

EXHIBIT 10

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

In the Matter of)	
)	
Access Charge Reform)	CC Docket No. 96-262
)	
Price Cap Performance Review for Local Exchange Carriers)	CC Docket No. 94-1
)	
Transport Rate Structure and Pricing)	CC Docket No. 91-213
)	
End User Common Line Charges)	CC Docket No. 95-72
)	

FIRST REPORT AND ORDER

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

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I. INTRODUCTION

1. In passing the Telecommunications Act of 1996 (the 1996 Act),¹ Congress sought to establish "a pro-competitive, deregulatory national policy framework" for the United States' telecommunications industry. With this Order, we begin the third part in a trilogy of actions collectively intended to foster and accelerate the introduction of competition into all telecommunications markets, pursuant to the mandate of the 1996 Act.

2. In the *Local Competition Order*,² we set forth rules to implement section 251 and section 252 of the Communications Act of 1934, as amended. As with all of Part II of Title II of the Communications Act, those sections, and the rules implementing them, seek to remove the legal, regulatory, economic, and operational barriers to telecommunications competition. Among other things, sections 251 and 252 provide entrants with the opportunity to compete for consumers in local markets by either constructing new facilities, leasing unbundled network elements, or reselling telecommunication services.

3. In the *Universal Service Order*,³ which we adopt in a companion order today, we take steps to ensure that support mechanisms that are necessary to maintain local rates at affordable levels are protected and advanced as local telecommunication markets become subject to the competitive pressures unleashed by the 1996 Act. When it enacted section 254 of the Communications Act, Congress detailed the principles that must guide this effort. It placed on the Commission and the states the duty to implement these principles in a manner consistent with the pro-competition purposes of the Act, as embodied in, for instance, the interconnection provisions of the Act.⁴ It stated that "[t]here should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service."⁵

4. Congress also specified that universal service support "should be explicit," and that, with respect to federal universal service support, "[e]very telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and non-discriminatory basis, to the specific, predictable, and sufficient mechanisms established by the

¹ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at 47 U.S.C. §§ 151 *et. seq.*) (1996 Act).

² Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499 (1996) (*Local Competition Order*), Order on Reconsideration, CC Docket No. 96-98, 11 FCC Rcd 13042 (1996), *petition for review pending and partial stay granted, sub nom. Iowa Utils. Bd. v. FCC*, 109 F.3d 418 (8th Cir. 1996).

³ Federal-State Board on Universal Service, CC Docket No. 96-45, First Report and Order, FCC 97-157 (rel. May 8, 1997) (*Universal Service Order*).

⁴ See 47 U.S.C. §§ 251-252.

⁵ 47 U.S.C. § 254(b)(5).

Commission to preserve and advance universal service."⁶ As explained further in the Joint Explanatory Statement of the Committee of the Conference, Congress intended that, "[t]o the extent possible, . . . any support mechanisms continued or created under new section 254 should be explicit, rather than implicit as many support mechanisms are today."⁷ Congress directed the Commission, by May 8, 1997, to complete a universal service proceeding that "include[s] a definition of the services that are supported by Federal universal service support mechanisms and a specific timetable for implementation."⁸

5. Through our accompanying *Universal Service Order*, we establish the definition of services to be supported by federal universal service support mechanisms and the specific timetable for implementation. Further, through this *First Report and Order* in our access reform docket and our *Universal Service Order*, we set in place rules that will identify and convert existing federal universal service support in the interstate high cost fund, the dial equipment minutes (DEM) weighting program, Long Term Support, Lifeline, Link-up, and interstate access charges to explicit federal universal service support mechanisms. As detailed below, we will identify the implicit federal universal service support currently contained in interstate access charges through three methods.

6. First, we will reduce usage-sensitive interstate access charges by phasing out local loop and other non-traffic-sensitive (NTS) costs from those charges and directing incumbent local exchange carriers (LECs) to recover those NTS costs through more economically efficient, flat-rated charges. Because NTS costs, by definition, do not vary with usage, the recovery of NTS costs on a usage basis pursuant to our current access charge rules amounts to an implicit subsidy from high-volume users of interstate toll services to low-volume users of interstate long-distance services.

7. Second, we will rely in part on emerging competition in local telecommunications markets, spurred by the adoption of the 1996 Act, to help identify the differences between the rates for interstate access services established by incumbent LECs under price cap regulation and those that competition would set. The prices for interstate access services offered by competing providers presumably will not contain any implicit universal service support such as that embedded in the incumbent LECs' access charges. Consequently, the introduction of competition inevitably will help to remove implicit support from the incumbent LECs' access charges where competition develops and also will help to identify the extent of implicit support in other areas.

8. Third, we will engage in further deliberations on a forward-looking economic cost-

⁶ 47 U.S.C. § 254(d)-(e).

⁷ Joint Explanatory Statement of the Committee of the Conference, S. CONF. REP. NO. 230, 104th Cong., 2d Sess. 131 (1996) (Joint Explanatory Statement).

⁸ 47 U.S.C. § 254(a)(2).

based mechanism that we will use to distribute federal support to rural, insular, and high cost areas, beginning in 1999. Based on cost studies the states will conduct during the coming year (or, at a state's election, based upon Commission-developed proxy methods), an estimate of the forward-looking economic cost of providing service to a customer in a particular rural, insular, or high cost area will be calculated. We will distribute federal universal service support based on the interstate portion of the difference between forward-looking economic cost and a nationwide revenue benchmark. The amount of the support will be explicitly calculable and identifiable by competing carriers, and the support will be portable among competing carriers, *i.e.*, distributed to the eligible telecommunications carrier chosen by the customer. It will be funded by equitable and non-discriminatory contributions from all carriers that provide interstate telecommunications services. Through this *First Report and Order*, we direct that federal universal service support received by incumbent LECs be used to reduce or satisfy the interstate revenue requirement otherwise collected through interstate access charges. Accordingly, through both our *Universal Service Order* and this *First Report and Order* on access reform, interstate implicit support for universal service will be identified and removed from interstate access charges, and support will be provided through the explicit interstate universal service support mechanisms.

9. Although these three steps will set in motion a process that will remove implicit universal service support from access charges, it will not remove all implicit support from all access charges immediately. This result is fully in accord with Congress's directives. Although Congress said in the Act that "support *should be* explicit" (emphasis added), it did not provide that support *shall be* explicit.⁹ Congress's decision to say "should" instead of "shall" is especially pertinent in light of Congress's repeated use of "shall" in the 1996 Act.¹⁰ Moreover, in the Act's legislative history, Congress qualified its intention that "support mechanisms should be explicit, rather than implicit," with the phrase "[t]o the extent possible."¹¹ Thus, Congress recognized that the conversion of the existing web of implicit subsidies to a system of explicit support would be a difficult task that probably could not be accomplished immediately. As explained below, we conclude that a process that eliminates implicit subsidies from access charges over time is warranted primarily for three reasons. First, we simply do not have the tools to identify the existing subsidies precisely at this time. Second, we prefer to rely on the market rather than regulation to identify implicit support because we are more confident of the market's ability to do so accurately. Third, even if we were more confident of our ability to identify all of the existing implicit support mechanisms at this time, eliminating them all at once might have an inequitable impact on the incumbent local exchange carriers.

⁹ 47 U.S.C. § 254(e).

¹⁰ See Joseph Farrell, *Creating Local Competition*, 49 Fed. Comm. L.J. 201, 211 (1996) ("shall" appears 2,036 times in 1996 Act, according to staff analysis).

¹¹ Joint Explanatory Statement at 131.

10. Nor, by our orders today, do we attempt to identify or eliminate the implicit universal service support mechanisms established by state commissions. We recognize that states are initially responsible for identifying implicit intrastate subsidies. For the reasons stated above, we believe the Commission has discretion under the statute to employ pro-competitive, deregulatory policies to aid in the reform of the existing, complex system of universal service. Where pro-competition policies, such as those set forth in sections 251, 252 and 253, can force prices for telecommunications services to competitive levels, and, as a result, eliminate or, at least, substantially eliminate implicit support, the Act grants us the authority to rely on such policies over a period of time. We find that the Act does not require, nor did Congress intend, that we immediately institute a vast set of wide-ranging pricing rules applicable to interstate and intrastate services provided by incumbent LECs that would have enormously disruptive effects on both ratepayers as well as the affected LECs. Indeed, the congressional mandate that we implement pro-competitive, deregulatory policies is a continuing reminder that, wherever feasible, we should select competition instead of regulation as our means of accomplishing the stated statutory goals. Reliance on competition is the keystone that unifies our universal service and access reform orders.

11. Nevertheless, implicit intrastate universal service support is substantial. States have maintained low residential basic service rates through, among other things, a combination of: geographic rate averaging, high rates for business customers, high intrastate access rates, high rates for intrastate toll service, and high rates for vertical features and services such as call waiting and call forwarding. By not mandating immediate Commission action to eliminate these policies and instead by ordering that the Commission and the states together achieve universal service goals,¹² Congress intended that states, acting pursuant to sections 254(f) of the Communications Act, must in the first instance be responsible for identifying intrastate implicit universal service support. Indeed, by our decisions in this Order and in our companion *Universal Service Order*, we strongly encourage states to take such steps.

12. To achieve the vital, historic, and congressionally-mandated purposes of universal service in every state in an era in which competition replaces monopoly, it is necessary that the states and the Commission develop new and effective mechanisms of complementing the activities of each other. Therefore, as states implement their universal service plans, we will be able to assess whether additional federal universal service support is necessary to ensure that quality services remain "available at just, reasonable, and affordable rates."¹³ Our decisions in this Order are meant in part to provide some elements of the plan and time sufficient to discharge responsibly an aspect of the federal role in this federal-state universal service partnership.

13. In this *First Report and Order*, we also take the actions necessary to permit the

¹² See 47 U.S.C. § 254.

¹³ 47 U.S.C. § 254(b)(1).

market, in the first instance, to expose any implicit universal service support that we may fail to identify as we implement our federal mechanisms for supporting universal service in insular, rural, and high cost areas and to drive access rates toward levels that competition would be expected to produce. Our decision also fulfills the congressional intent that we eliminate the rules that have helped to sustain *de facto* or *de jure* monopolies in access markets and instead create the conditions for competitive entry on a sustainable, long-term basis. That requires, among other things, that we phase out opportunities for inefficient entry that are created primarily by anomalies in the current, monopoly-oriented regime. Consequently, this Order sets forth a plan for removing distortions and inefficiencies in both the current "rate structures" (the term used to describe the manner in which a particular charge is assessed, such as through a per-minute-of-use fee or a flat-rated fee) and "rate levels" (the term used to describe the aggregate size of a particular access charge). By rationalizing the access charge rate structure, we ensure that charges more accurately reflect the manner in which the costs are incurred, thereby facilitating the movement to a competitive market. We also establish, in this *First Report and Order*, a prescriptive mechanism to ensure that, through the operation of price caps and by other means, interstate access charges in areas where competition does not develop will also be driven toward the levels that competition would be expected to produce. The *Price Cap Fourth Report and Order*,¹⁴ which is also the Second Report and Order in this docket and which is also adopted today, modifies the X-Factor in accordance with this plan.

14. In a subsequent order in the present docket, we will provide detailed rules for implementing the market-based approach that we adopt in today's Order. That process will give carriers progressively greater flexibility in setting rates as competition develops, gradually replacing regulation with competition as the primary means of setting prices and facilitating investment decisions. A separate order in this docket will also address "historical cost" recovery: whether and to what extent carriers should receive compensation for the recovery of the allocated costs of past investments if competitive market conditions prevent them from recovering such costs in their charges for interstate access services.

15. By our orders today, we reject the arguments made by some parties that section 254 compels us immediately to remove all universal service costs from interstate access charges.¹⁵ Making "implicit" universal service subsidies "explicit" "to the extent possible" means that we have authority at our discretion to craft a phased-in plan that relies in part on prescription and in part on competition to eliminate subsidies in the prices for various products sold in the market for telecommunications services. Moreover, we have met section 254's clear command that we identify the services to be supported by federal universal service support mechanisms and that we establish a specific timetable for implementation. Under that

¹⁴ Price Cap Performance Review for Local Exchange Carriers, Fourth Report and Order in CC Docket No. 94-1, and Access Charge Reform, Second Report and Order in CC Docket No. 96-262, FCC 97-159 (adopted May 7, 1997) (*Price Cap Fourth Report and Order*).

¹⁵ See Appendix B, Section IV.A.

timetable, we will over the next year identify implicit interstate universal support and make that support explicit, as further provided by section 254(e).¹⁶

16. Coupled with the modifications implemented in our *Universal Service Order*, the changes we put in place today will provide far-reaching benefits to the American people. This Order will restructure access charges, resulting in lower long-distance rates for many consumers, while substantially increasing the volume of long-distance calling. It will promote the spread of competition by replacing significant implicit subsidies with an explicit and secure universal service support system. It will foster competition and economic prosperity by creating an access charge system that is both efficient and fair. We believe that the changes implemented by this Order are necessary to meet the goal set forth in the 1996 Act -- "opening all telecommunications markets to competition."¹⁷

A. Background

1. The Existing Rate System

17. For much of this century, most telephone subscribers obtained both local and long-distance services from the same company, the pre-divestiture Bell System, owned and operated by AT&T. Its provision of local and intrastate long-distance services through its wholly-owned operating companies was regulated by state commissions. The Commission regulated AT&T's provision of interstate long-distance service. Much of the telephone plant that is used to provide local telephone service (such as the local loop, the line that connects a subscriber's telephone to the telephone company's switch) is also needed to originate and terminate interstate long-distance calls. Consequently, a portion of the costs of this common plant historically was assigned to the interstate jurisdiction and recovered through the rates that AT&T charged for interstate long-distance calls. The balance of the costs of the common plant was assigned to the intrastate jurisdiction and recovered through the charges administered by the state commissions for intrastate services. The system of allocating costs between the interstate and intrastate jurisdictions is known as the separations process. The difficulties inherent in allocating the costs of facilities that are used for multiple services between the two jurisdictions are discussed below.

18. At first, there was no formal system of tariffed charges to determine how the BOCs and the hundreds of unaffiliated, independent LECs would recover the costs allocated to the interstate jurisdiction by the separations rules. Instead, AT&T remitted to these

¹⁶ As with any implicit support mechanism, universal service costs are presently intermingled with all other costs, including the forward-looking economic costs of interstate access and any historic costs associated with the provision of interstate access services. We cannot remove universal service costs from interstate access charges until we can identify those costs, which we will not be able to do even for non-rural LECs before January 1, 1999.

¹⁷ Joint Explanatory Statement at 1.

companies the amounts necessary to recover their allocated interstate costs, including a return on allocated capital investment.

19. In the 1970s, MCI and other interexchange carriers (IXCs) began to provide switched long-distance service in competition with AT&T. However, AT&T still maintained monopolies in the local markets served by its local subsidiaries, the Bell Operating Companies (BOCs). The BOCs owned and operated the telephone wires that connected the customers in their local markets. Other independent (non-Bell) LECs held similar monopoly franchises in their local service areas. MCI and the other IXCs were dependent on the BOCs and the independent LECs to complete the long-distance calls to the end user.

20. For much of the 1970s, MCI and AT&T fought over the fees -- the access charges -- that MCI should pay the BOCs for originating and terminating interstate calls placed by or to end users on the BOCs' local networks. That battle took place before federal regulators, as well as in the federal courts. In December 1978, under Commission supervision, AT&T, MCI, and the other long-distance competitors entered into a comprehensive interim agreement, known as Exchange Network Facilities for Interstate Access (ENFIA), that set rates that AT&T would charge long-distance competitors for originating and terminating interstate traffic over the facilities of its local exchange affiliates.¹⁸ Several years afterwards, AT&T's divestiture was completed, separating the local exchange operations of the BOCs from the rest of AT&T's operations, including AT&T's long distance business. The BOCs maintained monopoly franchises in their local market, but by splitting them off from AT&T's long-distance business, the federal courts removed an incentive for the BOCs to favor AT&T's long distance business over its competitors. Now AT&T competed directly with MCI and the other competitors to provide interstate service, and all of the competitors paid the BOCs for the service of providing the necessary access to end users.

21. In 1978, the Commission commenced a wide-ranging review of the system by which LECs were compensated for originating and terminating interstate traffic. In 1983, following the decision to break-up AT&T, the Commission adopted uniform access charge rules in lieu of earlier agreements.¹⁹ These rules governed the provision of interstate access services by all incumbent LECs, BOCs as well as independents. The access charge rules provide for the recovery of the incumbent LECs' costs assigned to the interstate jurisdiction by the separations rules.

22. The Commission uses a multi-step process to identify the cost of providing access service. First, the rules require an incumbent LEC to record all of its expenses, investments,

¹⁸ For additional background on the ENFIA agreement, *see, e.g.*, Investigation of Access and Divestiture-Related Tariffs, CC Docket No. 83-1145, Phase I and Phase II, Part 1, FCC 85-100, 57 Rad.Reg.2d 1229, 1241 (rel. March 8, 1985).

¹⁹ MTS and WATS Market Structure, Third Report and Order, CC Docket No. 78-72, Phase 1, 93 FCC 2d 241, *recon.*, 97 FCC 2d 682 (1983), *second recon.*, 97 FCC 2d 834 (1984).

and revenues in accordance with accounting rules set forth in our regulations.²⁰ Second, the rules divide these costs between those associated with regulated telecommunications services and those associated with nonregulated activities.²¹ Third, the separations rules determine the fraction of the incumbent LEC's regulated expenses and investment that should be allocated to the interstate jurisdiction.²² After the total amount of interstate cost is identified, the access charge rules translate these interstate costs into charges for the specific interstate access services and rate elements. Part 69 specifies in detail the rate structure for recovering those costs. That is, the rules tell the incumbent LECs the precise manner in which they may assess charges on interexchange carriers and end users.

23. Determining the costs that an incumbent LEC incurs to provide interstate access services and that, consequently, should be recovered from those services, is relatively straightforward in some cases and problematic in others. Some facilities, such as private lines, can be used exclusively for interstate services and, in such cases, the entire cost of those facilities is assigned to the interstate jurisdiction by the separations rules. Most facilities, however, are used for both intrastate and interstate services. The costs of some of these facilities vary depending on the amount of telecommunications traffic that they handle. The separations rules typically assign these traffic-sensitive (TS) costs on the basis of the relative interstate and intrastate usage of the facilities, as measured, for example, by the relative minutes of interstate and intrastate traffic carried by such facilities. By contrast, the costs of other facilities used for both interstate and intrastate traffic do not vary with the amount of traffic carried over the facilities, *i.e.*, the costs are non-traffic-sensitive. These costs pose particularly difficult problems for the separations process: The costs of such facilities cannot be allocated on the basis of cost-causation principles because all of the facilities would be required even if they were used only to provide local service or only to provide interstate access services. A significant illustration of this problem is allocating the cost of the local loop, which is needed both to provide local telephone service as well as to originate and terminate long-distance calls. The current separations rules allocate 25 percent of the cost of the local loop to the interstate jurisdiction for recovery through interstate charges.²³

24. The Commission has recognized in prior rulemaking proceedings that, to the extent possible, costs of interstate access should be recovered in the same way that they are incurred, consistent with principles of cost-causation. Thus, the cost of traffic-sensitive access services should be recovered through corresponding per-minute access rates. Similarly, NTS costs should be recovered through fixed, flat-rated fees. The Commission, however, has not

²⁰ These rules are referred to as the Uniform System of Accounts and are contained in Part 32 of the Commission's Rules. See 47 C.F.R. §§ 32.1-9000.

²¹ This is governed by Sections 64.901-.904 of our Rules. See 47 C.F.R. §§ 64.901-.904.

²² This step is governed by Part 36 of the Rules. See 47 C.F.R. §§ 36.1-.741.

²³ The general process of separating these costs between the interstate and intrastate jurisdictions is discussed by the Supreme Court in *Smith v. Illinois Bell Tel. Co.*, 282 U.S. 133 (1930).

always adopted rules that are consistent with this goal. In particular, the Commission limited the amount of the allocated interstate cost of a local loop that is assessed to residential and business customers as a flat monthly charge, because of concerns that allowing the flat charges to rise above the specified limits might cause customers to disconnect their telephone service. The residual cost of the loop not recovered from end users through the flat charge is recovered through a per-minute-of-use charge assessed to long-distance carriers.

25. Through the end of 1990, the vast majority of access revenues were governed by "cost-of-service" regulation. Under cost-of-service regulation, incumbent LECs calculate the specific access charge rates using projected costs and projected demand for access services.²⁴ Thus, for example, if an incumbent LEC projects that it will provide 10,000 total minutes of switching for interstate calls and estimates that it must generate \$1,000 dollars in revenue in order to recover the costs of switching that are allocated to the interstate jurisdiction by the separations rules, the access charge for local switching would be set at \$0.10 per minute (\$1,000/10,000 minutes). In 1991, however, we implemented a system of price cap regulation that altered the manner in which the largest incumbent LECs established their interstate access charges. While most rural and small LECs remained subject to all of the Part 69 cost-of-service rules, generally the largest incumbent LECs²⁵ are now subject to price cap regulations set forth in Part 61 of our rules.

26. Price cap regulation fundamentally alters the process by which incumbent LECs determine the revenues they are permitted to obtain from interstate access charges for access services. Briefly stated, cost-of-service regulation is designed to limit the profits an incumbent LEC may earn from interstate access service, whereas price cap regulation focuses primarily on the prices that an incumbent LEC may charge and the revenues it may generate from interstate access services. Under the Part 69 cost-of-service rules, revenue requirements are based on embedded or accounting costs allocated to individual services. Incumbent LECs are limited to earning a prescribed return on investment and are potentially obligated to provide refunds if their interstate rate of return exceeds the authorized level. By contrast, although the access charges of price cap LECs originally were set at the cost-of-service levels that existed at the time they entered price caps, their prices have been limited ever since by price indices that have been adjusted annually pursuant to formulae set forth in our Part 61 rules. Price cap carriers whose interstate access charges are set by these pricing rules are

²⁴ Since 1981, the Commission has allowed certain smaller incumbent LECs to base their access rates on historic, rather than projected, cost and demand. See 47 C.F.R. § 61.39.

²⁵ The Commission required price cap regulation for the BOCs and GTE, and permitted other LECs to adopt price cap regulation voluntarily, provided that all their affiliates also convert to price cap regulation and that they withdraw from the NECA pools. Policy and Rules Concerning Rates for Dominant Carriers, Second Report and Order, CC Docket No. 87-313, 5 FCC Rcd 6786, 6818-20 (1990) (*LEC Price Cap Order*). Currently, the price cap LECs serve more than 92 percent of the total access lines, based on LECs' 1995 and 1996 Annual Access Tariffs filed with the Commission, and account for almost 91 percent of the total interstate revenues for access services, see Universal Service Fund Data Collection, CC Docket No. 80-286, Universal Service Fund 1996 Submission of 1995 Study Results by NECA, Oct. 1, 1996.

permitted to earn returns significantly higher than the prescribed rate of return that incumbent LECs are allowed to earn under cost-of-service rules. Price cap regulation encourages incumbent LECs to improve their efficiency by harnessing profit-making incentives to reduce costs, invest efficiently in new plant and facilities, and develop and deploy innovative service offerings, while setting price ceilings at reasonable levels.²⁶ In this way, price caps act as a transitional regulatory scheme until the advent of actual competition makes price cap regulation unnecessary.²⁷

27. Although price cap regulation eliminates the direct link between changes in allocated accounting costs and change in prices, it does not sever the connection between accounting costs and prices entirely. The overall interstate revenue levels still generally reflect the accounting and cost allocation rules used to develop access rates to which the price cap formulae were originally applied. Price cap indices are adjusted upwards if a price cap carrier earns returns below a specified level in a given year. Moreover, a price cap LEC may petition the Commission to set its rates above the levels permitted by the price cap indices based on a showing that the authorized rate levels will produce earnings that are so low as to be confiscatory. In the past, all or some price cap LECs were required to "share," or return to ratepayers, earnings above specified levels. The new rules adopted in the companion *Price Cap Fourth Report and Order* remove this limit on the maximum returns that can be earned by price cap incumbent LECs.

2. Implicit Subsidies in the Existing System

28. Both our price cap and cost-of-service rules contain requirements that inevitably result in charges to certain end users that exceed the cost of the service they receive. To the extent these rates do not reflect the underlying cost of providing access service, they could be said to embody an implicit subsidy. Some of these subsidies are due to the rate structures prescribed by our rules, which in some cases prevent incumbent LECs from recovering their access costs in the same way they have been incurred. For example, although the cost of the

²⁶ The price cap regulations also give incumbent LECs greater flexibility in determining the amount of revenues that may be recovered from a given access service. The price cap rules group services together into different baskets, service categories, and service subcategories. The rules then identify the total permitted revenues for each basket or category of services. Within these baskets or categories, incumbent LECs are given some discretion to determine the portion of revenue that may be recovered from specific services. Subject to certain restrictions, this flexibility allows incumbent LECs to alter the access charge rate level associated with a given service. For example, within the category of switching services, an incumbent LEC may choose to recover a greater portion of its switching revenues through access charges assessed to one kind of switching service rather than through charges assessed to another switching service. Although the LEC must still observe the switched-access rate structure that is set forth in Part 69 of our rules (which determines what services may be offered and whether charges may be imposed on a per-minute or flat-rated basis), the rate level of the access charge will vary depending on the amount of revenues that the LEC chooses to recover from a given service.

²⁷ Price Cap Performance Review for Local Exchange Carriers, Second Further Notice of Proposed Rulemaking in CC Docket No. 93-124, and Second Further Notice of Proposed Rulemaking in CC Docket No. 93-197, 11 FCC Rcd 858, 862 (1995) (*Price Cap Second FNPRM*).

local loop that connects an end user to the telephone company's switch does not vary with usage, the current rate structure rules require incumbent LECs to recover a large portion of these non-traffic-sensitive costs through traffic-sensitive, per-minute charges. These mandatory recovery rules inflate traffic-sensitive usage charges and reduce charges for connection to the network, in essence creating an implicit support flow from end users that make many interstate long-distance calls to end users that make few or no interstate long-distance calls.

29. Several Federal-State Joint Boards have observed that additional subsidies and distortions may be due, not only to the rate structure, but to the separations rules that divide costs between the interstate and intrastate jurisdictions. For example, the current separations rules require larger incumbent LECs to allocate the costs of their switching facilities between the interstate and intrastate jurisdictions on the basis of relative use (*i.e.*, if 30 percent of the minutes of use handled by the LEC's switching facilities are interstate long-distance calls, 30 percent of the LEC's switching costs are allocated to the interstate jurisdiction and recovered through interstate access charges). Our rules, however, permit smaller incumbent LECs to allocate a greater share of their switching costs to interstate access services than would result from the relative use allocator. These smaller incumbent LECs multiply the interstate use ratio by a factor (as high as 3) specified in the separations rules. In its *Recommended Decision*, the Joint Board on Universal Service observed that these separations rules "shift what would otherwise be intrastate costs to the interstate jurisdiction,"²⁸ thereby allowing such LECs to charge lower prices for intrastate services. Similarly, in the *Marketing Expense Recommended Decision*, another Federal-State Joint Board observed that the separations rules allocate a share of the incumbent LECs' retail marketing expenses to the interstate jurisdiction that is unreasonably high, given that the interstate access services consist primarily of wholesale service offerings.²⁹ To the extent these and other separation rules do not apportion costs between the jurisdictions in a manner that reflects the costs incurred to provide service in each jurisdiction, they might be viewed as generating subsidies from the interstate to the intrastate jurisdiction. These subsidies effectively require incumbent LECs to charge higher rates for interstate services and lower rates for intrastate services than would otherwise occur if the subsidies were eliminated.

30. This "patchwork quilt of implicit and explicit subsidies"³⁰ generates inefficient and

²⁸ Federal-State Joint Board on Universal Service, CC Docket No. 96-45, *Recommended Decision*, 12 FCC Rcd 87, 187, ¶ 189 (rel. Nov. 8, 1996) (*Joint Board Recommended Decision*). The Joint Board found that this allocation structure, known as DEM (dial equipment minute) weighting, is "an implicit support mechanism that is recovered through the switched access rates charged to interexchange carriers by those carriers serving less than 50,000 lines." *Joint Board Recommended Decision* at 237, ¶ 292.

²⁹ Amendment of Part 67 (New Part 36) of the Commission's Rules and Establishment of a Federal-State Joint Board, CC Docket No. 86-297, *Recommended Decision and Order*, 2 FCC Rcd 2582 (1987) (*Marketing Expense Recommended Decision*).

³⁰ *Local Competition Order* at 15506, ¶ 5.

undesirable economic behavior. For example, a rate structure that requires the use of per-minute access charges where flat-rated fees would be more appropriate increases the per-minute rates paid by IXC's and long-distance consumers, thus artificially suppressing demand for interstate long-distance services. Similarly, the possible overallocation of costs to the interstate jurisdiction may, for some consumers, increase long-distance rates substantially, suppressing their demand for interstate interexchange services. Implicit subsidies also have a disruptive effect on competition, impeding the efficient development of competition in both the local and long-distance markets. For example, where rates are significantly above cost, consumers may choose to bypass the incumbent LEC's switched access network, even if the LEC is the most efficient provider. Conversely, where rates are subsidized (as in the case of consumers in high-cost areas), rates will be set too low and an otherwise efficient provider would have no incentive to enter the market. In either case, the total cost of telecommunications services will not be as low as it would otherwise be in a competitive market. Because of the growing importance of the telecommunications industry to the economy as a whole, this inefficient system of access charges retards job creation and economic growth in the nation.

31. Despite the existence of distortions and inefficiencies, the current system of cross-subsidies has persisted for over a decade. The structure has been justified on policy grounds, principally as a means to serve universal service goals. By providing incumbent LECs with a stream of subsidized revenues from certain customers, the system allows regulators to demand below-cost rates for other customers, such as those in high-cost areas.

3. The Telecommunications Act of 1996

32. The existing system of implicit subsidies and support flows is sustainable only in a monopoly environment in which incumbent LECs are guaranteed an opportunity to earn returns from certain services and customers that are sufficient to support the high cost of providing other services to other customers. The new competitive environment envisioned by the 1996 Act threatens to undermine this structure over the long run. The 1996 Act removes barriers to entry in the local market, generating competitive pressures that make it difficult for incumbent LECs to maintain access charges above economic cost. For example, by giving competitors the right to lease an incumbent LEC's unbundled network elements at cost,³¹ Congress provided IXC's an alternative avenue to connect to and share the local network. Thus, where existing rules require an incumbent LEC to set access charges above cost for a high-volume user, a competing provider of exchange access services entering into a market can lease unbundled network elements at cost, or construct new facilities, to circumvent the access charge.³² In this way, a new entrant might target an incumbent LEC's high-volume

³¹ 47 U.S.C. § 252(d)(1)(A)(i).

³² In Section VI.A of this Order, we conclude that access charges may not be assessed on unbundled network elements since they are not part of the "cost" of providing those elements, as defined in 47 U.S.C. § 252(d)(1)(A)(i).

access customers, for whom access charges are now set at levels significantly above economic cost. As competition develops, incumbent LECs may be forced to lower their access charges or lose market share, in either case jeopardizing the source of revenue that, in the past, has permitted the incumbent LEC to offer service to other customers, particularly those in high-cost areas, at below-cost prices.³³ Incumbent LECs have for some time been claiming that this process has already made more than trivial inroads on their high-volume customer base.³⁴

33. Recognizing the vulnerability of implicit subsidies to competition, Congress directed the Commission and the states to take the necessary steps to create permanent universal service mechanisms that would be secure in a competitive environment.³⁵ To achieve this end, Congress directed the Commission to strive to replace the system of implicit subsidies with "explicit and sufficient" support mechanisms.³⁶ In calling for explicit mechanisms, Congress did not intend simply to require carriers to identify and disclose the implicit subsidies that currently exist in the industry. Rather, as we determine in the *Universal Service Order* adopted today, Congress intended to establish subsidies that were both "measurable" and "portable" -- "measurable" in a way that allows competitors to assess the profitability of serving subsidized end users; and "portable" in a way that ensures that competitors who succeed in winning a customer also win the corresponding subsidy. A system of portable and measurable subsidies will permit carriers to compete for the subsidies associated with high-cost or low-income consumers. In the long run, this approach may even allow us to set subsidy levels through competitive bidding rather than through regulation. By contrast, under the current system of implicit subsidies, the only carriers that will serve high-cost consumers are those that are required to do so by regulation and that are able (because of their protected monopoly positions) to charge above-cost rates to other end users.

34. In the *Universal Service Order*, we establish "explicit and sufficient" support mechanisms to assist users in high-cost areas, low-income consumers, schools, and health care providers. By creating explicit support mechanisms, we establish a system to advance the

³³ See, e.g., H. REP. NO. 204, 104th Cong., 1st Sess. 68 (1995) (The bill "would make such internal subsidies much less viable because deregulation would remove the near-guaranteed returns allowed in a regulated market, and with them the ability of the regulated firm to subsidize high-cost customers.") (Congressional Budget Office cost estimate).

³⁴ See, e.g., Reply Comments of Bell Atlantic, CC Docket 94-1 (filed June 29, 1994) at 23-2 (citing attached Kahn Affidavit). See also John D. deButts, *An Unusual Obligation*, in HERITAGE AND DESTINY 422-32 (1983) (Address of AT&T Chairman to the National Association of Regulatory Utility Commissioners, September 20, 1973).

³⁵ See, e.g., H. REP. NO. 204, 104th Cong., 1st Sess. 80 (1995) ("The Committee intends that this Joint Board should evaluate universal service in the context of a local market changing from one characterized by monopoly to one of competition.").

³⁶ See 47 U.S.C. § 254(e). See also Joint Explanatory Statement at 131 ("To the extent possible, the conferees intend that any support mechanisms continued or created under new section 254 should be explicit, rather than implicit as many support mechanisms are today.").

universal service goals of the 1996 Act that is compatible with the development of competition in the local exchange and exchange access markets. By creating a portable and measurable system of subsidies, we utilize the power of the market to serve universal service goals more efficiently. That order, in short, guarantees that Congress's universal service goals are met in a way that conforms with the pro-competitive and deregulatory goals of the 1996 Act.

B. Access Charge Reform

35. In light of Congress's command to create secure and explicit mechanisms to achieve universal service goals, we conclude that implicit subsidies embodied in the existing system of interstate access charges cannot be indefinitely maintained in their current form. In this Order, therefore, we take two steps with respect to the rules governing the interstate access charges of price cap incumbent LECs.³⁷ First, we reform the current rate structure to bring it into line with cost-causation principles, phasing out significant implicit subsidies. Second, we set in place a process to move the baseline rate level toward competitive levels. Together with the *Universal Service Order*, these adjustments will promote the public welfare by encouraging investment and efficient competition, while establishing a secure structure for achieving the universal service goals established by law. Further, the process we set in place to achieve these goals avoids the destabilizing effects of sudden radical change, facilitating the transformation from a regulated to a competitive marketplace.

1. Rationalizing the Rate Structure

36. In this Order, we reshape the existing rate structure in order to eliminate significant implicit subsidies in the access charge system. To achieve that end, we make several modifications to ensure that costs are recovered in the same way that they are incurred. In general, NTS costs incurred to serve a particular customer should be recovered through flat fees, while traffic-sensitive costs should be recovered through usage-based rates. The present structure violates this basic principle of cost causation by requiring incumbent LECs to recover many fixed costs through variable, per-minute access rates. An important goal of this Order is to increase the amount of fixed costs recovered through flat charges and decrease the amount recovered through variable rates.

37. *Common Line Costs.* Because the costs of using the incumbent LEC's common line (or "local loop") do not increase with usage, these costs should be recovered through flat, non-traffic-sensitive fees. The current rate structure, however, generally allows an incumbent

³⁷ With the limited exceptions identified in Section V, the scope of this proceeding is limited to price cap incumbent LECs. As we explain in that section, the need for access reform is most immediate for these carriers, since they are most vulnerable to competition from interconnection and the availability of unbundled network elements. This proceeding will affect the vast majority of all access lines and revenues, because price cap regulation governs more than 90 percent of all incumbent LEC access lines. We will initiate a separate proceeding later this year to examine the special circumstances of small and rural rate-of-return LECs.

LEC to recover no more than a portion of its interstate common line revenues through a flat-rated Subscriber Line Charge (SLC), which is capped at \$3.50 per month for residential and single-line business users, and \$6.00 per month for multi-line users. The remaining common line revenues must be recovered through a per-minute Common Carrier Line (CCL) charge assessed on IXC's (which, in turn, may recover these charges through their prices to long-distance customers). In order to align the rate structure more closely with the manner in which costs are incurred, we adjust access rates over time until the common line revenues of all price cap LECs are recovered through flat-rated charges.

38. For primary residential and single-line business lines, however, we decline to implement this goal by increasing the SLC ceiling above its existing \$3.50 level as urged by many companies, including price cap LECs and IXC's.³⁸ We do not wish to see increases in the price of basic dial tone charged by local exchange carriers to their end users for fear that such increases might cause some consumers to discontinue service, a result that would be contrary to our mandate to ensure universal service.³⁹ We agree with the Joint Board's finding that increasing the SLC ceiling may make telecommunications service unaffordable for some consumers.⁴⁰ Consequently, to the extent that common line revenues are not recovered through the customer's SLC, we conclude that LECs should recover these revenues through a flat, per-line charge assessed on the IXC to whom the access line is presubscribed -- the presubscribed interexchange carrier charge, or PICC.⁴¹ Further, in order to provide IXC's with the opportunity to incorporate these changes into their business plans, we set the PICC for primary residential and single-line business lines at not more than the existing flat-rated line charges for the first year, and we gradually increase the ceiling thereafter until it reaches a level that permits full recovery of the common line revenues from flat charges assessed to

³⁸ See, e.g., BellSouth Corporation, BellSouth Telecommunications, Inc. (BellSouth) Comments, Attachment 2 at 20; GTE Service Corporation (GTE) Comments at 26-29, Reply at 20-21; Southwestern Bell Telephone Company (SWBT) Comments at 37-38, Reply at 8; U.S. West, Inc. (U S West) Reply at 27-28; Cincinnati Bell Telephone Company (Cincinnati Bell) Comments at 6-7; AT&T Corporation (AT&T) Comments 51-54, Reply at 25-26; Frontier Corporation (Frontier) Comments at 4, 5-7; Sprint Corporation (Sprint) Comments at 11-15; 50-51; Ad Hoc Telecommunications Users Committee (Ad Hoc) Reply at 4; General Services Administration/United States Department of Defense (GSA/DOD) Comments at 9-11, Reply at 5, 7; Tele-Communications, Inc. (TCI) Comments at 10; Reply at 4-5; Time Warner Communications Holdings, Inc. (Time Warner) Comments at 4-5; WinStar Communications, Inc. (WinStar) Comments at 4; WorldCom, Inc. (WorldCom) Comments at 30-31.

³⁹ Among the many goals announced in the 1996 Act, Congress declared that telephone service should be available at "affordable rates." 47 U.S.C. § 254(b)(1).

⁴⁰ *Joint Board Recommended Decision*, 12 FCC Rcd at 472, ¶ 769 (1996).

⁴¹ Where an end user does not select a presubscribed interexchange carrier, we allow an incumbent LEC to collect this charge directly from the end user.

both end users and IXC's.⁴²

39. For non-primary residential and multi-line business lines, we conclude that affordability concerns do not require us to retain the current ceiling on the monthly SLC. Consequently, we raise the SLC ceiling for these lines to the level that permits incumbent LECs full recovery for their common line revenues, but never more than \$3.00 above the current SLC ceiling for multi-line business lines today, adjusted for inflation.⁴³ Almost all subscribers will pay SLCs below, and often substantially below, the ceiling. The increase in the SLC ceiling for multi-line businesses will be implemented in the first year. To ameliorate the impact that a dramatic increase in the SLC ceiling might have on residential customers, however, the increase for non-primary residential lines will be phased in over time. The data indicate that raising the SLC ceiling to this level will permit incumbent price cap LECs to recover their average common line revenues from 99 percent of their non-primary residential and multi-line business lines.⁴⁴ For the remaining lines, many of which are located in rural areas, the SLC ceiling for non-primary residential and multi-line business lines will ensure that end-user charges are not prohibitive or significantly above the national average,⁴⁵ thereby advancing universal service goals of affordability and access.

40. In summary, the plan we adopt here phases out significant implicit subsidies in the access charge rate structure, while taking into account universal service concerns of affordability and access. The resulting rate structure is more closely aligned with cost principles. Under this plan, most price cap incumbent LECs will recover their interstate common line revenues through flat-rated SLCs and PICCs.

41. *Switching and Transport Charges.* Following the same pricing principle that flat charges should recover fixed costs and variable charges should recover variable costs, we make several modifications to the rate structure for switching and transport services. Among other things, we move the cost of line-side ports to the common line and require their recovery through flat-rated charges. To the extent permitted by the record, we also direct

⁴² To the extent that the PCCC ceiling prevents full recovery of average per-line common line revenues for primary residential and single-line business lines, the residual amount will be recovered through the PCCC imposed upon non-primary residential and multi-line business lines. As described in Section III.A below, as the PCCC associated with primary residential and single-line business lines increases, the amount of common line revenues associated with those lines that is recovered through the PCCC imposed upon non-primary residential and multi-line business lines will fall to zero.

⁴³ The \$3.00 increase in the SLC cap for these lines is measured on a per-month basis.

⁴⁴ See Supporting Material filed with 1996 Annual Access Tariff Filing, filed with Commission on April 2, 1996. This LEC forecast data were used by LECs to set SLC rates that became effective on July 1, 1996.

⁴⁵ We have also taken account of concerns raised by rural carriers and consumers groups that the increase in the SLC for non-primary residential lines and multi-lines could lead to substantial price increases in rural areas. Consequently, we are adopting these changes only for price cap incumbent LECs and will review rate structure modifications affecting small, rural carriers in a separate proceeding. See Section V.B, *infra*.

incumbent LECs to reassign costs in the Transport Interconnection Charge (TIC) in order to comply with principles of cost causation and the D.C. Circuit's recent decision in *CompTel v. FCC*.⁴⁶

2. Baseline Rate Level Reductions

42. The rate structure changes that we implement in this Order eliminate some of the distortions that have characterized the access charge system for over a decade. These changes, however, are not alone sufficient to create a system that accurately reflects the true cost of service in all respects. To fulfill Congress's pro-competitive mandate, access charges should ultimately reflect rates that would exist in a competitive market. We recognize that competitive markets are far better than regulatory agencies at allocating resources and services efficiently for the maximum benefit of consumers. We conclude, consequently, that competition or, in the event that competition fails to develop, rates that approximate the prices that a competitive market would produce, best serve the public interest.

43. The rate restructuring we implement in this Order results in substantial reductions in the charges for usage-rated interstate access services. These reductions move these access charges a long way towards their forward-looking cost levels.⁴⁷ Furthermore, in addition to these rate structure adjustments, we also take several steps in this Order to address specific cost misallocations that cause access charges to be set above economic costs. For example, we require incumbent LECs to make an exogenous cost adjustment to reflect the full amortization of certain equal access costs. We also issue a Further Notice of Proposed Rulemaking to consider our tentative conclusion that certain General Support Facility (GSF) costs should be reallocated to detariffed services.

44. We recognize that the prescriptive measures that we implement today represent the first step toward our goal of removing implicit universal service subsidies from interstate access charges and moving such charges toward economically efficient levels. In the NPRM, we identified two separate ways to continue this process in the future -- a prescriptive approach in which we actively set rates at economic cost levels, and a market-based approach that relies on competition itself to drive access charges down to forward-looking costs. We conclude in this Order, based on our experience in exchange access and other telecommunications markets and the record in this proceeding, that a market-based approach to reducing interstate access charges will, in most cases, better serve the public interest. Although the Commission has considerable expertise in regulating telecommunications providers and services efficiently for the maximum benefit of consumers, we believe that

⁴⁶ *Competitive Telecommunications Ass'n v. FCC*, 87 F.3d 522 (D.C. Cir. 1996).

⁴⁷ Economists recognize that substantial progress in driving prices toward forward-looking costs eliminates a disproportionate amount of economic distortion. See, e.g., F. M. SCHERER AND DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 662 (1990) (observing that dead weight welfare loss "rises as a quadratic function of the relative price distortion").

emerging competition will provide a more accurate means of identifying implicit subsidies and moving access prices to economically sustainable levels. Further, as discussed above, we believe that this approach is most consistent with the pro-competitive, deregulatory policy contemplated by the 1996 Act. Accordingly, where competition is developing, it should be relied upon in the first instance to protect consumers and the public interest.

45. We acknowledge that a market-based approach under this scenario may take several years to drive costs to competitive levels. We also recognize that several commenters have urged us to move immediately to forward-looking rates by prescriptive measures utilizing forward-looking cost models. We decline to follow that suggestion for several reasons. First, as a practical matter, accurate forward-looking cost models are not available at the present time to determine the economic cost of providing access service. Because of the existence of significant joint and common costs, the development of reliable cost models may take a year or more to complete. This situation might be contrasted with that addressed in our *Local Competition Order*, where we endorsed the use of cost models to estimate the cost of providing unbundled network elements. There, we observed that unbundled elements have few joint and common costs, so that devising accurate cost models for unbundled network elements is more straightforward.⁴⁸

46. In addition, even assuming that accurate forward-looking cost models were available, we are concerned that any attempt to move immediately to competitive prices for the remaining services would require dramatic cuts in access charges for some carriers. Such an action could result in a substantial decrease in revenue for incumbent LECs, which could prove highly disruptive to business operations, even when new explicit universal support mechanisms are taken into account. Moreover, lacking the tools for making accurate prescriptions, precipitous action could lead to significant errors in the level of access charge reductions necessary to reach competitive levels. That would further impede the development of competition in the local markets and disrupt existing services. Consequently, we strongly prefer to rely on the competitive pressures unleashed by the 1996 Act to make the necessary reductions.

47. To the extent that some commenters contend that the immediate elimination of all implicit subsidies is mandated by the 1996 Act, we disagree. Neither in the 1996 Act nor its legislative history did Congress state that all forms of implicit universal service support shall be made explicit by May 8, 1997. To the contrary, Congress stated that the conversion of implicit subsidies to explicit support is a goal that "should be" pursued "[t]o the extent possible."⁴⁹ Congress most certainly did not state that we must reach that goal by May 8, 1997. Rather, it directed that, by that date, we issue rules that "shall include a definition of the services that are supported by Federal universal service support mechanisms and a specific

⁴⁸ *Local Competition Order*, 11 FCC Rcd at 15846, ¶ 678.

⁴⁹ 47 U.S.C. § 254(e); Joint Explanatory Statement at 131.

timetable for implementation."⁵⁰ Our companion order satisfies that timetable, and this Order establishes a process that will eliminate some implicit subsidies quickly and more gradually eliminate others.

48. We are confident that the pro-competitive regime created by the Act and implemented in the *Local Competition Order* and numerous state decisions will generate workable competition over the next several years in many cases, and we would then expect that access price levels to be driven to competitive levels. We also recognize, however, that competition may develop at different rates in different places and that some services may prove resistant to competition. Where competition has not emerged, we reserve the right to adjust rates in the future to bring them into line with forward-looking costs. To assist us in that effort, we will require price cap LECs to submit forward-looking cost studies of their services no later than February 8, 2001, and sooner if we determine that competition is not developing sufficiently for the market-based approach to work. We anticipate that the tools needed to complete these cost studies will be available soon, well before this deadline. Indeed, our *Universal Service Order* requires comparable cost models to be ready by 1998. We will then review competitive conditions and the submitted cost studies.

49. As we acknowledged in the NPRM, a market-based approach will permit and, indeed, require us progressively to deregulate the access charge regime as competition develops. In a subsequent order, we will examine specific issues concerning the timing and degrees of pricing flexibility. That order will identify the competitive triggers that must be met to justify relaxation of specific regulatory constraints. We also recognize the need to examine whether incumbent LECs should be compensated for any historical costs that they have no reasonable opportunity to recover as a result of the transformation from a regulated to competitive marketplace. We recognize that this issue may raise difficult questions of both law and equity, and we intend to respond fully to concerns about historical cost recovery in a subsequent order to be issued this year.

50. Finally, we adopt in this Order our earlier tentative conclusion that incumbent LECs may not assess interstate access charges on information service providers (ISPs). We find that our existing policy promotes the development of the information services industry, advances the goals of the 1996 Act, and creates significant benefits for the economy and the American people. With respect to second and additional residential lines, which are often used by consumers to access ISPs, our goal is to move towards price levels and structures that reflect underlying costs, and thereby to create a neutral market environment in which these lines neither give nor receive subsidies. We will address fundamental questions concerning ISP usage of the public switched network as part of a broader set of issues under review in a related *Notice of Inquiry*.⁵¹

⁵⁰ 47 U.S.C. § 254(a)(2).

⁵¹ See *Usage of the Public Switched Network by Information Service and Internet Access Providers*, CC Docket No. 96-263, Notice of Inquiry, FCC 96-488 (rel. Dec. 24, 1996).

51. Section II of this Order provides an overview of the rate structure adjustments adopted today. Section III offers detailed explanations of these changes, which include adjustments to the rate structure for the common line, local switching, transport, SS7, and switching, and modifications to the TIC. In Section IV, we adopt a market-based approach to reducing access charges and address several specific rate level adjustments. In Section V, we determine which of the changes adopted in this Order should apply to rate-of-return LECs.

52. Section VI touches upon several additional issues, including the applicability of access charges to unbundled network elements, our treatment of terminating access, and ISPs. We also discuss modifications that may be needed to reconcile our access charge rules with the *Universal Service Order* released today. In Section VII, we issue an FNPRM to seek comment on proposals to alter the current allocation of GSF costs and to allow incumbent LECs to impose a PICC on special access lines.

II. SUMMARY OF RATE STRUCTURE CHANGES AND TRANSITIONS

53. In rationalizing the switched access rate structure in this Order, our primary goal is to ensure that traffic-sensitive costs are recovered through traffic-sensitive charges and NTS costs are recovered through flat-rated charges, wherever appropriate. Because many NTS costs are currently recovered through per-minute charges, the principal effect of our Order is to reduce the amount recovered through per-minute interstate access charges and increase the amounts recovered through flat-rated charges. We phase in these changes over time to ameliorate any disruptions these adjustments might cause end users.

A. Common Line Rate Structure Changes

54. Because the cost of using the incumbent LEC's common line does not increase with usage, the costs should be recovered through flat non-traffic-sensitive fees. In this Order we increase the amount of common line revenues recovered through flat-rated charges over time until incumbent LECs can recover all of their interstate common lines revenues through NTS fees.

55. *Primary Residential and Single-Line Business Lines.* We agree with the Federal-State Joint Board on Universal Service that the SLC ceiling for primary residential and single-line business lines should not be increased, because a higher SLC could make telecommunications service unaffordable for some consumers. To the extent common line revenues cannot be recovered through the customer's existing SLC, we conclude that LECs should recover these revenues through a flat, per-line charge (the "primary interexchange carrier charge" or "PICC") assessed, not on the end user, but on the end user's presubscribed interexchange carrier.⁵² We set a ceiling on the PICC at the level of existing per-line charges for the first year.

⁵² Where an end user does not select a presubscribed interexchange carrier, we allow a price cap LEC to collect this charge directly from the end user.

56. In order to give IXC's an opportunity to adjust to the new charge, we gradually increase the PICC ceiling over the next several years until it reaches a level that permits full recovery of common line revenues -- plus a portion of "residual TIC" revenues. To the extent that the ceiling on the primary residential and single-line business PICC does not allow for full recovery of these common line revenues immediately, the remaining revenues will be recovered through a PICC imposed upon non-primary residential and multi-line business lines, and through per-minute charges.

57. As the PICC ceiling for primary residential and single-line business lines increases, the amount of common line revenues transferred to non-primary residential and multi-line business lines will fall to zero. At that point, all common line costs for primary residential and single-line business lines will be recovered through flat-charges on those lines.

58. *Non-Primary Residential and Multi-Line Business Lines.* Because affordability concerns are not as significant for these lines, we permit a modest increase in the SLC to permit recovery of the price cap LEC's average per-line common line revenues, but never to more than \$3.00 above the SLC ceiling for multi-line business lines today, adjusted for inflation. To ameliorate the impact that an increase in the SLC might have on residential customers, the increase in the SLC ceiling will be phased in for non-primary residential lines over several years.

59. We also establish a flat-rated PICC on non-primary residential and multi-line business lines. This PICC will cover common line revenues that exceed the ceilings on SLCs and primary residential PICCs.⁵³ We set a ceiling on this PICC in the first year of \$1.50 for non-primary residential lines and \$2.75 for multi-line business lines, and permit those ceilings to increase gradually thereafter. We anticipate that the actual PICC imposed upon multi-line business lines will, on average, decrease from 1998 to 1999, and for every year thereafter, and will fall to less than \$1.00 by 2001.

60. To the extent that the ceilings on SLCs and PICCs do not allow recovery through flat charges of all common line revenues, LECs shall be permitted to impose a per-minute CCL charge assessed on originating minutes.⁵⁴ As the PICC cap for non-primary residential and multi-line business lines increases -- and as revenues transferred from primary residential and single-line businesses fall to zero -- the per-minute CCL charge will fall to zero, too. Eventually, we anticipate that most, if not all, price cap LECs will be able to recover the full per-line revenues associated with non-primary residential and multi-line business lines through the SLC, after taking into account the assistance provided through the explicit high-cost

⁵³ It may also recover some residual TIC revenues and certain marketing expenses, as discussed below.

⁵⁴ To the extent that the sum of a LEC's originating local switching charge and any residual per-minute CCL, TIC, and marketing expense (see section IV.D) charges exceeds the sum of its originating local switching, CCL, and TIC charges on December 31, 1997, the excess shall be collected through a per-minute charge on terminating access. We expect that this will only apply to a few LECs, and to none beyond 1998.

universal service support mechanisms. In addition, residual TIC revenues will also be recovered through the PICC on non-primary residential and multi-line business lines. As described more fully below, to the extent that the PICC ceilings prevent full recovery of the residual TIC, the remaining amount will be recovered through a per-minute residual TIC.

B. Other Rate Structure Changes

61. *Switching.* The traffic-sensitive costs of local switching will continue to be recovered through per-minute local switching charges.

62. For price cap LECs, the NTS costs associated with line ports will no longer be included in the local switching charge, and instead will be recovered through the flat-rated common line charges discussed above. Price cap LECs will also assess a monthly flat-rated charge directly on end users that are subscribing to integrated services digital network services, digital subscriber line, or other services that have higher line port costs than basic, analog service. This charge recovers the amount by which the cost of the line port exceeds the cost of a line port for basic, analog service. Costs of local switching attributable to trunk ports are moved to a separate service category within the traffic-sensitive basket. These costs will be recovered through flat-rated monthly charges collected from users of dedicated trunk ports and per-minute, traffic-sensitive charges assessed on users of shared trunk ports. The new rate structure also includes an optional call set-up charge.

63. *Transport.* Effective July 1, 1998, the unitary rate structure option for tandem-switched transmission is eliminated and the costs of tandem-switched transmission must be recovered through the existing three-part rate structure. For price cap LECs, a new flat-rated monthly charge recovers the NTS costs of tandem switching attributable to dedicated ports. A new per-minute rate element recovers the costs of multiplexers used between tandem switch DS-1 port interfaces and the DS-3 circuits used to transport traffic from tandem to end offices. For all incumbent LECs, the formula used to compute the tandem-switched transport rate is based on actual usage of the circuit, rather than an assumed 9000 minutes of use per month.

64. For all incumbent LECs, certain costs currently recovered through the TIC are reassigned to specified facilities charges, including tandem-switching rates. For price cap LECs, those costs of the TIC that remain (the "residual TIC") are recovered through the PICC. To the extent that the PICC ceiling prevents recovery of the entire residual TIC through the flat-rated PICC, the remaining portion will be collected through a per-minute residual TIC. As the ceilings on the PICCs increase, a larger percentage of the residual TIC will be recovered through the PICC. Beginning in July 1997, price cap reductions will be targeted to the per-minute residual TIC until it is eliminated. We expect that the per-minute TIC charge will be eliminated in two to three years. Residual per-minute TICs shall be assessed only on incumbent LEC transport customers, and therefore shall no longer be assessed on competitive access providers (CAPs) that interconnect with the LEC switched network at the end office.

65. *SS7 Signalling*. Price cap LECs may, but are not required to, adopt a rate structure for SS7 signalling that unbundles SS7 signalling functions, as was permitted in the *Ameritech SS7 Waiver Order*.⁵⁵

66. *Retail Marketing Expense*. Price cap LECs may no longer recover certain marketing expenses through per-minute access charges assessed on IXC's. These expenses are recovered from end users through per-line charges on second and additional residential lines and multi-line business lines, subject to ceilings on SLCs. Any residual shall be recovered through the PICCs on these lines and then through per-minute charges on originating access, subject to the exception described in Section III.A, below.

III. RATE STRUCTURE MODIFICATIONS

A. Common Line

1. Overview

67. In the 1983 *Access Charge Order*, the Commission established a comprehensive mechanism for incumbent LECs to recover the costs associated with their provision of access service required to complete interstate and foreign telecommunications.⁵⁶ The access plan distinguished between traffic sensitive costs and NTS costs incurred by an incumbent LEC to provide interstate access service. An incumbent LEC's NTS costs of providing interstate access, or costs that do not vary with the amount of usage, include the common line, or "local loop," which connects an end user's home or business to a LEC central office.⁵⁷

68. In the *Access Charge Order*, the Commission emphasized that its long range goal was to have incumbent LECs recover a large share of the NTS common line costs from end users instead of carriers, and to recover these costs on a flat-rated, rather than on a usage-sensitive, basis.⁵⁸ The Commission recognized, however, that a sudden increase in the flat rates imposed by LECs on end users could have a detrimental effect on universal service. For this reason, the rules adopted in 1983 apportioned charges for common line costs between a monthly flat-rated end-user SLC and a per-minute CCL charge assessed to the IXCs. The SLC is based on average interstate-allocated common line costs, which the incumbent LEC

⁵⁵ Ameritech Operating Companies Petition for Waiver of Part 69 of the Commission's Rules to Establish Unbundled Rate Elements for SS7 Signalling, Order, 11 FCC Rcd 3839 (1996) (*Ameritech SS7 Waiver Order*).

⁵⁶ MTS and WATS Market Structure, CC Docket No. 78-72, Third Report and Order, 93 F.C.C. 2d 241 (1983) (*Access Charge Order*), modified, 97 F.C.C. 2d 682 (1983) (*Reconsideration Order*), further modified, 92 F.C.C. 2d 834 (1984) (*Second Reconsideration Order*), aff'd in principal part and remanded in part sub nom. *NARUC v. FCC*, 737 F.2d 1095 (D.C. Cir. 1984), cert. denied, 469 U.S. 1227 (1985).

⁵⁷ See, e.g., *Access Charge Order*, 93 FCC 2d at 268-69.

⁵⁸ *Id.* at 268-269.

may average over an entire region or over a study area,⁵⁹ depending on how it files its interstate tariff. These charges currently are the lesser of the per-line average common line costs allocated to the interstate jurisdiction or \$3.50 per month for residential and single-line business users, and \$6.00 per month for multi-line business users.⁶⁰ Any remaining common line revenues permitted under our price cap rules are recovered by incumbent price cap LECs through per-minute CCL charges assessed on the IXC's, and are ultimately recovered by IXCs from end-users through long distance toll charges.⁶¹

69. Because common line and other NTS costs do not increase with each additional minute of use transmitted over the loop, the current per-minute CCL charge that recovers loop costs represents an economically inefficient cost-recovery mechanism and implicit subsidy. A rate structure that recovers NTS costs through per-minute charges creates an incentive for customers to underutilize the loop by requiring them to pay usage rates that significantly exceed the incremental cost of using the loop. Additionally, a rate structure that forces high-volume customers to pay significantly more than the cost of the facilities used to service them is not sustainable in a competitive environment because high-volume customers can migrate to a competitive LEC able to offer an efficient combination of flat and per-minute charges, even if the competitive LEC has the same or higher costs than the incumbent LEC.

70. The Federal-State Universal Service Joint Board stated, in its *Recommended Decision*, that primary residential and single-line business lines are essential to the provision

⁵⁹ A "study area" is usually an incumbent LEC's existing service area in a given state. The study area boundaries are fixed as of November 15, 1984. *MTS and WATS Market Structure: Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, Decision and Order*, 50 Fed. Reg. 939 (1985 Lifeline Order).

⁶⁰ Revenues permitted under our price cap rules for common line services may be significantly different from the interstate allocated costs assigned to the common line access element by our Part 36 and Part 69 cost allocation rules. For each price cap basket, the rates allowed are determined based on price cap formulas, without reference to interstate allocation of costs. We measure the earnings of price cap carriers by comparing revenues to interstate allocated costs. See 47 C.F.R. §§ 61.45(c), 65.702, & 69.104. The data indicate that only two study areas served by price cap LECs, (Bell Atlantic in the District of Columbia, and GTE in Minnesota) have interstate-allocated common line costs that are less than the current \$3.50 SLC. These two study areas represent less than two percent of subscriber lines nationwide. See Supporting Material filed with 1996 Annual Access Tariff Filing, filed with Commission on April 2, 1996. (1996 LEC Annual Access Tariff Forecast Data.) This LEC forecast data were used by LECs to set SLC rates that became effective on July 1, 1996.

⁶¹ The data indicate that incumbent price cap LECs recover approximately 10.4 billion dollars in total common line revenue. Approximately \$7 billion of the common line costs are recovered through the SLC, and approximately \$3.4 billion are recovered through the CCL charge. Thus, incumbent price cap LECs recover approximately one-third of their common line costs through per-minute CCL charges. 1996 LEC Annual Access Tariff Forecast Data.

of universal service,⁶² and that current rates for local services are generally affordable based on subscribership levels.⁶³ The Joint Board also concluded that the SLC, as a charge assessed directly on local telephone subscribers, has an impact on universal service concerns such as affordability,⁶⁴ and recommended that the Commission leave the current SLC ceilings in place for primary residential and single-line business lines.⁶⁵ In our companion *Universal Service Order*, consistent with that recommendation, we conclude that we should not raise the current \$3.50 SLC ceiling on primary residential and single-line business lines.⁶⁶

71. We adjust the SLC ceilings for multi-line business lines and residential lines beyond the primary connection. Adjusting the SLC ceilings for multi-line business lines and non-primary residential lines will permit incumbent LECs to recover directly from end users more of the common line revenues permitted under our price cap rules for those lines and will reduce the amount of NTS costs related to these lines that are currently recovered through CCL charges. Where the SLC ceilings do not allow the incumbent LEC to recover its price cap common line revenues through end-user charges, the remaining, or "residual" amount will be recovered through flat, per-line charges assessed to each customer's presubscribed interexchange carrier. This presubscribed interexchange carrier charge, or "PICC", will increase gradually until the incumbent price cap LECs' full interstate-allocated common line revenues permitted under our price cap rules are recovered through a combination of flat-rated SLCs and PICCs. To the extent that the flat-rated charges do not recover, during the initial phase, the full interstate-allocated common line revenues permitted under our price cap rules, incumbent LECs may continue to assess the IXCs a per-minute CCL charge based on the costs not recovered through flat-rated charges. This per-minute charge, however, will be generally much lower than today's CCL charge and will be eliminated once all common line revenues are recovered through a combination of SLCs and PICCs.

⁶² Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Recommended Decision, 12 FCC Rcd 87, 132-133 (rel. Nov. 8, 1996) (*Joint Board Recommended Decision*).

⁶³ *Id.* at 154. The Joint board noted that "[s]ubscribership levels, while not dispositive on the issue of affordability, provide an objective criterion to assess the overall success of state and federal universal service policies in maintaining affordable rates." *Id.*

⁶⁴ *Id.* at 472.

⁶⁵ *Id.* at 463. See also Separate Statement of FCC Commissioner Rachelle B. Chong, (dissenting from the Joint Board's recommendation that the Commission should lower the SLC for primary residential and single-line business lines). *Id.* at 556.

⁶⁶ *Universal Service Order*, Section XII.C.

2. Subscriber Line Charge

a. Background

72. In the NPRM, we proposed to increase the ceiling on the SLC for second and additional lines for residential customers, and for all lines for multi-line business customers, to the per-line loop costs assigned to the interstate jurisdiction.⁶⁷ Alternatively, we proposed to eliminate the ceiling for multi-line business customers and for residential connections beyond the primary connection, especially where the incumbent LEC has entered into interconnection agreements and taken other steps to lower barriers to actual or potential local competition.⁶⁸ We sought comment on these proposals.⁶⁹ We also invited parties to comment on whether any changes that we adopt to the ceiling on SLCs for incumbent price cap LECs should be extended to incumbent rate-of-return LECs, and on the relationship of any such changes to the *Joint Board Recommended Decision*.⁷⁰ We sought comment on whether to establish a transition mechanism for this increase if the ceilings on SLCs for multi-line business lines and residential lines beyond the primary connection are increased and whether such a transition could be implemented consistent with section 254, the Act's universal service provision.⁷¹ We sought comment on whether geographic averaging of SLCs is an implicit subsidy that is inconsistent with the requirements of section 254(e), and thus on whether we are required to deaverage SLCs.⁷²

b. Discussion

73. The Commission has had the longstanding goal of ensuring that all consumers have affordable access to telecommunications services.⁷³ In its *Recommended Decision*, the Joint Board stated that current rates for local telephone services are generally affordable and that the SLC, as a charge assessed directly on local telephone subscribers, has an impact on

⁶⁷ NPRM at ¶ 65.

⁶⁸ *Id.*

⁶⁹ NPRM at ¶ 65.

⁷⁰ *Id.*

⁷¹ *Id.* at ¶ 66.

⁷² *Id.* at ¶ 67.

⁷³ See, e.g., MTS and WATS Market Structure, Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, CC Docket Nos. 78-72, 80-286; Decision and Order, FCC 85-643 (rel. Dec. 27, 1985).

universal service concerns such as affordability.⁷⁴ The Joint Board further recommended that the Commission maintain the current SLC ceilings for primary residential and single-line business lines,⁷⁵ and we adopt that recommendation in our companion *Universal Service Order*.⁷⁶ Numerous parties in this proceeding argue that we should raise or eliminate the SLC ceiling on all lines to permit LECs to recover the full interstate allocated costs of the local loop from end-users.⁷⁷ This would increase the average SLC for all residential and single-line business lines from \$3.50 per month to \$6.10 per month.⁷⁸ We conclude that it would be inappropriate to make significant changes to the SLC cap for primary residential and single-line business lines. Primary residential and single-line business lines are central to the provision of universal service. Because of concerns about affordability, and in light of the significant changes that are still underway in this proceeding, in the federal universal service support proceeding, and possible future changes to the separations process, we conclude that the current SLC for these lines should not be raised. Consistent with the Joint Board's recommendation and our conclusion in the *Universal Service Order*, therefore, the ceiling on the SLC for primary residential and single-line business lines will remain at \$3.50 or the permitted price cap common line revenues per line, whichever is less.

74. With regard to multi-line users, the Joint Board suggested in its *Recommended Decision* that universal service support should not be extended to non-primary residential lines and multi-line business lines because it found that cost of service is unlikely to be a factor that would cause multi-line users not to subscribe to telephone service.⁷⁹ Subsequently, the state members of the Joint Board filed a report with the Commission in which they proposed that we retain high cost support for all lines served in high cost study areas during a transition

⁷⁴ *Joint Board Recommended Decision*, 12 FCC Rcd at 472.

⁷⁵ *Id.* at 463.

⁷⁶ *Universal Service Order* at Section XII.C.

⁷⁷ See, e.g., GTE Service Corporation (GTE) Comments at 26-29, Reply at 20-21; Southwestern Bell Telephone Company (SWBT) Comments at 37-38; Cincinnati Bell Telephone Company (Cincinnati Bell) Comments at 6-7; AT&T Corporation (AT&T) Comments 51-54, Reply at 25-26; Frontier Corporation (Frontier) Comments at 4, 5-7; Sprint Corporation (Sprint) Comments at 11-15; 50-51; Ad Hoc Telecommunications Users Committee (Ad Hoc) Reply at 4; General Services Administration/United States Department of Defense (GSA/DOD) Comments at 9-11, Reply at 5, 7; Tele-Communications, Inc. (TCI) Comments at 10; Reply at 4-5; Time Warner Communications Holdings, Inc. (Time Warner) Comments at 4-5; WorldCom, Inc. (WorldCom) Comments at 30-31.

⁷⁸ As discussed below, the data indicate that nationwide, the average interstate allocation of common line costs is \$6.10 per line. 1996 LEC Annual Access Tariff Forecast Data.

⁷⁹ *Joint Board Recommended Decision*, 12 FCC Rcd 87 at 133.

to a forward-looking cost methodology.⁸⁰ Consistent with that proposal, we adopt, in our *Universal Service Order*, a modified version of the existing high-cost support system and continue support for all residential and business connections in areas currently receiving high cost support until at least January 1, 1999.⁸¹ We therefore continue to provide high cost support for non-primary residential and multi-line business lines at this time, by allocating a lower portion of these costs to the intrastate jurisdiction than would otherwise be the case.⁸² In that order, we also express our concern, however, that providing universal service support for non-primary residential and multi-line business lines in high-cost areas may be inconsistent with our long-term universal service goals, and that overly expansive universal service support mechanisms potentially could harm all consumers by increasing the expense of telecommunications services for all.⁸³ We state that we will continue to evaluate the Joint Board's recommendation to limit universal service support to primary residential connections and businesses with single connections.⁸⁴

75. We conclude here that it is necessary to adjust the ceilings on the interstate SLCs on both non-primary residential and multi-line business lines in order to create a rate structure that supports our long-term universal service goals, is pro-competitive, and is sustainable in a competitive local exchange market. Section 254 of the Act requires that all consumers have access to basic telephone service at just, reasonable, and affordable rates that are comparable among different regions of the nation.⁸⁵ This section of the Act also requires that universal service support be achieved through support mechanisms that are "specific, predictable, and sufficient."⁸⁶ Because universal service concerns about ensuring affordable access to basic telephone services are not as great for non-primary residential and multi-line business lines as they are for primary residential and single-line business lines, we must take action to remove the implicit subsidies contained in our current interstate access charges. Thus, we are adopting a rate structure that will permit LECs to recover greater amounts of their costs on a flat-rated basis from end users and to reduce the amount of revenues they must recover through per-minute access charges. Our initial implementation improves upon the current rate structure because it reduces subsidies by recovering more costs from the cost causer. It also

⁸⁰ State Members Report on the Use of Cost Proxy Models at 3 (dated Mar. 26, 1997).

⁸¹ *Universal Service Order* at Section IV.D and VII.D.

⁸² *Universal Service Order* at Section VII.D.

⁸³ *Universal Service Order* at Section IV.D.

⁸⁴ *Universal Service Order* at Section IV.D.

⁸⁵ 47 U.S.C. § 254(b)(3).

⁸⁶ 47 U.S.C. § 254(b)(5).

creates a rate structure that is more pro-competitive than the existing one by providing for greater flat-rated recovery of NTS costs. Without these modifications, new entrants, which are not subject to the non-cost-causative rate structure requirements, would be in a position to target the incumbent LECs' most profitable, high-volume customers based on regulatory requirements. A loss of profitable customers would increase the incumbent LECs' costs of providing service to the rest of their customers, especially to those in high-cost areas. Consistent with our universal service goal of ensuring that all consumers receive affordable rates that are comparable in different parts of the nation, however, the SLC adjustments will be subject to ceilings to prevent end-user customers in high-cost areas from paying SLCs that are significantly higher than in other parts of the country.

76. In virtually all cases, current SLC ceilings do not permit incumbent LECs to recover their average per-line interstate-allocated common line costs.⁸⁷ As a result of the existing SLC ceilings, which have been in place for the past decade, incumbent LECs must recover the shortfall through usage-sensitive CCL charges assessed on IXCs. The IXCs in turn recover most or all of these costs from toll users in the form of per-minute charges, keeping toll rates artificially high and discouraging demand for interstate long distance services. The high per-minute toll charges also create support flows between different classes of customers. For example, because end-user customers vary widely in their use of interstate long distance services, low-volume toll users do not pay the full cost of their loops while high-volume toll users contribute far more than the total cost of their loops. In addition high-volume toll users, who include significant numbers of low-income customers, effectively support non-primary residential and multi-line business customers.⁸⁸

77. In order to create a rate structure that supports our long-term universal service goals, is pro-competitive, and is sustainable in a competitive market, we modify our rate structure requirements to permit incumbent LECs to recover costs in a manner that more accurately reflects the way those costs are incurred. Because common line costs do not vary with usage, these costs should be recovered on a flat-rated instead of on a per-minute basis. In addition, these costs should be assigned, where possible, to those customers who benefit from the services provided by the local loop. Accordingly, the SLC ceilings for non-primary residential and multi-line business lines will be adjusted generally to a level that permits incumbent LECs to recover, directly from the end user, their average per-line interstate

⁸⁷ The data indicate that only two study areas served by price cap LECs, (Bell Atlantic in the District of Columbia, and GTE in Minnesota) have interstate-allocated common line costs that are less than the current \$3.50 SLC. These two study areas represent less than two percent of subscriber lines nationwide. See *1996 LEC Annual Access Tariff Forecast Data*.

⁸⁸ See Robert W. Crandall, *Universal Service Subsidies and Consumer Welfare: Long-distance Access Charges*, Brookings Institution (April, 1997), Table 1, (showing that roughly 30 percent of households with income under \$10,000 spend more on long-distance calls than do 50 percent of the households with income over \$75,000).

common line revenues.⁸⁹

78. For multi-line business lines, the SLC will be adjusted to recover the average per-line interstate-allocated common line costs beginning July 1, 1997. To the extent incumbent price cap LECs, mostly in rural areas, have common line costs that significantly exceed the national average, we establish a ceiling on SLCs for multi-line business lines of \$9.00, adjusted annually for inflation. To ameliorate any possible adverse impact of adjustments in SLC ceilings for non-primary residential lines, we adopt an approach that will gradually phase in adjustments in the SLC ceilings for these lines. The SLC for non-primary residential lines will be adjusted initially beginning January 1, 1998. For the first year, beginning January 1, 1998, the SLC ceiling for non-primary residential lines will be adjusted to the incumbent LEC's average per-line interstate-allocated costs, but may not exceed \$1.50 more than the current SLC ceiling. Beginning January 1, 1999, the monthly SLC ceiling for these lines will be adjusted for inflation and will increase annually by \$1.00 per-line, until the SLC ceiling for non-primary residential lines is equal to the ceiling permitted for multi-line business lines.

79. The data indicate that the long term ceilings we are establishing will permit incumbent price cap LECs to recover their average per-line common line revenues⁹⁰ from 99 percent of their non-primary residential and multi-line business lines.⁹¹ For the few incumbent price cap LECs that have common line costs in certain study areas that exceed the ceiling, the ceiling will serve as an economic safeguard for those customers who would otherwise pay significantly higher SLCs.⁹² We conclude that maintaining a ceiling for non-primary residential and multi-line business customers in high-cost areas is a reasonable response to a legitimate universal service concern because, consistent with section 254(b)(3), it ensures that these customers have access to telecommunication services at rates that are comparable to rates charged for similar services in urban areas.⁹³

80. We believe that the approach we adopt should prevent widespread discontinuance

⁸⁹ As discussed in Section IV.D, below, in addition to the average per-line interstate-allocated common line costs, price cap LECs may include, in the SLC for non-primary residential and multi-line business lines, certain marketing expenses attributable to these lines.

⁹⁰ As discussed in Section III.A.3. below, when the multi-line PICC no longer recovers common line revenues, the calculation of the SLC will be changed from one based on interstate allocated costs to one based on common line revenues permitted under our price cap rules.

⁹¹ See 1996 LEC Annual Access Tariff Forecast Data.

⁹² The data indicate that twelve study areas served by three price cap LECs (GTE, U S West, and Citizens Utilities) have average common line costs that exceed \$9.00. These areas represent less than two percent of subscriber lines nationwide. See 1996 LEC Annual Access Tariff Forecast Data.

⁹³ 47 U.S.C. § 254(b)(3).

of lines by multi-line customers. The record indicates that nationwide, the average interstate allocation of common line costs is only \$6.10 per line, and that for more than half of multi-line business lines, the interstate common line costs are below the existing \$6.00 ceiling.⁹⁴ Therefore, when the SLC ceiling is adjusted July 1, 1997, more than half of multi-line business lines will see no immediate increase in their SLC. The \$5.00 SLC ceiling for non-primary residential lines for the first year is a net increase of \$1.50 per month and the gradual increase, if any, in subsequent years, is designed to allow these customers time to adjust to the new rate structure. Moreover, we expect the rate structure modifications we adopt in this order to benefit the majority of multi-line customers through reductions in per-minute long distance rates. Thus, for many customers, the access restructuring will lead to an overall reduction in their telephone bill. We also note that, because we are adjusting the SLC on non-primary residential lines only to a level that recovers the average interstate allocated costs attributable to the line, to the extent that a customer chooses not to purchase an additional line because of the SLC increase, it is because the benefits of the second line to that customer are less than the average cost of the line.

81. Many parties contend that adjusting the SLC ceiling for non-primary residential lines and multi-line business lines will affect economic development in rural areas.⁹⁵ To respond to this concern, with the limited exception of cost allocation to new elements, discussed in Section V, below, we are limiting application of the rate structure modifications we adopt in this Order to incumbent price cap LECs only. Most consumers in rural areas are served by small rate-of-return LECs that are not affected by the SLC adjustment we are adopting. We will review rate structure modifications affecting small, rural carriers in a separate proceeding when we address access charge reform for those carriers. To the extent there are incumbent price cap LECs that serve high-cost areas of the country and have common line costs that exceed the national average, we are maintaining a ceiling on the SLCs for these lines to ensure that subscribers do not pay rates that greatly exceed the national average.⁹⁶

82. We are not persuaded by arguments that an upward adjustment to a SLC ceiling that was set over a decade ago, and that has never been adjusted for inflation, would violate

⁹⁴ See 1996 LEC Annual Access Tariff Forecast Data.

⁹⁵ See, e.g., Harris, Skrivan & Associates, LLC (Harris, Skrivan & Associates) Comments at 6; TCA-Inc.-Telecommunications Consultants (TCA) Comments at 4; GVNW Inc./Management (GVNW) Comments at 7; John Staurulakis, Inc. (Staurulakis) Comments at 7-9; Western Alliance Comments at 22-24; ITCs, Inc. (ITC) Comments at 3; National Exchange Carrier Association, Inc. (NECA) Comments at 13, Reply at 7-9; Rural Telephone Coalition (Rural Tel. Coalition) Comments at 8; Pennsylvania Internet Service Providers Comments at 8-9; Commercial Internet Exchange Association (CIEA) Comments at 13; Reply at 10.

⁹⁶ We will address access charge modifications as they apply to rate-of-return rural LECs in proceeding later this year. See Section V.A, below.

section 254(b)'s requirement that consumers in all regions of the nation have affordable access to telecommunications and information services at rates that are reasonably comparable to those services provided in urban areas.⁹⁷ The data indicate that if the SLC ceilings for business and residential lines had been adjusted annually for inflation since they became effective in 1984 and 1989, respectively, the \$6.00 business SLC ceiling would have increased by 1996 to \$9.00 per line, and the \$3.50 residential and single-line business SLC ceiling would have increased to \$4.39 per line.⁹⁸ Thus, for multi-line business customers, the SLC ceiling we adopt today is not significantly different from what it would have been, if it had been adjusted for inflation annually. Moreover, to adopt a ceiling lower than \$9.00 would effectively create an additional impermissible subsidy for a class of customers not enumerated by Congress in section 254 of the 1996 Act as beneficiaries of fundamental universal service goals. We find that the \$9.00 ceiling we adopt today strikes a reasonable balance between our desire to establish a more efficient interstate access charge rate structure consistent with our long-term universal service goals in a competitive local exchange environment, and the need to avoid precipitous rate increases to consumers in high cost areas. Although SLCs in some areas may ultimately be lower than SLCs in high-cost areas, we conclude that \$9.00 SLCs remain "reasonably comparable" to those in urban areas.⁹⁹

83. We are also not persuaded that we should maintain the current SLC ceiling for non-primary residential lines because of claims that incumbent LECs will be unable to identify second lines for purposes of billing different SLCs to these lines. Additional telephone lines are a well-established telecommunications product marketed by LECs. This product is supported by a marketing and billing infrastructure that will enable LECs to distinguish non-primary residential lines for purposes of billing different SLCs. We note that we are not defining "primary" or "non-primary" lines in this Order. In a further notice of proposed rulemaking in the Universal Service proceeding, we will address this issue, and release an order defining "primary" and "non-primary" residential lines by the end of the year.¹⁰⁰

84. We are unpersuaded by arguments that we should forgo these changes on the

⁹⁷ See, e.g., ITC Comments at 3; Rural Tel. Coalition Comments at 8, Reply at 11; TDS Telecommunications Corporation (TDS) Comments at 3-4, Reply at 4; Western Alliance Comments at 23; TCA Comments at 3-4.

⁹⁸ Calculations are based on Consumer Price Index for "All Items," *Trends in Telephone Service*, Table 6, (March 28, 1997).

⁹⁹ In Section IV.D, below, we conclude that price cap LECs may recover certain marketing expenses through the SLC on non-primary residential and multi-line business lines. That, however, does not affect the SLC ceilings for these lines.

¹⁰⁰ *Universal Service Order* at Section IV.D.

grounds that increasing the SLC ceilings for non-primary residential lines will create undue incentives for subscribers to order their primary lines from the incumbent LEC and their additional lines from competitors. The changes we adopt in this Order are intended to permit incumbent LECs to move their prices for non-primary residential and multi-line business lines toward more economically efficient levels by substantially reducing implicit subsidies flowing between different classes of customers. Once these subsidies are eliminated and the new universal service regime is fully implemented, incumbent LECs will be able to recover their common line costs from customers through a rate structure that accurately reflects the manner in which these costs are incurred, and through a targeted, portable universal service contribution where necessary. At that point, both incumbent LECs and new entrants should be able to compete efficiently in the local exchange market. Subscribers, therefore, should not have an incentive to use other carriers for their additional lines unless a competitor is operating more efficiently and can offer local exchange service at a lower rate than the incumbent LEC is able to offer. Indeed, the ability of a competitive local exchange carrier to offer local exchange service at a lower rate is precisely the type of competition envisioned by the 1996 Act: it will encourage the incumbent LEC to reduce its costs of providing service in order to meet or beat the prices of its competition.

85. To address the concerns of some commenters that charging a higher SLC for second and additional residential lines will encourage subscribers to order their additional line from competitors, we will permit LECs to charge competitors the higher SLC when the competitor provides a customer with a second line through resale of an incumbent LEC offering. If prior to the development of full competition, we find that disparity between SLC charges on primary and additional residential lines becomes a significant problem, we will reexamine this issue in conjunction with further reforms we adopt in an upcoming order.

86. Certain incumbent LECs have requested that any rule that increases the SLC ceiling for non-primary residential lines should be optional for LECs.¹⁰¹ We adopt this proposal in part and will not require LECs to charge a higher SLC for non-primary residential lines. Thus, if an incumbent LEC finds that charging higher SLCs leads to a large number of disconnections, it is free to charge less. To the extent price cap LECs choose to charge a SLC that is less than the maximum allowed, however, they may not recover these foregone revenues through the PICC or CCL charges. This restriction is consistent with our current price cap rules, which prevent LECs from transferring SLC costs to the CCL charge.¹⁰²

87. Several incumbent price cap LECs argue in favor of deaveraging SLCs, stating that an averaged SLC creates cross-subsidies between high-cost and low-cost areas, in

¹⁰¹ See, e.g., Bell Atlantic Telephone Companies and NYNEX (BA/NYNEX) Comments at 33-34; Pacific Telesis (PacTel) Reply at 22; Citizens Utilities Company (Citizens Utilities) Comments at 28-29.

¹⁰² 47 C.F.R. § 69.104.

violation of section 254 of the Act.¹⁰³ We will resolve this issue, along with issues concerning the timing and degrees of geographic deaveraging, pricing flexibility, and ultimate deregulation in an upcoming order.

3. Carrier Common Line Charge

a. Background

88. Because we are retaining the \$3.50 ceiling on SLCs for primary residential and single-line business customers, virtually all price cap LECs will be unable to recover, through the SLC, all of their common line revenues permitted under our price cap rules. In the NPRM, we sought comment on possible revisions to the current CCL charge structure that would allow incumbent price cap LECs to recover these NTS common line costs in a way that reflects the way costs are incurred. We proposed a recovery mechanism suggested by the Joint Board in its *Recommended Decision*¹⁰⁴ that would permit incumbent LECs to recover common line costs not recovered from SLCs through a flat, per-line charge assessed against each end-user's presubscribed interexchange carrier.¹⁰⁵ The Joint Board suggested that the Commission allow incumbent LECs to collect the flat-rated charge directly from end users who have not selected a primary interexchange carrier ("PIC.")¹⁰⁶ We sought comments on this approach and also invited parties to discuss any potential problems created when end-user customers have selected PICs, but use other IXC for Internet, fax, interexchange, or other interstate services by "dialing-around" the PIC.¹⁰⁷

89. We also sought comment on several alternative approaches to the per-minute recovery of interstate NTS loop costs proposed by the Competition Policy Institute (CPI), including a "bulk billing" method that would assess a charge against the IXC based upon its percentage share of interstate minutes of use or revenues, a "capacity charge," a "trunk port charge," and a "trunk port and line port" charge.¹⁰⁸ We invited parties to comment on whether any changes that we adopt to the recovery of interstate NTS local loop costs for price

¹⁰³ See, e.g., U S West Comments at 56; Ameritech Comments at 12-13; BellSouth Comments at 32; GTE Comments at 30-31.

¹⁰⁴ *Joint Board Recommended Decision*, 12 FCC Rcd at 474.

¹⁰⁵ NPRM at ¶¶ 59-63.

¹⁰⁶ *Joint Board Recommended Decision*, 12 FCC Rcd 87 at 474.

¹⁰⁷ NPRM at ¶ 60. Customers are able to "dial-around" their presubscribed interexchange carrier by dialing 10XXX before their area code and 7-digit exchange number.

¹⁰⁸ *Id.* at ¶ 61

cap LECs should be extended to rate-of-return LECs, and on the relationship of interstate NTS loop cost recovery to the universal service mechanisms proposed in the *Joint Board Recommended Decision*. We asked parties to address how such an extension to rate-of-return LECs would affect small business entities, especially small incumbent LECs.¹⁰⁹

90. Additionally, we asked parties to address whether an alternative mechanism for recovering common line costs currently recovered through the CCL charge would be necessary if we were to eliminate the SLC ceiling for certain lines. We asked interested parties to address the extent to which any proposed alternative recovery mechanism for recovering common line costs currently recovered through the CCL charge would affect small business entities, including small incumbent price cap LECs and new entrants. We also sought comment on whether section 254(g) precludes an IXC from charging its customers the flat, per-line monthly rate assessed on that line if the amount of that charge varied among customers in different areas within a state or among customers in different states, and if so, whether conditions exist sufficient to require us to forbear from the application of section 254(g) to IXC recovery of flat-rate CCL charges.¹¹⁰

b. Discussion

91. The \$3.50 SLC ceiling for primary residential and single-line business customers prevents most incumbent price cap LECs from recovering, through end-user charges, all of the common line revenues permitted under our price cap rules.¹¹¹ To the extent that common line revenues are not recovered through SLCs, incumbent LECs will be allowed to recover these revenues through a PICC, a flat, per-line charge assessed on the end-user's presubscribed interexchange carrier.

92. We adopt the Joint Board's recommendation that incumbent LECs may collect directly, from any customer who does not select a presubscribed carrier, the PICC that could otherwise be assessed against the presubscribed interexchange carrier. Assessing the PICC directly against end users that do not presubscribe to a long distance carrier should eliminate the incentive for customers to access long-distance services solely through "dial-around" carriers in order to avoid paying long-distance rates that reflect the PICC. Several parties argue that this type of billing arrangement will create administrative difficulties because it will require LECs to prorate charges for both the end user and the IXC when a customer leaves an IXC in the middle of the billing cycle. To avoid any potential administrative difficulties resulting from customers leaving their presubscribed interexchange carriers in the middle of a

¹⁰⁹ *Id.*

¹¹⁰ *Id.* at ¶¶ 62-63.

¹¹¹ *See* n.32, above.

billing cycle, we will permit LECs to assess the full PICC at the beginning of each billing cycle.

93. We recognize that this flat, per-line PICC will not prevent customers from "dialing around" their presubscribed long distance carrier to obtain interstate service. Collecting a PICC from a customer, however, in and of itself, creates no incentive for a customer to presubscribe to one carrier and use "dial-around" service of another. If the presubscribed carrier is an efficient competitor, it should be able to offer usage-based rates comparable to the prices of a competitor, thus eliminating any artificial benefits of "dial-around" capability. A combination of lower per-minute long distance rates and attractive long-distance pricing packages that reward customers for increasing their usage of the presubscribed interexchange carrier's services should also help deter customers from using separate long-distance carriers for various services solely because of regulation. There is customer contact value in being a customer's presubscribed interexchange carrier. Regulators have long concluded that the convenience of making a long-distance call by simply dialing "1+" conveys certain advantages.¹¹² And the advantages of "1+" dialing will only increase if, as many predict, we move to a world in which "one-stop shopping" for a multiplicity of services becomes the primary paradigm for provision of telecommunication services. We conclude that the record does not support a finding that assessing a charge on the presubscribed carrier will artificially encourage "dial-around" traffic to such a degree that we should not adopt access charge modifications that will move substantially toward efficient pricing for common line elements and lower usage charges for long-distance service. If evidence appears to us that our rules do substantially contribute to undue use of "dial-around" capabilities to circumvent presubscribed interexchange services, we stand ready to revisit this issue at a later time.

94. The rate structure we are adopting calls for the single-line PICC ultimately to recover the difference between revenues collected through the SLC and the per-line common line revenues for primary residential lines and single-line business lines permitted under our price cap rules.¹¹³ In order to provide incumbent LECs and IXC's with adequate time to adjust to this rate structure change, we cap the PICC for primary residential and single-line business lines at \$0.53 per month for the first year, beginning January 1, 1998, and establish ceilings on increases thereafter. We note that the monthly \$0.53 PICC is approximately equal to the current presubscribed per-line charges that are assessed to IXC's for the Universal Service

¹¹² See, e.g., *Local Competition Order*, 11 FCC Rcd at 15511.

¹¹³ As discussed in Section III.B, below, line port costs will be reassigned from the local switching rate element to the common line rate element. As discussed in Section III.D, price cap LECs may also recover residual TIC revenues through PICCs.

Fund and Lifeline Assistance plan,¹¹⁴ which are being eliminated in our *Universal Service Order*.¹¹⁵ Beginning January 1, 1999, the ceiling on the monthly PICC on primary residential and single-line business lines will be adjusted for inflation and will increase by \$0.50 per year until the sum of the SLC plus the flat-rated PICC is equal to the price cap LEC's permitted common line revenues per line. In no event shall the sum of the single-line SLC and PICC exceed the sum of the maximum allowable multi-line SLC and multi-line PICC.

95. Sprint asserts that if LECs recover NTS common line costs through deaveraged rates assessed on IXCs, we must forbear from applying section 254(g)¹¹⁶ to the extent it requires an IXC to average geographically any flat charges an IXC passes on to its customers.¹¹⁷ WorldCom asserts that IXCs should be permitted to recover their costs in any manner the market will allow, and that unless the Commission forbears with respect to the application of section 254(g) to these costs, IXCs that operate nationally will be forced to average together numerous subscribers' loop costs, and thus use long-distance rates as a vehicle for cross-subsidies that run counter to the overall policies of section 254(b) and (c).¹¹⁸ We conclude that the information in the record before us does not demonstrate that we are required, by section 10(a) of the Act,¹¹⁹ to forbear from enforcing section 254(g) as it relates to the manner in which IXCs recover their costs.

96. Section 10(a) of the 1934 Act requires the Commission to forbear from applying any regulation or provision of the Communications Act of 1934 if: (1) enforcement of that provision is unnecessary to ensure that the relevant charges and practices are just and reasonable and not unjustly or unreasonably discriminatory; (2) enforcement of that provision is unnecessary to protect consumers; and (3) forbearance from applying such provision or regulation is consistent with the public interest.¹²⁰ We conclude that, on the basis of the current record, IXCs have not demonstrated that forbearance of section 254(g) is warranted at this time.

¹¹⁴ IXCs currently pay \$0.0991 for the Lifeline Assistance and \$0.4380 for the Universal Service Fund, a total of \$0.5371. NECA Transmittal No. 729, F.C.C. Tariff No. 5, (filed Nov. 15, 1996).

¹¹⁵ See *Universal Service Order*, at Sections VII.C and XIII.F.

¹¹⁶ Section 254(g) requires that "rates charged by providers of interexchange telecommunications services to rural and high cost areas shall be no higher than the rates charged by each such provider to its subscribers in urban areas." 47 U.S.C. § 254 (g).

¹¹⁷ See, e.g., Sprint Reply at 27.

¹¹⁸ WorldCom Comments at 34.

¹¹⁹ 47 C.F.R. § 160.

¹²⁰ *Id.*

97. We find that establishing a broad exception to section 254(g) to permit IXC's to pass through flat-rated charges on a deaveraged basis may create a substantial risk that many subscribers in rural and high-cost areas may be charged significantly more than subscribers in other areas. Accordingly, we cannot conclude that enforcing our rate averaging requirement is unnecessary to ensure that charges are just and reasonable. In addition, because assessing subscribers flat-rated charges on a deaveraged basis could lead to significantly higher rates for subscribers in high-cost areas, we find no basis in this record to conclude that it is unnecessary to enforce section 254(g) to ensure protection of consumers or to protect the public interest. In contrast, IXC's cite no countervailing public interest considerations but merely make broad, unsupported assertions of the need to deaverage rates in light of the varying PICC amounts expected to be assessed by incumbent LECs. We also note that IXC's now pay access charges that often vary from location to location and from incumbent LEC to incumbent LEC, and still maintain geographically averaged rates. We therefore conclude that, based on the record before us, the IXC's have not met the test set forth in section 10(a) of the Act, and forbearance of section 254(g) is not warranted.

98. We note that we will continue to examine the issue of whether conditions exist that require us to forbear from application of section 254(g) as it relates to recovery of the PICC costs from subscribers. We will resolve this and other specific issues concerning the timing and degrees of pricing flexibility and ultimate deregulation in an upcoming order.

99. To the extent that the SLC ceilings on all lines and the PICC ceilings on primary residential and single-line business lines prevent recovery of the full common line revenues permitted by our price cap rules, incumbent price cap LECs may recover the shortfall through a flat-rated, per-line PICC on non-primary residential and multi-line business lines.¹²¹ The incumbent LECs will calculate this additional charge by dividing residual permitted common line revenues by the number of non-primary residential and multi-line business lines served by the LEC. For the first year, the ceiling on the PICC will be \$1.50 per month for non-primary residential lines and \$2.75 per month for multi-line business lines. To the extent that these PICCs do not recover an incumbent LEC's remaining permitted CCL revenues, incumbent LECs will be allowed to recover any such residual common line revenues through per-minute CCL charges assessed on originating access minutes. The per-minute charges shall be calculated based on forecasts of originating access minutes as currently provided in our rules.¹²²

100. We generally will not permit incumbent LECs to recover residual common line

¹²¹ As discussed in Sections III.D and IV.D, price cap LECs may also recover residual TIC revenues and certain marketing expenses through PICCs on non-primary residential and multi-line business lines, subject to the ceilings described below.

¹²² 47 C.F.R. § 69.105.

revenues through per-minute CCL charges assessed on terminating access minutes, because terminating minutes are not likely to be subject to as much competitive pressure as originating access minutes. As discussed in Section III.D, below, we are similarly adopting a rule that requires that incumbent LECs be allowed to recover certain residual transport interconnection charge costs through access charges assessed on originating minutes. In placing these various residual costs on originating minutes only, however, we do not want to destroy the salutary effects of our access charge reforms by creating higher prices for originating minutes than exist under our current access charge rules. To the extent, therefore, that the sum of local switching charges, the per-minute CCL charge, the per-minute residual TIC, and any per-minute charges related to marketing expenses¹²³ exceed the current sum of local switching charges and the per-minute CCL charge and TIC assessed on originating minutes, the excess may be recovered through charges assessed on terminating minutes. We emphasize that any such amounts recovered through charges assessed on terminating minutes would be temporary and would be phased out as the non-primary residential SLC ceilings and the PICC ceilings are adjusted, and in any event, no later than July 1, 2000.

101. Beginning January 1, 1999, the PICC will be adjusted for inflation and will increase by a maximum of \$1.00 per year for non-primary residential lines and \$1.50 per year for multi-line business lines, until incumbent LECs recover all their permitted common line revenues through a combination of flat-rated SLC and PICCs. These increases will cease as the PICCs on primary residential and single-line business lines recover more of the common line revenues permitted under price cap rules. In addition, as the incumbent price cap LECs increase their PICCs for primary residential and single-line business lines, they shall reduce the amount recovered from the residual per-minute CCL charges and reduce their PICCs on non-primary residential and multi-line business lines by a corresponding amount in accordance with the procedures described below. While the plan we adopt today does not eliminate, even on a flat-rated basis, transitional higher rates for business users, it redistributes collection from a very few high-volume users to business users generally. This will permit the charges to be sustainable while we finish refining access charges and implement a forward-looking cost-based universal service mechanism for rural, insular, and high cost areas. We also acknowledge that our plan will require customers with multiple telephone lines to contribute, for a limited period, to the recovery of common line costs that incumbent LECs incur to serve single-line customers. We conclude that this aspect of the plan is a reasonable measure to avoid an adverse impact on residential customers.

102. As the PICC ceilings on primary residential and single-line business lines increase, the residual per-minute CCL charge will decrease until it is eliminated. After the residual per-minute CCL is eliminated, incumbent LECs shall make further reductions due to the increase in the PICC ceilings for primary residential and single-line business lines, first to the PICCs on multi-line business lines until the flat-rated PICCs for those lines are equal to

¹²³ See Section IV.D, below.

the flat-rated PICCs for non-primary residential lines. Thereafter, incumbent LECs shall apply the annual reductions to both classes of customers equally until the combined SLC and PICCs for primary residential and single-line business lines recover the full average per-line common line revenues permitted under our price cap rules, and the additional flat-rated PICCs on non-primary residential and multi-line business lines no longer recover common line revenues.¹²⁴ If the incumbent LEC's per-line common line revenues permitted by our price cap rules exceed the SLC ceiling for non-primary residential lines and multi-line businesses, the flat-rated charges will continue to apply to those lines so that the sum of the SLCs and flat-rated charges is equal to the permitted common line revenues. Once the multi-line PICC no longer recovers any common line revenues, the calculation of the SLC will be changed from the average per-line interstate allocation of revenue requirement¹²⁵ to the average per-line common line revenues permitted by our current price cap rules. With this change, the LEC will not be able to recover more than the average per-line common line revenues permitted under our price cap rules from any access line. We note that at least one party contends that under our current rules, certain price cap carriers could be required to charge negative carrier common line charges, if the revenues recovered through the SLC, which continues to be developed on a cost-of-service basis, exceed the PCI for the common line basket.¹²⁶ This adjustment to the calculation of the SLC will solve any such problem.

103. We are concerned that assessing PICCs on multi-line business lines may create an artificial and undue incentive for some multi-line customers to convert from switched access to special access to avoid the multi-line PICC charges. A migration of multi-line customers to special access could significantly reduce the amount of revenue that could be recovered through per-minute charges, and would result in higher PICCs for the non-primary residential and multi-line business lines remaining on the switched network. We tentatively conclude that we should therefore apply PICCs to purchasers of special access lines as well. The NPRM, however, may not have provided sufficient notice to interested parties that we might apply certain rate structure modifications to special access lines. We therefore seek comment on this issue in Section VII.A, below.

104. We reject claims that a flat-rated, per-line recovery mechanism assessed on IXC's

¹²⁴ As discussed in Sections III.D and IV.D, below, the PICC will recover TIC revenues and certain marketing expenses in addition to common line revenues. Therefore, multi-line PICCs may continue to recover non-common line revenues, even though SLCs and PICCs for primary residential and single-line business lines recover the average per-line common line revenues permitted under our price cap rules.

¹²⁵ 47 C.F.R. § 69.104(c)

¹²⁶ See Letter from Albert Shuldiner, Counsel for Aliant Communications Co. to William F. Caton, Acting Secretary, FCC, April 30, 1997.

would be inconsistent with section 254(b)¹²⁷ which requires "equitable and nondiscriminatory contribution to universal service" by all telecommunications providers.¹²⁸ The PICC is not a universal service mechanism, but rather a flat-rated charge that recovers local loop costs in a cost-causative manner. Numerous commenters responding to the NPRM support a flat-rated cost recovery mechanism,¹²⁹ and we conclude that the PICC is preferable to the other proposals made in the NPRM. We agree with MCI and the Minnesota Independent Coalition that proposals based on the number of trunks or ports that an IXC purchases from the incumbent LEC may encourage IXCs to use fewer trunks or ports than are needed and thereby have an adverse effect on service quality. We decline to adopt the bulk billing approach set out in the NPRM, as well as Ameritech's proposed Loop/Port Recovery charge and the approach proposed by the Competition Policy Institute, because these mechanisms are substantially affected by usage and do not reflect the NTS manner in which common line costs are incurred. The Alliance for Public Technology's proposed "facilities charge," which is a hybrid system that accounts both for level of use and intensity of use by all telecommunication carriers that use the local network, is flawed because it is based partly on usage and is complex and administratively burdensome. A cost-recovery mechanism that recovers common line costs through flat-rated charges imposed on end-user customers and IXCs is an administratively simple mechanism. Further, under our plan, interstate common line access charges will become more closely aligned with allocated interstate costs than they would be under any of the alternative proposals.

105. The plan we describe above should move us from the pricing scheme that has been in place for more than a decade to a flat-rated pricing scheme that seeks to promote competition, while balancing universal service considerations. We recognize that the modifications we adopt in this Order do not eliminate all the existing support flows. The modifications, however, do move to eliminate subsidies built into the current rate structure, to an extent that is compatible with preserving the universal service goals of providing support to primary residential and single-line business and to customers in high-cost areas pursuant to the

¹²⁷ 47 U.S.C. § 254(b).

¹²⁸ Sprint Comments at 15-16; AT&T Reply at 28-29.

¹²⁹ See, e.g., United States Telephone Association (USTA) Comments at 55-56; BA/NYNEX Comments at 35-36; BellSouth Comments at 68, Reply at 10-11; PacTel Comments at 64, Reply at 21; U S West Comments at 54; Citizens Utilities Comments at 27-28; Roseville Telephone Company (Roseville Tel.) Comments at 4, 8; Rural Tel. Coalition Comments at 6, Reply at 9; Competitive Telecommunications Association (CompTel) Comments at 29; Cable and Wireless, Inc. (Cable & Wireless) Comments at 10; Excel Telecommunications, Inc. (Excel) Comments at 11; LCI International Telecom Corp. (LCI) Comments at 20-21, Reply at 6; MCI Telecommunications Corporation (MCI) Comments at 77; Public Service Commission of the District of Columbia (District of Columbia Commission) Comments at 3-4; South Dakota Public Utilities Commission (South Dakota Commission) Comments at 3; National Association of Regulatory Utility Commissioners (NARUC) Comments at 13; National Cable Telephone Association, Inc. (NCTA) Comments at 26; American Communications Services, Inc. Reply at 17.

mandate of section 254. As we set final support levels for universal service, address any legal issues related to the transition from embedded to forward-looking economic costs, and factor in the development of competition, we will identify and deal with any remaining legal issues relating to the recovery of these revenues. In addition, the plan we are adopting allows incumbent price cap LECs to recover costs in the manner that reflects the way in which they are incurred. We believe that this realignment of rates with costs will reduce the per-minute access charges assessed on IXC's and benefit consumers through lower long-distance rates, as well as create a pro-competitive local exchange market in which LECs will be able to compete more efficiently.

4. Common Line PCI Formula

a. Background

106. When we adopted price cap regulation in 1990, we established a separate common line basket in order to balance the price cap goal of economically efficient prices with important goals, such as universal service, that were reflected in common line rates prior to the adoption of price caps. Because common line costs are non-traffic sensitive, growth in demand leads to a reduction in average per-minute common line charges. Therefore, in the *LEC Price Cap Order*, we established a price cap index ("PCI") formula for the price cap basket that differed from the PCI formula we established for the other three baskets, to ensure that carrier common line charges declined as common line demand increased.¹³⁰ Specifically, we added a term, "g/2," to the common line PCI formula, to represent half the growth in demand per line in the prior year.¹³¹ This adjustment was made because we originally concluded that both LECs and IXC's have the ability to influence common line growth, and that both LECs and IXC's should benefit from increases in demand.¹³²

107. In the *LEC Price Cap Performance Review*, we found that incumbent LECs in fact have little influence over per-minute common line demand, and tentatively concluded that we should remove the "g" term from the common line formula,¹³³ because including an industry-wide moving average X-Factor in the common line formula might tend to double-

¹³⁰ *LEC Price Cap Order*, 5 FCC Rcd at 6793, 6795.

¹³¹ *LEC Price Cap Order*, 5 FCC Rcd at 6795. The Commission did not adopt a common line formula based on an average of the per-line and per-minute approaches, because in some circumstances, this would have produced the anomalous result of CCL rates increasing in response to increases in demand. *Id.* at 6795. The mathematics of the common line formula are explained in detail in Appendix E of the *LEC Price Cap Order*, 5 FCC Rcd at 6942-44.

¹³² *LEC Price Cap Order*, 5 FCC Rcd at 6795.

¹³³ *LEC Price Cap Performance Review*, 10 FCC Rcd at 9079.

count demand growth. We sought comment, in the *Price Cap Fourth Further NPRM*, whether to apply the same PCI formula to the common line basket that we use for the other baskets if we were to adopt a TFP-based X-Factor.¹³⁴ We also invited comment on whether we could eliminate $g/2$ from the common line formula if we retain a separate common line formula.¹³⁵ In this Order, we adopt a plan that should quickly convert the CCL charge from a per-minute charge to a flat-rated per-line charge assessed on interexchange carriers. We also revise the common line formula to reflect the phase out of the CCL charge.

b. Discussion

108. We conclude that the separate common line PCI formula should be eliminated, and that the PCI formula for the traffic-sensitive and trunking baskets should be used for the common line basket, once traffic-sensitive CCL charges have been eliminated. In this Order, we have reduced substantially traffic-sensitive CCL charges, and replaced them with the per-line PICC. The remaining traffic-sensitive CCL charges imposed by incumbent price cap LECs will be reduced and then eliminated over the next two or three years. Once common line costs are recovered solely through per-line charges, increased minutes will not affect common line recovery. Therefore, when the traffic-sensitive CCL charges have been eliminated, it will no longer be necessary to ensure that CCL rates decline as per-minute demand increases. Incumbent price cap LECs that no longer assess per-minute CCL charges will use the same PCI formula for the common line basket as they use for the traffic-sensitive and trunking baskets.

109. In the *LEC Price Cap Order*, we established " $g/2$ " as the common line PCI formula because we believed that because both LECs and IXC contributed to encouraging common line demand growth, both LECs and IXCs should share in the benefits of common line demand growth.¹³⁶ In the *LEC Price Cap Performance Review*, we tentatively concluded that IXCs contributed more to common line demand growth, but declined to revise the common line formula at that time because we were contemplating eliminating the common line PCI formula completely, and because we did not wish to create unnecessary rate churn.¹³⁷ To avoid unnecessary rate churn here, we decide to retain " $g/2$ " while carriers continue to charge per-minute CCL charges.

110. We revise sections 61.45(c) and 61.46(d), which govern the common line PCI

¹³⁴ *Id.* at 13680.

¹³⁵ *Price Cap Fourth Further NPRM*, 10 FCC Rcd at 1368.

¹³⁶ *LEC Price Cap Order*, 5 FCC Rcd at 6795.

¹³⁷ *LEC Price Cap Performance Review*, 10 FCC Rcd. at 9079-80.

and API, respectively, to reflect our revisions to the common line rate structure in the common line PCI formula. First, we redesignate section 61.45(c) as 61.45(c)(1) and adopt a new section 61.45(c)(2) that requires price cap LECs to use the separate common line formula only while they continue to charge per-minute CCL charges. Section 61.45(c)(2) also states that the common line PCI will be governed by the same PCI formula LECs use for the traffic-sensitive and trunking baskets. Second, we redesignate section 61.46(d) as 61.46(d)(1), and amend section 61.46(d)(1) to recognize that LECs now impose PICC charges as well as CCL charges on IXC. We also adopt a new section 61.46(d)(2) to govern PICC charges once per-minute CCL charges have been phased out. These revisions are set forth in Appendix C of this Order.

5. Assessment of SLCs and PICCs on Derived Channels

a. Background

111. Integrated services digital network (ISDN) services permit digital transmission over ordinary local loops through the use of advanced hardware and software.¹³⁸ ISDN offers data transmission at higher speeds and with greater reliability than standard analog service. Most incumbent LECs currently offer two types of ISDN service, Basic Rate Interface (BRI) service and Primary Rate Interface (PRI) service. BRI service allows a subscriber to obtain two voice-grade-equivalent channels and a signalling/data channel over an ordinary local loop, which generally is provided over a single twisted pair of copper wires.¹³⁹ PRI service allows subscribers to obtain 23 voice-grade-equivalent channels and one data signalling channel over two pairs of twisted copper wires.¹⁴⁰ BRI service generally is used by individuals and small businesses, and PRI service generally is used by larger businesses. LEC services other than

¹³⁸ In order for a LEC to provide ISDN, it must have a digital switch in the central office serving the customer, and substitute an ISDN line or trunk card for the standard cards that would otherwise be used in the central office with the loop facilities serving the customer. The customer also must use special ISDN-capable customer premises equipment.

¹³⁹ The two voice-grade-equivalent channels, which are called bearer or B channels, can be used for voice local exchange service or for data transmission at speeds up to 64 kbps. The third channel is a 16 kbps data channel, called the delta or D channel, which is used for signalling and packet data services. The Bell Atlantic Telephone Companies Petition for Waiver of Section 69.104 of the Commission's Rules in Connection with ISDN Services (filed Feb. 10, 1995) at 4 n.8 (*Bell Atlantic Waiver Petition*).

¹⁴⁰ In the case of PRI ISDN, the 23 B channels and the D channel can transmit voice or data at speeds up to 64 kbps. When a customer has more than one PRI connection at a given location, all of the B channels can share a single D channel, permitting the customer to obtain 24 voice-grade-equivalent channels for each PRI connection after the first one. *Bell Atlantic Waiver Petition* at 4, n.8

ISDN use derived channel technology to provide multiple channels over a single facility.¹⁴¹ The LECs also use derived channel technologies within their networks, for example, to provide customers with individual local loops. In such situations, the end user has not generally requested derived channel service and thus most likely is not aware that the LEC is using this technology.

112. On May 30, 1995, we released a Notice of Proposed Rulemaking seeking comment on the application of SLCs to ISDN and other derived channel services.¹⁴² In that NPRM, we noted that our current rules, which assess one SLC per derived channel, may discourage efficient use of ISDN services,¹⁴³ and we sought comment on several options, ranging from continuation of the current rules applying one SLC to each derived channel to requiring LECs to assess one SLC per each pair of copper wires or each physical facility.¹⁴⁴ Other options presented in the NPRM included: (1) basing the application of SLCs on a ratio of the average LEC cost of providing a derived channel service, including the trunk or line card costs, to the average cost of providing an ordinary local loop or T-1 facility; (2) applying one SLC for every two derived channels; (3) reducing the number of SLCs applied to derived channel services while increasing slightly the SLC rates; or (4) giving LECs flexibility concerning the number of SLCs they assess for derived channel services, at the same time

¹⁴¹ For example, NYNEX Telephone Companies (NYNEX) uses derived channel technology to provide FLEXPATH service, which provides a customer with 24 digital voice-grade-equivalent trunk channels over a T-1 facility between a suitably equipped central office and a digital PBX. PBX Conversion Service, another NYNEX offering, provides digital trunking capability, with up to 24 trunk access lines, between a customer's digital PBX and an analog-to-digital interface located at the central office switch. NYNEX's Data Over Voice service provides customers with a voice-grade channel and a data channel over a single copper pair. Memorandum Opinion and Order, NYNEX Telephone Companies Revisions to Tariff F.C.C. No. 1, 7 FCC Rcd 7938 n.11 (Com. Car. Bur. 1992), *aff'd on recon.*, 10 FCC Rcd 2247 (1995). Several other LECs provide similar services using derived channel technology. See, e.g., Cincinnati Bell Comments at 6.

¹⁴² End User Common Line Charges, CC Docket No. 95-72, Notice of Proposed Rulemaking, 10 FCC Rcd 8565 (1995) (*ISDN SLC NPRM*).

¹⁴³ Section 69.104 of the Commission's rules, 47 C.F.R. § 69.104, provides for a monthly per line charge for end users that subscribe to local exchange service, stating that surcharges shall be assessed for each line between the customer's premises and a Class 5 Office that is or may be used for local exchange transmissions. In 1992, NYNEX which had been charging a SLC for each of the voice-grade-equivalent channels provided on a T-1 facility, filed a tariff in which it proposed to assess only one SLC for each T-1 facility used to provide a customer with certain services, even though the T-1 facility provided that customer with up to 24 voice-grade-equivalent channels. The Common Carrier rejected the Transmittal, finding that it did not comply with the commission's Part 69 rules governing assessment of SLCs. The Commission affirmed the Bureau's conclusion that Section 69.104 of the rules requires assessment of a SLC for each derived channel. Memorandum Opinion and Order, NYNEX Telephone Companies Revisions to Tariff F.C.C. No. 1, 7 FCC Rcd 7938, ¶ 2 (Com. Car. Bur. 1992) *aff'd on recon.*, 10 FCC Rcd 2247 (1995).

¹⁴⁴ *ISDN SLC NPRM* at ¶ 21.

adjusting the price cap rules to prevent an increase in CCL charges.¹⁴⁵

113. In addition to the comments filed in response to the ISDN SLC NPRM, several BOCs provided data on the relative NTS costs of single and derived channel services.¹⁴⁶ The cost data included information about all NTS cost components, including components located in the central office, such as line cards. As shown in Table 1 below, the cost data indicates that the ratio of NTS loop costs of BRI ISDN to standard analog service is approximately 1 to 1. The ratio of NTS loop costs of PRI ISDN to standard analog service, excluding NYNEX's data, is approximately 5 to 1. As shown in Table 2, NYNEX's data appear to be outliers because the ratios of its outside plant and NTS costs for PRI ISDN to standard analog service are almost twice those of other incumbent LECs. NYNEX's data, therefore, are excluded from the calculation of the average ratio for PRI ISDN to standard analog service.

¹⁴⁵ *Id.* at ¶¶ 22-23, 27-30, 32-34.

¹⁴⁶ In their responses, three of the BOCs, BellSouth, NYNEX, and Southwestern Bell, asked for confidential treatment of portions of the information submitted. NYNEX publicly filed the information we requested, but submitted as confidential additional information that contained more detailed cost data. The confidential data were not necessary to perform our analysis, and the following tables only include data that was filed on the public record. We have returned to the respective companies data for which confidential treatment was sought.

TABLE 1**Ratio of costs of standard analog service to BRI ISDN service**

	Outside Plant (loop only) costs	All NTS costs
Ameritech	1:1.07	1:1.45
Bell Atlantic	1:1.01	1:1.36
NYNEX	1:0.85	1:1.23
Pacific Bell	1:1.05	1:1.13
US West	1:0.80	1:1.07
Average ratio of costs	1:0.96*	1:1.24*

TABLE 2**Ratio of costs of standard analog service to PRI ISDN service**

	Outside Plant (loop only) costs	Outside Plant (loop only) costs (excluding NYNEX data)	All NTS costs	All NTS costs (excluding NYNEX data)
Ameritech	1:5.68	1:5.68	1:8.9	1:8.9
Bell Atlantic	1:4.13	1:4.13	1:15.80	1:15.80
NYNEX	1:10.94	excluded	1:27.74	excluded
Pacific Bell	1:4.67	1:4.67	1:8.70	1:8.70
US West	1:5.33	1:5.33	1:10.60	1:10.60
Average ratio of costs	1:6.5*	1:4.95*	1:15.13*	1:10.5*

*Averages may differ due to rounding.

114. We incorporated by reference, in the current proceeding, all pleadings filed in

response to the 1995 ISDN SLC NPRM, as listed in Appendix A of that order.¹⁴⁷ In the NPRM for the current proceeding, we invited comments on the effect of the 1996 Act on determining how many SLCs should be applied to ISDN services. We also sought comment on whether mandatory rate structures or rate caps should be prescribed for ISDN service or other derived channel services.¹⁴⁸

b. Discussion

115. Consistent with the goal of this Order of realigning cost recovery in a manner that more closely reflects the manner in which those costs are incurred, we conclude that we should establish separate SLC rates for ISDN service based on the NTS loop costs of BRI and PRI ISDN service. We agree with the majority of commenters that a SLC for ISDN service equal to a SLC for single-channel analog service multiplied by the number of derived channels exceeds the NTS costs of ISDN service and therefore artificially discourages efficient use of ISDN. We find that basing ISDN SLCs on relative costs is most likely to assign costs of ISDN service to customers who subscribe to, and benefit from, that service. Further, we find that the current SLC-per-derived channel rule requires LECs to assess charges that are not related to the NTS costs of the service provided.

116. As set out above, the record indicates that the NTS loop costs of PRI ISDN service, excluding switching costs, reflect a cost ratio of approximately 5:1 compared to the NTS loop costs of single-channel analog service. We therefore conclude that we should amend our rules to establish, effective July 1, 1997, a SLC rate for PRI ISDN service equal to five times the incumbent LEC's average per-line interstate-allocated common line costs, subject to a ceiling of five times \$9.00, adjusted annually for inflation. Similarly, the record shows that the NTS loop costs of BRI ISDN service, excluding NTS switching costs, when rounded to the nearest half SLC, reflect a 1:1 cost ratio relative to the NTS loop costs of single-channel analog service. Therefore, we here amend our rules to provide for a SLC rate for BRI ISDN service equal to the incumbent LEC's average per-line interstate-allocated common line costs, subject to the same ceilings otherwise applicable to non-primary residential lines. Thus, beginning January 1, 1998, the SLC ceiling for BRI ISDN service will be set at the lesser of the incumbent LEC's average per-line interstate-allocated costs, or \$5.00. Each subsequent year, beginning January 1, 1999, the SLC ceiling will be adjusted for inflation and increased by \$1.00 per line, until the ceiling equals that permitted for multi-line business lines.

117. The cost data submitted by the BOCs in response to our request for information includes information about all NTS cost components, including components located in the

¹⁴⁷ All pleadings filed in response to the 1995 *ISDN SLC NPRM* will be so noted.

¹⁴⁸ NPRM at ¶ 70.

central office, such as line cards and trunk cards. The data confirm that line cards and trunk cards for PRI ISDN service in particular constitute a significant portion of the total NTS costs that are dedicated to the provision of service to the subscriber, and that ISDN line cards and trunk cards are many times more expensive than the cards used for standard analog service. As discussed in Section III.B, below, LECs will be required to recover the difference between the cost of an ISDN line card and the cost of a line card used for basic, analog service through a separate charge assessed directly on ISDN end users. For purposes of determining the rate levels for ISDN SLCs, therefore, we considered only the NTS loop costs associated with providing ISDN service.

118. As with other non-primary residential and multi-line business lines, incumbent price cap LECs may assess flat-rated PICCs on ISDN service to the extent necessary to recover the shortfall of common line revenues caused by SLC ceilings. Incumbent price cap LECs are permitted to assess one PICC for BRI ISDN service and five PICCs for PRI ISDN service. It is necessary for incumbent LECs to be able to assess up to five PICCs on PRI ISDN service because, as discussed above, the record indicates that the NTS loop costs of providing PRI ISDN service, excluding switching costs, reflect a cost ratio of approximately 5:1 compared to NTS loop costs of single-channel analog service. Because the PICC recovers NTS common line costs not recovered through the SLC, prohibiting incumbent LECs from charging as many as five PICCs for PRI ISDN service could prevent them from recovering the common line costs associated with providing PRI ISDN service in cases where the common line costs exceed the SLC ceiling.

119. Incumbent LECs shall assess PICCs on BRI and PRI ISDN services in conjunction with those on the non-primary residential and multi-line business lines. For the first year, the BRI ISDN PICC will be capped at \$1.50 per month, and the PRI ISDN PICC will be capped at \$2.75 per month. Each subsequent year these two PICCs shall increase by no more than an inflation adjustment, plus \$1.00 and \$1.50, respectively.

120. The record does not contain sufficient information to enable us to determine the relative NTS costs of derived channel services other than ISDN. We therefore limit our decision to BRI and PRI ISDN service. We agree with NYNEX that we should not apply the rules we adopt here regarding SLCs when the LEC uses derived channel technology but the end user has not requested derived channel service. Unless a subscriber orders ISDN or another service that requires derived channel technology, we see no reason to vary from our general rule that the incumbent LEC should charge one SLC for each channel regardless of how it is provisioned.¹⁴⁹

¹⁴⁹ This is consistent with our prior treatment, in other contexts, of derived channel technology. International Business Machines Corporation, Petition for Declaratory Ruling that LADT Services be Offered only through Telephone Company Organizations Separate from Network Operations, Memorandum, Opinion and Order, FCC 85-292 (rel. June 11, 1985) (*LADT Order*); *recon.*, FCC 86-122 (rel. Mar 25, 1986).

121. We are not persuaded by PacTel's argument that ISDN service is not an interstate service and should not, therefore, be regulated by the Commission. ISDN lines are not directly assigned to the intrastate jurisdiction, but are treated as common lines. The Commission's jurisdiction thus includes the interstate-allocated portion of the costs of the ISDN lines. The rules we adopt in this order govern only the manner in which LECs recover the interstate-allocated common line costs associated with providing ISDN service.

122. Before the Commission initiated CC Docket No. 95-72, Bell Atlantic, Pacific Bell, GTE, Cincinnati Bell, U S West, and BellSouth sought waivers of Section 69.104 of the Commission's rules as it applies to ISDN service.¹⁵⁰ In their petitions, these LECs urged the Commission to amend its rules regarding the application of SLCs to ISDN service. We have amended our rules regarding the applications of SLCs to ISDN service. We therefore dismiss the waiver petitions of Bell Atlantic, Pacific Bell, GTE, Cincinnati Bell, U S West, and BellSouth on the grounds that they are moot.

B. Local Switching

1. Non-Traffic Sensitive Charges

a. Background

123. The local switch connects subscriber lines both with other local subscriber lines and with interoffice dedicated and common trunks. A local switch consists of (1) an analog or digital switching system; and (2) line and trunk cards, which connect subscriber lines and interoffice trunks, respectively, to the switch. Because all of this equipment is deployed within the central office, all of its costs are assigned to the central office switching accounts of the Commission's Uniform System of Accounts and to the local switching category of central office expenses for jurisdictional separations purposes.¹⁵¹ The interstate portion of

¹⁵⁰ The Bell Atlantic Telephone Companies Petition for Waiver of Section 69.104 of the Commission's Rules in Connection with ISDN Services (filed February 10, 1995); Pacific Bell Petition for Waiver of Part 69.104 as Applied to Derived Channel Services such as ISDN (filed February 21, 1995); The GTE Telephone Companies Petition for Waiver of Section 69.104 of the Commission's Rules in Connection with ISDN Services (filed March 2, 1995); Cincinnati Bell Telephone Company's Petition for Waiver of Section 69.104 of the Commission's Rules in Connection with ISDN-BRI Services (filed March 16, 1995); U S West Communications, Inc., Petition for Waiver of Section 69.104 of the Commission's Rules as Applied to ISDN Services (filed April 4, 1995); BellSouth Telecommunications, Inc. Petition for Waiver of Section 69.104 of the Commission's Rules in Connection with ISDN Services (filed April 5, 1995).

¹⁵¹ 47 C.F.R. §§ 32.2001(j), 36.125.

these costs is currently recovered through per-minute local switching charges levied on IXCs.¹⁵²

124. In the NPRM we observed that a significant portion of local switching costs may not vary with usage. For example, the cost of line cards or line-side ports appears to vary with the number of loops connected to the switch, not with the level of traffic over the loops. We tentatively concluded that LECs should not recover these costs through per-minute charges. Instead, we tentatively concluded that it is more reasonable and economically efficient to recover costs of equipment dedicated to individual customers, such as line-side ports and trunk ports associated with dedicated transport, through flat-rated charges. Trunk-side ports not associated with dedicated transport and the central processing portion of the switch, on the other hand, are shared among multiple carriers. We asked if these costs are driven by usage or by the number of lines and trunks served by the switch. We sought comment on whether rate structures for shared local switching facilities should consist of usage-sensitive, flat-rated, or a combination of both flat-rated and usage-sensitive rate elements. We asked commenters to recommend methods of identifying non-traffic-sensitive (NTS) local switching costs.¹⁵³

b. Discussion

125. We conclude that, consistent with principles of cost-causation and economic efficiency, NTS costs associated with local switching should be recovered on a flat-rated, rather than usage sensitive, basis. The record before us indicates clearly that the costs of the line side port (including the line card, protector, and main distribution frame) are NTS. We conclude, therefore, that these costs should be recovered through flat-rated charges. Accordingly, for price-cap LECs, we reassign all line-side port costs from the Local Switching rate element¹⁵⁴ to the Common Line rate elements.¹⁵⁵ For price cap companies, these costs will be recovered through the common line rate elements, including the SLC and flat-rated PICC, described in Section III.A., above.

126. LECs incur differing costs for line ports used in the provision of different services. The SLC and PICC cost recovery mechanisms will recover only the cost of a line

¹⁵² 47 C.F.R. § 69.106.

¹⁵³ NPRM at ¶¶ 72-73.

¹⁵⁴ Currently, NTS costs of line-side ports are recovered through per-minute local switching charges assessed under section 69.106 of our rules, 47 C.F.R. § 69.106.

¹⁵⁵ Part 69 establishes two common line elements, the End User Common Line element, 47 C.F.R. § 69.4(a), and the Carrier Common Line element, 47 C.F.R. § 69.4(b)(2). Price cap LECs currently calculate adjustments to these charges in accordance with 47 C.F.R. § 61.46. Other LECs currently compute these charges in accordance with 47 C.F.R. §§ 69.104 - 69.105.

port used to provide basic, analog service, whether the end user has basic, analog service, or another form of service. As discussed above, data submitted in response to the ISDN SLC NPRM show that ISDN line cards cost significantly more than line cards associated with a basic, analog, subscriber line.¹⁵⁶ To the extent that the costs of ISDN line ports, and line ports associated with other services, exceed the costs of a port used for basic, analog service, price cap LECs will recover this excess amount through a separate end-user charge.

127. We conclude that the costs of a dedicated trunk port (including the trunk card and DS1/voice-grade multiplexers, if needed) should be recovered on a flat-rated basis because these costs are also NTS in nature. These costs should be recovered from the carrier purchasing the dedicated trunk terminated by that port. Similarly, we conclude that the costs of shared trunk ports should be recovered on a per-minute of use basis from the users of common transport trunks. We therefore establish two separate rate elements for recovery of these costs. Price cap LECs may recover the costs of each dedicated trunk port on a flat-rated basis from the purchaser of the dedicated trunk terminating at the port. In order to ensure that these purchasers of dedicated trunks do not pay the costs of shared trunk ports that they do not use, price cap LECs must also establish a usage-sensitive rate element for recovery of the costs of shared trunk ports. The costs of these shared trunk ports will be recovered on a per minute-of-use basis from users of common transport trunks terminating at these ports. We therefore add a separate category for all trunk port costs within the traffic sensitive basket, 47 C.F.R. § 61.42(e)(1). As with the other categories within this basket, the "trunk ports" category will have an upper service band index of +5 percent and no lower service band index.

128. We do not establish a fixed percentage of local switching costs that incumbent LECs must reassign to the Common Line basket or newly created Trunk Cards and Ports service category as NTS costs. In light of the widely varying estimates in the record, we conclude that the NTS portion of local switching costs likely varies among LEC switches.

¹⁵⁶ In response to our request for information in *End User Common Line Charges*, CC Docket No. 95-72, all of the BOCs submitted information on the NTS costs of providing ISDN service. See Letter and attachments from Anthony M. Alessi, Director, Federal Relations, Ameritech, to William F. Caton, Acting Secretary, Federal Communications Commission, October 23, 1995; Response to Data Request from Bell Atlantic, October 18, 1995; Letter and attachments from W.W. Jordan, Executive Director, Federal Regulatory, BellSouth, to Kathleen Wallman, Chief, Common Carrier Bureau, October 18, 1995; Letter and attachments from Joseph Di Bella, Counsel, NYNEX Government Affairs, to Kathleen M.H. Wallman, October 24, 1995; Letter and attachments from Sheryl L. Herauf, Director, Federal Regulatory Relations, Pacific Telesis, to William F. Caton, October 18, 1995; Letter and attachments from Paul Walters, Attorney, Southwestern Bell, to William F. Caton, October 11, 1995; Letter and attachments from Cyndie Eby, Executive Director, Federal Regulatory, US West, to William F. Caton, October 18, 1995. BellSouth, NYNEX, and Southwestern Bell requested confidential treatment for some of the information they submitted. In concluding that there are greater NTS costs associated with ISDN line cards, however, we did not rely on the allegedly confidential data because data adequate to support our conclusion was not subject to any request for confidential treatment.

Accordingly, we require each price cap LEC to conduct a cost study to determine the geographically-averaged portion of local switching costs that is attributable to the line-side ports, as defined above, and to dedicated trunk side ports. These amounts, including cost support, should be reflected in the access charge elements filed in the LEC's access tariff effective January 1, 1998. Once established, this service category, like all others in the traffic sensitive basket, shall be subject to price cap adjustments for inflation and productivity. Although some LECs have obtained authority to geographically deaverage transport rates under a zone density pricing plan, because the costs of trunk ports will remain within the Traffic Sensitive basket, we conclude that trunk port costs should remain geographically averaged for now. We will consider deaveraging of these costs in connection with our assessment of other forms of pricing flexibility in a subsequent Order in this proceeding.

129. We direct all price cap LECs to include in their tariff filings implementing this Order an exogenous downward adjustment to the Traffic Sensitive basket, 47 C.F.R. § 61.42(d)(2), and corresponding exogenous upward adjustment to the Common Line Interstate Access Elements basket, 47 C.F.R. § 61.42(d)(1) to reflect the recovery of the interstate NTS costs of line-side ports from the Common Line rate elements.

130. USTA, SNET, and BA/NYNEX argue that we should not codify any specific local switching rate elements. We disagree. In the NPRM, we proposed to eliminate local switching rate elements only when an actual competitive presence is established for an exchange access service in a relevant geographic area, as measured by (1) demonstrated presence of competition; (2) full implementation of competitively neutral universal service support mechanisms; and (3) credible and timely enforcement of pro-competitive rules.¹⁵⁷ We tentatively concluded in the NPRM that, in the absence of actual competition, the mere availability of unbundled network elements under efficient rate structures would not provide incumbent LECs with sufficient incentive to adopt efficient, cost-causative access rate elements or structures.¹⁵⁸ The record before us indicates that flat-rated pricing for line ports and dedicated trunk ports is efficient, and reflective of cost causation. We will first amend the baseline switched access rate structure to reflect this determination. Then, in a subsequent Report and Order in this docket, we will determine when and under what circumstances we will allow incumbent LECs greater flexibility in designing interstate access rate structures.

131. In addition, despite arguments from BA/NYNEX to the contrary, we find that the benefits to be gained from a more efficient, cost-causative rate structure outweigh the burden of establishing these flat-rate elements. Independent estimates from Cable & Wireless and USTA, both using NYNEX data, indicate that as much as, or even more than, half of

¹⁵⁷ NPRM at ¶¶ 201-02.

¹⁵⁸ NPRM at ¶ 214.

local switching costs may be NTS.¹⁵⁹ Since the current, per-minute rate structure for the local switch was established, digital switches have become increasingly predominant in the network.¹⁶⁰ Given USTA's estimate that six percent of the costs of an analog switch and 51 percent of the costs of a digital switch are NTS,¹⁶¹ we find that local switching costs have become increasingly NTS and now warrant the creation of a NTS recovery mechanism. Including NTS local switching costs in per-minute access charges contributes significantly toward unnecessarily high per-minute long distance rates for all customers. Restructuring rates to reflect more accurately cost-causation will promote competition, reduce per-minute charges, stimulate long-distance usage, and improve the overall efficiency of the rate structure.

132. We also reject proposals to recover the entire NTS portion of local switching costs from the new universal service support mechanisms.¹⁶² In the *Universal Service Order*, we agreed with the Joint Board that we should establish a "nationwide benchmark based on average revenues per line for local, discretionary, interstate and intrastate access services, and other telecommunications revenues that will be used with either a cost model or a cost study to determine the level of support carriers will receive for lines in a particular geographic area."¹⁶³ We find that it would be inconsistent with the Joint Board's recommendation if we were to mandate recovery of NTS local switching costs directly from universal service support mechanisms, independent of the revenue benchmark, and the percentage of high cost support

¹⁵⁹ USTA Comments, Attachment 2 at 31; Cable & Wireless Comments at 12-13.

¹⁶⁰ We adopted the current, per-minute rate structure for local switching in 1983, *MTS and WATS Market Structure*, Phase I, Third Report and Order, 93 F.C.C.2d 241, 304-07 (1983). On reconsideration, we considered AT&T's proposal to redefine the local switching element to provide carriers with flexibility to establish a "transport termination" category, containing all equipment in the switch that terminates the line to trunk facilities from the IXC's POP, and a "common switching" category, containing the traffic sensitive local exchange switching used by a carrier. *MTS and WATS Market Structure*, Phase I, Memorandum Opinion and Order, 97 F.C.C.2d 682, 735-37 (1983). In response, we stated that, "[t]he flexibility that AT&T specifically requests for pricing the Local Switching element reflects a belief that our access charge plan should be revised to permit telephone companies to recover their costs for both end user and traffic sensitive access elements through a mixture of non-recurring charges and flat and usage-based periodic charges and that the carriers rather than this Commission should determine what that mixture should be While we believe that the access charge rules should evolve over time to reflect the menu of access services that AT&T foresees, we believe that the broad discretion AT&T proposes must await the development of the costing tools that can support the additional disaggregation of costs. Therefore we reject this proposal." *Id.* at 736. As digital switches have become increasingly prevalent within the network, we conclude that the time has come to establish some NTS elements for the NTS costs of line and dedicated trunk ports. We will consider questions of additional flexibility in connection with our assessment of the market-based approach to access reform.

¹⁶¹ USTA Comments, Attachment 2 at 31.

¹⁶² *E.g.*, BellSouth Reply at 10.

¹⁶³ See *Universal Service Order* at Section VII.C.5.

recoverable from the federal universal service mechanisms at this time.¹⁶⁴

133. It is not necessary to await action by the Joint Board on Separations¹⁶⁵ before revising the recovery mechanisms applicable to the interstate portion of the costs attributed to line ports and dedicated trunk ports. Our revision of the mechanisms used to recover the interstate portion of the costs in Part 32 local switching accounts that the jurisdictional separations process allocates to the interstate jurisdiction will have no direct effect on that allocation because these costs will continue to be separated in Part 36 based on relative dial-equipment-minutes of use. The fact that local switching costs are apportioned between jurisdictions based on a relative interstate and state usage is irrelevant to the choice of pricing structure for recovering those costs, however. Economic efficiency does not require the jurisdictional separation of NTS costs be based on an NTS (flat) factor. The jurisdictional separations process only determines whether the billed charges (flat or variable) are characterized as intrastate or interstate. Economic efficiency does require that NTS costs, regardless of how they are separated, be recovered in each jurisdiction through flat charges. Thus, there was no loss of economic efficiency when the Commission, agreeing with the recommendation of the Joint Board, simplified the separation of local switching by eliminating the former distinction between NTS and traffic-sensitive costs and creating a single switching category that is assigned to the jurisdictions based on dial equipment minutes.¹⁶⁶

134. On the other hand, economic efficiency will be increased if local switching costs (regardless of the jurisdiction to which they are assigned) are recovered through a combination of flat charges for NTS costs and traffic sensitive charges for the remainder. Because, at the time that the Commission established the current jurisdictional separations process, it did not consider the distinction between the switch and the port that we address today, the current jurisdictional separations process does not distinguish port costs from the costs of the local switch itself.¹⁶⁷ We have the authority and obligation, independent from the Joint Board, to

¹⁶⁴ *Id.* at Section VII.C.6.

¹⁶⁵ In allocating costs between the intrastate and interstate jurisdictions, the Commission consults with the states through the operation of the Joint Board on Separations. See 47 U.S.C. § 410(c); *Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board*, Notice of Proposed Rulemaking and Order Establishing a Joint Board, 78 F.C.C.2d 837 (1980).

¹⁶⁶ *MTS and WATS Market Structure*, Report and Order, 2 FCC Rcd 2639, 2642 (1987).

¹⁶⁷ 47 C.F.R. § 36.125(b). See *MTS and WATS Market Structure*, Report and Order, 2 FCC Rcd at 2642 (adopting Joint Board recommendation). The Commission subsequently explained that digital switches use concentrators to allow a small number of components to serve a large number of lines, taking advantage of the fact that most lines are unused most of the time. Because increased usage volume per line reduces the concentration level and increases the number of switch components required, the Commission concluded that "the

establish appropriate rate structures for recovering the costs the jurisdictional separations process allocates to the interstate jurisdiction.¹⁶⁸ We take steps today to address the fact that the costs of line ports and dedicated trunk ports are more properly recovered for Part 69 purposes from the Common Line and Direct-Trunked Transport rate elements as NTS charges, instead of from the traffic sensitive Local Switching element. We will, however, examine any jurisdictional separations issues presented by NTS switching costs in our upcoming separations NPRM.

135. Costs may vary for shared local switching facilities according to the number of lines connected, or the traffic over those lines.¹⁶⁹ In the former case, the costs of the shared facility may be recovered in the most cost-causative manner by imposing a proportionate share of the costs on each line while, in the latter case, usage-sensitive charges may better reflect cost causation. With respect to such shared local switching facilities, including the switching matrix and shared trunk ports, we gave states flexibility in our interconnection proceeding to establish either per-minute usage charges, or flat-rated charges, as appropriate.¹⁷⁰ In the access context, however, we will continue to require price cap incumbent LECs to recover the costs of shared local switching facilities, including the central processor, switching matrix, and shared trunk ports, on a per-minute basis. On the basis of the information in the record before us, it would be difficult to identify the NTS and traffic-sensitive portions of the costs of shared switching facilities and to verify the accuracy of LEC studies attempting to do so.¹⁷¹ Therefore, until we gain more experience with rate structures for unbundled network elements that are implemented pursuant to Sections 251 and 252 and that segregate these costs into traffic-sensitive and NTS components, we will continue to adhere to the current, per-minute rate structure for shared switching facilities.

costs of modern digital switches is actually predominantly [traffic sensitive]." *MTS and WATS Market Structure*, Order on Reconsideration and Supplemental Notice of Proposed Rulemaking, 3 FCC Rcd 5518, 5526 (1988). In performing this analysis, therefore, the Commission did not indicate that it gave specific consideration to the costs associated with of line ports and dedicated trunk ports. These components must be provisioned in a 1:1 ratio with lines and trunks, respectively, and their costs do not vary with traffic levels.

¹⁶⁸ *E.g.*, 47 U.S.C. §§ 151, 152, 154(i-j).

¹⁶⁹ *Compare* Cable & Wireless Comments at 12-13 *and* Citizens Utilities Comments at 30 *and* GSA/DOD Comments at 4 *and* Texas Commission Comments at 11-12 *with* BellSouth Comments, Attachment 2 at 14.

¹⁷⁰ *Local Competition Order* at ¶¶ 810-18.

¹⁷¹ MCI Comments at 80-82.

2. Traffic Sensitive Charges

136. In the NPRM, we sought comment on several alternative rate structures for recovery of usage-sensitive local switching costs. Specifically, we sought comment on whether the Commission should require or permit LECs to establish a separate charge for call setup, and if so, whether the charge should be levied on all call attempts, or only completed calls.¹⁷² We also sought comment on whether the Commission should require or permit incumbent LECs to establish peak and off-peak pricing structures for shared local switching facilities,¹⁷³ and whether the existing per-minute rate structure adequately reflects the manner in which traffic-sensitive local switching costs are incurred.¹⁷⁴

a. Call Setup Charges

137. Among price cap carriers today, most call setup is performed with out-of-band signalling, generally using the SS7 signalling network.¹⁷⁵ In light of the widely varying estimates of the costs of call setup in the record,¹⁷⁶ we conclude that these costs may be more than a *de minimis* portion of the costs of local switching. The record indicates that these call setup charges are incurred primarily on a per-call rather than a per-minute basis.¹⁷⁷ By requiring recovery the costs of call setup on a per-minute basis, our current rate structure mandates an implicit subsidy running from customers that make lengthy calls to those that make many short-duration calls. Therefore, we find that we should not continue to require the price cap LECs to recover costs of call setup from per-minute local switching charges.

¹⁷² NPRM at ¶¶ 75-76.

¹⁷³ NPRM at ¶¶ 77-78.

¹⁷⁴ NPRM at ¶ 79.

¹⁷⁵ Ameritech comments that it uses SS7 for over 95 percent of its customers, that its use of SS7 is increasing, and that other large incumbent LECs probably have comparable figures. Ameritech Comments at 16. For a more detailed description of the operation of the SS7 signalling network, see Section III.E.

¹⁷⁶ While Sprint estimates that call setup costs represent approximately two to six percent of the costs of a typical call (Sprint Reply at 14), PacTel estimates that it costs five times more to set up a call than it does to provide a minute of use (PacTel Comments at 68). Using the industry average call duration cited by the California Commission (Reply at 3) of 3.86 minutes, call setup charges would represent a much larger percentage of the total costs of a typical call than Sprint estimates.

¹⁷⁷ E.g., Excel Comments at 12; TRA Comments at 37; Ameritech Comments at 15; PacTel Comments at 69; Citizens Utilities Comments at 30; Frederick & Warinner Comments at 6-7; Minnesota Independent Coalition Comments at 15; Alabama Commission Comments at 8; California Commission at 2-3; Texas Commission at 14; TCI Comments at 12.

138. Accordingly, we will revise Section 69.106 of our rules¹⁷⁸ to permit, but not to require, price cap LECs to establish a separate per-call setup charge assessed on IXC's for all calls handed off to the IXC's point of presence (POP). As noted earlier, because an incumbent LEC originating an interstate call incurs call setup costs even if the call is not completed at the called location, we permit these LECs to recover call setup charges on all originating interstate calls that are handed off to the IXC's POP, and on all terminating calls that are received from an IXC's POP. With respect to originating call attempts, we agree with the California Commission that, when the call is handed off to the IXC's POP, the incumbent LEC's switches and signalling network have performed their functions and the incumbent LEC has incurred the full cost of call setup.¹⁷⁹ We also permit incumbent LECs to impose a setup charge for terminating calls received from an IXC's POP, whether or not that call is completed at the called location, because the incumbent LEC signalling network in either case must perform its setup function.

139. We conclude that the call setup charge should not be mandatory because some incumbent LECs may determine that call setup costs either are in fact *de minimis* or are otherwise outweighed by the costs of the network and operations support systems (OSS) upgrades necessary to install measurement and billing systems. In such cases, it would be economically inefficient to mandate a separate call-setup charge because the costs of collecting the charge might exceed the revenue collected from the charge itself. We are aware that, by making the call-setup charge permissive only, we may allow certain incumbent LECs' rate structures to continue to subsidize short-duration calls. We nevertheless conclude that we should not mandate separate collection of a call-setup charge in cases where the LEC determines that the costs of eliminating this subsidy exceed the benefits to be gained. In contrast, we find that those incumbent LECs that either have or obtain the ability to implement a call-setup charge should have the flexibility to adopt this cost-causative rate structure.

140. No party disputes the fact that incumbent LECs incur costs of call setup for call attempts, in addition to completed calls. Some parties, however, argue that call setup charges should be assessed only on completed calls in order to reduce customer confusion. We anticipate that consumer confusion will be minimal, however, because the call setup charge we permit will be imposed on IXC's, not end users. We find it unlikely that IXC's would choose to pass this charge along to their customers in the form of a separate charge per call attempt. For instance, IXC's today generally charge their customers for completed long

¹⁷⁸ 47 C.F.R. § 69.106.

¹⁷⁹ California Commission Reply at 2.

distance calls even though they incur access charges for many uncompleted calls as well.¹⁸⁰

141. Other commenters state that setup charges imposed on call attempts will result in charges being imposed on a caller that has not received service. LCI asserts that "customers do not expect to pay for uncompleted call attempts, and the carriers are not entitled to recover their costs of uncompleted call attempts,"¹⁸¹ citing the Commission's decision in *VIA USA, Ltd.*¹⁸² The text cited from that order, however, addresses only customer expectations that have arisen because our current rules make no explicit provision for the recovery of costs of an uncompleted call. We now find that a call setup charge, assessed to an IXC, should not be prohibited because a rate structure that recovers some switching costs through a per-call setup charge on all call attempts is more cost-causative than one limited to the recovery of costs only from completed calls.

142. Still other commenters argue that, if we permit call setup charges to be imposed for call attempts, we will, at best, open the door to unauditable billing errors or, at worst, facilitate incumbent LEC fraud and duplicity. These commenters argue that the incumbent LEC will be able to generate additional revenue, or degrade the service of IXC competitors, by blocking calls at its own switch. Based on this record, we conclude that these concerns are not well-founded. By permitting a setup charge only for originating call attempts that are handed off to the IXC's POP, we minimize the originating incumbent LEC's incentive to engage in this type of activity because the incumbent LEC will receive no compensation for calls blocked at its own switch. In addition, incumbent LECs have compelling incentives to deliver interstate calls to an IXC's POP. As competition develops for local service, it appears doubtful that an incumbent LEC would find it advantageous to block deliberately interstate calls placed by their end user customers. Such practices would encourage entry by new competitors and increase the interest of affected end users in finding a more reliable service provider. We also find it unlikely that either originating or terminating incumbent LECs would intentionally risk the collection of often significant per-minute access charge revenues

¹⁸⁰ IXCs today incur access charges for originating access minutes of use from the time when the originating LEC hands a call off to the IXC's POP, regardless of whether the call is completed at the called location. 47 C.F.R. § 69.2(a). As a result, originating *access* minutes of use are approximately seven percent greater than originating *conversation* minutes of use. IXCs today do not generally choose to bill their customers directly for access minutes of use charged by the LEC for uncompleted calls or for the interval before the called party answers. See Federal Communications Commission, Com. Car. Bur., Industry Analysis Division, Telecommunications Industry Revenue: TRS Fund Worksheet Data, 8, fig. 3 (Estimates of Toll Rates and Access Costs per Conversation Minute) (Dec. 31, 1996).

¹⁸¹ LCI Comments at 26 n.41.

¹⁸² In *VIA USA*, the Commission stated as a factual matter that, "*in the system as currently structured by facilities-based carriers, customers do not expect to pay for an uncompleted call. Nor do carriers expect to be compensated.*" 10 FCC Rcd 9540, 9545 (1995) (emphasis added).

on a completed long-distance call in order to collect additional, much smaller per-call setup charges. Finally, we know of no significant allegations of degraded service quality attributable to the very similar current regime, under which incumbent LECs collect at least a full minute of originating access revenues on uncompleted calls delivered to the IXC's POP. We are prepared, however, to investigate claims that an incumbent LEC is blocking calls in an intentional or discriminatory manner.

143. Several large business customers that make substantial numbers of short-duration calls, such as those associated with credit card authorization, automatic teller machine operation, or other transaction-oriented data transfers, argue that imposing a call setup charge will be disruptive to their businesses and may force them to use alternatives to the public switched network.¹⁸³ These commenters are the primary beneficiaries of the subsidy that is implicit in the current recovery of call setup costs on a per-minute basis, running from customers that make lengthy calls to those that make many short-duration calls. The existing rate structure may well have encouraged users who make many short duration calls to use the public-switched network in inefficient ways. Rate structures that are aligned with cost causation, on the other hand, should encourage economically-efficient use of the telecommunications network. Transaction-oriented users of the network may be motivated to develop more economically efficient processing methods, with resulting economic benefits. Because this group of IXC customers may need time to adjust to the new rate structure, however, incumbent LECs choosing to impose a per-call setup charge on IXCs may do so, at the earliest, in their access tariff filings effective July 1, 1998. This gives a customer over one year to make any necessary adjustments. This time should be sufficient to mitigate any potential disruptive effects of this rate structure change.¹⁸⁴

¹⁸³ CompuServe/Prodigy Comments at 25-29, Reply at 11-12; Bankers Clearing House Comments at 7-8; Ad Hoc Comments at 19-20, Reply at 3-4.

¹⁸⁴ Our experience with Ameritech's tariffed unbundled SS7 signalling charges indicates that a call setup charge, if implemented, may in fact be relatively small. For call setup purposes, Ameritech has established separate signalling rate elements for SS7 call setup for both direct-trunked and tandem-switched traffic. The first of these, the "ISDN User Part (ISUP) Signal Formulation Charge," is a "per signalling message charge for the formulation of the ISUP message at end offices and tandems" in the amount of .06¢ (\$0.0006) per message assessed for both direct-trunked and tandem-switched traffic. The second, the "Signal Transport Charge," is a "per-signalling message charge for the transmission of signalling data between the local STP and an end office SP/SSP" in the amount of .012¢ (\$0.00012) per message. The third, the "Signal Switching Charge" is a "per signalling message charge for switching an SS7 message at the local STP" in the amount of .025¢ (\$0.00025) per message. The Signal Transport Charge and the Signal Switching Charge are assessed on direct-trunked traffic only. For tandem switched traffic, the "Signal Tandem Switching Charge" is a "per signalling message charge for the bundled provision of multiple instances of signal switching and signal transport for the situation in which tandem routed facilities are provided to the end office" in the amount of .055¢ (\$0.00055). The Signal Tandem Switching charge incorporates three instances of transport and two instances of switching at the STP. Both the Signal Switching and the Signal Tandem Switching rate elements include the costs of measuring device and billing system changes. See *Ameritech Operating Companies Tariff FCC No. 2*, Tariff Transmittal No. 982, filed

144. MCI asserts that there may be costs of call setup in addition to those associated with signalling,¹⁸⁵ such as a portion of the switch central processor costs.¹⁸⁶ We limit the costs that an incumbent LEC may recover through call setup charges, however, to those associated with signalling because we agree with MCI that it would be extremely difficult to separate the costs of the switch CPU and other traffic-sensitive costs into per-message and per-minute portions and to verify that the allocation has been done properly.¹⁸⁷

145. Several commenters caution that, if we permit a call setup charge, we should also ensure that the charge does not overlap with any SS7-related charges now permitted or developed in this proceeding.¹⁸⁸ Because call setup is one function of the SS7 network, some of these costs may already be recovered through the current Part 69 SS7 rate elements.¹⁸⁹ Currently, Section 69.125 of our rules permits LECs to recover from IXC's only (1) a flat-rated signalling link charge for the Dedicated Network Access Line (DNAL); and (2) a flat rated Signal Transfer Point (STP) port termination charge.¹⁹⁰ While these elements recover the costs of some dedicated SS7 facilities, they do not include the usage-based signalling costs of call setup, including the costs incurred to switch messages at the local STP, to transmit messages between an STP and the incumbent LEC's end office or tandem switch, and to process or formulate signal information at an end office or tandem switch.¹⁹¹

146. Currently, the setup costs of certain calls may be recovered through database query charges, either for the line information database (LIDB)¹⁹² or the 800 database.¹⁹³ In

July 5, 1996.

¹⁸⁵ MCI Comments at 82.

¹⁸⁶ MCI Comments at 82-83.

¹⁸⁷ *Id.*

¹⁸⁸ *E.g.*, AT&T Reply at 29; Bankers Clearing House Comments at 4-5; Ad Hoc Comments at 23-25; TCI Comments at 12-13.

¹⁸⁹ 47 C.F.R. § 69.125.

¹⁹⁰ 47 C.F.R. § 69.125.

¹⁹¹ Neither section 69.125 nor any of our other signalling-related cost recovery rules, discussed below, provide for recovery of the costs of these functions. As a result, these costs are recovered through per-minute charges assessed on completed calls. 47 C.F.R. § 69.106. As discussed below, LECs choosing to adopt a separate SS7 signalling rate elements, similar to those established by Ameritech under waiver, may recover a large part of their call setup costs through that mechanism.

¹⁹² 47 C.F.R. § 69.120.

addition, incumbent LECs recover some costs associated with the provision of certain signalling information necessary for third parties to offer tandem switching through the "signalling for tandem switching" rate element.¹⁹⁴

147. Imposing a call setup charge for interexchange calls should not overlap with any of these existing rate elements. Nevertheless, we clarify that an incumbent LEC choosing to impose a call setup charge may not include in that charge any costs that it continues to recover either through other local switching charges, through charges for dedicated SS7 facilities, or through other signalling charges. In this Order, we also permit incumbent LECs to adopt a more detailed SS7 rate structure, modeled on that currently used by Ameritech under waiver.¹⁹⁵ This SS7 rate structure may permit LECs to recover a significant portion of their call setup costs without an additional call setup charge. Given estimates in the record that SS7 is used to provide signalling for more than 95 percent of the large LECs' customers,¹⁹⁶ we conclude that, in the ordinary case, a price cap LEC will not need to use both the optional SS7 rate structure and a separate call setup charge to recover the costs of call setup. We recognize, however, that some call setup is still performed using in-band, multifrequency (MF) signalling, rather than out-of-band signalling systems. Because SS7 charges will not recover costs of call setup using MF signalling, we do not prohibit the use of both SS7 and call setup charges. We caution LECs adopting both the optional SS7 rate structure and an additional call setup charge, however, that cost support filed with access tariffs must clearly indicate the allocation of individual costs of call setup between these two recovery mechanisms; the same costs cannot be double-recovered using both mechanisms.

b. Peak and Off-Peak Pricing

148. We conclude that we should not now mandate a peak-rate pricing structure for local switching. The record reflects significant practical difficulties that may make it difficult or impossible to establish and enforce a rational, efficient, and fair peak-rate structure as a matter of regulation. For example, the record outlines a variety of difficulties that incumbent LECs will confront in determining peak and off-peak hours with any degree of certainty, based on geographic, user-type, service, and other variations. Moreover, peak usage periods may shift over time as usage patterns change, and as competitors enter the market. Based on

¹⁹³ 47 C.F.R. § 69.118.

¹⁹⁴ 47 C.F.R. § 69.129.

¹⁹⁵ *Ameritech Operating Companies Petition for Waiver of Part 69 of the Commission's Rules to Establish Unbundled Rate Elements for SS7 Signalling*, Order, 11 FCC Rcd 3839 (Com. Car. Bur. 1996) (*Ameritech SS7 Waiver Order*). See Section III.E.

¹⁹⁶ Ameritech Comments at 16. Ameritech states that, "SS7 technology is currently used for more than 95% of customers in the Ameritech network. This figure is probably comparable for other large [incumbent LECs.]"

these difficulties, some incumbent LECs may find it too costly or too difficult to develop, implement, and maintain a peak-rate structure that will allow them to capture all or most of the benefits this structure could offer.

149. We do recognize the possible efficiency of a peak-rate structure.¹⁹⁷ Accordingly, we will consider whether LECs should have the flexibility to develop such peak and off-peak rate structures for local switching on a permissive basis when we consider other issues of rate structure flexibility in a subsequent Report and Order that we will adopt in this proceeding.

C. Transport

150. Transport service is the component of interstate switched access consisting of transmission between the IXC's point of presence (POP) and LEC end offices.¹⁹⁸ Currently, incumbent LECs offer two basic types of interoffice transport services. The first, direct-trunked transport, uses dedicated circuits for transport between a LEC end office and the LEC serving wire center, or between any other two points the direct-trunked transport customer requests. The second, tandem switched transport, uses common transport facilities to connect the end office to a tandem switch. Common transport circuits may be used to transmit the individual calls of many IXCs and even the incumbent LEC itself. Transport circuits dedicated to a particular access customer connect the tandem switch to the serving wire center. Dedicated entrance circuits carry traffic between the IXC POP and the serving wire center, whether the IXC uses direct-trunked transport or tandem-switched transport.

151. In the NPRM, we expressed concern that some of our current Part 69 rules¹⁹⁹ may require LECs to recover transport costs through rate structures that do not reflect accurately the way these costs are incurred. We sought comment on possible revisions to many of these rate elements.²⁰⁰

¹⁹⁷ *Local Competition Order* at ¶ 755.

¹⁹⁸ *Transport Rate Structure and Pricing*, Third Memorandum Opinion and Order on Reconsideration and Supplemental Notice of Proposed Rulemaking, 10 FCC Rcd 3030, 3033 (1994) (*Third Transport Reconsideration Order*).

¹⁹⁹ See, e.g., 47 C.F.R. §§ 69.110, 69.111, 69.112, 69.124.

²⁰⁰ See NPRM at ¶¶ 80-95.

1. Entrance Facilities and Direct-Trunked Transport

a. Background

152. Entrance facilities are dedicated circuits that connect an access customer's POP with the LEC's serving wire center. Direct-trunked transport facilities are dedicated trunks that carry an access customer's traffic from the LEC end office to the serving wire center without switching at the tandem switch. In the *First Transport Order*, we mandated an interim rate structure under which entrance facilities and direct trunked transport are priced on a flat-rated basis, which may be distance sensitive.²⁰¹ Initial rate levels for direct-trunked transport and entrance facilities were presumed reasonable if they were set equal to the rates for corresponding special access service components (special access service and special access channel termination, respectively).²⁰² In the NPRM, we tentatively concluded that, because direct-trunked transport and entrance facilities appear to be dedicated to individual customers, a flat-rated pricing structure accurately reflected the way LECs incur the costs of these facilities.²⁰³ We sought comment on this tentative conclusion and on whether incumbent LECs should be permitted to offer transport services differentiated by whether the LEC or the IXC is responsible for channel facility assignments (CFAs).²⁰⁴ We also sought comment on whether any rules in addition to the interim rules are necessary to govern rate levels for these services.²⁰⁵

b. Discussion

153. We conclude that both entrance facilities and direct-trunked transport services should continue to be priced on a flat-rated basis and that charges for these services may be distance-sensitive. In the *First Transport Order*, we found that such a flat charge would facilitate competition in the direct-trunked transport market and encourage incumbent LECs to

²⁰¹ *Transport Rate Structure and Pricing*, Report and Order and Further Notice of Proposed Rulemaking, 7 FCC Rcd 7006, 7016-7017 (1992) (*First Transport Order*); see also 47 C.F.R. § 69.110.

²⁰² *Transport Rate Structure and Pricing*, First Memorandum Opinion and Order on Reconsideration, 8 FCC Rcd 5370, 5375 (1993) (*First Transport Reconsideration Order*).

²⁰³ NPRM at ¶ 86.

²⁰⁴ A channel facility assignment is the actual designation of the routing that a circuit takes within the incumbent LEC network. This assignment may be made either by an IXC purchasing a dedicated circuit, or the incumbent LEC itself.

²⁰⁵ NPRM at ¶ 86.

make efficient network decisions.²⁰⁶ For the same reasons, and because this pricing structure is reflective of the manner in which incumbent LECs incur the costs of provisioning these facilities, we confirm that the interim rate structure the Commission adopted for these facilities should be made final.

154. U S West and Sprint make a persuasive showing that, as carriers expand their use of fiber-optic ring architecture and other modern network designs, transport costs should become less distance sensitive because LECs may transport a call along any one of many paths to its destination based on transient network traffic levels.²⁰⁷ We conclude, however, that we need not amend our Part 69 rules now to reflect the decreasing sensitivity of transport costs to distance. Our rules permit, but do not mandate, the use of distance sensitive transport charges. Therefore, if an incumbent LEC determines that its transport costs have become less distance sensitive, it may reduce or eliminate the distance-sensitivity of its direct-trunked transport rates. For two reasons, we expect that incumbent LECs will adjust their rates to reflect any change in the distance sensitivity of transport costs. First, as U S West states, ring architecture will be most prevalent, and therefore, will reduce the distance sensitivity of rates most dramatically, in densely populated areas.²⁰⁸ When an incumbent LEC obtains authority to deaverage access rates geographically, therefore, it may choose to offer a less distance-sensitive pricing structure in more densely populated areas than it does in less densely populated areas. Such a structure would properly reflect the reduced distance sensitivity of the incumbent LEC's costs in more densely populated areas. Second, as competition develops, incumbent LECs will come under increasing market pressures to maintain rates that reflect the nature of the costs underlying the service. If they choose not to do so, we expect that new market entrants will develop competitive service offerings at prices more reflective of underlying costs.

155. We decline Ameritech's request in its comments for immediate flexibility to offer new technologies to switched access customers without obtaining a Part 69 waiver or passing a public interest test.²⁰⁹ In our Third Report and Order in the *Price Cap Performance Review for Local Exchange Carriers (Price Cap Performance Review Third Report and*

²⁰⁶ *First Transport Order*, 7 FCC Rcd at 7022.

²⁰⁷ As Sprint explains, LECs are moving toward ring configurations in response to customer demands for the increased service reliability gained from this architecture's route diversity and self-healing qualities. "With the ring configuration, the tandem-routed traffic and direct-trunked traffic will all be moving in the same ring, and the distance traversed will simply be a function of the provisioning path selected by the LEC for individual traffic. Utilization of available bandwidth between two nodes at any point in time will become a higher priority in the economic determinant of cost than the distance between the two nodes." Sprint Comments at 24.

²⁰⁸ See U S West Reply at 30.

²⁰⁹ See Ameritech Comments at 17-18.

Order), adopted along with the NPRM in this proceeding, we eliminated the need for a Part 69 waiver for new services, and instead required incumbent LECs to file a petition demonstrating that introduction of the new service would be consistent with the public interest.²¹⁰ Such petitions will give LECs that desire to do so the opportunity to make their cases and receive the requested flexibility.²¹¹ This procedure significantly streamlined the prior waiver process, and we conclude that the public interest will not suffer if we do not grant incumbent LECs additional immediate flexibility in this area as part of our basic rate structure modifications. We will give further consideration to Ameritech's request for additional flexibility to offer new technologies to switched access customers as part of our assessment of other aspects of pricing flexibility in a subsequent Report and Order in this proceeding.

156. We also will consider whether LECs should be permitted to offer direct-trunked transport services that are differentiated by whether the incumbent LEC or the transport customer is responsible for performing channel facility assignments in connection with our evaluation of other forms of pricing flexibility in a subsequent Report and Order in this proceeding. As MCI argues in its comments, it is unclear whether rates for direct-trunked transport where the LEC controls the CFA should be higher or lower than the rates that apply where the IXC controls the CFA.²¹² Although the LEC may be able to make more efficient use of its network facilities when it controls the CFAs itself, this efficiency benefit may be offset by the additional costs the LEC incurs in performing the CFA function. We agree with MCI that an incumbent LEC may be able to increase its network efficiency by retaining or assuming control of CFAs, particularly if an IXC orders a relatively large amount of transport capacity. In those cases, however, rate differentiation based on CFA control appears to be the functional equivalent of a volume discount. As a result, we will consider this issue, along with other pricing flexibility issues, in a subsequent Report and Order planned in this docket.

157. In its comments, USTA requests that we forbear under Section 10 of the Communications Act²¹³ from regulating services in the interexchange basket, special access, collocated direct-trunked transport, and directory assistance.²¹⁴ We will address USTA's request along with other pricing flexibility issues, in a subsequent Report and Order planned in this docket.

²¹⁰ NPRM at ¶¶ 309-310 (contained within the *Third Report and Order* portion of that item). The rule changes implementing this procedure will become effective on June 30, 1997.

²¹¹ See 47 C.F.R. § 69.4(g).

²¹² MCI Comments at 84-85.

²¹³ 47 U.S.C. § 160.

²¹⁴ USTA Comments at 35-48.

2. Tandem-Switched Transport

a. Background

158. Tandem-switched transport uses trunks that are shared among many IXC's and the LEC itself to carry traffic between the end office and a tandem switch. The tandem switch routes IXC traffic onto an appropriate dedicated trunk that runs between the tandem switch and the serving wire center.²¹⁵ An IXC may use tandem-switched transport either as its primary form of transport in lieu of direct-trunked transport, or to carry traffic that overflows from its direct-trunked transport facilities at peak periods. In 1982, the *Modification of Final Judgment (MFJ)* established an interim rule that required, until September 1, 1991, BOC charges to IXC's to be "equal, per unit of traffic" of a given type transported between end offices and facilities of the IXC's within an exchange area or within reasonable subzones of an exchange area.²¹⁶

159. The Commission replaced the "equal charge" rule in 1993 with an interim rate structure for tandem-switched transport. This interim structure allows IXC's to choose between two rate structures for the purchase of tandem-switched transport. Both options provide for a per-minute tandem switching charge. Under the first option, an IXC may elect to pay "unitary" per-minute charge for transmission of traffic from the end office, through the tandem switching office, to the serving wire center. This charge may be distance sensitive, with distance measured in airline miles from the end office to the serving wire center. Under the second option, the "three-part rate structure," in addition to the charge for the tandem switch, an IXC may elect to purchase transmission on a bifurcated basis, with the end office-to-tandem portion charged on a per-minute basis, and the tandem-to-serving wire center portion charged as direct-trunked transport facilities, *i.e.*, on a flat-rated basis. Under the three-part rate structure, both portions of the transmission charge may be distance sensitive based on the airline mileage to the tandem office.²¹⁷

160. In adopting the interim rate structure, the Commission stated that initial direct-trunked and tandem-switched transport rates would be presumed reasonable if set based on

²¹⁵ An end office local switch may also serve as a tandem switch with certain software upgrades. Therefore, the tandem switching office is also often an end office in its own right. Similarly, an IXC typically uses a large end office, upgraded with additional trunking capacity to handle the IXC's traffic, as its serving wire center.

²¹⁶ *United States v. American Tel. and Tel. Co.*, 552 F. Supp. 131, 233-34 (AT&T Consent Decree, Appendix B, Section B(3)), *aff'd sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

²¹⁷ See *First Transport Reconsideration Order*, 8 FCC Rcd at 5372.

special access rates in effect on September 1, 1992 using a DS3 to DS1²¹⁸ rate ratio of at least 9.6 to 1.²¹⁹ Per-minute tandem-switched transport rates were presumed reasonable if set using a weighted average of DS1 and DS3 rates reflecting the relative numbers of circuits of each type in use in the tandem-to-end office link, and assuming circuit loading of 9000 minutes of use per month per voice-grade circuit.²²⁰

161. Under the interim rate structure, whether a tandem-switched transport customer elects to purchase tandem-switched transport under the unitary or the three-part rate structure, the LEC imposes a separate, per-minute charge on the tandem-switched transport customer for use of the tandem switch. The Commission set this charge initially to recover only twenty percent of the tandem revenue requirement, in order to: (1) protect small IXC's that use tandem-switched transport as their primary transport mechanism from substantial increases in tandem-switched transport rates;²²¹ (2) ensure that the interim rate structure did not "endanger the availability of pluralistic supply in the interexchange market" that had developed under the equal charge rule;²²² and (3) allow IXC's a transitional period to reconfigure their networks to eliminate inefficiencies that had developed under the equal charge rule and to prepare for a fully cost-based rate structure.²²³ Unlike the direct-trunked and tandem-switched transport rates, which are set using overhead loadings based on special access, the tandem switching rates used higher overhead loadings applicable to switched access.

162. As part of the interim rate structure, the Commission also created the TIC to recover on a per-minute basis from all switched access customers the difference between the Part 69 transport revenue requirement and the revenues projected to be recovered under the interim rate structure.²²⁴ The TIC was explicitly intended to make the transition to the interim rate structure revenue neutral.²²⁵ Among other possible costs, the TIC recovers the remaining

²¹⁸ A DS1 line is capable of transmitting 24 voice conversations, each digitally encoded at 64 kilobits per second, for a total capacity of 1.544 megabits per second. A DS3 line has 28 times the capacity of a DS1.

²¹⁹ *First Transport Order*, 7 FCC Rcd at 7029. Special access customers use a dedicated trunk running between the customer's premises and the IXC's POP, thereby bypassing the LEC's switched network facilities altogether. This service is primarily used by large volume users in densely populated areas.

²²⁰ *Id.* at 7036-37.

²²¹ *See Competitive Telecommunications Ass'n v. FCC*, 87 F.3d 522, 526-27 (D.C. Cir. 1996) ("*CompTel*").

²²² *First Transport Order*, 7 FCC Rcd at 7008.

²²³ *Id.* at 7016.

²²⁴ *Id.* at 7038.

²²⁵ *Id.*

80 percent of the tandem-switching revenue requirement.

163. Portions of the interim transport rate structure were recently remanded to the Commission by the United States Court of Appeals for the District of Columbia Circuit.²²⁶ With respect to tandem-switching rates and the TIC, the Court ordered us either to implement a cost-based rate structure or offer a "rational and non-conclusory analysis in support of [our] determination that an alternative structure is preferable."²²⁷ With respect to overhead loadings, the Court ordered us either to substantiate that our current method of allocating overhead is cost-based, choose a method that is, or provide a reasoned explanation of our decision to pursue a non-cost-based system.²²⁸

164. In the NPRM, we sought comment on several alternative rate structures for tandem-switched transport service facilities, including: (a) maintaining the interim rate structure, which permits the IXCs to choose between the two pricing alternatives above; (b) eliminating the unitary rate option and requiring the IXCs to purchase tandem-switched transport under the three-part rate structure; or (c) developing another, different rate structure.²²⁹ We also sought comment on whether, in conjunction with any of these pricing options, we should apply to tandem switching any of the options for local switching discussed above, including whether we should establish separate flat-rated charges for the dedicated ports on the serving wire center side of the tandem or other NTS components of the tandem switch, and whether usage-based or flat rates more accurately reflect shared tandem-switching costs.²³⁰ We also sought comment on whether, in conjunction with any of these options, we should permit or require peak load pricing for usage-based charges for tandem-switched transport service, and on whether any portion of tandem-switched transport costs should be recovered from direct-trunked transport customers.

b. Overview of Rate Structure and Rate Level Changes

165. In this section, we summarize the changes we make to the tandem-switched transport rate structure and rate levels below. We conclude that we should require incumbent LECs to implement a cost-based rate structure for tandem-switched transport in four stages over a two year transition period. Unlike our previous transition plans, however, we set forth today, for the first time, the details of a final, cost-based transport rate structure. We have

²²⁶ *CompTel*, 87 F.3d 522.

²²⁷ *Id.* at 536.

²²⁸ *Id.*

²²⁹ NPRM at ¶¶ 87-88, 91.

²³⁰ NPRM at ¶ 89.

long recognized that non-cost based rate structures can, among other dangers, (1) threaten the long-term viability of the nations's telephone systems; (2) distort the decision whether to use alternative telecommunications technologies; and (3) encourage "uneconomic bypass" of the public switched telecommunications network, raising rates for all.²³¹

166. Until today, however, we have limited ourselves to interim transport rate structure plans, such as the equal charge rule and the interim rate structure described above. While the interim rate structure increased the cost-based nature of our transport rate structure, it also included significant non-cost-based elements. We have not, until today, laid out a clear transition plan that describes all the steps necessary to achieve cost-based transport rates. As a result, although all carriers have no doubt been aware of our intention to move to a cost-based rate structure, they have been able only to react to our transitional steps, announced piecemeal. Because we have not announced a definite and detailed end state -- a final, cost-based rate structure -- we have afforded carriers little opportunity to plan, adjust, and develop their networks in preparation for such a rate structure, despite our lengthy period of "transition." Accordingly, because of the potential magnitude of the rate impact of these changes, we conclude that a four-step implementation over a two-year period will minimize the risk of rate shock and allow transport customers to adjust while we move as expeditiously as possible to cost-based transport rates as required by the *CompTel* decision.

167. The first step will occur in incumbent LEC access tariffs to become effective on January 1, 1998. In those tariffs, incumbent price cap LECs must establish new rate elements for recovery of the costs of DS3/DS1 and DS1/voice-grade multiplexers used in conjunction with the tandem switch. The rate element for the dedicated multiplexers on the serving wire center side of the tandem will recover these costs on a flat-rated basis, while the rate element for the multiplexers on the end office side of the tandem will be assessed per minute of use. In addition, incumbent price cap LECs must establish in those tariffs a flat-rated charge to recover the costs of dedicated trunk ports on the serving wire center side of the tandem. None of our existing rate elements currently recovers the costs of either these multiplexers or these dedicated trunk ports. Accordingly, we conclude that those costs are currently recovered through the TIC, and that incumbent price cap LECs must reduce the TIC to reflect the recovery of these costs through the new rate elements. Also on January 1, 1998, all incumbent LECs must take the first of three annual steps to reallocate to the tandem-switching rate element tandem switching revenues currently being recovered through the TIC. In tariffs filed to be effective on that date, we require incumbent LECs to reallocate one third of the portion of the tandem switching revenue requirement that they currently recover through the TIC, excluding signalling and dedicated port costs that we reallocate elsewhere, to the tandem switching rate element.

168. The second step will occur in incumbent LEC tariffs to become effective July 1,

²³¹ *MTS and WATS Market Structure*, Third Report and Order, 93 F.C.C.2d at 251-252.

1998. At that time, all incumbent LECs must eliminate the unitary pricing option for tandem switched transport. Instead, incumbent LECs will be required to provide tandem-switched transport under a three-part rate structure as follows: (1) a per-minute charge for transport of traffic over common transport facilities between the LEC end office and the tandem office; (2) a per-minute tandem switching charge; and (3) a flat-rated charge for transport of traffic over dedicated transport facilities between the serving wire center and the tandem switching office. Incumbent LECs will continue to impose separate multiplexing and port charges established on January 1, 1998, as complementary to the three-part rate structure.

169. The third and fourth steps will consist of the reallocation of the remaining portion of the tandem-switching revenue requirement currently recovered through the TIC to the tandem-switching rate element. All incumbent LECs are to reallocate one half of the remaining portion of tandem-switching revenue requirement recovered through the TIC to the tandem-switching rate element in access tariffs to become effective January 1, 1999, and the final portion of the tandem-switching revenue requirement to the tandem-switching rate element in access tariffs to become effective on January 1, 2000. Before performing this reallocation, price cap incumbent LECs must account for X-factor reductions to the tandem-switching revenues permitted under price caps that have occurred since the TIC was created, as described in Section III.C.2.d, below.

c. Rate Structure

170. *Multiplexing Costs.* As discussed above, we direct incumbent LECs to establish separate rate elements for the multiplexing equipment on each side of the tandem switch. LECs must establish a flat-rated charge for DS1/DS3 multiplexers on the serving wire center side of the tandem, imposed pro-rata on the purchasers of dedicated DS3 trunks on the serving wire center side of the tandem, in proportion to the amount of DS3 trunking capacity purchased by each customer. Unlike DS3 rates, rates for DS1 dedicated trunks already include a portion of the DS1/DS3 multiplexer needed for transport.²³² Multiplexing equipment on the end office side of the tandem shall be charged to users of common end office-to-tandem transport on a per-minute of use basis. These multiplexer rate elements must be included in the LEC access tariff filings to be effective January 1, 1998.

171. We sought comment in the NPRM on the claim that:

The TIC . . . includes the two additional multiplexers needed in order to multiplex a DS3 circuit down to a DS1 level before switching at the tandem, and then back up to DS3 afterward for transmission to an end office. To the extent that analog tandem switches exist, two additional DS1/[voice-grade] multiplexers are needed to achieve the voice-grade interface with the tandem

²³² *First Transport Order*, 7 FCC Rcd at 7028 n.85.

switch.²³³

None of our existing rate elements explicitly recovers the costs of these multiplexers, and we conclude that these costs are currently recovered as part of the TIC. Accordingly, we establish two rate elements for multiplexers used on the serving wire center side of the tandem switch. The first will recover the costs of DS3/DS1 multiplexers used by purchasers of dedicated DS3 transport trunks from the serving wire center to the tandem switch, and may be levied only on purchasers of such DS3 transport. The second will recover the costs of DS1/voice-grade multiplexers used on the serving wire center side of analog tandem switches, and should be levied on purchasers of DS1 or greater capacity dedicated transport from the tandem switch to the serving wire center in proportion to the transport capacity purchased on that route. Like serving wire center-side trunks and trunk ports, both DS3/DS1 and DS1/voice-grade multiplexers on the serving wire center side of the tandem switch are dedicated to individual customers. Accordingly, flat-rated NTS charges for these multiplexers are appropriate.

172. On the end office side of the tandem switch, we establish two additional rate elements. The first will recover the costs of DS3/DS1 multiplexers used on the end office side of the tandem switch. This rate element will be a per-minute charge imposed on each IXC purchasing common transport on the end office-to-tandem link. This charge will be calculated based on actual minutes of use of the common transport circuits and will be assessed on IXCs in a 1:1 ratio with minutes of use of common transport. As with common transport trunks, because these multiplexers are shared among all users of common transport, traffic-sensitive, per-minute charges are appropriate. The second rate element should be assessed only at analog tandems, to recover in a similar manner the costs of DS1/voice-grade multiplexers needed at these analog tandems.

173. Price cap LECs must reallocate revenues currently being recovered through the TIC to these rate elements and begin recovery of multiplexing costs using these rate elements in their access tariffs to become effective January 1, 1998.

174. *Dedicated Tandem Switch Trunk Port Costs.* Price cap incumbent LECs must establish a separate rate element for dedicated trunk ports used to terminate dedicated trunks on the serving wire center side of the tandem switch. LECs incur the costs of these ports on an NTS basis, but currently must recover their costs through per-minute charges for the tandem switch. Because we have allocated 80 percent of tandem-switching costs to the TIC, these port costs may currently be recovered through either per-minute tandem-switching charges, or the per-minute TIC. We now take this opportunity to establish a separate rate element for these costs. Price cap LECs must establish a flat-rated element for dedicated

²³³ NPRM at ¶ 106. It is also possible to combine the DS3/DS1 and DS1/voice-grade functions into a single multiplexer.

trunk ports on the serving wire center side of the tandem, assessed on the purchaser of the dedicated trunk terminated at that port. This rate element shall be a flat-rated charge assessed on the carrier purchasing the dedicated trunk terminated at that port, and must be also be included in tariff filings to become effective January 1, 1998.

175. *Three-Part Rate Structure.* We also direct all incumbent LECs to discontinue the unitary rate structure option for the transmission component of tandem-switched transport, effective July 1, 1998. In their access tariffs that take effect on July 1, 1998, incumbent LECs will be required to provide tandem-switched transport under a three-part rate structure as follows: (1) a per-minute charge for transport of traffic over common transport facilities between the LEC end office and the tandem office; (2) a per-minute tandem switching charge; and (3) a flat-rated charge for transport of traffic over dedicated transport facilities between the serving wire center and the tandem switching office. This three part rate structure reflects the manner in which the incumbent LEC incurs the costs of providing each component of tandem-switched transport. By establishing a per-minute, traffic-sensitive rate for the shared common transport trunks and the tandem switch, incumbent LECs will recover these costs from each IXC in proportion to its use. The incumbent LEC, in contrast, incurs the costs of the dedicated serving wire center-to-tandem trunk on an NTS basis because, like other dedicated trunks, the LEC must provision the trunk for the exclusive use of one IXC. Once this capacity is dedicated, the cost of the trunk does not vary with the amount of traffic transmitted by the IXC.

176. The three-part rate structure may cause some tandem-switched transport customers to increase their use of direct-trunked transport relative to tandem-switched transport. As discussed above, making this rate structure change effective on July 1, 1998, will provide tandem-switched transport customers that currently take service under the unitary rate structure with notice of this change sufficient to enable them to adjust their networks to provide service in the most efficient way possible, and to mitigate any sudden effect on rates such a change could have if implemented on shorter notice. In order to encourage transport customers to increase the efficiency of their transport networks quickly, we will require incumbent LECs to waive certain nonrecurring charges until six months after the three-part rate structure becomes mandatory. Therefore, from the effective date of this Order until six months after the effective date of tariffs eliminating the unitary pricing option for tandem-switched transport, the incumbent LECs shall not assess any nonrecurring charges for service connection when a transport customer converts trunks from tandem-switched to direct-trunked transport or orders the disconnection of overprovisioned trunks.²³⁴

177. When we replaced the equal charge rule in 1991, we stated three principles that would guide our efforts to develop the transport rate structure: (1) to encourage efficient use

²³⁴ This waiver is similar to the one we ordered when we adopted the interim rate structure. *First Transport Order*, 7 FCC Rcd at 7038.

of transport facilities by allowing pricing that reflects the way costs are incurred; (2) to avoid interference with the development of interstate access competition; and (3) to facilitate full and fair interexchange competition.²³⁵ In 1991, we stated that the interim rate structure was a reasonable first step toward achieving these goals, because it was more cost-based than the equal charge rule.²³⁶ Even from its inception, however, we have recognized that the interim rate structure represents significant compromises that cause it to fall substantially short of these goals in many ways.²³⁷

178. First, the unitary rate option does not accurately reflect the manner in which LECs incur costs in providing tandem-switched transport and, therefore, does not provide maximum incentive for IXC's to use transport facilities efficiently. IXC's may order, and LECs must provide, dedicated transport links with NTS costs on the serving wire center-to-tandem route with no assurance that the traffic-sensitive, per-minute revenues collected will cover the NTS costs of the link. As we stated at the time, the unitary rate structure was intended as an interim measure to allow IXC's time to prepare for a fully cost-based transport rate structure.²³⁸ IXC's have now had well over a decade since divestiture to so prepare. We agree with the *CompTel* decision that it is time to bring this period of preparation to a close as expeditiously as possible without causing severe disruption to carriers.²³⁹

179. Second, by bundling the dedicated and common portions of the transmission component of tandem-switched transport into a single, end-to-end per-minute charge, the unitary rate structure inhibits the development of competitive alternatives to incumbent LEC tandem-switched transport. While we have required incumbent LECs to provide the collocation, signalling, and unbundled network elements necessary for new entrants to compete with incumbent LECs without having to replicate the incumbent LEC's interoffice transport network,²⁴⁰ we have not corrected the non-cost based aspects of our tandem-switched transport rate structure that reduce incumbent LEC rates for tandem-switched transport

²³⁵ *First Transport Order*, 7 FCC Rcd at 7009. We reiterated these principles in the *First Transport Reconsideration Order*, 8 FCC Rcd at 5372, and the *Third Transport Reconsideration Order*, 10 FCC Rcd at 3035.

²³⁶ *First Transport Order*, 7 FCC Rcd at 7016.

²³⁷ See *First Transport Order*, 7 FCC Rcd at 7016, 7021-22; *Third Transport Reconsideration Order*, 10 FCC Rcd at 3047-48.

²³⁸ *Third Transport Reconsideration Order*, 10 FCC Rcd at 3048.

²³⁹ *CompTel*, 87 F.3d at 530.

²⁴⁰ See *Local Competition Order*; *Expanded Interconnection with Local Telephone Company Facilities*, Memorandum Opinion and Order, 9 FCC Rcd 5154 (1994); *Expanded Interconnection with Local Telephone Company Facilities*, Transport Phase II, Third Report and Order, 9 FCC Rcd 2718 (1994).

services. Several commenters have noted that the tandem-switched transport market, despite our efforts, is subject only to limited competition.²⁴¹ Moreover, several competitive entrants have stated that they have the capability and desire to offer some or all of the components of tandem-switched transport on a competitive basis, but that the present, unitary rate structure inhibits the development of competition in this area.²⁴² In addition, each component of tandem-switched transport is not equally susceptible to competitive entry; it is relatively easier for a new entrant to compete to provide the dedicated serving wire center-to-tandem link than it would be to compete to provide either the tandem switch itself or the myriad common transport end office-to-tandem links. Thus, in order to permit the fullest development of competitive alternatives to incumbent LEC networks, we need to unbundle reasonably segregable components of incumbent LEC transport services and price them in the manner in which costs are incurred.

180. Third, the interim rate structure does not best promote "full and fair" interexchange competition. The unitary rate structure has facilitated the growth of small IXC's

²⁴¹ E.g., Letter from David Sieradzki, Counsel for WorldCom, Inc., to William F. Caton, Acting Secretary, FCC, February 25, 1997, Encl. at 4.

²⁴² E.g., Teleport Comments at 13-14; ALTS Reply at 22. After the comment period closed in this proceeding, Teleport and CompTel proposed a compromise tandem-switched transport rate structure that would (1) retain the unitary rate structure for the transmission component of tandem-switched transport; (2) prohibit incumbent LECs from deaveraging TIC charges within a state for a five year transition period; and (3) provide that IXC's and CLEC's that do not use transport facilities supplied by the incumbent LEC would be exempt from paying the TIC for any switched access traffic carried over those facilities. See *Ex Parte* Letter from James M. Smith and Robert C. Atkinson to Hon. Reed E. Hundt, April 16, 1997. Teleport and CompTel characterize this third element of their proposal as the "most important." Exempting IXC's and CLEC's that do not use transport facilities supplied by the incumbent LEC from paying the TIC for any switched access traffic carried over those facilities would be consistent with a recent Colorado Commission arbitration ruling. See *TCG Colorado Petition for Arbitration Pursuant to § 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with U S West*, Docket No. 96A-329T, Decision Regarding Petition for Arbitration, Decision No. C96-1186 (adopted Nov. 5, 1996). In that decision, the Colorado Commission stated that,

[I]f [U S West] provides all or part of the transport of an interstate call from the end office to the IXC, then [U S West] is entitled to collect its interstate rates, including [TIC]. If, however, [U S West] is not providing the transport of a call from an end-office switch to an IXC, then [U S West] may not apply its switched access transport rates, including the [TIC], to those calls. We reject arbitrary splits of revenues. In jointly provisioned switched access services, each company will develop and apply its tariffed rates to the portion of service it provides.

Id. at ¶ I.O.7. Clarifying this position on reconsideration, the Colorado Commission stated, "[t]he [TIC] shall be applied on a pro rata basis determined from the proportional distance between the [Teleport] tandem and the end-office of [U S West]." *TCG Colorado Petition for Arbitration Pursuant to § 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with U S West*, Docket No. 96A-329T, Order Denying Applications for Rehearing, Reargument, or Reconsideration, Decision No. C96-1344 (adopted Dec. 18, 1996), at ¶ I.B.1.4.

to compete with larger carriers. It has achieved this, however, by requiring incumbent LECs to price facilities with NTS costs on a per-minute, traffic sensitive basis, in order to allow small IXC's to offer interexchange services at rates comparable to those offered by larger carriers without regard to whether the charges paid by the small IXC's cover the costs of the facilities that they use. While this structure has protected "pluralistic supply in the interexchange market,"²⁴³ our rules should promote competition, not protect certain competitors. We have recently concluded that no carrier is dominant with respect to domestic, interexchange services.²⁴⁴ Therefore, to the extent that we designed the interim rate structure to facilitate the growth of small IXC's in competition with AT&T, we find that such protective rules are no longer necessary. In a competitive market, we believe that we should strive to make our rate structure rules consistent with cost-causation principles, so long as those principles do not conflict with other statutory obligations, such as universal service. As the *CompTel* decision stated, "attempt[ing] to recover costs from IXC's that did not cause those costs to be incurred would impart the wrong incentives to both actual and potential providers of local transport, thereby inducing them to offer an inefficient mix of dedicated, [direct-trunked transport], and tandem-switched service."²⁴⁵ Because rules that do not reflect cost-causation may cause IXC's to order an inefficient mix of transport services, such rules artificially raise the costs of providing interexchange services. Rules properly reflecting cost-causation, in contrast, will benefit LECs, IXC's, and consumers alike by encouraging competitors to provide service using facilities efficiently. In adopting the interim rate structure, we cited AT&T's estimate that the efficiency benefit to consumers of cost-based pricing and competition could reach \$1 billion annually.²⁴⁶ Our adoption of the three-part rate structure is intended to permit consumers the benefits of even greater service efficiency.

181. We therefore adopt the three-part structure as the final tandem-switched transport rate structure because this structure most closely reflects the manner in which LECs incur the costs of each component of the overall tandem-switched transport service. When combined with our actions with respect to the TIC, our adoption of actual minutes of use as the appropriate factor for determining per-minute rates for common transport circuits, and our allocation of the full cost of the tandem-switch to the tandem-switching rate elements, we expect that this structure will benefit LECs, IXC's, competitive providers of access services, and consumers. Tandem-switched transport facilities are sized to accommodate peak traffic

²⁴³ See *First Transport Order*, 7 FCC Rcd at 7007.

²⁴⁴ *Motion of AT&T to be Reclassified as a Non-Dominant Carrier*, Order, 11 FCC Rcd 3271 (1995).

²⁴⁵ *CompTel*, 87 F.3d at 530-531. Even though directly addressing the TIC and not the unitary rate structure, the Court's remarks are apposite because the unitary rate structure does not recover the costs of tandem-switched transport in the way that those costs are incurred and therefore results in the recovery of some costs of the transmission component of tandem-switched transport through the TIC.

²⁴⁶ *First Transport Order*, 7 FCC Rcd at 7016.

loads, including overflow traffic from IXCs using direct-trunked transport facilities. Several commenters have stated that, until now, these overflow customers have not borne the full costs of these facilities because overflow customers pay only the same per-minute transmission charges applicable to other IXCs.²⁴⁷ The three-part rate structure will require the IXC purchasing tandem-switched transmission facilities to pay the full NTS costs of the dedicated serving wire center-to-tandem link, without regard for the amount of traffic transported. This benefit, in turn, will substantially increase IXC incentives to use tandem-switched transport efficiently for overflow traffic.

182. Some commenters argue that we should retain the unitary rate structure because tandem-switched transport, as a service, has traditionally been offered on an end-to-end basis. We agree that the transmission component of tandem-switched transport has in fact been *offered* on an end-to-end basis, but only pursuant to the requirements of the MFJ and our interim rate structure rules as part of a transition to cost-based rates. We find, however, that the transmission component of tandem-switched transport is not, in fact, *provisioned* by the incumbent LEC on an end-to-end basis. Purchasers of direct-trunked transport purchase an end-to-end service; they purchase from the incumbent LEC transport capacity between two end points. Tandem-switched transport customers, in contrast, purchase use of the tandem switch to route traffic to their POP. By virtue of their decision to choose tandem-switched transport, these customers specifically obligate the LEC to transport their traffic between the serving wire center and the tandem serving a particular end office or group of end offices and to perform the tandem switching function. Because they cause the incumbent LEC to incur the costs of transmitting their traffic between the serving wire center and the tandem, tandem-switched transport customers should, as a matter of cost-causation, pay the costs of reaching the tandem. In providing tandem-switched service, incumbent LECs must provision two separate circuits with distinctly different cost characteristics -- one dedicated, and one shared. Tandem-switched service, therefore, is not provisioned on an end-to-end basis between the end office and serving wire center, but in three parts: (1) transmission from one "end," the end office, to the tandem; (2) the tandem switching function itself; and (3) transmission from the tandem to the other "end," the serving wire center. Just as the tandem-switched transport customer pays a separate charge for the tandem switch, the tandem-switched transport customer should pay separately for the two distinct transmission components.

183. Other commenters argue that the three-part rate structure will create LEC incentives to engage in inefficient network reconfiguration, placing tandems far from end offices and serving wire centers simply to increase tandem-switched transport revenues.²⁴⁸ These commenters further argue that, if we adopt the three-part rate structure, we need to

²⁴⁷ E.g., TCI Comments at 16, Reply at 13-14. See also ACC Long Distance Comments at 14-15; Telco Communications Group Comments at 6-7.

²⁴⁸ E.g., Sprint Comments at 22.

control this incentive by establishing a process for review of the incumbent LECs' tandem deployment decisions. Based on this record, we conclude that these commenters' fears are not well founded. An incumbent LEC would likely incur substantial costs to reconfigure placement of its tandem switches specifically to disadvantage IXC users of tandem switched transport. Because we expect the three part rate structure to catalyze the development of competition, we conclude that the incumbent LEC would not be likely to incur such costs. Although the incumbent LEC might be able to increase its tandem-switched transmission revenues in the short term to reflect inefficient routing, as more efficiently configured competitors enter the market, the LEC would not be able to sustain such artificially inflated rates and would then need to incur additional costs to reconfigure its network efficiently. Because, under our new competitive paradigm, a multitude of investment opportunities, including wireless services, video, and interLATA toll, may emerge for incumbent LECs, we agree with Ameritech that "[s]uch misspent capital outlays and inefficient network configuration simply would not make good business sense."²⁴⁹

184. Moreover, the redeployment of tandem switches affects network efficiency with respect to both the incumbent LEC's own local and toll traffic, as well as intrastate and interstate access.²⁵⁰ Therefore, inefficient network reconfiguration would cause harm both to tandem-switched transport customers and to the incumbent LEC itself. Any additional transport revenues that the incumbent LEC generated through inefficient network reconfiguration would be at least partially offset by the additional costs of transporting the LEC's own traffic in similarly inefficient ways. As discussed above, as competition develops in the local market, we expect that a LEC would be reluctant to take steps to decrease its own efficiency.

185. Some commenters argue that we should retain the unitary rate structure because direct-trunked transport and tandem-switched transport circuits often travel along the same routes using the same physical facilities. These commenters argue, therefore, that it would be unfair or discriminatory to require tandem-switched transport users to purchase transmission based on airline mileage from the end office to the tandem to the serving wire center, while users of direct-trunked transport are permitted to purchase the same route on the basis of airline mileage from end office to the serving wire center directly. Other commenters argue that we should require the LECs to offer both types of transport based on actual route miles, revealing actual LEC network efficiencies and inefficiencies.

186. We disagree with both of these proposed modifications. An IXC purchasing direct-trunked transport requires the incumbent LEC to provide transport service between the end office and the serving wire center. Because the LEC must route direct-trunked transport

²⁴⁹ Ameritech Reply at 29.

²⁵⁰ See Ameritech Reply at 29.

traffic between only these two points, our rate structure requires the IXC to pay only for the airline mileage between those two points, reflecting the direct mileage route between the locations in the incumbent LEC network designated by the access customer. In contrast, an IXC purchasing tandem-switched transport purchases use of the access tandem switch and therefore requires the incumbent LEC to provide service between the serving wire center and the tandem, and between the tandem and the end office. Under the three part rate structure, the tandem-switched transport customer, like the direct-trunked transport customer, pays for the direct mileage between the locations in the incumbent LEC network designated by the customer -- for tandem-switched transport, the serving wire center to tandem, and the tandem to the end office. Because the IXC has chosen to make use of the LEC tandem switching facilities, it should pay explicitly for the transport necessary to reach the tandem. The direct-trunked transport customer, in contrast, does not make use of the tandem switching facilities; even if the LEC routes direct-trunked transport traffic through the tandem office, this traffic is not switched at the tandem. While the incumbent LEC may choose to route direct-trunked traffic through the tandem office based on its own assessment of whether it is economically efficient to do so, the direct-trunked transport customer pays only for direct mileage between the locations it designated in the network.

187. We are not persuaded by arguments that we should retain the unitary pricing structure because the incumbent LEC, and not the tandem-switched transport customer, has selected the tandem location and, consequently, the tandem-switched transport customer should not pay for the direct mileage to and from the tandem location. The incumbent LEC equally chooses the locations of the serving wire center and end office, and yet access customers routinely pay mileage charges to and from those locations, rather than between the end points of the access service -- the POP and the end user location. Similarly, we find that the three-part rate structure does not discriminate against IXCs using tandem-switched transport. As discussed above, the tandem-switched transport customer, unlike the direct-trunked transport customer, *requires* the incumbent LEC to route its traffic to the tandem, and so should pay the costs of reaching the tandem. In addition, an IXC operating efficiently often may choose to locate its POP at or close to the tandem, if the tandem-switching office also can function as the serving wire center, thus eliminating virtually all of the dedicated transport costs of the tandem-to-serving wire center link. While such an arrangement may be the most efficient transport architecture for tandem-switched transport, our current unitary pricing structure does not reflect the underlying costs of tandem-switched transport transmission facilities and so does not encourage efficient transport architectures.

188. The introduction of more modern network architectures, such as Synchronous Optical Network (SONET) rings, does not alter our conclusion that the three-part rate structure most closely approximates the nature of costs associated with each component of tandem-switched transport. WorldCom, for instance, asserts that the "pyramid" diagram

included in the NPRM as Figure 1 is outdated²⁵¹ and submits a diagram illustrating interoffice tandem-switched transport in a ring-based network.²⁵² WorldCom states that the multiple routing options and the reduced distance sensitivity of transport costs in a SONET environment compel retention of the unitary rate structure.²⁵³ We conclude, however, that the differences WorldCom identifies do not support retention of the unitary rate structure because, even in a ring-based network, the three-part rate structure treats direct-trunked and tandem-switched transport consistently. In a fiber-optic or ring-based network, dedicated, direct-trunked transport circuits are given a constant, and exclusive, time slot assignment on a large, time-division multiplexed fiber-optic cable. The incumbent LEC routes traffic for the IXC purchasing the direct trunk into the dedicated circuit or time slot, where it is received elsewhere on the ring or in the network at the serving wire center. The direction or precise routing of the signal around the ring is irrelevant for purposes of the rate structure because the transport is priced on an airline-mileage basis between the two end points. Capacity dedicated to a particular IXC, however, is not available to the LEC for other purposes.

189. SONET ring architecture offers the LEC the capability to transport large traffic volumes with redundant routing options, but it does not alter the fundamental nature of tandem-switched transport. Tandem-switched transport is functionally very different from direct-trunked transport because, by definition, the incumbent LEC must route an IXC's tandem-switched traffic through the tandem switch serving a particular end office. Whether using a SONET ring or not, the LEC must route its tandem-switched traffic into one of many shared common transport circuits or time slots allocated for transport between the end office and the tandem switch, and onto a *second* dedicated circuit or time slot for transport between the serving wire center and the tandem. Despite parties' arguments to the contrary, the precise routing of the traffic to the tandem, including the direction it may take around a SONET ring, is irrelevant to the rate structure because IXCs purchase transport under the three-part rate structure based on airline mileage to the tandem.

190. As discussed in connection with direct-trunked transport, above, ring network architectures may cause incumbent LECs transport costs to become less distance sensitive. Because our rate structure permits, but does not require, transport rates to be distance sensitive, LECs remain free to establish less distance sensitive transport rates to reflect the changing nature of these costs.

191. We also decline Teleport's suggestion to establish a flat-rated charge for the tandem switch, tied to the amount of dedicated capacity each IXC's serving wire center-side

²⁵¹ NPRM at ¶ 24 (diagram follows the paragraph).

²⁵² WorldCom Reply at iii.

²⁵³ WorldCom Reply at 29-31.

trunk ports provide. While the costs of these dedicated trunk ports are NTS, the record before us does not reflect that all of tandem-switching costs are similarly NTS. Rather, we conclude at this time that the costs of tandem switching likely vary, as do those of local switching, on a traffic-sensitive basis. In light of this conclusion, we find that it would be unreasonable to permit the incumbent LEC to recover all of its tandem-switching costs through flat-rated charges. As with the local switch, until we gain more experience with rate structures for unbundled network elements that are implemented pursuant to Sections 251 and 252 and that segregate switching costs into traffic-sensitive and NTS components, we will continue to adhere to the current, per-minute rate structure for shared switching facilities.

192. We also decline to adopt in full suggestions that we (1) retain the unitary pricing structure for tandem-switched transport, while (2) exempting IXC's and competing LEC's that do not use the transport facilities supplied by the incumbent LEC from paying the TIC and (3) preventing the incumbent LEC from deaveraging the TIC within a state during a five year transition period.²⁵⁴ We are modifying our rules to prohibit incumbent LEC's from assessing any per-minute residual TIC charge on any switched minutes of CAP's that interconnect with the incumbent LEC switched access network at the end office.²⁵⁵ In doing so, we adopt a position substantially similar to the second enumerated point, above, which Teleport and CompTel characterize as the "most important" feature of this proposal.²⁵⁶ In addition, we are also taking other measures that will reduce substantially or eliminate the TIC in an expeditious manner. We decline, however, to adopt the other two suggestions. As explained in more detail above, the unitary rate structure is not cost-based in that it requires incumbent LEC's to recover costs incurred on an NTS basis through per-minute charges and inhibits the development of competition by bundling reasonably segregable components of tandem-switched transport together and pricing them in a manner that does not reflect cost causation. We conclude that our new paradigm of promoting efficient competition requires that incumbent LEC's adopt a cost-based transport rate structure and that entrants providing transport facilities in competition with the incumbent LEC not pay the TIC.

193. Although in their comments in this proceeding the incumbent LEC's virtually unanimously favor the three-part rate structure as most consistent with principles of cost-causation, we recognize that incumbent LEC's may face competition from competitors that are not limited to the three-part rate structure we adopt for incumbent LEC's today. As such competition develops, the incumbent LEC may wish to respond by offering tandem-switched

²⁵⁴ See Letter from James M. Smith, President, CompTel, and Robert C. Atkinson, Senior Vice President, Teleport Communications Group Inc., to Hon. Reed E. Hundt, Chairman, FCC, April 16, 1997.

²⁵⁵ Section III.D.2.b.

²⁵⁶ See Letter from James M. Smith, President, CompTel, and Robert C. Atkinson, Senior Vice President, Teleport Communications Group Inc., to Hon. Reed E. Hundt, Chairman, FCC, April 16, 1997.

transport on a unitary pricing basis. We will address issues relating to when incumbent LECs should have the flexibility to offer a unitary tandem-switched transport rate structure in connection with our discussion of other pricing flexibility issues in a subsequent Report and Order that we will adopt in this proceeding.

194. *Peak and Off-Peak Pricing.* As with the local switch, we conclude that we should not mandate a peak-rate pricing structure for the tandem switch or common transport at this time. Many of the same practical difficulties with establishing, verifying, and enforcing a rational, efficient, and fair peak-rate structure exist in the context of the tandem switch. We will consider whether incumbent LECs should have the flexibility to develop such peak and off-peak rate structures for local switching on a permissive basis when we consider other issues of rate structure flexibility in a subsequent Report and Order that we will adopt in this proceeding.

d. Rate Levels

195. *Allocation of 80 Percent of the Tandem Switching Revenue Requirement to the TIC.* In establishing the interim transport rate structure, we required incumbent LECs to base their initial tandem switching charge on 20 percent of the interstate tandem-switching revenue requirement. In remanding this portion of the interim rate structure to us, the D.C. Circuit directed us either to implement a cost-based tandem switching rate or offer a rational and non-conclusory analysis in support of our determination that an alternative structure is preferable.

196. Based on the record in this proceeding, we reallocate much of the remaining 80 percent of the tandem switch revenue requirement back to the tandem switching rate elements in three steps. We conclude that this action is most consistent with cost-causation, and with the general approach we are taking in this Order regarding pricing issues. We do not require all of the 80 percent to be reallocated to tandem switching rates because the tandem-switching revenue requirement includes, not only the costs of the tandem switch, but other costs, such as SS7 signalling costs and tandem port costs, which we are requiring to be reallocated elsewhere.

197. Furthermore, if we required the price cap LECs to reallocate, dollar-for-dollar, the entire portion of the tandem switching revenue requirement that we reallocated to the original TIC in the *First Transport Order*, we would deny tandem-switched transport customers the continuing benefits of past X-factor reductions in the revenues permitted under price caps. Therefore, in order to preclude recovery of tandem switching costs in excess of the current revenues permitted under price caps, we direct price cap incumbent LECs first to account in the following manner for the effects of "GDP-PI minus X-factor" reductions to the original portion of the tandem switching revenue requirement allocated to the TIC in the *First Transport Order*. Each price cap LEC first should calculate the percentage of its total

original TIC that represented the 80 percent reallocation of its tandem switching costs when the TIC was created. It should then calculate this percentage of its current TIC, which represents the extant portion of the reallocated tandem switching costs. It is this extant portion that the price cap LECs should reallocate to tandem switching as described in the next paragraph.

198. In access tariff filings to become effective on January 1, 1998, incumbent LECs must identify the portion of the tandem-switching revenue requirement currently in the TIC that they reallocate to each rate element, including, as applicable, SS7 signalling, tandem port costs, or other rate elements. They must then reallocate one third of the tandem switching revenue requirement remaining in the TIC to the tandem switching rate element. Effective January 1, 1999, incumbent LECs shall reallocate approximately one half of the remaining amount of the tandem switching revenue requirement in the TIC to the tandem switching rate elements. Effective January 1, 2000, incumbent LECs shall reallocate any portion of the tandem switching revenue requirement remaining in the TIC to the tandem switching rate element. This three-step implementation of this change permits IXC's time to adjust their use of various incumbent LEC transport services, but sets a definite end date in the near future, thus responding to the *CompTel* decision's concerns regarding the length of the transition to a cost-based transport rate structure.

199. Some commenters argue that, rather than reallocating revenues from the TIC to other rate elements, we should reinitialize tandem-switched transport rates to levels reflecting long run incremental costs, making reallocation of TIC revenues to other transport rate elements unnecessary. We have decided in this Order, however, not to reinitialize access rates based on forward-looking cost principles. We have instead determined that the first step in access reform is to make the current system as economically efficient as is possible within the limits of current ratemaking practices. Thus, the focus of this portion of this proceeding is on the development of cost-causative rate structure rules. While we are taking several prescriptive steps using existing ratemaking methods to reduce initial baseline rates, we are generally adopting a market-based approach, with a prescriptive backdrop, to move rates over time to levels reflecting forward-looking economic costs. We disagree with those commenters that argue that the *Local Competition Order* requires us immediately to prescribe rate levels for access elements based on long-run incremental costs. The *Local Competition Order* addressed, *inter alia*, the pricing of unbundled network elements. While unbundled network elements may be used to provide interstate access services, their availability at TELRIC-based prices does not compel adoption of similar rates for access services. We intend instead to rely on the availability of unbundled network elements to place market-based downward pressures on access rates, subject to a prescriptive backstop. We will further address questions related to reinitialization to TELRIC rate levels in connection with our discussion of the prescriptive approach to access reform.²⁵⁷

²⁵⁷ See Section IV.B.2.

200. *Use of Switched Access Overhead Loadings for Initial Tandem Switching Rates.* In setting rates, the interim transport rate structure derived both direct-trunked transport rates and tandem-switched transmission rates using relatively low overhead loadings applicable to special access. Tandem switching rates, in contrast, were set using relatively higher switched access overhead loadings. As a result, the tandem switching revenue requirement became relatively high, in comparison to other transport rate elements.

201. Several commenters in this proceeding contend that our use of special access overheads in setting direct trunked transport rates was inappropriate because, while special access is used almost exclusively in high density, generally urban areas, direct-trunked transport and, to an even greater extent, tandem-switched transport are used in less dense areas.²⁵⁸ In these less dense areas, overhead costs associated with transport may be higher than those associated with special access in urban areas. Some commenters have argued that we should either (1) equalize the overhead loading factors for all transport options by directing that the difference in transport rates is equal to the difference in the long run incremental cost of each transport option (DS3, DS1, and tandem-switched transport); or (2) otherwise ensure that transport customers pay an equal dollar amount of overhead per unit of traffic transported.²⁵⁹

202. We conclude that we need to make no change to the overheads attributed to tandem switching. As discussed above, we have decided not to base access prices directly at this time on incremental cost studies, but instead to make significant changes in existing ratemaking practices as the first step in access reform. Our current methods allocate overhead in a reasonable, cost-based manner. In consultation with the Joint Board on Jurisdictional Separations, the Commission established procedures for allocating overhead expenses between the state and interstate jurisdictions.²⁶⁰ Our Part 69 cost allocation rules in turn allocated interstate direct investment to broad categories, including Central Office Equipment (with respect to both local switching and tandem switching) and Carrier Cable and Wire Facilities (with respect to special access, direct-trunked transport, and tandem-switched transport transmission facilities).²⁶¹ Other investment, including overhead, was allocated among these categories in proportion to the dollar amounts of net direct investment allocated to these

²⁵⁸ See, e.g., BellSouth Comments at 77, 80.

²⁵⁹ Cable & Wireless Comments at 19.

²⁶⁰ See, e.g., 47 C.F.R. § 36.192, separating Corporate Operations Expenses, USOA Accounts 6710 and 6720, on the basis of the separation of the Big Three Expenses: Plant Specific Expenses, Plant Non-Specific Expenses, and Customer Operations Expenses.

²⁶¹ 47 C.F.R. §§ 69.305 - 69.306.

categories.²⁶² Similarly, direct expenses, where possible, were allocated to the category to which the expenses are related.²⁶³ Other expenses, including overheads, are allocated on the same basis as other investment, according to relative dollar amounts allocated to the various categories.²⁶⁴ The Commission has stated that initial allocation of overheads based on relative costs closely approximates an economically efficient method assuming that the elasticity of demands for the various outputs is not too dissimilar.²⁶⁵

203. Our Part 69 cost allocation rules, therefore, established category revenue requirements that included overheads allocated generally based on relative costs. Once these initial revenue requirements were established, our Part 69 rules permitted incumbent LECs to recover all costs assigned to each category through the rate elements established for that category.²⁶⁶ The incumbent LECs were permitted to assign overhead costs among the category rate elements in any way that is just and reasonable and not unreasonably discriminatory.²⁶⁷ We find that it is reasonable to have set overhead loadings for tandem switching consistently with the overhead loadings for local switching, and disagree with those parties that argue that there is no cost justification for the current allocation of overheads to the tandem switch. The direct costs of both kinds of switching are fundamentally the same in that both types of switches are comprised of ports and a switching matrix. By contrast, the direct costs of transmission consist of outside plant and circuit equipment and certain central office equipment. So long as consistent overhead loading methodologies were used across switching functions, and across transmission functions, we find that a reasonable cross-over is established for access customers between direct-trunked transport and tandem-switched transport. As competition develops, we can also rely on market forces to pressure incumbent LECs to allocate overheads among rate elements in economically efficient ways. We address issues concerning the use of special access prices to initialize direct-trunked transport rates in the interim rate restructure below in our discussion of the TIC.

204. We also decline to adopt a requirement for equalized overhead loadings. Overhead loadings are used to assign costs that do not qualify as the direct costs of a

²⁶² 47 C.F.R. § 69.309.

²⁶³ *E.g.*, 47 C.F.R. § 69.401.

²⁶⁴ 47 C.F.R. § 69.411.

²⁶⁵ *See, e.g., First Transport Order*, 7 FCC Rcd at 7030 n.91.

²⁶⁶ Since 1991, of course, the amounts recovered by price cap LECs have been subject to the price cap formulae. For all incumbent LECs, however, the relative allocation of overheads was originally established under cost-of-service regulation by the Part 69 cost allocation rules.

²⁶⁷ 47 U.S.C. §§ 201-202.

particular service. Reasonable definitions of direct costs often leave in the overhead category costs that might reasonably be deemed attributable to a given service. Thus, if all of a carrier's costs are classified as either "direct costs" or "overheads," the overhead category will likely include costs that should not necessarily apply uniformly to all services. As a result, we think it desirable not to adopt a policy that is too specific and too rigid, and that might not permit recognition of legitimate differences in costing definitions. Furthermore, in a competitive market, it would be mere happenstance if different products or services of a single company recovered uniform amounts of overhead. If we were to require equalized overhead loadings, we would be interfering with the market discipline on which we are primarily relying. We might, for example, prevent an entrant from realizing a reasonable profit opportunity based on a rigid overhead loading requirement.

205. In determining that our existing cost allocation rules reasonably allocated overhead to the initial tandem switching rate element and that we thus need not change the overheads currently attributed to tandem switching, we recognize that the D.C. Circuit in *CompTel* remanded the overhead issue to the Commission for further explanation and stated that the "cost allocation to the tandem switch" under the existing allocation rules "is, by the Commission's own estimation, grossly excessive."²⁶⁸ The court did not provide a cite for its characterization of the Commission's "estimation," but the court may have been referring to the agency's finding in the *First Transport Order* that "most, but not all, of the interstate tandem revenue requirement is attributable to tandem-switched transport."²⁶⁹ The Commission in that order also identified only one category of costs -- having to do with SS7 technology -- that appeared to be misallocated to tandem switching.²⁷⁰ Elsewhere in this Order, we have taken steps to address that misallocation of SS7 costs.²⁷¹ That correction having been made, we find that our existing rules reasonably allocate overhead to tandem switching for the reasons discussed above.

206. *Use of actual minutes of use rather than an assumed 9000 minutes of use.* For tandem-switched transport rates to be presumed reasonable, the interim rate structure requires incumbent LECs to set per-minute tandem-switched transport rates using a weighted average of DS1 and DS3 rates reflecting the relative numbers of circuits of each type in use in the tandem-to-end office link, and assuming circuit loading of 9000 minutes of use per month per voice-grade circuit.²⁷² Based on the record before us, we find that continued use of this 9000

²⁶⁸ *CompTel*, 87 F.3d at 533.

²⁶⁹ 7 FCC Rcd at 7062 (emphasis added).

²⁷⁰ *Id.*

²⁷¹ See Section III.D.2.

²⁷² *First Transport Order*, 7 FCC Rcd at 7036-37.

minutes of use assumption is no longer reasonable. Many commenters state that their actual traffic levels are substantially lower than 9000 minutes of use per month. Some incumbent LECs, particularly smaller LECs in rural areas, indicate that their actual traffic levels may be as low as 4000 minutes of use per month per voice-grade circuit. Accordingly, we conclude that rates for the common transport portion of tandem-switched transport must be set using a weighted average of DS1 and DS3 rates reflecting the relative numbers of DS1 and DS3 circuits in use in the tandem-to-end office link, and using the actual voice-grade switched access common transport circuit loadings, measured as total actual minutes of use, geographically averaged on a study-area-wide basis, that the incumbent LEC experiences based on the prior year's annual use. Incumbent LECs that deaverage their transport rates under our existing zone-based deaveraging rules²⁷³ may similarly deaverage the actual minutes of use figures that they use to calculate per-minute common transport rates.

207. Our assumption that voice-grade common transport circuits experience uniform loadings of 9000 minutes of use was initially based on 1983 data submitted in the original *MTS and WATS Market Structure* proceeding.²⁷⁴ In using this assumption as part of the interim rate structure, we stated that, "[t]he 9000 minutes per circuit per month standard serves as a convenient starting point in the context of a short-term, interim rate structure."²⁷⁵ We rejected at that time requests to develop a loading factor for small LECs that would reflect their actual, substantially lower circuit loading levels, stating that, "the benefits to be obtained from use of more individualized loading factors are outweighed by the benefits of the administrative convenience of a uniform loading factor and of avoiding verification difficulties."²⁷⁶ Given the new competitive paradigm embodied in the 1996 Act, we conclude that this assumption must give way to charges based on actual usage levels. The same conversion factor is not appropriate for each incumbent LEC.²⁷⁷ Because the 9000 minute assumption appears to have substantially overstated the actual traffic levels on many circuits, we now conclude that the current rate structure is unlikely to recover the full costs of common transport. Costs that properly should be recovered from common transport rate elements may currently be recovered through TIC revenues. Because the 9000 minutes of use loading factor has contributed, possibly significantly, to the level of the non-cost-based TIC, we find that continued use of this factor is no longer reasonable.

208. We therefore direct incumbent LECs to develop common transport rates based

²⁷³ See 47 C.F.R. § 69.123.

²⁷⁴ *MTS and WATS Market Structure*, Memorandum Opinion and Order, 97 F.C.C.2d at 862.

²⁷⁵ *First Transport Reconsideration Order*, 8 FCC Rcd at 5377.

²⁷⁶ *Id.*

²⁷⁷ U S West Reply at 32.

on the relative numbers of DS1 and DS3 circuits in use in the tandem-to-end office link, and using actual voice-grade circuit loadings, geographically averaged on a study-area-wide basis, that the incumbent LEC experiences based on the prior year's annual use. As discussed above, incumbent LECs that deaverage their transport rates under our existing zone-based deaveraging rules may similarly deaverage the actual minutes of use figures that they use to calculate per-minute common transport rates. As they develop transport rates based on actual minutes of use, we require incumbent LECs to use any increase in common transport revenues to decrease the TIC. These rates must be included in the LEC access tariff filings effective January 1, 1998.

209. We disagree with commenters arguing that the actual number of minutes a circuit is in use is irrelevant in a rate-setting context.²⁷⁸ These commenters argue that rates should be set based on forward-looking cost studies using Commission-determined "efficient" traffic levels, which they argue may be far higher than either the actual traffic levels, or the 9000 minutes of use assumption. As explained elsewhere, we are not taking the general approach of prescribing rates at forward looking economic costs, and we decline to make an exception in this instance. We are instead reforming access charges so that they more closely reflect the costs imposed by individual access customers. We also do not find it necessary to employ different principles here to ensure that incumbent LECs face sufficient incentives to design their networks to achieve efficient usage levels. LECs subject to price cap regulation already have only limited ability to raise rates to cover the costs of inefficient network designs, and are able to benefit from increased profits as their efficiency improves. In addition, as competition develops for local service, all incumbent LECs will face increasing pressure to provide service as efficiently as possible.

D. Transport Interconnection Charge (TIC)

1. Background

210. Under our Part 36 separations rules, certain costs of the incumbent LEC network are assigned to the interstate jurisdiction. The Part 69 cost allocation rules allocate these costs among the various access and interexchange services, including transport. In the *First Transport Order*,²⁷⁹ we restructured interstate transport rates for incumbent LECs. The restructure created facility-based rates for dedicated transport services based on comparable special access rates as of September 1, 1991, derived per-minute tandem-switched transport transmission rates from those dedicated rates, established a tandem switching rate, and established a TIC that initially recovered the difference between the revenues from the new facility-based rates and the revenues that would have been realized under the preexisting

²⁷⁸ See, e.g., WorldCom Reply at 35.

²⁷⁹ *First Transport Order*, 7 FCC Rcd 7006.

"equal charge rule." Under the equal charge rule, which arose from the AT&T divestiture of the BOCs,²⁸⁰ the BOCs were required to charge a per-minute, distance-sensitive rate for their transport offerings, regardless of how the underlying costs were incurred. The TIC was intended as a transitional measure that initially made the transport rate restructure revenue neutral for incumbent LECs and reduced any harmful interim effects on small IXCs caused by the restructuring of transport rates.²⁸¹ Approximately 70 percent of incumbent LEC transport revenues are generated through TIC charges, or approximately \$3.1 billion, according to USTA.²⁸²

211. The TIC is a per-minute charge assessed on all switched access minutes, including those of competitors that interconnect with the LEC switched access network through expanded interconnection. In the NPRM, we sought comment on how to reduce and eliminate the TIC in a manner that fosters competition and responds to the D.C. Circuit's *CompTel* remand. We sought comment on different methods of recovering the costs currently recovered by the TIC, including: (1) giving the incumbent LECs significant pricing flexibility and allowing market forces to discipline the recovery of the TIC, either alone or in conjunction with a phase-out of the TIC; (2) quantifying and correcting all identifiable cost misallocations and other practices that result in costs being recovered through the TIC; (3) combining the above approaches, for example, by addressing directly the most significant and readily-corrected misallocations, and then relying on a market-based approach to reduce what remains of the TIC; (4) providing for the termination of the TIC over a specified time, such as three years. We specifically sought comment on the possible reassignment of costs based on several explanations for the amounts in the TIC. The NPRM also sought comment on how the resolution of the issues surrounding the TIC would be affected by decisions on universal service, by the level of any residual costs, and by the adoption of either the market-based or prescriptive approach to access reform.

2. Discussion

212. As a per-minute charge assessed on all switched access minutes, including those of competing providers of transport service that interconnect with the LEC switched access network through expanded interconnection, the TIC adversely affects the development of competition in the interstate access market. First, as discussed more fully below, some of the revenues recovered through the TIC should be recovered through other switched access elements, including transport rates other than the TIC. The TIC, as currently structured, provides the incumbent LECs with a competitive advantage for some of their interstate

²⁸⁰ *United States v. American Tel. and Tel. Co.*, 552 F. Supp. 131.

²⁸¹ *First Transport Order*, 7 FCC Rcd at 7038-40.

²⁸² USTA Comments, Attachment 11.

switched access services because the charges for those services do not recover their full costs. At the same time, the incumbent LECs' competitors using expanded interconnection²⁸³ must pay a share of incumbent LEC transport costs through the TIC. Second, all other things being equal, the usage-rated TIC increases the per-minute access charges paid by IXC and long-distance consumers, thus artificially suppressing usage of such services and encouraging customers to explore ways to bypass the LEC switched access network, particularly through the use of switched facilities of providers other than the incumbent LEC that may be less economically efficient than incumbent LECs.

213. As we noted in the NPRM, our goal is to establish a mechanism to reduce and eliminate the TIC in a manner that fosters competition and responds to the D.C. Circuit's remand. To that end, we below identify several costs included in the TIC that should be reallocated to other access elements. We conclude, however, that on the present record, we cannot immediately eliminate the TIC entirely through these reassignments. We establish a mechanism that should substantially reduce the remaining TIC over a short, but reasonable period. In addition, we will in the near future refer a broad range of separations issues to a Joint Board for purposes of determining whether certain costs currently allocated to the interstate jurisdiction and recovered through the TIC more properly should be allocated to the intrastate jurisdiction. Finally, we establish the means by which the remaining TIC amounts are to be recovered.

a. Reallocation of costs in the TIC

214. The record in response to the NPRM clearly establishes that some costs in the TIC should be reallocated to other access elements. USTA, in conjunction with the incumbent LECs, submitted extensive comments setting forth an incumbent LEC consensus explanation of the causes for the sums in the TIC and estimates of the amounts associated with each explanation.²⁸⁴ While the current rulemaking record will not permit us to prescribe specific amounts that individual incumbent LECs must shift from the TIC to specific access rate elements, it does permit us to direct incumbent LECs to make certain cost reallocations and to require them to calculate the appropriate level of the reallocation in the supporting materials filed with the tariffs implementing the changes. Below, we discuss each of the identified causes of costs being included in the TIC and the extent to which costs should be reallocated to other access elements or categories.

²⁸³ Under our expanded interconnection rules and policies, competitors may interconnect with the incumbent LEC's facilities at the end office and supply their own transport. For a more detailed discussion of expanded interconnection, see *Expanded Interconnection with Local Telephone Company Facilities*, Memorandum Opinion and Order, 9 FCC Rcd at 5157.

²⁸⁴ USTA Comments, Attachments 10 and 11.

215. In this Order, we do not address certain rate structure issues relating to incumbent LECs subject to rate-of-return regulation. These LECs account for relatively few access lines.²⁸⁵ In some instances we direct price cap LECs to allocate costs to new rate elements that do not currently exist for rate-of-return LECs. We anticipate that we will propose similar rate elements in the forthcoming notice of proposed rulemaking addressing rate structure issues for incumbent LECs subject to rate-of-return regulation. Recognizing the expense and difficulties of modifying billing systems, we conclude that, until the rate structure issues are resolved for rate-of-return companies, the costs allocated to new elements and any residual TIC revenues may continue to be recovered by the incumbent LECs that are not subject to price cap regulation through per-minute TIC rates assessed on both originating and terminating access.

216. As their primary challenge to the incumbent LEC proposals to reallocate costs from the TIC, several parties argue that we should use forward-looking cost principles, or TELRIC, in determining how much to shift from the TIC to other access categories. Some parties advocating the use of such forward-looking cost standards assert that any costs not meeting these forward-looking cost standards should be eliminated from the TIC, and the incumbent LECs should not be permitted to recover those amounts. One group of consumer advocates proposes that we need not complete TELRIC studies before substantially reducing the TIC because BA/NYNEX has already proposed, as part of their access charge reform compromise plan, to eliminate up to 80 percent of the TIC pending a determination of "service related" costs by the Commission.²⁸⁶ We conclude, however, that immediate, widespread, prescriptive action is not necessary to pressure access rates toward market-based levels. Instead, we have determined that the most appropriate first step towards access reform is to make the current rate structure as economically efficient as possible within the limits of past ratemaking practices. These practices include setting rates based on interstate-allocated costs, subject to price cap constraints for most large carriers.²⁸⁷ As we discuss more fully in Section IV, below, we intend in the future to rely primarily on market forces, with a prescriptive backdrop, to move rates toward forward-looking economic cost. Therefore, because we currently are not prescribing a forward-looking cost method for access reform, we will require reassignment of certain TIC revenues based on an analysis of the separated,

²⁸⁵ As of December 31, 1995, larger, reporting local exchange carriers (*i.e.*, those with revenues of at least \$100 million) account for 92.6 percent of the total presubscribed lines. Federal Communications Commission, CCB, Industry Analysis Division, *Preliminary Statistics of Common Carriers*, Tbl. 2.3, Total Presubscribed Lines for all Local Exchange Companies (July 1996). Thus, small local exchange carriers account for 7.4 percent of the presubscribed lines.

²⁸⁶ See Letter from Brian R. Moir, Esq., Counsel to the International Communications Association, to William F. Caton, Acting Secretary, FCC, April 16, 1997; Letter from G.R. Evans, Vice President, Federal Regulatory Affairs, NYNEX, to William Caton, Acting Secretary, FCC, April 4, 1997.

²⁸⁷ See Section I, above.

booked costs already recovered through the TIC.

217. *SS7 costs.* Based on the record before us, we conclude that SS7 costs that are recovered by the TIC should be removed from the TIC and allocated to the traffic-sensitive basket. The record demonstrates that these costs are related to the signalling function and should be recovered through local switching or signalling rate elements. The costs to be removed are the costs of signal transfer points (STPs) that were included in the tandem-switching category for jurisdictional separations purposes and the cost of the link between the end office and the STP that is used only for SS7 signalling. The incumbent LECs shall distribute the STP costs reallocated from the TIC to local switching or, if the incumbent LEC has established an unbundled signalling rate structure, to appropriate SS7 elements, in tariffs filed to be effective January 1, 1998. The incumbent LEC shall distribute the costs of the link between the local switch and the STP that are included in the TIC to local switching or, if provided, to the call-setup charge. This change means that the incumbent LECs' SS7 prices will reflect the full cost of providing SS7 signalling and provide the proper price signals to developers of new services utilizing SS7. We decline to adopt the suggestion of US West that we reallocate SS7 costs to services in the trunking basket. As we conclude below in conjunction with our consideration of the SS7 rate structure, the costs being reallocated are appropriately included in the traffic-sensitive basket.

218. *Tandem switching costs.* Several parties argue that the tandem switching rate must be set to reflect the cost of providing the service. In the preceding section, we modified the existing tandem-switched transport rate structure and revised certain of the pricing rules applicable to elements of tandem-switched transport to establish a cost-based structure and to respond to the court remand in *CompTel v. FCC*. The revised pricing rules applicable to tandem switching include two separate elements -- a flat-rated port charge to be assessed when a port is dedicated to a single customer and a per minute charge to be assessed for the traffic-sensitive portion of the tandem switch. In three approximately equal annual steps, beginning January 1, 1998, we require reallocation of all tandem-switching revenues currently allocated to the TIC to the tandem-switching rate element. As a result of this modification, the total revenues recovered through the tandem switching rates will, subject to price cap limits, increase to the level of costs assigned to the interstate jurisdiction by the separations process at the end of our plan. Equivalent changes to the amounts recovered through the TIC must be made to ensure that over-recovery does not occur. After this adjustment, in accordance with the *CompTel* remand, and to facilitate the development of economically-efficient competition for tandem-switching services, the TIC will not recover any costs that are attributable to tandem switching.

219. *DS1/voice-grade multiplexer costs.* We conclude that the costs of DS1/voice-

grade multiplexing²⁸⁸ associated with analog local switches should be reassigned to the newly created trunk ports category within the traffic sensitive basket. Analog switches require a voice-grade interface on the trunk-side of the end office switch. Our separations rules assign the costs of DS1/voice-grade multiplexers to the cable and wire category. The costs of these multiplexers associated with switched access were originally included in the Part 69 transport revenue requirement. The revised transport rules adopted in 1992 established transport rates based on DS1 switch interfaces, and thus the rates did not include the costs of DS1/voice-grade multiplexers. The costs of the DS1/voice-grade multiplexers are, therefore, included in the TIC. Therefore, the costs associated with DS1/voice-grade multiplexing associated with analog local switches should be reassigned to the trunk ports category within the traffic sensitive basket, to be considered in conjunction with the development of appropriate rates for trunk ports, in tariffs filed to become effective January 1, 1998. This will make recovery of the costs necessary to use an analog switch port equivalent to the recovery of digital switch port costs, in which the multiplexing function is included in the port itself.

220. *Host/remote trunking costs.* We agree with the parties that allege that the costs of host/remote links not recovered by the current tandem-switched transport rates should be included in the tandem-switched transport category. The record reflects that the rates for carrying traffic between the host and a remote switch, for which the tandem-switched transport rates, both fixed and per mile, are assessed, do not recover the full costs of this transmission service. These charges for host/remote service are in addition to charges that an IXC is assessed for either direct-trunked transport, or tandem-switched transport, between the serving wire center and the host end office. This reassignment will ensure that these transmission costs will be recovered from those using the transmission facilities, and must be included in tariff filings to become effective January 1, 1998. We reject NECA's suggestion that we include these costs in local switching on the theory that remote facilities are installed when it is more cost effective to do that than it is to install a new switch at the remote location. That would require all users of local switching to pay for these host/remote transmission facilities. Imposing the host/remote transmission cost on the users of host/remote facilities is more cost causative and will facilitate the development of access competition.

221. *Additional multiplexers associated with tandem switching.* Based on the record before us, we conclude that an IXC's decision to utilize tandem-switched transport imposes the need for additional multiplexing on each side of the tandem switch. The revised tandem-switched transport rate structure provides for these multiplexers. For price cap LECs, recovery of the costs associated with the multiplexers should, therefore, be shifted from the TIC to the tandem-switched transport category as of January 1, 1998, as explained in Section III.C. This realignment of costs helps ensure that tandem-switched transport rates are cost based, as required by the *CompTel* decision, and facilitates competitive entry for those

²⁸⁸ DS1 transport trunks need to be demultiplexed into individual voice-grade circuits before being switched at analog end office switches. DS1/voice-grade multiplexers perform this function.

services.

222. *Use of actual minutes of use rather than an assumed 9000 minutes of use.* The data in the record provided by USTA and other incumbent LECs support a finding that for many incumbent LECs, especially those serving less densely populated areas, the assumed 9000 minutes of use per circuit is far higher than actual minutes of use. A tandem-switched transport rate derived by dividing the cost of a circuit by an assumed usage level does not recover the costs of the circuit when the actual usage is below that level. The costs not recovered through tandem-switched transport rates based on our current 9000 minutes of use assumption are being recovered through the TIC. In the preceding section, we conclude that the pricing of tandem-switched transport transmission should be based on the actual average minutes of use on the shared circuits and that such pricing would produce a cost-based rate. Accordingly, costs should be removed from the TIC equal to the additional revenues realized from the new tandem-switched transport rates when it is implemented in accordance with the rate structure established in Section III.C.

223. *Central Office Equipment (COE) Maintenance Expenses.* The record in this proceeding demonstrates that allocating COE maintenance expenses on the basis of combined COE investment produces misallocations of these expenses among access services. USTA correctly traces this problem to the Part 36 separations rules; the problem is then tracked in our Part 69 cost allocation rules. Under our current rules, COE maintenance expenses are allocated among separations categories, and then access services, based on the *combined* investment in the three categories of the COE plant being maintained -- Central Office Switching, Operator Systems, and Central Office-Transmission -- rather than on the *individual* investment in each of those categories. As a result, a portion of the expense of maintaining local switches and operator systems is recovered in rates for common line, transport, and special access even though those do not utilize any local switching or operator systems.²⁸⁹ Correcting this misallocation through changes to Part 36 would require referral to a Federal-State Joint Board and therefore could not be done in this proceeding. The misallocation can, however, be corrected by modifying section 69.401 of our rules to provide that the COE expenses assigned to the interstate jurisdiction should be allocated on the basis of the allocation of the specific type of COE investment being maintained, and we make the correction here. This will shift some costs to local switching from common line and transport, and result in more cost-based rates. This shift must be reflected in tariff filings to be effective January 1, 1998. We also plan to refer the underlying separations issue to a Joint Board for its recommendation.

224. *Separations-related causes.* Several incumbent LECs argue that a substantial portion of the TIC can be traced to decisions separating costs between the interstate and intrastate jurisdictions. As explained by USTA and incumbent LECs, the largest portion of

²⁸⁹ BellSouth Comments at 78.

the amounts recovered by the TIC results from the differences in the jurisdictional separations allocation procedures for message (*i.e.*, switched) services and special access services, and from the consequent effects of the Commission's decision to use special access rates to establish transport transmission rates when the Commission restructured transport rates. The current jurisdictional separations process separates the costs of message services based on average cost factors; costs of DS1 and DS3 special access services, in contrast, are separated using unit costing methods. Because of the differences in these separations methodologies, special access-derived rates reflect the costs of transport in areas in which special access services are most often offered (urban, higher density areas), and do not reflect the costs of transport in rural, less dense areas. Another alleged separations-related cause of the amounts in the TIC is the use of circuit termination counts in the separations process to allocate costs between special access and switched services before they are allocated between federal and state jurisdictions. This practice appears to allocate costs disproportionately to switched services. The incumbent LECs assert that the use of direct costing methods would assign many of these costs to local and intrastate services and to interstate services other than transport.²⁹⁰

225. We find that some of the remaining costs recovered by the TIC result from at least two different causes: (1) the separations process assigned costs differently to private line and message (*i.e.*, switched) services, resulting in costs allocated to special access being lower than those allocated to the message category, even though the two services use comparable facilities -- rates for direct-trunked transport and the transmission component of tandem-switched transport, which are switched services, therefore, do not recover the full amount of separated costs; and (2) the cost of providing transport services in less densely populated areas is higher than that reflected by transport rates derived from those special access rates. The existing record is inadequate to permit us to identify more costs that could clearly be reallocated to interstate services. Furthermore, the record indicates that some residual TIC costs may be appropriately allocated to intrastate services. Because we will soon be considering a Notice of Proposed Rulemaking to refer to a Joint Board questions regarding separations, we will leave the determination of the ultimate allocation of the remaining costs recovered by the TIC until the conclusion of that proceeding.

226. Incumbent LEC parties generally contend that special access rates provided an acceptable initializing pricing level for transport transmission services in geographic areas where significant amounts of special access services are provided, but do not reflect the cost of providing transport service in low-density areas in which special access services are not as

²⁹⁰ If the Joint Board on Jurisdictional Separations takes action to address this issue, we will then consider what corresponding reallocations should be made.

widespread.²⁹¹ We recognize that rates for direct-trunked transport and for the transmission component of tandem-switched transport, because they were established based on special access rates, do not reflect the full cost of providing transport services in higher-cost, rural areas. Because none of our other facilities-based rate elements recover costs reflecting this differential, we conclude that the additional costs of rural transport currently are recovered through the TIC. On the basis of the current record, however, we are unable to quantify these cost differentials. Moreover, based on differences in network architectures, population density variations, topography, and other factors that vary among LECs, we find that transport cost differentials are also likely to vary greatly among incumbent LECs and among study areas served by the same incumbent LEC. We do not believe, however, that we need to quantify these differences in this Order to ameliorate this distortion caused by the current rate structure, because the requirements set forth in the next paragraph will address this issue.

227. If an incumbent LEC deaverages its transport rates, either by implementing zone-density pricing under our rules²⁹² or by waiver, the underlying predicate is that the costs in low-density areas are higher than those in higher-density areas. The rates it sets for the different areas should reveal a cost differential of at least that magnitude between low-density and high-density areas served by that LEC. When an incumbent LEC deaverages transport rates, therefore, we require it to reallocate additional TIC amounts to facilities-based transport rates, reflecting the higher costs of serving lower-density areas. The reallocation we require here will permit incumbent LECs, in deaveraging their transport rates, to achieve cost-based transport rates while ensuring that a significant portion of costs reflecting the geographic cost difference are removed from the TIC. Each incumbent LEC must reallocate costs from the TIC each time it increases the deaveraging differential. We find that any incumbent LEC that has already deaveraged its rates must move an equivalent amount from the TIC to its transport services. Under any of these scenarios, the costs shall be reassigned to direct-trunked transport and tandem-switched transport categories or subcategories in a manner that reflects the way deaveraging is being implemented by the incumbent LEC. We do not require incumbent LECs that average their transport rates to make a similar reallocation at this time, because of the difficulty in determining the amount to be reallocated.

228. *Price Cap Implementation issues.* For purposes of phasing out the TIC, we are keeping the TIC in its own service category in the trunking basket. The reallocation of costs from the TIC to other access elements will require price cap LECs to adjust their price cap indices (PCIs) and service band indices (SBIs) to reflect the new revenue streams. To accomplish these reallocations, price cap LECs shall make exogenous adjustments to their PCIs and SBIs that are targeted to the indices in question, rather than applying the exogenous

²⁹¹ See, e.g., USTA Comments at 65; GTE Comments at 38; Aliant Comments at 3. See also Cable & Wireless Comments at 21-22.

²⁹² 47 C.F.R. § 69.123.