricing Methodology, Rate Levels.) Our forward-looking economic cost methodology for determining prices is designed to permit incumbent LECs to recover their economic costs of providing interconnection and unbundled elements, which should minimize the economic impact of our decisions on small incumbent LECs.

938. Our conclusion that embedded costs, opportunity costs and universal service subsidies may not be included in the rates for interconnection and unbundled elements is intended, in part, to avoid distortions in investment decisions, which should lead to more efficient allocation of resources, thereby reducing regulatory burdens and economic impacts for some small entities and small incumbent LECs. (Section VII.B.2—Pricing of Interconnection and Unbundled Elements, Cost-Based Pricing Methodology, Rate Levels.) We reject proposals that would have permitted incumbent LECs to recover their embedded costs in prices for interconnection and unbundled elements as discussed above in Section VII.B.2.a.(3)(b). As discussed in Section VII.B.2.a.(3)(b), we reject the use of the efficient component pricing rule (ECPR) to set prices for interconnection and unbundled elements.

939. Our conclusion that forward-looking common costs should be allocated in a reasonable manner should ensure that the prices of network elements that are least likely to be subject to competition are not artificially inflated by large allocations of common costs. This, in turn, may also produce more efficient allocations of resources, thereby minimizing regulatory burdens and economic effects for many parties, including small entities and small incumbent LECs. (Section VII.B.2—Pricing of Interconnection and Unbundled Elements, Cost-Based Pricing Methodology, Rate Levels.) We permit, but do not require, states to impose peak-sensitive pricing systems for

shared facilities as discussed in Section VII.B.3.b.

940. We conclude that incumbent LECs should not recover access charges from entrants that use unbundled network facilities to provide access services to customers that they win from incumbent LECs. We do, however, permit incumbent LECs to impose on purchasers of unbundled local switching the carrier common line charge and a charge equal to seventy-five percent of the transport interconnection charge for an interim period that shall end no later than June 30, 1997, as discussed in Section VII.B.2.a.(3)(b). As further explained in that section, this mechanism should serve to reduce any short-term disruptive impact of our decisions on incumbent LECs, including small incumbent LECs.

941. We conclude that the Act requires rates for interconnection and unbundled elements to be geographically deaveraged, using a minimum of three geographic zones, in a manner that appropriately reflects the costs of the underlying elements. (Section VII.B.3.c—Geographic/Class-of-Service Averaging.) We also conclude that distinctions between the rates charged to requesting carriers for network elements should not vary based on the classes of service that the requesting carriers provide to their customers. We expect these decisions to lead to increased competition and a more efficient allocation of resources.

942. The default proxies we adopt for rates for interconnection and unbundled elements, which states may use to establish prices, are designed to approximate prices that will enable efficient competitors, including small entities, to enter local exchange markets. (Section VII.C.—Default Proxy Ceilings and Ranges.) We reject the use of rates in interconnection agreements that predate the 1996 Act as proxy-based ceilings for interconnection and unbundled element rates as discussed in Section VII.C.1. We also decline to adopt a generic cost model at this time, as discussed in Section VII.C.3.

943. We determine that the nondiscrimination provisions in the Act prohibit price differences that are not based on cost differences. This should permit small entities to obtain the same terms and conditions of agreements reached by larger carriers that possess greater bargaining power without having to incur the costs of negotiation and/or arbitration. (Section VII.D.3—Discrimination.)

Summary Analysis of Section VIII—Resale

944. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements. Pursuant to section 251(b)(1), all LECs, which may include small entity competing LECs and small incumbent LECs, may not impose unreasonable or discriminatory conditions on, or limit the resale of, their telecommunications services. Pursuant to section 251(c)(4), incumbent LECs are required to offer for resale at wholesale rates any telecommunications services that they offer to subscribers other than telecommunications carriers. Providing such services for resale may require some small entities and small incumbent LECs to use additional billing, technical, and operational skills.

945. Under section 252(a), resellers, which may include small entities, are required to prepare and present to incumbent LECs requests for services to resell. We do not establish guidelines for the content of these requests. Such requests may involve legal, engineering, and accounting skills. Resellers may also have to engage in arbitration proceedings with incumbent LECs if voluntary negotiations resulting from the initial request fail to yield an agreement. This may involve legal and general negotiation skills. Where a reseller is negotiating or arbitrating with an incumbent LEC, the reseller may choose to offer arguments concerning economic and accounting data presented by state commissions or incumbent LECs. Resellers may also choose to make legal and economic arguments that certain resale restrictions are unreasonable. These tasks may require legal, economic, and accounting skills.

946. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. As set forth in Section VIII.B, above, our decision to adopt clear national rules should reduce regulatory burdens and uncertainty for all parties, including small entities and small incumbent LECs. Moreover, our decision not to impose eligibility requirements on resellers should minimize regulatory burdens for resellers. We reject proposals that the Commission not require resale of bundled service offerings, promotions and discounts lasting longer than 90 days, residential service, and services offered at rates below cost for reasons set forth in Section VIII.A.

947. As discussed in Section VIII.B, we expect that the opportunity to resell telecommunications services currently offered exclusively by incumbent LECs will lead to increased competition in the provision of telecommunications services. We also determine that non-cost-based factors shall not be considered when arriving at wholesale discounts, and we reject the argument that indirect costs should not be considered avoided costs. We also reject proposals that we either require or forbid a state to include a measure of profit in its avoided cost calculation. As set forth in Section VIII.B, we considered the concerns of small incumbent LECs and small entity resellers when adopting the default range for wholesale discounts. In addition, we allow a state to consider including in wholesale rates the costs that incumbent LECs incur in selling services on a wholesale basis, which may minimize the economic impact for small incumbent LECs.

948. As discussed in Section VIII.C, we remove obstacles faced by small businesses in reselling telecommunications services by establishing a presumption, applicable to incumbent and non-incumbent LECs, that most restrictions on resale are unreasonable. This presumption should reduce unnecessary burdens on resellers, which may include small entities. It may also produce increased opportunities for resale competition, which may be expected to be beneficial for some small entities and small incumbent LECs. We do not permit state commissions to require non-incumbent LECs to offer their services at wholesale rates for the reasons set forth in Section VIII.D. For the reasons discussed in Section VIII.C, above, we decline to forbear from the application of section 251(b)(1) to non-incumbent LECs. We also conclude that incumbent LECs are to continue to receive access charge revenues when local services are resold under section 251(c)(4) for reasons set forth in Section VIII.E, and that such access services are not subject to resale at wholesale rates for reasons set forth in Section VIII.A.

Summary Analysis of Section IX—Duties Imposed on ''Telecommunications Carriers'' by Section 251(a)

949. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements. Small entities that provide telecommunications services are subject to the same obligations imposed on all telecommunications carriers under section 251(a)(1) and section 251(a)(2), and any reporting requirements that attend such obligations. Among these duties is the duty to interconnect, directly or indirectly, with requesting

telecommunications carriers. (Section IX—Duties Imposed on ''Telecommunications Carriers'' By Section 251(a).) This will likely require small entities to comply with the technical, economic, and legal requirements involved with interconnection, including negotiating contracts, utilizing engineering studies, and adding operational capacity. (Id.) Small incumbent LECs may incur similar compliance requirements to the extent they are required to interconnect with entities that qualify as ''telecommunications carriers.''

950. Small incumbent LECs and small entities providing telecommunications services will also be under a duty not to install network features, functions, and capabilities that do not comply with standards and guidelines under sections 255 and 256. (Section IX—Duties Imposed on ''Telecommunications Carriers'' By Section 251(a)(2).) In addition, small entities that provide both information services and telecommunications services are classified as telecommunications carriers and are subject to certain requirements under 251(a). (Section IX—Duties Imposed on ''Telecommunications Carriers'' By Section 251(a)(2).)

951. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. Small entities who provide for a fee local, interexchange and international services are defined as telecommunications carriers and, thus, also receive the benefits of section 251 including interconnection, services, and network elements, which may increase their ability to compete. (Section IX—Duties Imposed on ''Telecommunications Carriers'' By Section 251(a)(2).) We reject the suggestion that CMRS providers, some of which likely are small entities, should not be included in the definition of a ''telecommunications carrier.'' (Id.) We determine that entities operating private, internal or shared communications networks do not qualify as telecommunications carriers, however, which excludes them from the obligations and benefits under section 251(a). Small entities providing information services but not telecommunications services are also not classified as telecommunications carriers and, thus, will not be bound by the duties of section 251(a). A carrier that provides both information and telecommunications services is deemed subject to the requirements of section 251(a). We also conclude that telecommunications carriers that have interconnected under either section 251(a)(1) or 251(c)(2) may offer information services through the same arrangement or agreement. This will permit new entrants, many of which may be small entities, to offer full ranges of services to end users without having to provide some of those services inefficiently through distinct facilities or agreements.

952. We decide that competitive telecommunications carriers that have the obligation to interconnect with requesting carriers may choose, based upon their own characteristics, whether to allow direct or indirect interconnection. (Section IX—Duties Imposed on ''Telecommunications Carriers'' By Section 251(a).) This should allow significant flexibility for small entities to choose the most efficient and economical arrangement for their particular strategy. As set forth in Section IX, we reject an argument to forbear, under section 10 of the Communications Act, from imposing any interconnection requirements on non-dominant carriers.

Summary Analysis of Section X—Commercial Mobile Radio Services

953. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. We are applying sections 251 and 252 to LEC-CMRS interconnection at this time. (Section X.D—Jurisdictional Authority for Regulation of LEC-CMRS Interconnection Rates.) We may revisit our determination not to invoke jurisdiction under section 332 to regulate LEC-CMRS interconnection rates if we determine that the regulatory scheme established by sections 251 and 252 does not sufficiently address the problems encountered by CMRS providers, many of which may be small entities, in obtaining interconnection on terms and conditions that are just, reasonable, and nondiscriminatory.

954. Pursuant to our findings in Section X.D, a small CMRS entity seeking to enter into a reciprocal compensation agreement with an incumbent LEC, which may be a small incumbent LEC, will have to comply with sections 251 and 252, and state law. The reporting, recordkeeping, and other compliance requirements associated with reciprocal compensation are summarized in the following section concerning obligations under section 251(b).

955. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. The Commission's actions may minimize the economic impact on CMRS providers, many of which are small entities, by declaring that CMRS providers are not required to comply with the obligations of LECs under section 251(b)(5). We decline to adopt the alternative of finding that a CMRS provider is a LEC for the reasons set forth in Section X.A. We also determine that CMRS providers are entitled to request reciprocal compensation under section 251(b)(5), and that certain CMRS providers are also entitled to request interconnection under section 251(c)(2). As discussed in the following section concerning obligations under section 251(b), these decisions may permit small entity CMRS providers the opportunity to considerably expand their businesses.

Summary Analysis of Section XI—Obligations Imposed on LECS by 251(b)

A. Reciprocal Compensation for Transport and Termination of Telecommunications

956. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements. All local exchange carriers, including small incumbent LECs and perhaps some small entities offering competing local exchange services, have a duty to establish reciprocal compensation for the transport and termination of local telecommunications traffic, as defined by state commissions. As such, small incumbent LECs and small entities offering competitive local exchange services may be required to measure the exchange of traffic, and to bill and collect payment from other carriers. (Section XI.A—Reciprocal Compensation for Transport and Termination of Telecommunications.) Reciprocal compensation for the transport and termination of traffic may be based on the incumbent LEC's cost studies, which may require small incumbent LECs to use economic skills to perform cost studies. To the extent that a competing provider of local exchange services, which may include a small entity, believes its costs for the transportation and termination of traffic differ from those of the incumbent LEC, it would also be required to provide a forward-looking, economic cost study. (Id.)

957. If a CMRS provider entered into an agreement with an incumbent LEC prior to August 8, 1996 that does not provide for mutual compensation, the CMRS provider may demand to renegotiate the agreement. This may impose the burden of re-negotiation on small incumbent LECs, which may require legal, accounting, and economic skills. In addition, pending the successful completion of negotiation or arbitration, symmetrical reciprocal

compensation shall apply, which may have the effect of raising the amount small incumbent LECs currently pay CMRS providers to terminate LEC-originated traffic. This may have the effect of increasing small incumbent LECs' costs. Finally, a state commission may impose bill-and-keep arrangements between carriers if the state commission determines that the amount of local telecommunications traffic from one network to the other is approximately equal to the amount of local telecommunications traffic flowing in the opposite directions, and is expected to remain thus. This could have the effect of reducing small incumbent LECs' revenues and decreasing the expenses of small entities. It also might place a burden on small entities and small incumbent LECs of establishing that traffic volumes are imbalanced, which might require accounting, economic, and legal skills.

958. We require paging companies seeking to recover fees for terminating local calls to demonstrate to the state the costs of terminating such calls. (Section XI.A.—Reciprocal Compensation for Transport and Termination of Traffic.) Consequently, small entity paging companies and possibly small incumbent LECs may be required to use legal, economic, and possibly accounting skills.

959. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. Our adoption of national default price ceilings and ranges for transportation and termination of local traffic being arbitrated by the states should provide all parties, including small incumbent LECs and many new entrant small entities, with a clear understanding of the terms and conditions that will govern should they fail to reach an agreement. This should minimize regulatory burdens and economic impacts for those companies, in part by reducing the transaction costs of arbitration. (Section XI.A.3.c.(4)—Default Proxies.) Permitting CMRS providers with non-reciprocal agreements to renegotiate their agreements, and imposing symmetrical reciprocal compensation pending completion of negotiation or arbitration, will provide all parties with certainty as to applicable rates as of the date of this order, and minimize litigation and regulatory costs. We believe this decision is consistent with the pro-competitive goals of the 1996 Act.

960. We define transport and termination as separate functions—each with its own cost calculation for the purposes of sections 251 and 252. This definition may permit interconnecting carriers, including small entities, to obtain transport and termination services at lower rates and avoid paying above-cost rates or rates for unneeded services. (Section XI.A.2—Definition of Transport and Termination of Telecommunications.) We also conclude that a LEC may not charge a CMRS provider or other carrier, which may be a small entity, for receiving and terminating LEC-originated traffic. (Section XI.A.4—Symmetry.) We do not permit interexchange carriers to use transport and termination services to avoid the obligation to pay access charges for terminating interexchange traffic with incumbent LECs. (Section XI.A.2—Definition of Transport and Termination of Telecommunications.)

961. Our decision to permit new entrants to base reciprocal compensation arrangements on incumbent LECs' cost studies may reduce barriers to entry by permitting competing LECs to avoid performing their own forward-looking, economic cost studies, which may be expected to reduce the overall burdens and minimize the economic impact of regulation on these small entities. (Section XI.A.4—Symmetry.) The ability of state commissions to impose bill and keep arrangements where the costs of terminating traffic are nearly symmetrical, traffic volume is roughly balanced, and both are expected to remain so, may allow small entities and small incumbent LECs to avoid the cost of measuring traffic exchange. (Section XI.A.5—Bill and Keep.) For the reasons set forth in Section XI.A.5 above, we reject the proposed alternative of permitting states to adopt bill-and-keep arrangements for the transport and termination of traffic where the cost of terminating traffic is not nearly symmetrical.

962. By requiring that rates for transport and termination be cost based, we believe that all parties in telecommunications markets, including small incumbent LECs and small entities, may benefit from increased opportunities to compete effectively in local exchange markets. (Section XI.A.3—Pricing Methodology.) In addition, we conclude that termination rates for LECs, including small incumbent LECs, should include an allocation of forward-looking common costs, but not an element for the recovery of lost contributions. These decisions may be expected to minimize the economic impact of our decisions on small incumbent LECs and small entities.

963. This Order eliminates certain charges paging companies may now be assessed by LECs and enables paging companies to claim new revenues from LECs for terminating paging calls. (Section XI.A—Reciprocal Compensation for Transport and Termination of Telecommunications.) Paging companies, including small entities, may thereby incur lower costs. Such entities also may increase their revenues, depending on the outcome of any proceedings concerning their termination costs. For the reasons set forth in Section XI.A.3 above, we cannot conclude, at this time, that a LEC's forward looking costs may be used as a reasonable proxy for the costs of call termination by paging providers. We further conclude that the default price for termination of traffic from the end office that we adopt in this proceeding in Section XI.A.3 above does not apply to termination of traffic by paging providers. This default price is based on estimates in the record of the costs to LECs of termination from the end office or end-office switching.

B. Access to Rights-of-Way

964. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements. Small incumbent LECs that meet the definition of a utility (The Act defines ''utility'' as ''any person who is a local exchange carrier or an electric, gas, water, steam, or other public utility, and who owns or controls poles, ducts, conduits, or rights-of-way used, in whole or in part, for any wire communication.'') and own poles, ducts, conduits and rights-of-way where access was not previously mandated are now required to provide access to requesting telecommunications carriers (other than incumbent LECs and cable television systems) which may require the use of legal, engineering, and accounting resources for evaluation and processing of attachment requests. (Section XI.B.2—Section 224(f): Non-discriminatory Access.) This may also require small incumbent LECs and small entities to employ technical personnel to modify pole attachment arrangements.

965. A complaint of unjustified denial of access must be supported by a written request for access, the utility's response, and information supporting the complainant's position. This will likely impose some recordkeeping requirements on small incumbent LECs and small entities seeking access to rights-of-way. Our requirements may also impose administrative requirements, including legal and engineering expertise, on small governmental jurisdictions (Under the Regulatory Flexibility Act, a ''small governmental jurisdiction'' is one type

of ''small entity,'' and is defined as the ''governments of cities, counties, towns, townships, villages, school districts, or special districts with a population of less than fifty thousand * * * .'' 5 U.S.C. 601(5).) that resolve disputes arising under section 224 of the Communications Act. (Section XI.B.5.c.2—Dispute Resolution.) In addition, small governmental jurisdictions that have established rules and regulations for access to poles, ducts and conduits specifically, and interconnection generally, are also likely to have some level of reporting and recordkeeping requirements for competing telecommunications carriers that use the poles, some of which may be small entities. (Section XI.B.6—Reverse Preemption.)

966. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. In placing the burden of proof on the denying utility with respect to the propriety of a denial of access, we recognize that new entrants, which may be small entities, are not likely to have access to such information without cooperation from the utilities. Complaints should not be dismissed where the petitioner was unable to obtain a written response from the denying utility, or where the utility also denied the petitioner any relevant information needed to establish a prima facie case. These provisions should allow an entrant to pursue a claim without the need for expensive discovery, and should not preclude or discourage entities with limited resources from seeking redress where access is denied. (Section XI.B.5—Dispute Resolution.) For the reasons set forth in Section XI.B.5, we reject the recommendation that an applicant be allowed to seek injunctive relief in federal court and select federal jurisdiction for enforcement or appeal of any matter regarding pole attachments. Our conclusion that state and local pole attachment requirements are presumed reasonable may minimize burdens on small governmental jurisdictions by preserving existing rules and procedures, and the local government's expertise with its own rules. (Section XI.B.2—Specific Rules.) In reaching this result, we reject the alternative of invalidating such state regulations in favor of federal rules for the reasons stated in Section XI.B.2. Our determination not to prescribe numerous specific rules in this area recognizes the varying technologies and facilities deployed by incumbent LECs, including small incumbent LECs. For example, we recognize that utilities, including small incumbent LECs, normally have their own operating standards that dictate conditions of access. Thus, we leave in place such conditions of access. For the reasons set forth in Section XI.B, we reject the alternative of prescribing a comprehensive set of substantive engineering standards governing access to rights-of-way.

967. When an attaching entity modifies poles for its use, it will be entitled to recover a share of its expenses from any later-attaching entities. (Section XI.B.4—Modifications.) This should permit attaching entities that modify poles, some of which may be small entities, to bear only their proportionate costs and prevent them from effectively subsidizing their later-entering competitors. The requirement that utilities provide attaching entities with 60 days' notice prior to commencing modifications to any pole, duct or conduit should provide attaching entities, some of which may be small entities, with sufficient time to evaluate the impact of the proposed modification on their interests and to plan and coordinate any modifications to their own attachments. (Id.)

C. Imposing Additional Obligations on LECs

968. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. Our decisions in this section of the Order do not subject any small entities to reporting, recordkeeping or other compliance requirements.

969. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. The determination that the 1996 Act does not permit the particular obligations for incumbent LECs set forth in section 251(c) to be imposed on non-incumbent carriers, absent a finding by the Commission under section 251(h)(2), should limit potential burdens on new entrants, including small entities. (Section XI.C—Imposing Obligations on LECs.)

Summary Analysis of Section XII—Exemptions, Suspensions and Modifications of Section 251 Requirements

970. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. Section 251(f)(1) grants rural telephone companies, which may be small incumbent LECs, an exemption from the requirements of section 251(c) (which only apply to incumbent LECs) until the rural telephone company has received a bona fide request for interconnection, services, or network elements, and the state determines that the exemption should be terminated. Section 251(f)(2) provides that LECs with fewer than two percent of the nation's subscriber lines may petition a state commission for a suspension or modification of any requirements of sections 251(b) and 251(c). The latter provision, section 251(f)(2), is available to all LECs including competitive LECs, which may be small entities.

971. After a carrier has made a bona fide request under Section 251, a rural telephone company, which may be a small incumbent LEC, seeking to retain its exemption under section 251(f)(1) must prove to the state commission that it should retain its exemption. To remove the exemption, a state commission must find that the bona fide interconnection request is not unduly economically burdensome, is technically feasible, and is consistent with section 254. The parties involved in such a proceeding may need to use legal, accounting, economic and/or engineering services. A small incumbent LEC or a competitive LEC, which may be a small entity, seeking under 251(f)(2) to modify or suspend the national interconnection requirements imposed by section 251(b) or 251(c) bears the burden of proving that interconnection would: (1) create a significant adverse economic impact on telecommunications users; (2) be unduly economically burdensome; or (3) be technically infeasible.

972. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. As set forth in Section XII above, the determination whether a section 251(f) exemption, suspension, or modification should be continued or granted lies primarily with the relevant state commission. By largely leaving this determination to the states, our decisions permit this fact-specific inquiry to be administered in a manner that minimizes regulatory burdens and the economic impact on small entities and small incumbent LECs. However, to further minimize regulatory burdens and minimize the economic impact of our decision, we adopt several rules as set forth in Section XII above, which may facilitate the efficient resolution of such inquiries, provide guidance, and minimize uncertainty. As set forth in Section XII above, we find that the rural LEC or smaller LEC must prove to the state commission that the financial harm shown to justify an exemption, suspension, or modification would be greater than the harm that might

typically be expected as a result of competition. Finally, we conclude that section 251(f) adequately provides for varying treatment for smaller or rural LECs where such variances are justified. As a result, we expect that section 251(f) will significantly minimize regulatory burdens and economic impacts from the rules adopted in this Order.

Summary Analysis of Section XIII—Advanced Telecommunications Capabilities

973. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. Our decision to defer consideration of rules in this section of the Order does not subject any small entities or small incumbent LECs to reporting, recordkeeping or other compliance requirements.

974. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. We do not anticipate that our decision to defer consideration of rules in this section of the Order will have any economic impact on small entities or small incumbent LECs.

Summary Analysis of Section XIV—Provisions of Section 252

A. Section 252(e)(5)

975. Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements. Pursuant to section 252(b)(1), a party to negotiation may petition a state commission to arbitrate any open issues. Small entities and small incumbent LECs negotiating interconnection agreements may, therefore, participate in state arbitration in order to obtain an interconnection agreement, which may impose significant legal costs. (Section XIV.A—Section 252(e)(5).) Section 252(e)(5) requires the Commission to assume the state's responsibility under section 252 if the state ''fails to act to carry out its responsibility'' under the section. We require an aggrieved party, which may be a small entity or a small incumbent LEC, to notify the FCC that a state commission has failed to act under section 252 by filing a detailed written petition, backed by affidavit. As set forth above in Section XIV.A, if the Commission, following a notice and comment period, determines that the state has failed to act, the Commission will assume authority under section 252(e)(5) and mediate or arbitrate the dispute. This process may also entail significant legal expertise.

976. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. In this Order, the Commission adopts a minimum set of rules that will provide notice of the standards and procedures that the Commission will use if it has to assume the responsibility of a state commission under section 252(e)(5). These rules should benefit small entities and small incumbent LECs by limiting uncertainty and minimizing transaction costs associated with the arbitration process. (Section XIV.A—Section 252(e)(5).)

977. The Commission concludes that, if it arbitrates agreements, it will use a ''final offer'' arbitration method, whereby each party to the arbitration proposes its best and final offer, and the arbitrator chooses between the proposals. The arbitrator may choose either proposal in its entirety, or could choose different parties' proposals on an issue-by-issue basis. This method of arbitration should minimize the economic impact on small entities and small incumbent LECs by reducing the transaction costs associated with arbitration. Our rules should also encourage parties, to negotiate after offers are submitted which should provide additional flexibility for parties including small entities and small incumbent LECs, to agree to a resolution tailored to their interests. (Section XIV.A—Section 252(e)(5).)

978. For the reasons set forth above in Section XIV.A, we reject the alternative of adopting national rules governing state arbitration procedures. We believe the states are in a better position to develop mediation and arbitration rules that support the objectives of the 1996 Act. States may develop specific measures that best address the concerns of small entities and small incumbent LECs participating in mediation or arbitration.

979. As set forth above in Section XIV.A, we reject the suggestion that the Commission return jurisdiction over an arbitration to the state commission. We further reject the argument that, once the Commission has mediated or arbitrated an agreement, the agreement must be submitted to the state commission for approval under state law. We decline to adopt the alternative suggested by some parties that, if the Commission steps into the state commission role, it is bound by state laws and standards that would have applied to the state commission. (Section XIV.A—Section 252(e)(5).).

980. As explained above in Section XIV.A, we also reject the alternative that an arbitrated agreement not be binding on the parties. Finally, we reject the alternative of opening the arbitration process to all third parties, which should minimize the costs involved in such proceedings.

B. Requirements of Section 252(i)

981. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements. Our decisions in this section of the Order do not subject any small entities to reporting, recordkeeping or other compliance requirements. Incumbent LECs, including small incumbent LECs, are required to file with state commissions all interconnection agreements entered into with other carriers, including adjacent incumbent LECs. Incumbent LECs must also permit third parties to obtain any individual interconnection, service or network element arrangement on the same terms and conditions as those contained in any agreement approved under section 252. Moreover, incumbent LECs must prove with specificity that terms and conditions contained in filed agreements are legitimately related to the purchase of the individual element or service being sought. Incumbent LECs must provide ''most favored nation'' status with regard to subsequent carriers regardless of whether they include ''most favored nation'' clauses in their agreements. Complying with these requirements may require small incumbent LECs and requesting small entities to use legal and negotiation skills.

982. Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered. Our decision to adopt national standards to implement section 252(i) should minimize the economic impact of our decision on both small entities and small incumbent LECs by expediting the resolution of disputes, thereby reducing transaction costs associated with interconnection. Our decision that section 252(i) permits requesting carriers to choose among individual provisions contained in publicly-filed interconnection agreements should minimize the economic impact for small new entrants by permitting them to obtain the provisions they desire without having to adopt entire agreements that would not reflect their costs or the specific technical characteristics of their networks. (Section XIV.B—Section 252(i).) Moreover, small entities may be able to obtain the same terms and conditions of agreements reached by larger carriers that possess greater bargaining power without having to incur the costs of negotiation and/or arbitration.

983. We also determine that publicly-filed agreements need only be made available to carriers who cause

incumbent LECs to incur no greater costs than did the original carrier, which should minimize the economic impact on small incumbent LECs. We also minimize the regulatory burden for small entities and small incumbent LECs by finding that a new entrant seeking interconnection, network elements, or services pursuant to section 252(i) need not make such requests pursuant to the procedures for initial section 251 requests, but shall be permitted to obtain access to agreements on an expedited basis.

984. As set forth above, we conclude that section 252(i) permits differential treatment of carriers based on differences in the costs of serving those carriers, but does not permit incumbent LECs to limit the availability of interconnection, services, or network elements only to those requesting carriers serving a comparable class of subscribers or providing the same service as the original party to the agreement. (Section XIV—Section 252(i).) These decisions should minimize the impact on small entities by preventing discrimination and enabling them to obtain the same terms and conditions as larger carriers that possess greater bargaining power. For the reasons set forth in Section XIV, we reject the interpretation favored by commenters arguing that new entrants should not be able to choose among provisions of interconnection agreements filed with state commissions.

E. Report to Congress

985. The Commission shall send a copy of this FRFA, along with this Order, in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. § 801(a)(1)(A). A copy of this FRFA will also be published in the Federal Register.

XVI. Ordering Clauses

986. Accordingly, *it is ordered* that, pursuant to Sections 1–4, 201–209, 214, 218, 224, 251, 252, and 303(r) of the Communications Act of 1934, as amended, and Section 601 of the Telecommunications Act of 1996, 47 U.S.C. 151–154, 201–209, 214, 218, 224, 251, 252, 303(r), the Report and order is adopted, effective September 30, 1996. The collections of information contained within are contingent upon approval by the Office of Management and Budget.

987. *It is further ordered* that Part 51 of the Commission's rules, 47 CFR § 51 is Added as set forth below.

988. *It is further ordered* that, to the extent issues from CC Docket No. 95–185, *In the Matter of Interconnection Between Local Exchange Carriers and Commercial Mobile Service Providers,* are resolved here, we incorporate the relevant portions of the record in that docket.

989. *It is further ordered* that, to the extent issues from CC Docket No. 91–346, *In the Matter of Intelligent Networks,* are resolved here, we incorporate the relevant portions of the record in that docket.

990. *It is further ordered,* light of the United States Court of Appeals for the District of Columbia Circuit in *Pacific Bell* v. *FCC,* 81 F.3d 1147 (D.C. Cir. 1996) (table) and the Telecommunications Act of 1996, that the rules and policies adopted in *Expanded Interconnection with Local Telephone Company Facilities,* CC Docket No. 91–141, 9 FCC Rcd 5154 (1994), shall remain in effect.

List of Subjects

47 CFR Part 1

Access to rights of way, Telecommunications.

47 CFR Part 20

Communications common carriers, Interconnection.

47 CFR Part 51

Collocation, Communications common carriers, Interconnection, Network elements, Pricing standard, Proxies, Reciprocal compensation, Resale, Transport and termination.

47 CFR Part 90

Common carriers.

Federal Communications Commission.

William F. Caton,

Acting Secretary.

Rule Changes

Parts 1, 20, 51 and 90 of Title 47 of the Code of Federal Regulations are amended as follows:

PART 1—PRACTICE AND PROCEDURE

1. The authority citation for part 1 is revised to read as follows:

Authority: 47 U.S.C. 151, 154, 251, 252, 303, and 309(j) unless otherwise noted.

2. Section 1.1401 is revised to read as follows:

§ 1.1401 Purpose.

The rules and regulations contained in subpart J of this part provide complaint and enforcement procedures to ensure that telecommunications carriers and cable system operators have nondiscriminatory access to utility poles, ducts, conduits, and rights-of-way on rates, terms, and conditions that are just and reasonable.

3. Section 1.1402 is amended by revising paragraph (d) to read as follows:

§ 1.1402 Definitions.

* * * * *

(d) The term *complaint* means a filing by a cable television system operator, a cable television system association, a utility, an association of utilities, a telecommunications carrier, or an association of telecommunications carriers alleging that it has been denied access to a utility pole, duct, conduit, or right-of-way in violation of this subpart and/or that a rate, term, or condition for a pole attachment is not just and reasonable.

* * * * *

4. Section 1.1403 is revised to read as follows:

§ 1.1403 Duty to provide access; modifications; notice of removal, increase or modification; petition for temporary stay.

(a) A utility shall provide a cable television system or any telecommunications carrier with nondiscriminatory access to any pole, duct, conduit, or right-of-way owned or controlled by it. Notwithstanding this obligation, a utility may deny a cable television system or any telecommunications carrier access to its poles, ducts, conduits, or rights-of-way, on a non-discriminatory basis where there is insufficient capacity or for reasons of safety, reliability and generally applicable engineering purposes.

(b) Requests for access to a utility's poles, ducts, conduits or rights-of-way by a telecommunications carrier or cable operator must be in writing. If access is not granted within 45 days of the request for access, the utility must confirm the denial in writing by the 45th day. The utility's denial of access shall be specific, shall include all relevant evidence and information supporting its denial, and shall explain how such evidence and information relate to a denial of access for reasons of lack of capacity, safety, reliability or engineering standards.

(c) A utility shall provide a cable television system operator or telecommunications carrier no less than 60 days written notice prior to:

(1) Removal of facilities or termination of any service to those facilities, such removal or termination arising out of a rate, term or condition of the cable television system operator's of telecommunications carrier's pole attachment agreement;

(2) Any increase in pole attachment rates; or

(3) Any modification of facilities other than routine maintenance or modification in response to emergencies.

(d) A cable television system operator or telecommunications carrier may file a ''Petition for Temporary Stay'' of the action contained in a notice received pursuant to paragraph (c) of this section within 15 days of receipt of such notice. Such submission shall not be considered unless it includes, in concise terms, the relief sought, the reasons for such relief, including a showing of irreparable harm and likely cessation of cable television service or telecommunication service, a copy of the notice, and certification of service as required by § 1.1404(b). The named respondent may file an answer within 7 days of the date the Petition for Temporary Stay was filed. No further filings under this section will be considered unless requested or authorized by the Commission and no extensions of time will be granted unless justified pursuant to § 1.46.5. Section 1.1404 is amended by revising paragraphs (b) and (c) and by adding new paragraph (k) to read as follows:

§ 1.1404 Complaint.

* * * * *

(b) The complaint shall be accompanied by a certification of service on the named respondent, and each of the Federal, State, and local governmental agencies that regulate any aspect of the services provided by the complainant or respondent.

(c) In a case where it is claimed that a rate, term, or condition is unjust or unreasonable, the complaint shall contain a statement that the State has not certified to the Commission that it regulates the rates, terms and conditions for pole attachments. The complaint shall include a statement that the utility is not owned by any railroad, any person who is cooperatively organized or any person owned by the Federal Government or any State.

* * * * *

(k) In a case where a cable television system operator or telecommunications carrier claims that it has been denied access to a pole, duct, conduit or right-of-way despite a request made pursuant to section 47 U.S.C. § 224(f), the complaint shall be filed within 30 days of such denial. In addition to meeting the other requirements of this section, the complaint shall include the data and information necessary to support the claim, including:

(1) The reasons given for the denial of access to the utility's poles, ducts, conduits and rights-of-way;

(2) The basis for the complainant's claim that the denial of access is improper;

(3) The remedy sought by the complainant;

(4) A copy of the written request to the utility for access to its poles, ducts, conduits or rights-of-way; and

(5) A copy of the utility's response to the written request including all information given by the utility to support its denial of access. A complaint alleging improper denial of access will not be dismissed if the complainant is unable to obtain a utility's written response, or if the utility denies the complainant any other information needed to establish a *prima facie* case.

6. Section 1.1409 is amended by revising paragraphs (b) and (d) to read as follows:

§ 1.1409 Commission consideration of the complaint.

* * * * *

(b) The complainant shall have the burden of establishing a *prima facie* case that the rate, term, or condition is not just and reasonable or that the denial of access violates 47 U.S.C. § 224(f). If, however, a utility argues that the proposed rate is lower than its incremental costs, the utility has the burden of establishing that such rate is below the statutory minimum just and reasonable rate. In a case involving a denial of access, the utility shall have the burden of proving that the denial was lawful, once a *prima facie* case is established by the complainant.

* * * * *

(d) The Commission shall deny the complaint if it determines that the complainant has not established a *prima facie* case, or that the rate, term or condition is just and reasonable, or that the denial of access was lawful.

* * * * *

7. Section 1.1416 is amended by revising the section-heading and paragraph (b) to read as follows:

§ 1.1416 Imputation of rates; modification costs.

* * * * *

(b) The costs of modifying a facility shall be borne by all parties that obtain access to the facility as a result of the modification and by all parties that directly benefit from the modification. Each party described in the preceding sentence shall share proportionately in the cost of the modification. A party with a preexisting attachment to the modified facility shall be deemed to directly benefit from a modification if, after receiving notification of such modification as provided in subpart J of this part, it adds to or modifies its attachment. Notwithstanding the foregoing, a party with a preexisting attachment to a pole, conduit, duct or right-of-way shall not be required to bear any of the costs of rearranging or replacing its attachment if such rearrangement or replacement is necessitated solely as a result of an additional attachment or the modification of an existing attachment sought by another party. If a party makes an attachment to the facility after the completion of the modification, such party shall share proportionately in the cost of the modification if such modification rendered possible the added attachment.

PART 20—COMMERCIAL MOBILE RADIO SERVICES

8. The authority citation for part 20 is revised to read as follows:

Authority: Secs. 4, 251–2, 303, and 332, 48 Stat. 1066, 1062, as amended; 47 U.S.C. 154, 251–4, 303, and 332 unless otherwise noted.

9. Section 20.11 is amended by adding paragraph (c) to read as follows:

§ 20.11 Interconnection to facilities of local exchange carriers.

* * * * *

(c) Local exchange carriers and commercial mobile radio service providers shall also comply with applicable provisions of part 51 of this chapter.

* * * * *

10. A new part 51 is added to read as follows:

PART 51—INTERCONNECTION

Subpart A—General Information

Sec.
51.1 Basis and purpose.
51.3 Applicability to negotiated agreements.
51.5 Terms and definitions.

Subpart B—Telecommunications Carriers

51.100 General duty.

Subpart C—Obligations of All Local Exchange Carriers

51.201 Resale.
51.203 Number portability.
51.219 Access to rights of way.
51.221 Reciprocal compensation.
51.223 Application of additional requirements.

Subpart D—Additional Obligations of Incumbent Local Exchange Carriers

51.301 Duty to negotiate.
51.303 Preexisting agreements.
51.305 Interconnection.
51.307 Duty to provide access on an unbundled basis to network elements.

51.309 Use of unbundled network elements.
51.311 Nondiscriminatory access to unbundled network elements.
51.313 Just, reasonable and nondiscriminatory terms and conditions for the provision of unbundled network elements.
51.315 Combination of unbundled network elements.
51.317 Standards for identifying network elements to be made available.
51.319 Specific unbundling requirements.
51.321 Methods of obtaining interconnection and access to unbundled elements under section 251 of the Act.
51.323 Standards for physical collocation and virtual collocation.

Subpart E—Exemptions, Suspensions, and Modifications of Requirements of Section 251 of the Act

51.401 State authority.
51.403 Carriers eligible for suspension or modification under section 251(f)(2) of the Act.
51.405 Burden of proof.

Subpart F—Pricing of Elements

51.501 Scope.
51.503 General pricing standard.
51.505 Forward-looking economic cost.
51.507 General rate structure standard.
51.509 Rate structure standards for specific elements.
51.511 Forward-looking economic cost per unit.
51.513 Proxies for forward-looking economic cost.
51.515 Application of access charges.

Subpart G—Resale

51.601 Scope of resale rules.
51.603 Resale obligation of all local exchange carriers.
51.605 Additional obligations of incumbent local exchange carriers.
51.607 Wholesale pricing standard.
51.609 Determination of avoided retail costs.
51.611 Interim wholesale rates.
51.613 Restrictions on resale.
51.615 Withdrawal of services.
51.617 Assessment of end user common line charge on resellers.

Subpart H—Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic

51.701 Scope of transport and termination pricing rules.
51.703 Reciprocal compensation obligation of LECs.
51.705 Incumbent LECs' rates for transport and termination.
51.707 Default proxies for incumbent LECs' transport and termination rates.
51.709 Rate structure for transport and termination.
51.711 Symmetrical reciprocal compensation.
51.713 Bill-and-keep arrangements for reciprocal compensation.
51.715 Interim transport and termination pricing.
51.717 Renegotiation of existing non-reciprocal arrangements.

Subpart I—Procedures for Implementation of Section 252 of the Act

51.801 Commission action upon a state commission's failure to act to carry out its responsibility under section 252 of the Act.
51.803 Procedures for Commission notification of a state commission's failure to act.
51.805 The Commission's authority over proceedings and matters.
51.807 Arbitration and mediation of agreements by the Commission pursuant to section 252(e)(5) of the Act.
51.809 Availability of provisions of agreements to other telecommunications carriers under section 252(i) of the Act.

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

Subpart A—General Information

§ 51.1 Basis and purpose.

(a) *Basis.* These rules are issued pursuant to the Communications Act of 1934, as amended.

(b) *Purpose.* The purpose of these rules is to implement sections 251 and 252 of the Communications Act of 1934, as amended, 47 U.S.C. 251 and 252.

§ 51.3 Applicability to negotiated agreements.

To the extent provided in section 252(e)(2)(A) of the Act, a state commission shall have authority to approve an interconnection agreement adopted by negotiation even if the terms of the agreement do not comply with the requirements of this part.

§ 51.5 Terms and definitions.

Terms used in this part have the following meanings:

Act. The Communications Act of 1934, as amended.

Advanced intelligent network. ''Advanced Intelligent Network'' is a telecommunications network architecture in which call processing, call routing, and network management are provided by means of centralized databases located at points in an incumbent local exchange carrier's network.

Arbitration, final offer. ''Final offer arbitration'' is a procedure under which each party submits a final offer concerning the issues subject to arbitration, and the arbitrator selects, without modification, one of the final offers by the parties to the arbitration or portions of both such offers. ''Entire package final offer arbitration,'' is a procedure under which the arbitrator must select, without modification, the entire proposal submitted by one of the parties to the arbitration. ''Issue-by-issue final offer arbitration,'' is a procedure under which the arbitrator must select, without modification, on an issue-by-issue basis, one of the proposals submitted by the parties to the arbitration.

Billing. ''Billing'' involves the provision of appropriate usage data by one telecommunications carrier to another to facilitate customer billing with attendant acknowledgements and status reports. It also involves the exchange of information between telecommunications carriers to process claims and adjustments.

Commercial Mobile Radio Service (CMRS). ''CMRS'' has the same meaning as that term is defined in § 20.3 of this chapter.

Commission. ''Commission'' refers to the Federal Communications Commission.

Directory assistance service. ''Directory assistance service'' includes, but is not limited to, making available to customers, upon request, information contained in directory listings.

Directory listings. ''Directory listings'' are any information:

(1) Identifying the listed names of subscribers of a telecommunications carrier and such subscriber's telephone numbers, addresses, or primary advertising classifications (as such classifications are assigned at the time of the establishment of such service), or any combination of such listed names, numbers, addresses or classifications; and

(2) That the telecommunications carrier or an affiliate has published, caused to be published, or accepted for publication in any directory format.

Downstream database. A ''downstream database'' is a database owned and operated by an individual carrier for the purpose of providing number portability in conjunction with other functions and services.

Equipment necessary for interconnection or access to unbundled network elements. For purposes of section 251(c)(2) of the Act, the equipment used to interconnect with an incumbent local exchange carrier's network for the transmission and routing of telephone exchange service, exchange access service, or both. For the purposes of section 251(c)(3) of the Act, the equipment used to gain access to an incumbent local exchange carrier's unbundled network elements for the provision of a telecommunications service.

Incumbent Local Exchange Carrier (Incumbent LEC). With respect to an area, the local exchange carrier that:

(1) On February 8, 1996, provided telephone exchange service in such area; and

(2)(i) On February 8, 1996, was deemed to be a member of the exchange carrier association pursuant to § 69.601(b) of this chapter; or

(ii) Is a person or entity that, on or after February 8, 1996, became a successor or assign of a member described in paragraph (2)(i) of this section.

Interconnection. ''Interconnection'' is the linking of two networks for the mutual exchange of traffic. This term does not include the transport and termination of traffic.

Local Exchange Carrier (LEC). A ''LEC'' is any person that is engaged in the provision of telephone exchange service or exchange access. Such term does not include a person insofar as such person is engaged in the provision of a commercial mobile service under section 332(c) of the Act, except to the extent that the Commission finds that such service should be included in the definition of the such term.

Maintenance and repair. ''Maintenance and repair'' involves the exchange of information between telecommunications carriers where one initiates a request for maintenance or repair of existing products and services or unbundled network elements or combination thereof from the other with attendant acknowledgements and status reports.

Meet point. A ''meet point'' is a point of interconnection between two networks, designated by two telecommunications carriers, at which one carrier's responsibility for service begins and the other carrier's responsibility ends.

Meet point interconnection arrangement. A ''meet point interconnection arrangement'' is an arrangement by which each telecommunications carrier builds and maintains its network to a meet point.

Network element. A ''network element'' is a facility or equipment used in the provision of a telecommunications service. Such term also includes, but is not limited to, features, functions, and capabilities that are provided by means of such facility or equipment, including but not limited to, subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.

Operator services. ''Operator services'' are any automatic or live assistance to a consumer to arrange for billing or completion of a telephone call. Such services include, but are not limited to, busy line verification, emergency interrupt, and operator-assisted directory assistance services.

Physical collocation. ''Physical collocation'' is an offering by an incumbent LEC that enables a requesting telecommunications carrier to:

(1) Place its own equipment to be used for interconnection or access to unbundled network elements within or upon an incumbent LEC's premises;

(2) Use such equipment to interconnect with an incumbent LEC's network facilities for the transmission and routing of telephone exchange service, exchange access service, or both, or to gain access to an incumbent LEC's unbundled network elements for the provision of a telecommunications service;

(3) Enter those premises, subject to reasonable terms and conditions, to install, maintain, and repair equipment necessary for interconnection or access to unbundled elements; and

(4) Obtain reasonable amounts of space in an incumbent LEC's premises, as provided in this part, for the equipment necessary for interconnection or access to unbundled elements, allocated on a first-come, first-served basis.

Premises. ''Premises'' refers to an incumbent LEC's central offices and serving wire centers, as well as all buildings or similar structures owned or leased by an incumbent LEC that house its network facilities, and all structures that house incumbent LEC facilities on public rights-of-way, including but not limited to vaults containing loop concentrators or similar structures.

Pre-ordering and ordering. ''Pre-ordering and ordering'' includes the exchange of information between telecommunications carriers about current or proposed customer products and services or unbundled network elements or some combination thereof.

Provisioning. ''Provisioning'' involves the exchange of information between telecommunications carriers where one executes a request for a set of products and services or unbundled network elements or combination thereof from the other with attendant acknowledgements and status reports.

Rural telephone company. A ''rural telephone company'' is a LEC operating entity to the extent that such entity:

(1) Provides common carrier service to any local exchange carrier study area that does not include either:

(i) Any incorporated place of 10,000 inhabitants or more, or any part thereof, based on the most recently available population statistics of the Bureau of the Census; or

(ii) Any territory, incorporated or unincorporated, included in an urbanized area, as defined by the Bureau of the Census as of August 10, 1993;

(2) Provides telephone exchange service, including exchange access, to fewer than 50,000 access lines;

(3) Provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or

(4) Has less than 15 percent of its access lines in communities of more than 50,000 on February 8, 1996.

Service control point. A ''service control point'' is a computer database in the public switched network which contains information and call processing instructions needed to process and complete a telephone call.

Service creation environment. A ''service creation environment'' is a computer containing generic call processing software that can be programmed to create new advanced intelligent network call processing services.

Signal transfer point. A ''signal transfer point'' is a packet switch that acts as a routing hub for a signaling network and transfers messages between various points in and among signaling networks.

State commission. A ''state commission'' means the commission, board, or official (by whatever name designated) which under the laws of any State has regulatory jurisdiction with respect to intrastate operations of carriers. As referenced in this part, this term may include the Commission if it assumes the responsibility of the state commission, pursuant to section 252(e)(5) of the Act. This term shall also include any person or persons to whom the state commission has delegated its authority under section 251 and 252 of the Act.

State proceeding. A ''state proceeding'' is any administrative proceeding in which a state commission may approve or prescribe rates, terms, and conditions including, but not limited to, compulsory arbitration pursuant to section 252(b) of the Act, review of a Bell operating company statement of generally available terms pursuant to section 252(f) of the Act, and a proceeding to determine whether to approve or reject an agreement adopted by arbitration pursuant to section 252(e) of the Act.

Technically feasible. Interconnection, access to unbundled network elements, collocation, and other methods of achieving interconnection or access to

unbundled network elements at a point in the network shall be deemed technically feasible absent technical or operational concerns that prevent the fulfillment of a request by a telecommunications carrier for such interconnection, access, or methods. A determination of technical feasibility does not include consideration of economic, accounting, billing, space, or site concerns, except that space and site concerns may be considered in circumstances where there is no possibility of expanding the space available. The fact that an incumbent LEC must modify its facilities or equipment to respond to such request does not determine whether satisfying such request is technically feasible. An incumbent LEC that claims that it cannot satisfy such request because of adverse network reliability impacts must prove to the state commission by clear and convincing evidence that such interconnection, access, or methods would result in specific and significant adverse network reliability impacts.

Telecommunications carrier. A ''telecommunications carrier'' is any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226 of the Act). A telecommunications carrier shall be treated as a common carrier under the Act only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage. This definition includes CMRS providers, interexchange carriers (IXCs) and, to the extent they are acting as telecommunications carriers, companies that provide both telecommunications and information services. Private Mobile Radio Service providers are telecommunications carriers to the extent they provide domestic or international telecommunications for a fee directly to the public.

Virtual collocation. ''Virtual collocation'' is an offering by an incumbent LEC that enables a requesting telecommunications carrier to:

(1) Designate or specify equipment to be used for interconnection or access to unbundled network elements to be located within or upon an incumbent LEC's premises, and dedicated to such telecommunications carrier's use;

(2) Use such equipment to interconnect with an incumbent LEC's network facilities for the transmission and routing of telephone exchange service, exchange access service, or both, or for access to an incumbent LEC's unbundled network elements for the provision of a telecommunications service; and

(3) Electronically monitor and control its communications channels terminating in such equipment.

Subpart B—Telecommunications Carriers

§ 51.100 General duty.

(a) Each telecommunications carrier has the duty:

(1) To interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers; and

(2) To not install network features, functions, or capabilities that do not comply with the guidelines and standards as provided in the Commission's rules or section 255 or 256 of the Act.

(b) A telecommunication carrier that has interconnected or gained access under sections 251(a)(1), 251(c)(2), or 251(c)(3) of the Act, may offer information services through the same arrangement, so long as it is offering telecommunications services through the same arrangement as well.

Subpart C—Obligations of All Local Exchange Carriers

§ 51.201 Resale.

The rules governing resale of services by an incumbent LEC are set forth in subpart G of this part.

§ 51.203 Number portability.

The rules governing number portability are set forth in part 52, subpart C of this chapter.

§ 51.219 Access to rights of way.

The rules governing access to rights of way are set forth in part 1, subpart J of this chapter.

§ 51.221 Reciprocal compensation.

The rules governing reciprocal compensation are set forth in subpart H of this part.

§ 51.223 Application of additional requirements.

(a) A state may not impose the obligations set forth in section 251(c) of the Act on a LEC that is not classified as an incumbent LEC as defined in section 251(h)(1) of the Act, unless the Commission issues an order declaring that such LECs or classes or categories of LECs should be treated as incumbent LECs.

(b) A state commission, or any other interested party, may request that the Commission issue an order declaring that a particular LEC be treated as an incumbent LEC, or that a class or category of LECs be treated as incumbent LECs, pursuant to section 251(h)(2) of the Act.

Subpart D—Additional Obligations of Incumbent Local Exchange Carriers

§ 51.301 Duty to negotiate.

(a) An incumbent LEC shall negotiate in good faith the terms and conditions of agreements to fulfill the duties established by sections 251(b) and (c) of the Act.

(b) A requesting telecommunications carrier shall negotiate in good faith the terms and conditions of agreements described in paragraph (a) of this section.

(c) If proven to the Commission, an appropriate state commission, or a court of competent jurisdiction, the following actions or practices, among others, violate the duty to negotiate in good faith:

(1) Demanding that another party sign a nondisclosure agreement that precludes such party from providing information requested by the Commission, or a state commission, or in support of a request for arbitration under section 252(b)(2)(B) of the Act;

(2) Demanding that a requesting telecommunications carrier attest that an agreement complies with all provisions of the Act, federal regulations, or state law;

(3) Refusing to include in an arbitrated or negotiated agreement a provision that permits the agreement to be amended in the future to take into account changes in Commission or state rules;

(4) Conditioning negotiation on a requesting telecommunications carrier first obtaining state certifications;

(5) Intentionally misleading or coercing another party into reaching an agreement that it would not otherwise have made;

(6) Intentionally obstructing or delaying negotiations or resolutions of disputes;

(7) Refusing throughout the negotiation process to designate a representative with authority to make binding representations, if such refusal significantly delays resolution of issues; and

(8) Refusing to provide information necessary to reach agreement. Such refusal includes, but is not limited to:

(i) Refusal by an incumbent LEC to furnish information about its network that a requesting telecommunications carrier reasonably requires to identify the network elements that it needs in order to serve a particular customer; and

(ii) Refusal by a requesting telecommunications carrier to furnish cost data that would be relevant to setting rates if the parties were in arbitration.

§ 51.303 Preexisting agreements.

(a) All interconnection agreements between an incumbent LEC and a telecommunications carrier, including those negotiated before February 8, 1996, shall be submitted by the parties to the appropriate state commission for approval pursuant to section 252(e) of the Act.

(b) Interconnection agreements negotiated before February 8, 1996, between Class A carriers, as defined by § 32.11(a)(1) of this chapter, shall be filed by the parties with the appropriate state commission no later than June 30, 1997, or such earlier date as the state commission may require.

(c) If a state commission approves a preexisting agreement, it shall be made available to other parties in accordance with section 252(i) of the Act and § 51.809 of this part. A state commission may reject a preexisting agreement on the grounds that it is inconsistent with the public interest, or for other reasons set forth in section 252(e)(2)(A) of the Act.

§ 51.305 Interconnection.

(a) An incumbent LEC shall provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the incumbent LEC's network:

(1) For the transmission and routing of telephone exchange traffic, exchange access traffic, or both;

(2) At any technically feasible point within the incumbent LEC's network including, at a minimum:

(i) The line-side of a local switch;

(ii) The trunk-side of a local switch;

(iii) The trunk interconnection points for a tandem switch;

(iv) Central office cross-connect points;

(v) Out-of-band signaling transfer points necessary to exchange traffic at these points and access call-related databases; and

(vi) The points of access to unbundled network elements as described in § 51.319;

(3) That is at a level of quality that is equal to that which the incumbent LEC provides itself, a subsidiary, an affiliate, or any other party, except as provided in paragraph (4) of this section. At a minimum, this requires an incumbent LEC to design interconnection facilities to meet the same technical criteria and service standards that are used within the incumbent LEC's network. This obligation is not limited to a consideration of service quality as perceived by end users, and includes, but is not limited to, service quality as perceived by the requesting telecommunications carrier;

(4) That, if so requested by a telecommunications carrier and to the extent technically feasible, is superior in quality to that provided by the incumbent LEC to itself or to any subsidiary, affiliate, or any other party to which the incumbent LEC provides interconnection. Nothing in this section prohibits an incumbent LEC from providing interconnection that is lesser in quality at the sole request of the requesting telecommunications carrier; and

(5) On terms and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of any agreement, the requirements of sections 251 and 252 of the Act, and the Commission's rules including, but not limited to, offering such terms and conditions equally to all requesting telecommunications carriers, and offering such terms and conditions that are no less favorable than the terms and conditions upon which the incumbent LEC provides such interconnection to itself. This includes, but is not limited to, the time within which the incumbent LEC provides such interconnection.

(b) A carrier that requests interconnection solely for the purpose of originating or terminating its interexchange traffic on an incumbent LEC's network and not for the purpose of providing to others telephone exchange service, exchange access service, or both, is not entitled to receive interconnection pursuant to section 251(c)(2) of the Act.

(c) Previous successful interconnection at a particular point in a network, using particular facilities, constitutes substantial evidence that interconnection is technically feasible at that point, or at substantially similar points, in networks employing substantially similar facilities. Adherence to the same interface or protocol standards shall constitute evidence of the substantial similarity of network facilities.

(d) Previous successful interconnection at a particular point in a network at a particular level of quality constitutes substantial evidence that interconnection is technically feasible at that point, or at substantially similar points, at that level of quality.

(e) An incumbent LEC that denies a request for interconnection at a particular point must prove to the state commission that interconnection at that point is not technically feasible.

(f) If technically feasible, an incumbent LEC shall provide two-way trunking upon request.

§ 51.307 Duty to provide access on an unbundled basis to network elements.

(a) An incumbent LEC shall provide, to a requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on terms and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of any agreement, the requirements of sections 251 and 252 of the Act, and the Commission's rules.

(b) The duty to provide access to unbundled network elements pursuant to section 251(c)(3) of the Act includes a duty to provide a connection to an unbundled network element independent of any duty to provide interconnection pursuant to this part and section 251(c)(2) of the Act.

(c) An incumbent LEC shall provide a requesting telecommunications carrier access to an unbundled network element, along with all of the unbundled network element's features, functions, and capabilities, in a manner that allows the requesting telecommunications carrier to provide any telecommunications service that can be offered by means of that network element.

(d) An incumbent LEC shall provide a requesting telecommunications carrier access to the facility or functionality of a requested network element separate from access to the facility or functionality of other network elements, for a separate charge.

§ 51.309 Use of unbundled network elements.

(a) An incumbent LEC shall not impose limitations, restrictions, or requirements on requests for, or the use of, unbundled network elements that would impair the ability of a requesting telecommunications carrier to offer a telecommunications service in the manner the requesting telecommunications carrier intends.

(b) A telecommunications carrier purchasing access to an unbundled network element may use such network element to provide exchange access services to itself in order to provide interexchange services to subscribers.

(c) A telecommunications carrier purchasing access to an unbundled network facility is entitled to exclusive use of that facility for a period of time,

or when purchasing access to a feature, function, or capability of a facility, a telecommunications carrier is entitled to use of that feature, function, or capability for a period of time. A telecommunications carrier's purchase of access to an unbundled network element does not relieve the incumbent LEC of the duty to maintain, repair, or replace the unbundled network element.

§ 51.311 Nondiscriminatory access to unbundled network elements.

(a) The quality of an unbundled network element, as well as the quality of the access to the unbundled network element, that an incumbent LEC provides to a requesting telecommunications carrier shall be the same for all telecommunications carriers requesting access to that network element, except as provided in paragraph (c) of this section.

(b) Except as provided in paragraph (c) of this section, to the extent technically feasible, the quality of an unbundled network element, as well as the quality of the access to such unbundled network element, that an incumbent LEC provides to a requesting telecommunications carrier shall be at least equal in quality to that which the incumbent LEC provides to itself. If an incumbent LEC fails to meet this requirement, the incumbent LEC must prove to the state commission that it is not technically feasible to provide the requested unbundled network element, or to provide access to the requested unbundled network element, at a level of quality that is equal to that which the incumbent LEC provides to itself.

(c) To the extent technically feasible, the quality of an unbundled network element, as well as the quality of the access to such unbundled network element, that an incumbent LEC provides to a requesting telecommunications carrier shall, upon request, be superior in quality to that which the incumbent LEC provides to itself. If an incumbent LEC fails to meet this requirement, the incumbent LEC must prove to the state commission that it is not technically feasible to provide the requested unbundled network element or access to such unbundled network element at the requested level of quality that is superior to that which the incumbent LEC provides to itself. Nothing in this section prohibits an incumbent LEC from providing interconnection that is lesser in quality at the sole request of the requesting telecommunications carrier.

(d) Previous successful access to an unbundled element at a particular point in a network, using particular facilities, is substantial evidence that access is technically feasible at that point, or at substantially similar points, in networks employing substantially similar facilities. Adherence to the same interface or protocol standards shall constitute evidence of the substantial similarity of network facilities.

(e) Previous successful provision of access to an unbundled element at a particular point in a network at a particular level of quality is substantial evidence that access is technically feasible at that point, or at substantially similar points, at that level of quality.

§ 51.313 Just, reasonable and nondiscriminatory terms and conditions for the provision of unbundled network elements.

(a) The terms and conditions pursuant to which an incumbent LEC provides access to unbundled network elements shall be offered equally to all requesting telecommunications carriers.

(b) Where applicable, the terms and conditions pursuant to which an incumbent LEC offers to provide access to unbundled network elements, including but not limited to, the time within which the incumbent LEC provisions such access to unbundled network elements, shall, at a minimum, be no less favorable to the requesting carrier than the terms and conditions under which the incumbent LEC provides such elements to itself.

(c) An incumbent LEC must provide a carrier purchasing access to unbundled network elements with the pre-ordering, ordering, provisioning, maintenance and repair, and billing functions of the incumbent LEC's operations support systems.

§ 51.315 Combination of unbundled network elements.

(a) An incumbent LEC shall provide unbundled network elements in a manner that allows requesting telecommunications carriers to combine such network elements in order to provide a telecommunications service.

(b) Except upon request, an incumbent LEC shall not separate requested network elements that the incumbent LEC currently combines.

(c) Upon request, an incumbent LEC shall perform the functions necessary to combine unbundled network elements in any manner, even if those elements are not ordinarily combined in the incumbent LEC's network, provided that such combination is:

(1) Technically feasible; and

(2) Would not impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with the incumbent LEC's network.

(d) Upon request, an incumbent LEC shall perform the functions necessary to combine unbundled network elements with elements possessed by the requesting telecommunications carrier in any technically feasible manner.

(e) An incumbent LEC that denies a request to combine elements pursuant to paragraph (c)(1) or paragraph (d) of this section must prove to the state commission that the requested combination is not technically feasible.

(f) An incumbent LEC that denies a request to combine elements pursuant to paragraph (c)(2) of this section must prove to the state commission that the requested combination would impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with the incumbent LEC's network.

§ 51.317 Standards for identifying network elements to be made available.

(a) In determining what network elements should be made available for purposes of section 251(c)(3) of the Act beyond those identified in § 51.319, a state commission shall first determine whether it is technically feasible for the incumbent LEC to provide access to a network element on an unbundled basis.

(b) If the state commission determines that it is technically feasible for the incumbent LEC to provide access to the network element on an unbundled basis, the state commission may decline to require unbundling of the network element only if:

(1) The state commission concludes that:

(i) The network element is proprietary, or contains proprietary information that will be revealed if the network element is provided on an unbundled basis; and

(ii) A requesting telecommunications carrier could offer the same proposed telecommunications service through the use of other, nonproprietary unbundled network elements within the incumbent LEC's network; or

(2) The state commission concludes that the failure of the incumbent LEC to provide access to the network element would not decrease the quality of, and would not increase the financial or administrative cost of, the telecommunications service a requesting telecommunications carrier seeks to offer, compared with providing that service over other unbundled network elements in the incumbent LEC's network.

§ 51.319 Specific unbundling requirements.

An incumbent LEC shall provide nondiscriminatory access in accordance

with § 51.311 and section 251(c)(3) of the Act to the following network elements on an unbundled basis to any requesting telecommunications carrier for the provision of a telecommunications service:

(a) *Local Loop.* The local loop network element is defined as a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and an end user customer premises.

(b) *Network Interface Device.*

(1) The network interface device network element is defined as a cross-connect device used to connect loop facilities to inside wiring.

(2) An incumbent LEC shall permit a requesting telecommunications carrier to connect its own local loops to the inside wiring of premises through the incumbent LEC's network interface device. The requesting telecommunications carrier shall establish this connection through an adjoining network interface device deployed by such telecommunications carrier.

(c) *Switching Capability.*

(1) Local Switching Capability.

(i) The local switching capability network element is defined as:

(A) Line-side facilities, which include, but are not limited to, the connection between a loop termination at a main distribution frame and a switch line card;

(B) Trunk-side facilities, which include, but are not limited to, the connection between trunk termination at a trunk-side cross-connect panel and a switch trunk card; and

(C) All features, functions, and capabilities of the switch, which include, but are not limited to:

(*1*) The basic switching function of connecting lines to lines, lines to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to the incumbent LEC's customers, such as a telephone number, white page listing, and dial tone; and

(*2*) All other features that the switch is capable of providing, including but not limited to custom calling, custom local area signaling service features, and Centrex, as well as any technically feasible customized routing functions provided by the switch.

(ii) An incumbent LEC shall transfer a customer's local service to a competing carrier within a time period no greater than the interval within which the incumbent LEC currently transfers end users between interexchange carriers, if such transfer requires only a change in the incumbent LEC's software;

(2) Tandem Switching Capability. The tandem switching capability network element is defined as:

(i) Trunk-connect facilities, including but not limited to the connection between trunk termination at a cross-connect panel and a switch trunk card;

(ii) The basic switching function of connecting trunks to trunks; and

(iii) The functions that are centralized in tandem switches (as distinguished from separate end-office switches), including but not limited to call recording, the routing of calls to operator services, and signaling conversion features.

(d) *Interoffice Transmission Facilities.*

(1) Interoffice transmission facilities are defined as incumbent LEC transmission facilities dedicated to a particular customer or carrier, or shared by more than one customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers.

(2) The incumbent LEC shall:

(i) Provide a requesting telecommunications carrier exclusive use of interoffice transmission facilities dedicated to a particular customer or carrier, or use of the features, functions, and capabilities of interoffice transmission facilities shared by more than one customer or carrier;

(ii) Provide all technically feasible transmission facilities, features, functions, and capabilities that the requesting telecommunications carrier could use to provide telecommunications services;

(iii) Permit, to the extent technically feasible, a requesting telecommunications carrier to connect such interoffice facilities to equipment designated by the requesting telecommunications carrier, including, but not limited to, the requesting telecommunications carrier's collocated facilities; and

(iv) Permit, to the extent technically feasible, a requesting telecommunications carrier to obtain the functionality provided by the incumbent LEC's digital cross-connect systems in the same manner that the incumbent LEC provides such functionality to interexchange carriers.

(e) *Signaling Networks and Call-Related Databases.*

(1) Signaling Networks.

(i) Signaling networks include, but are not limited to, signaling links and signaling transfer points.

(ii) When a requesting telecommunications carrier purchases unbundled switching capability from an incumbent LEC, the incumbent LEC shall provide access to its signaling network from that switch in the same manner in which it obtains such access itself.

(iii) An incumbent LEC shall provide a requesting telecommunications carrier with its own switching facilities access to the incumbent LEC's signaling network for each of the requesting telecommunications carrier's switches. This connection shall be made in the same manner as an incumbent LEC connects one of its own switches to a signal transfer point.

(iv) An incumbent LEC is not required to unbundle those signaling links that connect service control points to switching transfer points or to permit a requesting telecommunications carrier to link its own signal transfer points directly to the incumbent LEC's switch or call-related databases;

(2) Call-Related Databases.

(i) Call-related databases are defined as databases, other than operations support systems, that are used in signaling networks for billing and collection or the transmission, routing, or other provision of a telecommunications service.

(ii) For purposes of switch query and database response through a signaling network, an incumbent LEC shall provide access to its call-related databases, including, but not limited to, the Line Information Database, Toll Free Calling database, downstream number portability databases, and Advanced Intelligent Network databases, by means of physical access at the signaling transfer point linked to the unbundled database.

(iii) An incumbent LEC shall allow a requesting telecommunications carrier that has purchased an incumbent LEC's local switching capability to use the incumbent LEC's service control point element in the same manner, and via the same signaling links, as the incumbent LEC itself.

(iv) An incumbent LEC shall allow a requesting telecommunications carrier that has deployed its own switch, and has linked that switch to an incumbent LEC's signaling system, to gain access to the incumbent LEC's service control point in a manner that allows the requesting carrier to provide any call-related, database-supported services to customers served by the requesting telecommunications carrier's switch.

(v) A state commission shall consider whether mechanisms mediating access to an incumbent LEC's Advanced Intelligent Network service control points are necessary, and if so, whether they will adequately safeguard against intentional or unintentional misuse of

the incumbent LEC's Advanced Intelligent Network facilities.

(vi) An incumbent LEC shall provide a requesting telecommunications carrier with access to call-related databases in a manner that complies with section 222 of the Act;

(3) Service Management Systems.

(i) A service management system is defined as a computer database or system not part of the public switched network that, among other things:

(A) Interconnects to the service control point and sends to that service control point the information and call processing instructions needed for a network switch to process and complete a telephone call; and

(B) Provides telecommunications carriers with the capability of entering and storing data regarding the processing and completing of a telephone call.

(ii) An incumbent LEC shall provide a requesting telecommunications carrier with the information necessary to enter correctly, or format for entry, the information relevant for input into the particular incumbent LEC service management system.

(iii) An incumbent LEC shall provide a requesting telecommunications carrier the same access to design, create, test, and deploy Advanced Intelligent Network-based services at the service management system, through a service creation environment, that the incumbent LEC provides to itself.

(iv) A state commission shall consider whether mechanisms mediating access to Advanced Intelligent Network service management systems and service creation environments are necessary, and if so, whether they will adequately safeguard against intentional or unintentional misuse of the incumbent LEC's Advanced Intelligent Network facilities.

(v) An incumbent LEC shall provide a requesting telecommunications carrier access to service management systems in a manner that complies with section 222 of the Act.

(f) *Operations Support Systems Functions.*

(1) Operations support systems functions consist of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by an incumbent LEC's databases and information.

(2) An incumbent LEC that does not currently comply with this requirement shall do so as expeditiously as possible, but, in any event, no later than January 1, 1997.

(g) *Operator Services and Directory Assistance.* An incumbent LEC shall provide access to operator service and directory assistance facilities where technically feasible.

§ 51.321 Methods of obtaining interconnection and access to unbundled elements under section 251 of the Act.

(a) Except as provided in paragraph (e) of this section, an incumbent LEC shall provide, on terms and conditions that are just, reasonable, and nondiscriminatory in accordance with the requirements of this part, any technically feasible method of obtaining interconnection or access to unbundled network elements at a particular point upon a request by a telecommunications carrier.

(b) Technically feasible methods of obtaining interconnection or access to unbundled network elements include, but are not limited to:

(1) Physical collocation and virtual collocation at the premises of an incumbent LEC; and

(2) Meet point interconnection arrangements.

(c) A previously successful method of obtaining interconnection or access to unbundled network elements at a particular premises or point on an incumbent LEC's network is substantial evidence that such method is technically feasible in the case of substantially similar network premises or points.

(d) An incumbent LEC that denies a request for a particular method of obtaining interconnection or access to unbundled network elements on the incumbent LEC's network must prove to the state commission that the requested method of obtaining interconnection or access to unbundled network elements at that point is not technically feasible.

(e) An incumbent LEC shall not be required to provide for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the incumbent LEC's premises if it demonstrates to the state commission that physical collocation is not practical for technical reasons or because of space limitations. In such cases, the incumbent LEC shall be required to provide virtual collocation, except at points where the incumbent LEC proves to the state commission that virtual collocation is not technically feasible. If virtual collocation is not technically feasible, the incumbent LEC shall provide other methods of interconnection and access to unbundled network elements to the extent technically feasible.

(f) An incumbent LEC shall submit to the state commission detailed floor plans or diagrams of any premises where the incumbent LEC claims that physical collocation is not practical because of space limitations.

(g) An incumbent LEC that is classified as a Class A company under § 32.11 of this chapter and that is not a National Exchange Carrier Association interstate tariff participant as provided in part 69, subpart G, shall continue to provide expanded interconnection service pursuant to interstate tariff in accordance with §§ 64.1401, 64.1402, 69.121 of this chapter, and the Commission's other requirements.

§ 51.323 Standards for physical collocation and virtual collocation.

(a) An incumbent LEC shall provide physical collocation and virtual collocation to requesting telecommunications carriers.

(b) An incumbent LEC shall permit the collocation of any type of equipment used for interconnection or access to unbundled network elements. Whenever an incumbent LEC objects to collocation of equipment by a requesting telecommunications carrier for purposes within the scope of section 251(c)(6) of the Act, the incumbent LEC shall prove to the state commission that the equipment will not be actually used by the telecommunications carrier for the purpose of obtaining interconnection or access to unbundled network elements. Equipment used for interconnection and access to unbundled network elements includes, but is not limited to:

(1) Transmission equipment including, but not limited to, optical terminating equipment and multiplexers; and

(2) Equipment being collocated to terminate basic transmission facilities pursuant to §§ 64.1401 and 64.1402 of this chapter as of August 1, 1996.

(c) Nothing in this section requires an incumbent LEC to permit collocation of switching equipment or equipment used to provide enhanced services.

(d) When an incumbent LEC provides physical collocation, virtual collocation, or both, the incumbent LEC shall:

(1) Provide an interconnection point or points, physically accessible by both the incumbent LEC and the collocating telecommunications carrier, at which the fiber optic cable carrying an interconnector's circuits can enter the incumbent LEC's premises, provided that the incumbent LEC shall designate interconnection points as close as reasonably possible to its premises;

(2) Provide at least two such interconnection points at each incumbent LEC premises at which there are at least two entry points for the incumbent LEC's cable facilities, and at which space is available for new

facilities in at least two of those entry points;

(3) Permit interconnection of copper or coaxial cable if such interconnection is first approved by the state commission; and

(4) Permit physical collocation of microwave transmission facilities except where such collocation is not practical for technical reasons or because of space limitations, in which case virtual collocation of such facilities is required where technically feasible.

(e) When providing virtual collocation, an incumbent LEC shall, at a minimum, install, maintain, and repair collocated equipment identified in paragraph (b) of this section within the same time periods and with failure rates that are no greater than those that apply to the performance of similar functions for comparable equipment of the incumbent LEC itself.

(f) An incumbent LEC shall allocate space for the collocation of the equipment identified in paragraph (b) of this section in accordance with the following requirements:

(1) An incumbent LEC shall make space available within or on its premises to requesting telecommunications carriers on a first-come, first-served basis, provided, however, that the incumbent LEC shall not be required to lease or construct additional space to provide for physical collocation when existing space has been exhausted;

(2) To the extent possible, an incumbent LEC shall make contiguous space available to requesting telecommunications carriers that seek to expand their existing collocation space;

(3) When planning renovations of existing facilities or constructing or leasing new facilities, an incumbent LEC shall take into account projected demand for collocation of equipment;

(4) An incumbent LEC may retain a limited amount of floor space for its own specific future uses, provided, however, that the incumbent LEC may not reserve space for future use on terms more favorable than those that apply to other telecommunications carriers seeking to reserve collocation space for their own future use;

(5) An incumbent LEC shall relinquish any space held for future use before denying a request for virtual collocation on the grounds of space limitations, unless the incumbent LEC proves to the state commission that virtual collocation at that point is not technically feasible; and

(6) An incumbent LEC may impose reasonable restrictions on the warehousing of unused space by collocating telecommunications carriers, provided, however, that the incumbent LEC shall not set maximum space limitations applicable to such carriers unless the incumbent LEC proves to the state commission that space constraints make such restrictions necessary.

(g) An incumbent LEC shall permit collocating telecommunications carriers to collocate equipment and connect such equipment to unbundled network transmission elements obtained from the incumbent LEC, and shall not require such telecommunications carriers to bring their own transmission facilities to the incumbent LEC's premises in which they seek to collocate equipment.

(h) An incumbent LEC shall permit a collocating telecommunications carrier to interconnect its network with that of another collocating telecommunications carrier at the incumbent LEC's premises and to connect its collocated equipment to the collocated equipment of another telecommunications carrier within the same premises provided that the collocated equipment is also used for interconnection with the incumbent LEC or for access to the incumbent LEC's unbundled network elements.

(1) An incumbent LEC shall provide the connection between the equipment in the collocated spaces of two or more telecommunications carriers, unless the incumbent LEC permits one or more of the collocating parties to provide this connection for themselves; and

(2) An incumbent LEC is not required to permit collocating telecommunications carriers to place their own connecting transmission facilities within the incumbent LEC's premises outside of the actual physical collocation space.

(i) An incumbent LEC may require reasonable security arrangements to separate a collocating telecommunications carrier's space from the incumbent LEC's facilities.

(j) An incumbent LEC shall permit a collocating telecommunications carrier to subcontract the construction of physical collocation arrangements with contractors approved by the incumbent LEC, provided, however, that the incumbent LEC shall not unreasonably withhold approval of contractors. Approval by an incumbent LEC shall be based on the same criteria it uses in approving contractors for its own purposes.

Subpart E—Exemptions, Suspensions, and Modifications of Requirements of Section 251 of the Act

§ 51.401 State authority.

A state commission shall determine whether a telephone company is entitled, pursuant to section 251(f) of the Act, to exemption from, or suspension or modification of, the requirements of section 251 of the Act. Such determinations shall be made on a case-by-case basis.

§ 51.403 Carriers eligible for suspension or modification under section 251(f)(2) of the Act.

A LEC is not eligible for a suspension or modification of the requirements of section 251(b) or section 251(c) of the Act pursuant to section 251(f)(2) of the Act if such LEC, at the holding company level, has two percent or more of the subscriber lines installed in the aggregate nationwide.

§ 51.405 Burden of proof.

(a) Upon receipt of a bona fide request for interconnection, services, or access to unbundled network elements, a rural telephone company must prove to the state commission that the rural telephone company should be entitled, pursuant to section 251(f)(1) of the Act, to continued exemption from the requirements of section 251(c) of the Act.

(b) A LEC with fewer than two percent of the nation's subscriber lines installed in the aggregate nationwide must prove to the state commission, pursuant to section 251(f)(2) of the Act, that it is entitled to a suspension or modification of the application of a requirement or requirements of section 251(b) or 251(c) of the Act.

(c) In order to justify continued exemption under section 251(f)(1) of the Act once a bona fide request has been made, an incumbent LEC must offer evidence that the application of the requirements of section 251(c) of the Act would be likely to cause undue economic burden beyond the economic burden that is typically associated with efficient competitive entry.

(d) In order to justify a suspension or modification under section 251(f)(2) of the Act, a LEC must offer evidence that the application of section 251(b) or section 251(c) of the Act would be likely to cause undue economic burden beyond the economic burden that is typically associated with efficient competitive entry.

Subpart F—Pricing of Elements

§ 51.501 Scope.

(a) The rules in this subpart apply to the pricing of network elements, interconnection, and methods of obtaining access to unbundled elements, including physical collocation and virtual collocation.

(b) As used in this subpart, the term ''element'' includes network elements,

interconnection, and methods of obtaining interconnection and access to unbundled elements.

§ 51.503 General pricing standard.

(a) An incumbent LEC shall offer elements to requesting telecommunications carriers at rates, terms, and conditions that are just, reasonable, and nondiscriminatory.

(b) An incumbent LEC's rates for each element it offers shall comply with the rate structure rules set forth in §§ 51.507 and 51.509, and shall be established, at the election of the state commission—

(1) Pursuant to the forward-looking economic cost-based pricing methodology set forth in §§ 51.505 and 51.511; or

(2) Consistent with the proxy ceilings and ranges set forth in § 51.513.

(c) The rates that an incumbent LEC assesses for elements shall not vary on the basis of the class of customers served by the requesting carrier, or on the type of services that the requesting carrier purchasing such elements uses them to provide.

§ 51.505 Forward-looking economic cost.

(a) *In general.* The forward-looking economic cost of an element equals the sum of:

(1) The total element long-run incremental cost of the element, as described in paragraph (b); and

(2) A reasonable allocation of forward-looking common costs, as described in paragraph (c).

(b) *Total element long-run incremental cost.* The total element long-run incremental cost of an element is the forward-looking cost over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as a given the incumbent LEC's provision of other elements.

(1) *Efficient network configuration.* The total element long-run incremental cost of an element should be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers.

(2) *Forward-looking cost of capital.* The forward-looking cost of capital shall be used in calculating the total element long-run incremental cost of an element.

(3) *Depreciation rates.* The depreciation rates used in calculating forward-looking economic costs of elements shall be economic depreciation rates.

(c) *Reasonable allocation of forward-looking common costs.*

(1) *Forward-looking common costs.* Forward-looking common costs are economic costs efficiently incurred in providing a group of elements or services (which may include all elements or services provided by the incumbent LEC) that cannot be attributed directly to individual elements or services.

(2) *Reasonable allocation.*

(i) The sum of a reasonable allocation of forward-looking common costs and the total element long-run incremental cost of an element shall not exceed the stand-alone costs associated with the element. In this context, stand-alone costs are the total forward-looking costs, including corporate costs, that would be incurred to produce a given element if that element were provided by an efficient firm that produced nothing but the given element.

(ii) The sum of the allocation of forward-looking common costs for all elements and services shall equal the total forward-looking common costs, exclusive of retail costs, attributable to operating the incumbent LEC's total network, so as to provide all the elements and services offered.

(d) *Factors that may not be considered.* The following factors shall not be considered in a calculation of the forward-looking economic cost of an element:

(1) *Embedded costs.* Embedded costs are the costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LEC's books of accounts;

(2) *Retail costs.* Retail costs include the costs of marketing, billing, collection, and other costs associated with offering retail telecommunications services to subscribers who are not telecommunications carriers, described in § 51.609;

(3) *Opportunity costs.* Opportunity costs include the revenues that the incumbent LEC would have received for the sale of telecommunications services, in the absence of competition from telecommunications carriers that purchase elements; and

(4) *Revenues to subsidize other services.* Revenues to subsidize other services include revenues associated with elements or telecommunications service offerings other than the element for which a rate is being established.

(e) *Cost study requirements.* An incumbent LEC must prove to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element, using a cost study that complies with the methodology set forth in this section and § 51.511.

(1) A state commission may set a rate outside the proxy ranges or above the proxy ceilings described in § 51.513 only if that commission has given full and fair effect to the economic cost based pricing methodology described in this section and § 51.511 in a state proceeding that meets the requirements of paragraph (e)(2) of this section.

(2) Any state proceeding conducted pursuant to this section shall provide notice and an opportunity for comment to affected parties and shall result in the creation of a written factual record that is sufficient for purposes of review. The record of any state proceeding in which a state commission considers a cost study for purposes of establishing rates under this section shall include any such cost study.

§ 51.507 General rate structure standard.

(a) Element rates shall be structured consistently with the manner in which the costs of providing the elements are incurred.

(b) The costs of dedicated facilities shall be recovered through flat-rated charges.

(c) The costs of shared facilities shall be recovered in a manner that efficiently apportions costs among users. Costs of shared facilities may be apportioned either through usage-sensitive charges or capacity-based flat-rated charges, if the state commission finds that such rates reasonably reflect the costs imposed by the various users.

(d) Recurring costs shall be recovered through recurring charges, unless an incumbent LEC proves to a state commission that such recurring costs are de minimis. Recurring costs shall be considered de minimis when the costs of administering the recurring charge would be excessive in relation to the amount of the recurring costs.

(e) State commissions may, where reasonable, require incumbent LECs to recover nonrecurring costs through recurring charges over a reasonable period of time. Nonrecurring charges shall be allocated efficiently among requesting telecommunications carriers, and shall not permit an incumbent LEC to recover more than the total forward-looking economic cost of providing the applicable element.

(f) State commissions shall establish different rates for elements in at least three defined geographic areas within the state to reflect geographic cost differences.

(1) To establish geographically-deaveraged rates, state commissions may use existing density-related zone pricing plans described in § 69.123 of this chapter, or other such cost-related

zone plans established pursuant to state law.

(2) In states not using such existing plans, state commissions must create a minimum of three cost-related rate zones.

§ 51.509 Rate structure standards for specific elements.

In addition to the general rules set forth in § 51.507, rates for specific elements shall comply with the following rate structure rules.

(a) *Local loops.* Loop costs shall be recovered through flat-rated charges.

(b) *Local switching.* Local switching costs shall be recovered through a combination of a flat-rated charge for line ports and one or more flat-rated or per-minute usage charges for the switching matrix and for trunk ports.

(c) *Dedicated transmission links.* Dedicated transmission link costs shall be recovered through flat-rated charges.

(d) *Shared transmission facilities between tandem switches and end offices.* The costs of shared transmission facilities between tandem switches and end offices may be recovered through usage-sensitive charges, or in another manner consistent with the manner that the incumbent LEC incurs those costs.

(e) *Tandem switching.* Tandem switching costs may be recovered through usage-sensitive charges, or in another manner consistent with the manner that the incumbent LEC incurs those costs.

(f) *Signaling and call-related database services.* Signaling and call-related database service costs shall be usage-sensitive, based on either the number of queries or the number of messages, with the exception of the dedicated circuits known as signaling links, the cost of which shall be recovered through flat-rated charges.

(g) *Collocation.* Collocation costs shall be recovered consistent with the rate structure policies established in the *Expanded Interconnection* proceeding, CC Docket No. 91–141.

§ 51.511 Forward-looking economic cost per unit.

(a) The forward-looking economic cost per unit of an element equals the forward-looking economic cost of the element, as defined in § 51.505, divided by a reasonable projection of the sum of the total number of units of the element that the incumbent LEC is likely to provide to requesting telecommunications carriers and the total number of units of the element that the incumbent LEC is likely to use in offering its own services, during a reasonable measuring period.

(b)(1) With respect to elements that an incumbent LEC offers on a flat-rate basis, the number of units is defined as the discrete number of elements (*e.g.,* local loops or local switch ports) that the incumbent LEC uses or provides.

(2) With respect to elements that an incumbent LEC offers on a usage-sensitive basis, the number of units is defined as the unit of measurement of the usage (*e.g.,* minutes of use or call-related database queries) of the element.

§ 51.513 Proxies for forward-looking economic cost.

(a) A state commission may determine that the cost information available to it with respect to one or more elements does not support the adoption of a rate or rates that are consistent with the requirements set forth in §§ 51.505 and 51.511. In that event, the state commission may establish a rate for an element that is consistent with the proxies specified in this section, provided that:

(1) Any rate established through use of such proxies shall be superseded once the state commission has completed review of a cost study that complies with the forward-looking economic cost based pricing methodology described in §§ 51.505 and 51.511, and has concluded that such study is a reasonable basis for establishing element rates; and

(2) The state commission sets forth in writing a reasonable basis for its selection of a particular rate for the element.

(b) The constraints on proxy-based rates described in this section apply on a geographically averaged basis. For purposes of determining whether geographically deaveraged rates for elements comply with the provisions of this section, a geographically averaged proxy-based rate shall be computed based on the weighted average of the actual, geographically deaveraged rates that apply in separate geographic areas in a state.

(c) *Proxies for specific elements.*

(1) *Local loops.* For each state listed below, the proxy-based monthly rate for unbundled local loops, on a statewide weighted average basis, shall be no greater than the figures listed in the table below. (The Commission has not established a default proxy ceiling for loop rates in Alaska.)

TABLE

State	Proxy ceiling
Alabama	$17.25
Arizona	12.85
Arkansas	21.18
California	11.10
Colorado	14.97

TABLE—Continued

State	Proxy ceiling
Connecticut	13.23
Delaware	13.24
District of Columbia	10.81
Florida	13.68
Georgia	16.09
Hawaii	15.27
Idaho	20.16
Illinois	13.12
Indiana	13.29
Iowa	15.94
Kansas	19.85
Kentucky	16.70
Louisiana	16.98
Maine	18.69
Maryland	13.36
Massachusetts	9.83
Michigan	15.27
Minnesota	14.81
Mississippi	21.97
Missouri	18.32
Montana	25.18
Nebraska	18.05
Nevada	18.95
New Hampshire	16.00
New Jersey	12.47
New Mexico	18.66
New York	11.75
North Carolina	16.71
North Dakota	25.36
Ohio	15.73
Oklahoma	17.63
Oregon	15.44
Pennsylvania	12.30
Puerto Rico	12.47
Rhode Island	11.48
South Carolina	17.07
South Dakota	25.33
Tennessee	17.41
Texas	15.49
Utah	15.12
Vermont	20.13
Virginia	14.13
Washington	13.37
West Virginia	19.25
Wisconsin	15.94
Wyoming	25.11

(2) *Local switching.* The blended proxy-based rate for unbundled local switching shall be no greater than 0.4 cents ($0.004) per minute, and no less than 0.2 cents ($0.002) per minute, except that, where a state commission has, before August 8, 1996, established a rate less than or equal to 0.5 cents ($0.005) per minute, that rate may be retained pending completion of a forward-looking economic cost study. The blended rate for unbundled local switching shall be calculated as the sum of the following:

(i) The applicable flat-rated charges for subelements associated with unbundled local switching, such as line ports, divided by the projected average minutes of use per flat-rated subelement; and

(ii) The applicable usage-sensitive charges for subelements associated with

unbundled local switching, such as switching and trunk ports. A weighted average of such charges shall be used in appropriate circumstances, such as when peak and off-peak charges are used.

(3) *Dedicated transmission links.* The proxy-based rates for dedicated transmission links shall be no greater than the incumbent LEC's tariffed interstate charges for comparable entrance facilities or direct-trunked transport offerings, as described in §§ 69.110 and 69.112 of this chapter.

(4) *Shared transmission facilities between tandem switches and end offices.* The proxy-based rates for shared transmission facilities between tandem switches and end offices shall be no greater than the weighted per-minute equivalent of DS1 and DS3 interoffice dedicated transmission link rates that reflects the relative number of DS1 and DS3 circuits used in the tandem to end office links (or a surrogate based on the proportion of copper and fiber facilities in the interoffice network), calculated using a loading factor of 9,000 minutes per month per voice-grade circuit, as described in § 69.112 of this chapter.

(5) *Tandem switching.* The proxy-based rate for tandem switching shall be no greater than 0.15 cents ($0.0015) per minute of use.

(6) *Collocation.* To the extent that the incumbent LEC offers a comparable form of collocation in its interstate expanded interconnection tariffs, as described in §§ 64.1401 and 69.121 of this chapter, the proxy-based rates for collocation shall be no greater than the effective rates for equivalent services in the interstate expanded interconnection tariff. To the extent that the incumbent LEC does not offer a comparable form of collocation in its interstate expanded interconnection tariffs, a state commission may, in its discretion, establish a proxy-based rate, provided that the state commission sets forth in writing a reasonable basis for concluding that its rate would approximate the result of a forward-looking economic cost study, as described in § 51.505.

(7) *Signaling, call-related database, and other elements.* To the extent that the incumbent LEC has established rates for offerings comparable to other elements in its interstate access tariffs, and has provided cost support for those rates pursuant to § 61.49(h) of this chapter, the proxy-based rates for those elements shall be no greater than the effective rates for equivalent services in the interstate access tariffs. In other cases, the proxy-based rate shall be no greater than a rate based on direct costs plus a reasonable allocation of overhead loadings, pursuant to § 61.49(h) of this chapter.

§ 51.515 Application of access charges.

(a) Neither the interstate access charges described in part 69 of this chapter nor comparable intrastate access charges shall be assessed by an incumbent LEC on purchasers of elements that offer telephone exchange or exchange access services.

(b) Notwithstanding §§ 51.505, 51.511, and 51.513(d)(2) and paragraph (a) of this section, an incumbent LEC may assess upon telecommunications carriers that purchase unbundled local switching elements, as described in § 51.319(c)(1), for interstate minutes of use traversing such unbundled local switching elements, the carrier common line charge described in § 69.105 of this chapter, and a charge equal to 75% of the interconnection charge described in § 69.124 of this chapter, only until the earliest of the following, and not thereafter:

(1) June 30, 1997;

(2) The later of the effective date of a final Commission decision in CC Docket No. 96–45, *Federal-State Joint Board on Universal Service,* or the effective date of a final Commission decision in a proceeding to consider reform of the interstate access charges described in part 69; or

(3) With respect to a Bell operating company only, the date on which that company is authorized to offer in-region interLATA service in a state pursuant to section 271 of the Act. The end date for Bell operating companies that are authorized to offer interLATA service shall apply only to the recovery of access charges in those states in which the Bell operating company is authorized to offer such service.

(c) Notwithstanding §§ 51.505, 51.511, and 51.513(d)(2) and paragraph (a) of this section, an incumbent LEC may assess upon telecommunications carriers that purchase unbundled local switching elements, as described in § 51.319(c)(1), for intrastate toll minutes of use traversing such unbundled local switching elements, intrastate access charges comparable to those listed in paragraph (b) and any explicit intrastate universal service mechanism based on access charges, only until the earliest of the following, and not thereafter:

(1) June 30, 1997;

(2) The effective date of a state commission decision that an incumbent LEC may not assess such charges; or

(3) With respect to a Bell operating company only, the date on which that company is authorized to offer in-region interLATA service in the state pursuant to section 271 of the Act. The end date for Bell operating companies that are authorized to offer interLATA service shall apply only to the recovery of access charges in those states in which the Bell operating company is authorized to offer such service.

Subpart G—Resale

§ 51.601 Scope of resale rules.

The provisions of this subpart govern the terms and conditions under which LECs offer telecommunications services to requesting telecommunications carriers for resale.

§ 51.603 Resale obligation of all local exchange carriers.

(a) A LEC shall make its telecommunications services available for resale to requesting telecommunications carriers on terms and conditions that are reasonable and non-discriminatory.

(b) A LEC must provide services to requesting telecommunications carriers for resale that are equal in quality, subject to the same conditions, and provided within the same provisioning time intervals that the LEC provides these services to others, including end users.

§ 51.605 Additional obligations of incumbent local exchange carriers.

(a) An incumbent LEC shall offer to any requesting telecommunications carrier any telecommunications service that the incumbent LEC offers on a retail basis to subscribers that are not telecommunications carriers for resale at wholesale rates that are, at the election of the state commission—

(1) Consistent with the avoided cost methodology described in §§ 51.607 and 51.609; or

(2) Interim wholesale rates, pursuant to § 51.611.

(b) Except as provided in § 51.613, an incumbent LEC shall not impose restrictions on the resale by a requesting carrier of telecommunications services offered by the incumbent LEC.

§ 51.607 Wholesale pricing standard.

(a) The wholesale rate that an incumbent LEC may charge for a telecommunications service provided for resale to other telecommunications carriers shall equal the incumbent LEC's existing retail rate for the telecommunications service, less avoided retail costs, as described in § 51.609.

(b) For purposes of this subpart, exchange access services, as defined in section 3 of the Act, shall not be considered to be telecommunications services that incumbent LECs must make available for resale at wholesale

rates to requesting telecommunications carriers.

§ 51.609 Determination of avoided retail costs.

(a) Except as provided in § 51.611, the amount of avoided retail costs shall be determined on the basis of a cost study that complies with the requirements of this section.

(b) Avoided retail costs shall be those costs that reasonably can be avoided when an incumbent LEC provides a telecommunications service for resale at wholesale rates to a requesting carrier.

(c) For incumbent LECs that are designated as Class A companies under § 32.11 of this chapter, except as provided in paragraph (d) of this section, avoided retail costs shall:

(1) Include, as direct costs, the costs recorded in USOA accounts 6611 (product management), 6612 (sales), 6613 (product advertising), 6621 (call completion services), 6622 (number services), and 6623 (customer services) (§§ 32.6611, 32.6612, 32.6613, 32.6621, 32.6622, and 32.6623 of this chapter);

(2) Include, as indirect costs, a portion of the costs recorded in USOA accounts 6121–6124 (general support expenses), 6711, 6712, 6721–6728 (corporate operations expenses), and 5301 (telecommunications uncollectibles) (§§ 32.6121–32.6124, 32.6711, 32.6712, 32.6721–32.6728, and 32.5301 of this chapter); and

(3) Not include plant-specific expenses and plant non-specific expenses, other than general support expenses (§§ 32.6110–32.6116, 32.6210–32.6565 of this chapter).

(d) Costs included in accounts 6611–6613 and 6621–6623 described in paragraph (c) of this section (§§ 32.6611–32.6613 and 32.6621–32.6623 of this chapter) may be included in wholesale rates only to the extent that the incumbent LEC proves to a state commission that specific costs in these accounts will be incurred and are not avoidable with respect to services sold at wholesale, or that specific costs in these accounts are not included in the retail prices of resold services. Costs included in accounts 6110–6116 and 6210–6565 described in paragraph (c) of this section (§§ 32.6110–32.6116, 32.6210–32.6565 of this chapter) may be treated as avoided retail costs, and excluded from wholesale rates, only to the extent that a party proves to a state commission that specific costs in these accounts can reasonably be avoided when an incumbent LEC provides a telecommunications service for resale to a requesting carrier.

(e) For incumbent LECs that are designated as Class B companies under § 32.11 of this chapter and that record information in summary accounts instead of specific USOA accounts, the entire relevant summary accounts may be used in lieu of the specific USOA accounts listed in paragraphs (c) and (d) of this section.

§ 51.611 Interim wholesale rates.

(a) If a state commission cannot, based on the information available to it, establish a wholesale rate using the methodology prescribed in § 51.609, then the state commission may elect to establish an interim wholesale rate as described in paragraph (b) of this section.

(b) The state commission may establish interim wholesale rates that are at least 17 percent, and no more than 25 percent, below the incumbent LEC's existing retail rates, and shall articulate the basis for selecting a particular discount rate. The same discount percentage rate shall be used to establish interim wholesale rates for each telecommunications service.

(c) A state commission that establishes interim wholesale rates shall, within a reasonable period of time thereafter, establish wholesale rates on the basis of an avoided retail cost study that complies with § 51.609.

§ 51.613 Restrictions on resale.

(a) Notwithstanding § 51.605(b), the following types of restrictions on resale may be imposed:

(1) *Cross-class selling.* A state commission may permit an incumbent LEC to prohibit a requesting telecommunications carrier that purchases at wholesale rates for resale, telecommunications services that the incumbent LEC makes available only to residential customers or to a limited class of residential customers, from offering such services to classes of customers that are not eligible to subscribe to such services from the incumbent LEC.

(2) *Short term promotions.* An incumbent LEC shall apply the wholesale discount to the ordinary rate for a retail service rather than a special promotional rate only if:

(i) Such promotions involve rates that will be in effect for no more than 90 days; and

(ii) The incumbent LEC does not use such promotional offerings to evade the wholesale rate obligation, for example by making available a sequential series of 90-day promotional rates. r

(b) With respect to any restrictions on resale not permitted under paragraph (a), an incumbent LEC may impose a restriction only if it proves to the state commission that the restriction is reasonable and nondiscriminatory.

(c) *Branding.* Where operator, call completion, or directory assistance service is part of the service or service package an incumbent LEC offers for resale, failure by an incumbent LEC to comply with reseller unbranding or rebranding requests shall constitute a restriction on resale.

(1) An incumbent LEC may impose such a restriction only if it proves to the state commission that the restriction is reasonable and nondiscriminatory, such as by proving to a state commission that the incumbent LEC lacks the capability to comply with unbranding or rebranding requests.

(2) For purposes of this subpart, unbranding or rebranding shall mean that operator, call completion, or directory assistance services are offered in such a manner that an incumbent LEC's brand name or other identifying information is not identified to subscribers, or that such services are offered in such a manner that identifies to subscribers the requesting carrier's brand name or other identifying information.

§ 51.615 Withdrawal of services.

When an incumbent LEC makes a telecommunications service available only to a limited group of customers that have purchased such a service in the past, the incumbent LEC must also make such a service available at wholesale rates to requesting carriers to offer on a resale basis to the same limited group of customers that have purchased such a service in the past.

§ 51.617 Assessment of end user common line charge on resellers.

(a) Notwithstanding the provision in § 69.104(a) of this chapter that the end user common line charge be assessed upon end users, an incumbent LEC shall assess this charge, and the charge for changing the designated primary interexchange carrier, upon requesting carriers that purchase telephone exchange service for resale. The specific end user common line charge to be assessed will depend upon the identity of the end user served by the requesting carrier.

(b) When an incumbent LEC provides telephone exchange service to a requesting carrier at wholesale rates for resale, the incumbent LEC shall continue to assess the interstate access charges provided in part 69 of this chapter, other than the end user common line charge, upon interexchange carriers that use the incumbent LEC's facilities to provide interstate or international

telecommunications services to the interexchange carriers' subscribers.

Subpart H—Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic

§ 51.701 Scope of transport and termination pricing rules.

(a) The provisions of this subpart apply to reciprocal compensation for transport and termination of local telecommunications traffic between LECs and other telecommunications carriers.

(b) *Local telecommunications traffic.* For purposes of this subpart, local telecommunications traffic means:

(1) Telecommunications traffic between a LEC and a telecommunications carrier other than a CMRS provider that originates and terminates within a local service area established by the state commission; or

(2) Telecommunications traffic between a LEC and a CMRS provider that, at the beginning of the call, originates and terminates within the same Major Trading Area, as defined in § 24.202(a) of this chapter.

(c) *Transport.* For purposes of this subpart, transport is the transmission and any necessary tandem switching of local telecommunications traffic subject to section 251(b)(5) of the Act from the interconnection point between the two carriers to the terminating carrier's end office switch that directly serves the called party, or equivalent facility provided by a carrier other than an incumbent LEC.

(d) *Termination.* For purposes of this subpart, termination is the switching of local telecommunications traffic at the terminating carrier's end office switch, or equivalent facility, and delivery of such traffic to the called party's premises.

(e) *Reciprocal compensation.* For purposes of this subpart, a reciprocal compensation arrangement between two carriers is one in which each of the two carriers receives compensation from the other carrier for the transport and termination on each carrier's network facilities of local telecommunications traffic that originates on the network facilities of the other carrier.

§ 51.703 Reciprocal compensation obligation of LECs.

(a) Each LEC shall establish reciprocal compensation arrangements for transport and termination of local telecommunications traffic with any requesting telecommunications carrier.

(b) A LEC may not assess charges on any other telecommunications carrier for local telecommunications traffic that originates on the LEC's network.

§ 51.705 Incumbent LECs' rates for transport and termination.

(a) An incumbent LEC's rates for transport and termination of local telecommunications traffic shall be established, at the election of the state commission, on the basis of:

(1) The forward-looking economic costs of such offerings, using a cost study pursuant to §§ 51.505 and 51.511;

(2) Default proxies, as provided in § 51.707; or

(3) A bill-and-keep arrangement, as provided in § 51.713.

(b) In cases where both carriers in a reciprocal compensation arrangement are incumbent LECs, state commissions shall establish the rates of the smaller carrier on the basis of the larger carrier's forward-looking costs, pursuant to § 51.711.

§ 51.707 Default proxies for incumbent LECs' transport and termination rates.

(a) A state commission may determine that the cost information available to it with respect to transport and termination of local telecommunications traffic does not support the adoption of a rate or rates for an incumbent LEC that are consistent with the requirements of §§ 51.505 and 51.511. In that event, the state commission may establish rates for transport and termination of local telecommunications traffic, or for specific components included therein, that are consistent with the proxies specified in this section, provided that:

(1) Any rate established through use of such proxies is superseded once that state commission establishes rates for transport and termination pursuant to §§ 51.705(a)(1) or 51.705(a)(3); and

(2) The state commission sets forth in writing a reasonable basis for its selection of a particular proxy for transport and termination of local telecommunications traffic, or for specific components included within transport and termination.

(b) If a state commission establishes rates for transport and termination of local telecommunications traffic on the basis of default proxies, such rates must meet the following requirements:

(1) *Termination.* The incumbent LEC's rates for the termination of local telecommunications traffic shall be no greater than 0.4 cents ($0.004) per minute, and no less than 0.2 cents ($0.002) per minute, except that, if a state commission has, before August 8, 1996, established a rate less than or equal to 0.5 cents ($0.005) per minute for such calls, that rate may be retained pending completion of a forward-looking economic cost study.

(2) *Transport.* The incumbent LEC's rates for the transport of local telecommunications traffic, under this section, shall comply with the proxies described in § 51.513(d) (3), (4), and (5) that apply to the analogous unbundled network elements used in transporting a call to the end office that serves the called party.

§ 51.709 Rate structure for transport and termination.

(a) In state proceedings, a state commission shall establish rates for the transport and termination of local telecommunications traffic that are structured consistently with the manner that carriers incur those costs, and consistently with the principles in §§ 51.507 and 51.509.

(b) The rate of a carrier providing transmission facilities dedicated to the transmission of traffic between two carriers' networks shall recover only the costs of the proportion of that trunk capacity used by an interconnecting carrier to send traffic that will terminate on the providing carrier's network. Such proportions may be measured during peak periods.

§ 51.711 Symmetrical reciprocal compensation.

(a) Rates for transport and termination of local telecommunications traffic shall be symmetrical, except as provided in paragraphs (b) and (c) of this section.

(1) For purposes of this subpart, symmetrical rates are rates that a carrier other than an incumbent LEC assesses upon an incumbent LEC for transport and termination of local telecommunications traffic equal to those that the incumbent LEC assesses upon the other carrier for the same services.

(2) In cases where both parties are incumbent LECs, or neither party is an incumbent LEC, a state commission shall establish the symmetrical rates for transport and termination based on the larger carrier's forward-looking costs.

(3) Where the switch of a carrier other than an incumbent LEC serves a geographic area comparable to the area served by the incumbent LEC's tandem switch, the appropriate rate for the carrier other than an incumbent LEC is the incumbent LEC's tandem interconnection rate.

(b) A state commission may establish asymmetrical rates for transport and termination of local telecommunications traffic only if the carrier other than the incumbent LEC (or the smaller of two incumbent LECs) proves to the state commission on the basis of a cost study using the forward-looking economic cost based pricing methodology described in §§ 51.505 and 51.511, that the forward-looking costs for a network

efficiently configured and operated by the carrier other than the incumbent LEC (or the smaller of two incumbent LECs), exceed the costs incurred by the incumbent LEC (or the larger incumbent LEC), and, consequently, that such that a higher rate is justified.

(c) Pending further proceedings before the Commission, a state commission shall establish the rates that licensees in the Paging and Radiotelephone Service (defined in part 22, subpart E of this chapter), Narrowband Personal Communications Services (defined in part 24, subpart D of this chapter), and Paging Operations in the Private Land Mobile Radio Services (defined in part 90, subpart P of this chapter) may assess upon other carriers for the transport and termination of local telecommunications traffic based on the forward-looking costs that such licensees incur in providing such services, pursuant to §§ 51.505 and 51.511. Such licensees' rates shall not be set based on the default proxies described in § 51.707.

§ 51.713 Bill-and-keep arrangements for reciprocal compensation.

(a) For purposes of this subpart, bill-and-keep arrangements are those in which neither of the two interconnecting carriers charges the other for the termination of local telecommunications traffic that originates on the other carrier's network.

(b) A state commission may impose bill-and-keep arrangements if the state commission determines that the amount of local telecommunications traffic from one network to the other is roughly balanced with the amount of local telecommunications traffic flowing in the opposite direction, and is expected to remain so, and no showing has been made pursuant to § 51.711(b).

(c) Nothing in this section precludes a state commission from presuming that the amount of local telecommunications traffic from one network to the other is roughly balanced with the amount of local telecommunications traffic flowing in the opposite direction and is expected to remain so, unless a party rebuts such a presumption.

§ 51.715 Interim transport and termination pricing.

(a) Upon request from a telecommunications carrier without an existing interconnection arrangement with an incumbent LEC, the incumbent LEC shall provide transport and termination of local telecommunications traffic immediately under an interim arrangement, pending resolution of negotiation or arbitration regarding transport and termination rates and approval of such rates by a state commission under sections 251 and 252 of the Act.

(1) This requirement shall not apply when the requesting carrier has an existing interconnection arrangement that provides for the transport and termination of local telecommunications traffic by the incumbent LEC.

(2) A telecommunications carrier may take advantage of such an interim arrangement only after it has requested negotiation with the incumbent LEC pursuant to § 51.301.

(b) Upon receipt of a request as described in paragraph (a) of this section, an incumbent LEC must, without unreasonable delay, establish an interim arrangement for transport and termination of local telecommunications traffic at symmetrical rates.

(1) In a state in which the state commission has established transport and termination rates based on forward-looking economic cost studies, an incumbent LEC shall use these state-determined rates as interim transport and termination rates.

(2) In a state in which the state commission has established transport and termination rates consistent with the default price ranges and ceilings described in § 51.707, an incumbent LEC shall use these state-determined rates as interim rates.

(3) In a state in which the state commission has neither established transport and termination rates based on forward-looking economic cost studies nor established transport and termination rates consistent with the default price ranges described in § 51.707, an incumbent LEC shall set interim transport and termination rates at the default ceilings for end-office switching (0.4 cents per minute of use), tandem switching (0.15 cents per minute of use), and transport (as described in § 51.707(b)(2)).

(c) An interim arrangement shall cease to be in effect when one of the following occurs with respect to rates for transport and termination of local telecommunications traffic subject to the interim arrangement:

(1) A voluntary agreement has been negotiated and approved by a state commission;

(2) An agreement has been arbitrated and approved by a state commission; or

(3) The period for requesting arbitration has passed with no such request.

(d) If the rates for transport and termination of local telecommunications traffic in an interim arrangement differ from the rates established by a state commission pursuant to § 51.705, the state commission shall require carriers to make adjustments to past compensation. Such adjustments to past compensation shall allow each carrier to receive the level of compensation it would have received had the rates in the interim arrangement equalled the rates later established by the state commission pursuant to § 51.705.

§ 51.717 Renegotiation of existing non-reciprocal arrangements.

(a) Any CMRS provider that operates under an arrangement with an incumbent LEC that was established before August 8, 1996 and that provides for non-reciprocal compensation for transport and termination of local telecommunications traffic is entitled to renegotiate these arrangements with no termination liability or other contract penalties.

(b) From the date that a CMRS provider makes a request under paragraph (a) of this section until a new agreement has been either arbitrated or negotiated and has been approved by a state commission, the CMRS provider shall be entitled to assess upon the incumbent LEC the same rates for the transport and termination of local telecommunications traffic that the incumbent LEC assesses upon the CMRS provider pursuant to the pre-existing arrangement.

Subpart I—Procedures for Implementation of Section 252 of the Act

§ 51.801 Commission action upon a state commission's failure to act to carry out its responsibility under section 252 of the Act.

(a) If a state commission fails to act to carry out its responsibility under section 252 of the Act in any proceeding or other matter under section 252 of the Act, the Commission shall issue an order preempting the state commission's jurisdiction of that proceeding or matter within 90 days after being notified (or taking notice) of such failure, and shall assume the responsibility of the state commission under section 252 of the Act with respect to the proceeding or matter and shall act for the state commission.

(b) For purposes of this part, a state commission fails to act if the state commission fails to respond, within a reasonable time, to a request for mediation, as provided for in section 252(a)(2) of the Act, or for a request for arbitration, as provided for in section 252(b) of the Act, or fails to complete an arbitration within the time limits established in section 252(b)(4)(C) of the Act.

(c) A state shall not be deemed to have failed to act for purposes of section 252(e)(5) of the Act if an agreement is

deemed approved under section 252(e)(4) of the Act.

§ 51.803 Procedures for Commission notification of a state commission's failure to act.

(a) Any party seeking preemption of a state commission's jurisdiction, based on the state commission's failure to act, shall notify the Commission in accordance with following procedures:

(1) Such party shall file with the Secretary of the Commission a petition, supported by an affidavit, that states with specificity the basis for the petition and any information that supports the claim that the state has failed to act, including, but not limited to, the applicable provisions of the Act and the factual circumstances supporting a finding that the state commission has failed to act;

(2) Such party shall ensure that the state commission and the other parties to the proceeding or matter for which preemption is sought are served with the petition required in paragraph (a)(1) of this section on the same date that the petitioning party serves the petition on the Commission; and

(3) Within fifteen days from the date of service of the petition required in paragraph (a)(1) of this section, the applicable state commission and parties to the proceeding may file with the Commission a response to the petition.

(b) The party seeking preemption must prove that the state has failed to act to carry out its responsibilities under section 252 of the Act.

(c) The Commission, pursuant to section 252(e)(5) of the Act, may take notice upon its own motion that a state commission has failed to act. In such a case, the Commission shall issue a public notice that the Commission has taken notice of a state commission's failure to act. The applicable state commission and the parties to a proceeding or matter in which the Commission has taken notice of the state commission's failure to act may file, within fifteen days of the issuance of the public notice, comments on whether the Commission is required to assume the responsibility of the state commission under section 252 of the Act with respect to the proceeding or matter.

(d) The Commission shall issue an order determining whether it is required to preempt the state commission's jurisdiction of a proceeding or matter within 90 days after being notified under paragraph (a) of this section or taking notice under paragraph (c) of this section of a state commission's failure to carry out its responsibilities under section 252 of the Act.

§ 51.805 The Commission's authority over proceedings and matters.

(a) If the Commission assumes responsibility for a proceeding or matter pursuant to section 252(e)(5) of the Act, the Commission shall retain jurisdiction over such proceeding or matter. At a minimum, the Commission shall approve or reject any interconnection agreement adopted by negotiation, mediation or arbitration for which the Commission, pursuant to section 252(e)(5) of the Act, has assumed the state's commission's responsibilities.

(b) Agreements reached pursuant to mediation or arbitration by the Commission pursuant to section 252(e)(5) of the Act are not required to be submitted to the state commission for approval or rejection.

§ 51.807 Arbitration and mediation of agreements by the Commission pursuant to section 252(e)(5) of the Act.

(a) The rules established in this section shall apply only to instances in which the Commission assumes jurisdiction under section 252(e)(5) of the Act.

(b) When the Commission assumes responsibility for a proceeding or matter pursuant to section 252(e)(5) of the Act, it shall not be bound by state laws and standards that would have applied to the state commission in such proceeding or matter.

(c) In resolving, by arbitration under section 252(b) of the Act, any open issues and in imposing conditions upon the parties to the agreement, the Commission shall:

(1) Ensure that such resolution and conditions meet the requirements of section 251 of the Act, including the rules prescribed by the Commission pursuant to that section;

(2) Establish any rates for interconnection, services, or network elements according to section 252(d) of the Act, including the rules prescribed by the Commission pursuant to that section; and

(3) Provide a schedule for implementation of the terms and conditions by the parties to the agreement.

(d) An arbitrator, acting pursuant to the Commission's authority under section 252(e)(5) of the Act, shall use final offer arbitration, except as otherwise provided in this section:

(1) At the discretion of the arbitrator, final offer arbitration may take the form of either entire package final offer arbitration or issue-by-issue final offer arbitration.

(2) Negotiations among the parties may continue, with or without the assistance of the arbitrator, after final arbitration offers are submitted. Parties may submit subsequent final offers following such negotiations.

(3) To provide an opportunity for final post-offer negotiations, the arbitrator will not issue a decision for at least fifteen days after submission to the arbitrator of the final offers by the parties.

(e) Final offers submitted by the parties to the arbitrator shall be consistent with section 251 of the Act, including the rules prescribed by the Commission pursuant to that section.

(f) Each final offer shall:

(1) Meet the requirements of section 251, including the rules prescribed by the Commission pursuant to that section;

(2) Establish rates for interconnection, services, or access to unbundled network elements according to section 252(d) of the Act, including the rules prescribed by the Commission pursuant to that section; and

(3) Provide a schedule for implementation of the terms and conditions by the parties to the agreement. If a final offer submitted by one or more parties fails to comply with the requirements of this section, the arbitrator has discretion to take steps designed to result in an arbitrated agreement that satisfies the requirements of section 252(c) of the Act, including requiring parties to submit new final offers within a time frame specified by the arbitrator, or adopting a result not submitted by any party that is consistent with the requirements of section 252(c) of the Act, and the rules prescribed by the Commission pursuant to that section.

(g) Participation in the arbitration proceeding will be limited to the requesting telecommunications carrier and the incumbent LEC, except that the Commission will consider requests by third parties to file written pleadings.

(h) Absent mutual consent of the parties to change any terms and conditions adopted by the arbitrator, the decision of the arbitrator shall be binding on the parties.

§ 51.809 Availability of provisions of agreements to other telecommunications carriers under section 252(i) of the Act.

(a) An incumbent LEC shall make available without unreasonable delay to any requesting telecommunications carrier any individual interconnection, service, or network element arrangement contained in any agreement to which it is a party that is approved by a state commission pursuant to section 252 of the Act, upon the same rates, terms, and conditions as those provided in the agreement. An

incumbent LEC may not limit the availability of any individual interconnection, service, or network element only to those requesting carriers serving a comparable class of subscribers or providing the same service (*i.e.*, local, access, or interexchange) as the original party to the agreement.

(b) The obligations of paragraph (a) of this section shall not apply where the incumbent LEC proves to the state commission that:

(1) The costs of providing a particular interconnection, service, or element to the requesting telecommunications carrier are greater than the costs of providing it to the telecommunications carrier that originally negotiated the agreement, or

(2) The provision of a particular interconnection, service, or element to the requesting carrier is not technically feasible.

(c) Individual interconnection, service, or network element arrangements shall remain available for use by telecommunications carriers pursuant to this section for a reasonable period of time after the approved agreement is available for public inspection under section 252(f) of the Act.

PART 90—PRIVATE LAND MOBILE RADIO SERVICES

11. The authority citation for Part 90 is revised to read as follows:

Authority: Secs. 4, 251–2, 303, 309, and 332, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 251–2, 303, 309 and 332, unless otherwise noted.

12. Section 90.5 is amended by redesignating paragraphs (k) and (l) as paragraphs (l) and (m), and adding new paragraph (k) to read as follows:

§ 90.5 Other applicable rule parts.

* * * * *

(k) Part 51 contains rules relating to interconnection.

* * * * *

This Attachment A will not be published in the Code of Federal Regulations

Attachment A

List of Commenters in CC Docket No. 96–98

360° Communications Company (360 Communications)
Ad Hoc Coalition of Corporate Telecommunications Managers
Ad Hoc Telecommunications Users Committee
AirTouch Communications, Inc. (AirTouch)
Alabama Public Service Commission (Alabama Commission)
Alaska Telephone Association (Alaska Tel. Ass'n)
Alaska Public Utilities Commission (Alaska Commission)
Alliance for Public Technology
Allied Association Partners, LP & Geld Information Systems (Allied Ass'n)
ALLTEL Telephone Services Corporation (ALLTEL)
American Communications Services, Inc. (ACSI)
American Foundation for the Blind
American Mobile Telecommunications Association, Inc. (American Mobile Telecomm. Ass'n)
American Network Exchange, Inc. & U.S. Long Distance, Inc. (American Network Exchange)
American Personal Communications
American Petroleum Institute
American Public Communications Council
American Public Power Association (APPA)
America's Carriers Telecommunication Association (ACTA)
Ameritech
Anchorage Telephone Utility (Anchorage Tel. Utility)
Arch Communications Group, Inc. (Arch)
Arizona Corporation Commission (Arizona Commission)
Association for Study of Afro-American Life and History, Inc. (ASALH)
Association for Local Telecommunications Services (ALTS)
Association of Telemessaging Services International
AT&T Corp. (AT&T)
Attorneys General of Connecticut, Delaware, Illinois, Iowa, Massachusetts, Michigan, Minnesota, Missouri, New York, North Dakota, Pennsylvania, West Virginia and Wisconsin (Attorneys General)
Bay Springs Telephone Co., Crockett Telephone Co., National Telephone Company of Alabama, Peoples Telephone Company, Roanoke Telephone Co. & West Tennessee Telephone Company (Bay Springs, et al.)
Black Data Processing Associates
Black Data Processors Association (Black Data Processors Ass'n)
Bell Atlantic Telephone Companies (Bell Atlantic)
Bell Atlantic NYNEX Mobile, Inc. (Bell Atlantic NYNEX Mobile)
BellSouth Corporation, Bell Enterprises, Inc., BellSouth Telecommunications, Inc. (BellSouth)
Bogue, Kansas
Buckeye Cablevision, Inc. (Buckeye Cablevision)
Cable & Wireless, Inc. (Cable & Wireless)
Cellular Telecommunications Industry Association (CTIA)
Celpage, Inc. (Celpage)
Centennial Cellular Corp.
Chrysler Minority Dealers Association (Chrysler Minority Dealers Ass'n)
Cincinnati Bell Telephone Company (Cincinnati Bell)
Citizens Utilities Company (Citizens Utilities)
Classic Telephone, Inc. (Classic Tel.)
Colorado Independent Telephone Association (Colorado Independent Tel. Ass'n)
Colorado Public Utilities Commission (Colorado Commission)
COMAV, Corp. (COMAV)
Comcast Cellular Communications, Inc. (Comcast Cellular)
Comcast Corporation (Comcast)
Communications and Energy Dispute Resolution Associates (CEDRA)
Competition Policy Institute
Competitive Telecommunications Association (CompTel)
Connecticut Department of Public Utility Control (Connecticut Commission)
Consumer Federation of America & Consumers Union (CFA/CU)
Consumer Project on Technology on Interconnection & Unbundling (Consumer Project)
Continental Cablevision, Inc. (Continental)
Cox Communications, Inc. (Cox)
Defense, Secretary of
DeSoto County, Mississippi Economic Development Council
District of Columbia Public Service Commission (District of Columbia Commission)
Economides, Nicholas (N. Economides)
Ericsson Corporation, The (Ericsson)
Excel Telecommunications, Inc. (Excel)
Florida Public Service Commission (Florida Commission)
Fred Williamson & Associates, Inc. (F. Williamson)
Frontier Corporation (Frontier)
General Communication, Inc. (GCI)
General Services Administration/Department of Defense (GSA/DOD)
Georgia Public Service Commission (Georgia Commission)
Greater Washington Urban League
GST Telecom, Inc. (GST)
GTE Service Corporation (GTE)
Guam Telephone Authority
GVNW Inc./Management (GVNW)
Hart Engineers/Robert A. Hart, IV (Hart Engineers)
Hawaii Public Utilities Commission (Hawaii Commission)
Home Telephone Company, Inc. (Home Tel.)
Hyperion Telecommunications, Inc. (Hyperion)
Idaho Public Utilities Commission (Idaho Commission)
Illinois Commerce Commission (Illinois Commission)
Illinois Independent Telephone Association (Illinois Ind. Tel. Ass'n)
Independent Cable & Telecommunications Association (Ind. Cable & Telecomm. Ass'n)
Independent Data Communications Manufacturers Association (IDCMA)
Indiana Utility Regulatory Commission Staff (Indiana Commission Staff)
Information Technology Industry Council (ITIC)
Intelcom Group (U.S.A.), Inc. (Intelcom)
Intermedia Communications, Inc. (Intermedia)
International Communications Association (Intl. Comm. Ass'n)
Iowa Utilities Board (Iowa Commission)
John Staurulakis, Inc. (J. Staurulakis)
Joint Consumer Advocates
Jones Intercable, Inc. (Jones Intercable)
Justice, U. S. Department of (DoJ)
Kansas Corporation Commission (Kansas Commission)

Kentucky Public Service Commission (Kentucky Commission)
Koch, Richard N. (R. Koch)
LCI International Telecom Corp. (LCI)
LDDS Worldcom (LDDS)
Lincoln Telephone & Telegraph Company (Lincoln Tel.)
Louisiana Public Service Commission (Louisiana Commission)
Lucent Technologies, Inc. (Lucent)
Margaretville Telephone Co., Inc. (Margaretville Tel.)
Maryland Public Service Commission (Maryland Commission)
Massachusetts Assistive Technology Partnership Center World Institute on Disability, Alliance for Technology Access, Trace Research and Development Center, CPB/WGBH National Center For Accessible Media (Mass. Assistive Tech. Partnership, et al.)
Massachusetts, Commonwealth of Department of Public Utilities (Mass. Commission)
Massachusetts, Commonwealth of, Office of Attorney General (Mass. Attorney General)
Matanuska Telephone Association, Inc. (Matanuska Tel.)
MCI
Metricom, Inc. (Metricom)
MFS
Michigan Exchange Carriers Association (MECA)
Michigan, Illinois, and Texas Communities, et al.
Michigan Public Service Commission Staff (Michigan Commission Staff)
Minnesota Independent Coalition (Minnesota Independent Coalition)
Minnesota Public Utilities Commission (Minnesota Commission)
Missouri Public Service Commission (Missouri Commission)
Missouri Public Service Commissioner, Harold Crumpton (Missouri Commissioner)
Mobilemedia Communications, Inc. (Mobilemedia)
Motorola Satellite Communications, Inc. and U.S. Leo Services, Inc. (Motorola)
Municipal Utilities
National Association of the Deaf
National Association of Development Organizations, Gray Panthers, United Seniors Health Cooperative, United Homeowners Association, National Hispanic Council on Aging, National Trust/Trustnet, National Association of Commissions for Women, National Council of Senior Citizens (NADO, et al.)
National Association of Regulatory Utility Commissioners (NARUC)
National Association of State Utility Consumer Advocates (National Ass'n of State Utility Advocates)
National Bar Association (National Bar Ass'n)
National Cable Television Association, Inc. (NCTA)
National Exchange Carrier Association, Inc. (NECA)
National League of Cities & National Association of Telecommunications Officers and Advisors (NLC/NATOA)
National Private Telecommunications Association
National Telecommunications & Information Administration (NTIA)
National Wireless Resellers Association (National Wireless Resellers Ass'n)
Nebraska Rural Development Commission
Network Reliability Council, Secretariat of Second (Network Reliability Council)
New Hampshire Public Utilities Commission, New Mexico State Corporation Commission, Utah Division of Public Utilities, Vermont Public Service Board, and Vermont Department of Public Service (New Hampshire Commission, et al.)
New Jersey Cable Telecommunications Association, South Carolina Cable Television Association & Texas Cable Telecommunications Association (New Jersey Cable Ass'n, et al.)
New Jersey, Staff of Board of Public Utilities (New Jersey Commission Staff)
New York State Consumer Protection Board (New York Consumer Protection Board)
New York State Department of Public Service (New York Commission)
Nextel Communications, Inc. (Nextel)
NEXTLINK Communications, L.L.C. (NEXTLINK)
North Carolina Utility Commission Public Staff (North Carolina Commission Staff)
North Dakota Public Service Commission (North Dakota Commission)
Northern Telecom, Inc. (Nortel)
NYNEX Telephone Companies (NYNEX)
Ohio Public Utilities Commission (Ohio Commission)
Office of the Ohio Consumers' Counsel (Ohio Consumers' Counsel)
Oklahoma Corporation Commission (Oklahoma Commission)
Omnipoint Corporation (Omnipoint)
Optel, Inc. (Optel)
Oregon Public Utility Commission (Oregon Commission)
Pacific Telesis Group (PacTel)
Paging Network, Inc. (PageNet)
Pennsylvania Public Utility Commission (Pennsylvania Commission)
People of the State of California and the Public Utility Commission of the State of California (California Commission)
Personal Communications Industry Association (PCIA)
ProNet Inc. (ProNet)
Puerto Rico Telephone Company (Puerto Rico Tel.)
Roseville Telephone Company (Roseville Tel.)
Rural Telephone Coalition (Rural Tel. Coalition)
SBC Communications Inc. (SBC)
Scherers Communications Group, Inc. (SCG)
Small Business Administration, U.S. (SBA)
Small Cable Business Association (SCBA)
SDN Users Association
South Carolina Public Service Commission (South Carolina Commission)
Southern New England Telephone Company (SNET)
Southwestern Bell Telephone Company (SWBT)
Sprint Corporation (Sprint)
Sprint Spectrum & American Personal Communications (Sprint/APC)
State of Maine Public Utilities Commission, State of Montana Public Service Commission, State of Nebraska Public Service Commission, State of New Hampshire Public Utilities Commission, State of New Mexico State Corporation Commission, State of Utah Public Service Commission and Division of Public Utilities, State of Vermont Department of Public Service and Public Service Board, and Public Utilities Commission of South Dakota (Maine Commission, et al.)
TCA, Inc. (TCA)
TDS Telecommunications Corporation (TDS)
Telecommunication Industries Analysis Project
Telecommunications Carriers for Competition (TCC)
Tele-Communications, Inc. (TCI)
Telecommunications Industry Association (TIA)
Telecommunications Ratepayers Association for Cost-Based and Equitable Rates (TRACER)
Telecommunications Resellers Association (Telecomm. Resellers Ass'n)
Telefonica Larga Distancia de Puerto Rico, Inc. (TLD)
Teleport Communications Group, Inc. (Teleport)
Texas Office of Public Utility Counsel (Texas Public Utility Counsel)
Texas, Public Utilities Commission (Texas Commission)
Texas Statewide Telephone Cooperative, Inc.
Texas Telephone Association (Texas Tel. Ass'n)
Time Warner Communications Holdings, Inc. (Time Warner)
Unicom, Inc. (Unicom)
United Calling Network, Inc. (United Calling Network)
United Cerebral Palsy Association
United States Telephone Association (USTA)
USTN Services, Inc. (USTN)
U.S. Network Corporation (U.S. Network)
U S West, Inc. (U S West)
Utah Division of Public Utilities
UTC
Utilex, Inc. (Utilex)
Vanguard Cellular Systems, Inc. (Vanguard)
Vartec Telecom, Inc., Transtel, Telephone Express, CGI, & CommuniGroup Inc. of Mississippi (Vartec, et al.)
Virginia State Corporation Commission Staff (Virginia Commission Staff)
Washington Independent Telephone Association (Wash. Ind. Tel. Ass'n)
Washington Utilities and Transportation Commission (Washington Commission)
Western Alliance
WinStar Communications, Inc. (WinStar)
Wisconsin, Public Service Commission (Wisconsin Commission)
Wyoming Public Service Commission (Wyoming Commission)

List of Commenters in CC Docket No. 95–185

360 Degree Communications Co. (360 Degrees)
AirTouch Communications, Inc. (Airtouch)
Alaska 3 Cellular Corporation (Alaska CellularOne)
Alaska Telephone Association (ATA)
Alliance of Wireless Service Providers (Alliance)
Allied Personal Communications Industry Association of California (Allied)
ALLTEL Corporation (ALLTEL)
American Mobil Telecommunications Association (AMTA)

America's Carriers Telecommunications Association (ACTA)
American Personal Communications/Sprint Spectrum (APC/Sprint)
Ameritech
Anchorage Telephone Utility (ATU)
Arch Communications Group, Inc. (Arch)
AT&T Corporation (AT&T)
Bell Atlantic
Bell Atlantic Nynex Mobile (Bell Atlantic-NYNEX)
BellSouth Corporation (BellSouth)
State of California & the Public Utilities Commission (CPUC)
Cellular Communications of Puerto Rico, Inc. (CCPR)
Cellular Mobile Systems of St. Cloud G.P. (CMS)
Cellular Resellers Association (Cellular Resellers)
Cellular Telecommunications Industry Association (CTIA)
Celpage, Inc. (Celpage)
Centennial Cellular Corporation (Centennial)
Century Cellunet, Inc. (Century Cellunet)
Cincinnati Bell
CMT Partners (CMT)
Comcast Corporation (Comcast)
Competitive Telecommunications Association (CompTel)
Concord Telephone Company (Concord)
Connecticut Department of Public Utility (Connecticut)
Cox Enterprises, Inc. (Cox)
Florida Cellular RSA L.P. (Florida Cellular)
Frontier Corporation (Frontier)
GO Communications Corp. (GO)
General Services Administration (GSA)
GTE Services Corporation (GTE)
GVNW Inc., Management (GVNW)
Hart Engineers and 21st Century Telesis, Inc. (Hart Engineers)
Home Telephone Company, Inc. (HomeTel)
ICO Global Communications (ICO)
Illinois Commerce Commission (Illinois)
Illinois Independent Telephone Association (Illinois Ind. Tel. Assoc.)
Illinois Telephone Association (Illinois Telephone Assoc.)
John Staurulakis, Inc. (JSI)
LDDS WorldCom (LDDS WorldCom)
MCI Telecommunications Corp. (MCI)
MFS Communications Company, Inc. (MFS)
Mercury Cellular & Paging (Mercury)
Mountain Solutions
National Association of Regulatory Utility Commissioners (NARUC)
National Exchange Carrier Association (NECA)
National Telephone Cooperative Association (NTCA)
New Par
New York State Department of Public Service (New York)
Nextel Communications, Inc. (Nextel)
North Carolina 4 Cellular L.P. (North Carolina Cellular)
NYNEX Telephone Companies (NYNEX)
Public Utilities Commission of Ohio (Ohio)
Omnipoint Corporation (Omnipoint)
OPASTCO
Pacific Bell, Pacific Bell Mobile Services, Nevada Bell (Pacific Bell)
Paging Network, Inc. (PageNet)
Personal Communications Industry Association (PCIA)
Point Communications Company (Point)
Poka Lambro Telephone Cooperative (Poka Lambro)
Puerto Rico Telephone Company (PRTC)
Rural Cellular Association (RCA)
Rural Cellular Corporation (RCC)
SBC Communications, Inc. (SBC)
Smithville Telephone Company (Smithville)
Southeast Telephone Company (Southeast Telephone)
Sprint Corporation (Sprint)
Sprint Spectrum and American Personal Communications (Sprint/APC)
Telecommunications Resellers Association (TRA)
Teleport Communications Group (Teleport)
Time Warner Communications Holdings, Inc. (Time Warner)
Telecommunications Ratepayers Association for Cost-Based and Equitable Rates (TRACER)
Union Telephone Company (Union)
United States Telephone Association (USTA)
US West, Inc. (US West)
Vanguard Cellular Systems, Inc. (Vanguard)
Western Radio Services Co., Inc. (Western)
Western Wireless Corporation (Western Wireless)
Westlink Company (Westlink)

List of Commenters in CC Docket No. 91–346

List of Commenters in CC Docket No. 91–346

Ad Hoc Telecommunications Users Committee (Ad Hoc)
Allnet Communication Services, Inc. (Allnet)
American Telephone and Telegraph Company (AT&T)
Ameritech Operating Companies (Ameritech)
Bell Atlantic Telephone Companies (Bell Atlantic)
BellSouth Corporation (BellSouth)
Cincinnati Bell Telephone (Cincinnati Bell)
Ericsson Corporation (Ericsson)
General Services Administration (GSA)
Geonet
GTE Service Corporation (GTE)
Information Technology Association of America (ITAA)
Joint Filers (includes Bell Atlantic, BellSouth, GTE, Lincoln, Pacific Bell, Rochester, SNET, and US WEST)
MCI Telecommunications Corporation (MCI)
National Communications System (NCS)
Nextel Communications, Inc. (Nextel)
North American Telecommunications Association (NATA)
Northern Telecom Inc. (Northern Telecom)
NYNEX Telephone Companies (NYNEX)
Pacific Bell and Nevada Bell (Pacific Bell)
Pacific Telesis Corporation (Pactel)
Services-oriented Open Network Technologies, Inc. (SONetech)
Siemens Stromberg-Carlson (Siemens)
Southern New England Telephone Company (SNET)
Southwestern Bell Corporation (SWBT)
Sprint
Telecommunications Industry Association (TIA)
Teleport Communications Group (Teleport)
Teloquent Communications Corporation (Teloquent)
United and Central Telephone Companies (United and Central)
United States Telephone Association (USTA)
US WEST Communications, Inc. (US WEST)

This Attachment B will not be published in the Code of Federal Regulations.

ATTACHMENT B.—STATE PROXY CEILINGS FOR THE LOCAL LOOP

State	Proxy ceiling
Alabama	$17.25
Arizona	12.85
Arkansas	21.18
California	11.10
Colorado	14.97
Connecticut	13.23
Delaware	13.24
District of Columbia	10.81
Florida	13.68
Georgia	16.09
Hawaii	15.27
Idaho	20.16
Illinois	13.12
Indiana	13.29
Iowa	15.94
Kansas	19.85
Kentucky	16.70
Louisiana	16.98
Maine	18.69
Maryland	13.36
Massachusetts	9.83
Michigan	15.27
Minnesota	14.81
Mississippi	21.97
Missouri	18.32
Montana	25.18
Nebraska	18.05
Nevada	18.95
New Hampshire	16.00
New Jersey	12.47
New Mexico	18.66
New York	11.75
North Carolina	16.71
North Dakota	25.36
Ohio	15.73
Oklahoma	17.63
Oregon	15.44
Pennsylvania	12.30
Puerto Rico	12.47
Rhode Island	11.48
South Carolina	17.07
South Dakota	25.33
Tennessee	17.41
Texas	15.49
Utah	15.12
Vermont	20.13
Virginia	14.13
Washington	13.37
West Virginia	19.25
Wisconsin	15.94
Wyoming	25.11

[FR Doc. 96–21589 Filed 8–28–96; 8:45 am]
BILLING CODE 6712–01–P