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DIRECTORATE FOR FINANCIAL, FISCAL AND ENTERPRISE AFFAIRS COMPETITION COMMITTEE

Working Party No. 2 on Competition and Regulation

ROUNDTABLE ON MEASURING COSTS OF ACCESS SERVICES

-- The United States --

This document is submitted by the Delegation of the United States to the Working Party No. 2 FOR DISCUSSION at its next meeting on 7 June 2002.

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"MEASURING COSTS FOR ACCESS PRICING" ROUNDTABLE

- 1. The United States regulatory framework established for access pricing is influenced by the fact that regulatory responsibilities are divided between federal and state level regulators. Oversimplifying somewhat, there are three basic access pricing regimes in the United States, which are discussed in somewhat more detail in Attachment 1. First, under the Telecommunications Act of 1996, local exchange carriers that originate local calls are required to compensate the terminating local exchange carrier for the cost of transporting and terminating the call to the called party. For these two-way access arrangements, the federal regulator, the Federal Communications Commission is authorized to establish general pricing rules or guidelines, but state regulators set the actual rates for transport and termination. Second, the Federal Communications Commission has exclusive jurisdiction to regulate interstate access charges. These interstate access charges are the charges that local exchange carriers assess on interexchange carriers for originating and terminating interstate long-distance calls. Parts of a recent FCC order are included in Attachment 2, which provides a short discussion of the history of interstate access charges. Finally, state regulators have exclusive jurisdiction over *intrastate* access charges -i.e. the charges that local exchange carriers assess on long-distance carriers for originating and terminating long-distance calls that originate and terminate within a single state.
- 2. Not included in the survey questions are queries about transparency. Whatever the cost methodology adopted by the regulator, we note that the specific methodology adopted and the process for determining specific rates should be sufficiently transparent that the regulator and interested parties can render an assessment of its logic. Forward-looking computer cost models are of increasing interest to telecommunications regulators worldwide, because they generally are more transparent than cost studies prepared by a particular party. One example of such a cost model is available on the FCC website.¹
- 3. The questions raised for the Roundtable appear to assume a calling-party-pays access regime, whether one-way or two-way, where the calling party's network pays the other network to terminate a call. It also appears to assume that access charges will be based on average cost for a particular carrier. In the United States, we recognize that intercarrier compensation regimes based on these assumptions are likely to generate problems such as regulatory arbitrage opportunities, terminating monopoly access problems, distorted investment decisions and distortion of efficient competition.² The FCC is actively wrestling with different theories about how costs can be apportioned, recognizing that networks have two opportunities to recover their costs from other carriers and from their own subscribers. Recently, the FCC issued a

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http://www.fcc.gov/wcb/tapd/hcpm/welcome.html

For examples of problems of regulatory arbitrage in the U.S., please see "In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996: Intercarrier Compensation for ISP-Bound Traffic," FCC 01-131, adopted April 18, 2001 [http://ftp.fcc.gov/Bureaus/Common_Carrier/Orders/2001/fcc01131.doc]; and "In the Matter of Access Charge Reform: Reform of Access Charges Imposed by Competitive Local Exchange Carriers," adopted April 26, 2001, FCC 01-146, [http://ftp.fcc.gov/Bureaus/Common_Carrier/Orders/2001/fcc01146.doc]

proposal suggesting that bill-and-keep may be one approach that could go some distance toward resolving some of these issues.³ The views of fellow delegates on these matters would be welcome.

4. Two important telecommunications cases have recently been decided by the federal courts in the U.S. In Verizon Communications, Inc. v. FCC, No. 00-511 (decided May 13, 2002), the U.S. Supreme Court resolved a long-running dispute in the appellate courts by upholding the FCC's rules mandating use of the Total Element Long-Run Incremental Cost (TELRIC) methodology for pricing of interconnection and unbundled network elements (UNEs) provided by incumbent carriers on a wholesale basis to competitors under Sections 251 and 252 of the 1996 Telecommunications Act. This decision ends substantial uncertainty about the FCC's pricing rules, which had nonetheless remained in effect pending the Supreme Court's decision, and creates greater potential for uniformity in wholesale pricing of interconnection and UNEs, though responsibility for determining prices using the FCC's methodology still lies with the state regulatory commissions, so that some variations are likely to continue in practice. However, at the same time, in *United States Telecom Association v. FCC*, No. 00-1012 (decided May 24, 2002), the U.S. Court of Appeals for the District of Columbia Circuit generated some new uncertainty by overturning the FCC's 1999 rules requiring the incumbent carriers to lease UNEs to their competitors, and to unbundle the high-frequency portion of the copper loop so that competitors can offer Digital Subscriber Line (DSL) broadband services without having to take the entire unbundled loop and also become the customer's voice service provider. The court found the FCC's analysis of whether competitors would be impaired without access to particular UNEs to be inadequate, finding that the FCC had not looked closely enough at effects in specific markets in choosing to use for the most part uniform nationwide rules, and had not adequately considered the costs of imposing unbundling. The court of appeals did not attempt to decide for itself how much unbundling should be required, but returned the case to the FCC for reconsideration.

[&]quot;In the Matter of Developing a Unified Intercarrier Compensation Regime." Notice of Proposed Rulemaking. FCC 01-132. Adopted April 19, 2002. As part of the FCC's Office of Plans and Policy working paper series, Jay Atkinson and Patrick DeGraba have both written on intercarrier compenstation regimes. While they do not reflect the views of the FCC, they do put forward new approaches on the subject. Patrick DeGraba, "Bill and Keep at the Central Office as the Efficient Interconnection Regime," December 2000. Jay Atkinson and Christopher Barnekov, "A Competitively Neutral Approach to Interconnection," December 2000. Both are available at http://www.fcc.gov/opp/workingp.html.

ATTACHMENT 1

"In the Matter of Developing a Unified Intercarrier Compensation Regime." Notice of Proposed Rulemaking. FCC 01-132. Adopted April 19, 2002. Paragraphs 5 –10. This excerpt provides an overview of access pricing regimes in the United States. [http://ftp.fcc.gov/Bureaus/Common_Carrier/Orders/2001/fcc01132.doc]

- 5. Interconnection arrangements between carriers are currently governed by a complex system of intercarrier compensation regulations. These regulations treat different types of carriers and different types of services disparately, even though there may be no significant differences in the costs among carriers or services. The interconnection regime that applies in a particular case depends on such factors as: whether the interconnecting party is a local carrier, an interexchange carrier, a CMRS [cellular mobile radio service] carrier or an enhanced service provider; and whether the service is classified as local or long-distance, interstate or intrastate, or basic or enhanced.
- 6. Existing intercarrier compensation rules may be categorized as follows: *access charge rules*, which govern the payments that interexchange carriers ("IXCs") and CMRS carriers make to LECs [local exchange carriers] to originate and terminate long-distance calls; and *reciprocal compensation rules*, which govern the compensation between telecommunications carriers for the transport and termination of local traffic. Such an organization is clearly an oversimplification, however, as both sets of rules are subject to various exceptions (*e.g.*, long-distance calls handled by ISPs using IP telephony are generally exempt from access charges under the enhanced service provider (ESP) exemption).⁴
- 7. The access charge rules can be further broken down into *interstate* access charge rules that are set by this Commission, and *intrastate* access charge rules that are set by state public utility commissions. Both the interstate and intrastate access charge rules establish charges that IXCs must pay to LECs when the LEC originates or terminates a call for an IXC, or transports a call to, or from, the IXC's point of presence ("POP"). CMRS carriers also pay access charges to LECs for CMRS-to-LEC traffic that is not considered local and hence not covered by the reciprocal compensation rules. Other customers carrying traffic to or from points within an exchange area to points outside the exchange area may also pay access charges to the LEC. These access charges may have different rate structures—*i.e.*, they may be flat-rated or traffic-sensitive. In

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The phrases "Internet telephony" and "Internet Protocol telephony" ("IP telephony") refer to similar, but distinct concepts. IP telephony involves the provision of a telephony service or application using Internet Protocol. IP telephony may be provided over the public Internet or over a private IP network. In contrast, Internet telephony is a subset of IP telephony that is distinguished by the fact that it is provided over the public Internet and uses the domain-name system for routing. *See*, *e.g.*, In the Matter of Federal-State Joint Board on Universal Service, *Report to Congress*, 13 FCC Rcd. 11501, 11541-51 ¶ 83-104 ("*Stevens Report*") (discussing Internet and IP telephony); HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 378 (14th ed. 1998). For simplicity, the text will refer generally to the broader concept of IP telephony.

IP telephony can also be categorized by the equipment used to provide the service. For example, IP telephony may be provided using two personal computers ("computer-to-computer" IP telephony); the service may be provided between a computer and a standard telephone using a single IP gateway ("computer-to-phone" IP telephony); or it may be provided using two standard telephones that connect through two IP gateways ("phone-to-phone" IP telephony). *See, e.g., Stevens Report,* 13 FCC Rcd. at 11543-44 ¶¶ 87-89.

general, where a long-distance call passes through a LEC circuit switch, a per-minute charge is assessed. In order to keep local telephone rates low, access charges have traditionally exceeded the forward-looking economic costs of providing access.⁵

- 8. Section 251(b)(5) imposes on all LECs a "duty to establish reciprocal compensation arrangements for the transport and termination of telecommunications." Under current Commission rules interpreting the reciprocal compensation obligations of *incumbent* LECs, the calling party's LEC must compensate the called party's LEC for the additional costs associated with transporting the call from the carriers' interconnection point to the called party's end office, and for the additional costs of terminating the call to the called party. The Commission's rules further require that the charges for both transport and termination must be set at forward-looking economic costs. The Commission's rules permit a state public utility commission ("PUC") to impose a bill-and-keep arrangement, provided that the traffic exchanged between the interconnecting carriers is relatively balanced and neither party has rebutted the presumption of symmetric rates.
- 9. Existing access charge rules and the majority of existing reciprocal compensation agreements require the calling party's carrier, whether LEC, IXC or CMRS, to compensate the called party's carrier for terminating the call. Hence, these interconnection regimes may be referred to as "calling-party's-network-pays" (or "CPNP"). Such CPNP arrangements, where the calling party's network pays to terminate a call, are clearly the dominant form of interconnection

See In the Matter of Federal-State Joint Board on Universal Service, Report and Order, 12 FCC Rcd. 8776 (1997) ("Universal Service Order"). See also GERALD W. BROCK, TELECOMMUNICATION POLICY FOR THE INFORMATION AGE: FROM MONOPOLY TO COMPETITION 189-93 (1994); PETER W. HUBER, MICHAEL K. KELLOGG & JOHN THORNE, FEDERAL TELECOMMUNICATIONS LAW 552 (2d ed. 1999). Following the passage of the 1996 Act, the Commission, in addition to implementing the local competition provisions and reforming existing universal service subsidies, also initiated a proceeding to reform access charges. Specifically, in May 1997, the Commission concluded that it would, in the first instance, allow market forces to drive interstate access charges to economic cost. As a back-stop, however, the Commission ordered price cap ILECs to file forward-looking economic cost studies on or before February 8, 2001. See In the Matter of Access Charge Reform, First Report and Order, 12 FCC Rcd. 15982, 16003 ¶ 48 (1997) ("Access Charge Reform"). See also In the Matter of Access Charge Reform, CC Docket No. 96-262, Sixth Report and Order, 15 FCC Rcd. 12962 (2000) ("CALLS Order") (adopting CALLS proposal and allowing price cap ILECs to opt out of CALLS in anticipation of completion of cost study proceeding).

⁶ 47 U.S.C. § 251(b)(5). In addition, section 252(d)(2) imposes additional requirements on reciprocal compensation agreements involving an ILEC. 47 U.S.C. § 252(d)(2).

⁴⁷ U.S.C. § 252(d)(2)(A). See also In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd. 15499, 16024-25 ¶¶ 1056-59 (1996) ("Local Competition Order"), aff'd in part and vacated in part sub nom. Competitive Telecommunications Ass'n v. FCC, 117 F.3d 1068 (8th Cir. 1997) and Iowa Utils. Bd. v. FCC, 120 F.3d 753 (8th Cir. 1997), aff'd in part and remanded, AT&T v. Iowa Utils. Bd., 525 U.S. 366 (1999). In the Local Competition Order, the Commission also concluded that "the new transport and termination rules should be applied to LECs and CMRS providers." Local Competition Order, 11 FCC Rcd. at 16016-17 ¶ 1043.

⁸ 47 C.F.R. § 51.705. *See also Local Competition Order*, 11 FCC Rcd. at 16054-58 ¶¶ 1111-18. Carriers are permitted to receive compensation only for "the traffic-sensitive components of local switching," and not for local loop costs, which are not considered traffic sensitive. *Local Competition Order*, 11 FCC Rcd. at 16024-25 ¶ 1057.

Local Competition Order, 11 FCC Rcd. at 16054-58 ¶¶ 1111-18; 47 U.S.C. § 252(d)(2)(B). For purposes of this NPRM, we define a bill-and-keep arrangement as an intercarrier compensation mechanism in which there are no termination charges—i.e., a mechanism in which the called party's carrier is not allowed to recover any of the cost of the called party's loop or local switch from an interconnecting carrier. As will become clear below, the treatment of transport costs may vary.

regulation in the United States and abroad. An alternative to such CPNP arrangements, however, is a "bill-and-keep" arrangement. Because there are no termination charges under a bill-and-keep arrangement, each carrier is required to recover the costs of termination (and origination) from its own end-user customers. As previously noted, under the Commission's rules, state PUCs may impose bill-and-keep arrangements on interconnection agreements involving an ILEC, provided that the traffic between the carriers is relatively balanced and neither carrier has rebutted the presumption of symmetrical rates. In addition, bill-and-keep arrangements are found in interconnection agreements between adjacent ILECs. Finally, some Internet backbones have voluntarily negotiated interconnection agreements that resemble bill-and-keep arrangements.

10. Finally, when entities connect to telephone networks as end users rather than as interconnecting networks, they do not pay usage-sensitive access or reciprocal compensation charges. For example, residential customers typically pay flat-rated subscription charges (or occasionally, local measured service rates), while business customers typically pay a flat monthly charge, plus a per-minute or per-call charge for originating calls. ESPs, including ISPs, are charged pursuant to the same rules that apply to local end users and are exempt from access and reciprocal compensation charges, even though the calls they send and receive generally travel outside the local service area. We also note that paging networks, which primarily *receive* traffic, are treated as networks under our existing reciprocal compensation rules. Payphone companies, which primarily *originate* traffic, are treated as end-user customers.

JEAN-JACQUES LAFFONT & JEAN TIROLE, COMPETITION IN TELECOMMUNICATIONS 4-8 (2000).

As discussed below, there are a number of alternative ways to allocate transport costs under a bill-and-keep arrangement. *See infra* Section III.B.2.

See Comments of Time Warner Communications Holdings Inc., CC Docket No. 96-98 at 100 (May 16, 1996); Comments of American Communications Services, Inc., CC Docket No. 96-98 at 23 (May 16, 1996).

¹³ See Michael Kende, The Digital Handshake: Connecting Internet Backbones at 4-8 (Federal Communications Commission, OPP Working Paper No. 32, Sept. 2000).

The Commission has stated that the reciprocal compensation provisions of the 1996 Act, 47 U.S.C. § 251(b)(5), do not apply to ISP-bound traffic, but has allowed the states to require reciprocal compensation under existing interconnection agreements. In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic, *Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68*, 14 FCC Rcd. 3689, 3703-06 ¶¶ 21-27 (1999). The D.C. Circuit reversed and remanded it to the Commission. *See Bell Atlantic Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000). In an order released today, the Commission adopts an interim measure that aims to move away from the current reciprocal compensation regime for ISP-bound traffic, over a three-year period. *See ISP Intercarrier Compensation Order, supra* note 3.

¹⁵ Local Competition Order, 11 FCC Rcd. at 16043 ¶ 1092.

¹⁶ *Id.* at 15936 ¶ 876.

ATTACHMENT 2

"In the Matter of Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Low-Volume Long-Distance Users, Federal-State Joint Board On Universal Service." FCC 00-193. Adopted May 31, 2000. Paragraphs 5 – 33. This excerpt provides an overview of the interstate regime.

[http://ftp.fcc.gov/Bureaus/Common_Carrier/Orders/2000/fcc00193.doc]

Access Charges. Overview

5. 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, the Bell Operating Companies (BOCs), 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, ¹⁷ 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 for intrastate services regulated by the state commissions. 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.

At first, there was no formal system of tariffed charges to determine how the BOCs and the hundreds of unaffiliated, independent local exchange carriers (LECs) would recover the costs allocated to the interstate jurisdiction by the separations rules. Instead, AT&T remitted to these companies the amounts necessary to recover their allocated interstate costs, including a return on allocated capital investment.

In the 1970s, MCI and other interexchange carriers (IXCs) began to provide switched long-distance service in competition with AT&T. AT&T, however, still maintained monopolies in the local markets served by its local subsidiaries, the BOCs. The BOCs owned and operated the telephone wires that connected the customers in their local markets. Other independent (non-BOC) 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.

6. 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

¹⁷ A local loop is the connection between the telephone company's central office building and the customer's premises.

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. 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, including AT&T, paid the BOCs for the service of providing the necessary access to end users.

- 7. 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. 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.
- 8. 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, and revenues in accordance with accounting rules set forth in our regulations. Second, the rules divide these costs between those associated with regulated telecommunications services and those associated with nonregulated activities. Third, the separations rules determine the fraction of the incumbent LEC's regulated expenses and investment that should be allocated to the interstate jurisdiction. 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 of our rules 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.
- 9. 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

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).

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

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.

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

²³ 47 C.F.R. §§ 69.1-69.731.

these traffic sensitive 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.²⁴

10. In promulgating its access charge rules, the Commission has recognized that, to the extent possible, costs of interstate access should be recovered in the same way that they are incurred. This approach is consistent with principles of cost-causation and promotes economic efficiency. Thus, non-traffic sensitive costs should be recovered through fixed, flat-rated fees. Similarly, traffic sensitive costs should be recovered through corresponding per-minute access rates. The Commission's rules, however, are not fully consistent with this goal. In particular, because the Commission has taken a cautious approach in addressing affordability concerns, it has taken measured steps toward this goal by limiting the amount of the allocated interstate cost of a local loop that is assessed directly on residential and business customers as a flat monthly charge.²⁵

11. Through the end of 1990, access revenues were governed by "rate-of-return" regulation. Under rate-of-return regulation, incumbent LECs calculate the specific access charge rates using projected costs and projected demand for access services. An incumbent LEC is limited to recovering its costs plus a prescribed return on investment, and is potentially obligated to provide refunds if its interstate rate of return exceeds the authorized level. Regulatory structures that base a firm's allowable rates directly on the reported costs of the individual firm can create perverse incentives, because reimbursing the firm's costs removes the incentive to reduce costs and improve productive efficiency.

12. Consequently, in 1991 we implemented a system of price cap regulation that altered the manner in which the largest incumbent LECs establish their interstate access charges. While most rural and small LECs remained subject to rate-of-return rules, generally the largest incumbent LECs²⁷ are now subject to price cap regulations. The Commission's price cap plan for LECs was intended to avoid the perverse incentives of rate-of-return regulation in part by divorcing the annual rate adjustments from the performance of each individual LEC, and in part by adjusting the cap based on actual experience, only with a considerable lag.

See, e.g., Access Charge Reform, CC Docket No. 96-262, First Report and Order, 12 FCC Rcd 15982, 16010-11 (1997) (Access Charge Reform Order), aff'd sub. nom., Southwestern Bell v. FCC, 153 F.3d 523 (8th Cir. 1998).

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).

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.

The Commission required price cap regulation for the BOCs and GTE, and permitted other LECs to elect price cap regulation voluntarily, provided that all their affiliates also convert to price cap regulation and that they withdraw from the pools administered by the National Exchange Carrier Association (NECA). Policy and Rules Concerning Rates for Dominant Carriers, CC Docket No. 87-313, Second Report and Order, 5 FCC Rcd 6786, 6818-20 (1990) (*LEC Price Cap Order*).

- 13. Briefly stated, rate-of-return 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.
- 14. By contrast, although the access charges of price cap LECs originally were set at the 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 permitted to earn returns significantly higher, or potentially lower, than the prescribed rate of return that incumbent LECs are allowed to earn under rate-of-return 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.²⁸ Individual companies retain an incentive to cut costs and to produce efficiently, because in the short run their behavior has no effect on the prices they are permitted to charge, and they are able to keep any additional profits resulting from reduced costs. In this way, price caps act as a transitional regulatory scheme until the advent of actual competition makes price cap regulation unnecessary.²⁹
- 15. 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

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.

Price Cap Performance Review for Local Exchange Carriers, Second Further Notice of Proposed Rulemaking in CC Docket No. 94-1, 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*).

or some price cap LECs were required to "share," or return to ratepayers, earnings above specified levels. This sharing requirement was eliminated in 1997.³⁰

16. With the passage of the 1996 Act, the Commission determined that it was necessary to make substantial revisions to access charges. In the *Access Charge Reform Order*, the Commission instituted reforms that changed the manner in which price cap LECs recover access costs by aligning the rate structure more closely with the manner in which costs are incurred.³¹ Prior to such reform, some costs that did not vary with usage, in particular the local loop, were not wholly recovered through flat charges. The SLC, which is a flat charge that recovers the interstate portion of local loop costs from an end user, is subject to a cap that, particularly for residential customers, is often below the level that would enable the LEC to recover the entire interstate cost of the local loop. Prior to the *Access Charge Reform Order*, a price cap LEC recovered the shortfall created by the SLC caps wholly through the carrier common line (CCL) charge, which is a per-minute charge assessed on the end user's IXC whenever the end user placed an interstate long-distance call. The IXC, in turn, passed this charge on to its customers in the form of higher rates. By making the end-user rate for long-distance calls more expensive, the CCL charge artificially suppresses demand for interstate long-distance services.

17. The Access Charge Reform Order also created the PICC, a flat per-line charge imposed by a price cap LEC on an end user's IXC, in order to phase out CCL charges. The Commission sought to establish economically efficient rate structures to encourage the development of efficient competition, thereby enhancing consumer welfare. PICCs have markedly reduced the per-minute recovery of local loop costs and raised flat recovery of non-traffic sensitive costs. Unfortunately, the advent of PICCs has also created market inefficiencies. Because IXCs have recovered the residential PICCs on a per-account basis, residential customers with only one line pay the same as those with two or more lines, and so pay more than the costs IXCs have incurred for providing them service. In addition, because PICCs are not assessed directly on consumers, but instead are subjected to averaging and mark-ups by the IXCs, consumers are prevented from making head-to-head comparisons among local service providers.

18. In the *Access Charge Reform Order*, the Commission also stated that its primary method for bringing about cost-based access charges was by letting competition establish efficient rates.³² The Commission anticipated creating, in a later stage of access reform, a mechanism whereby rate regulation of services would be lessened, and eventually eliminated, as competition developed.³³ To the extent that competition did not fully achieve the goal of moving access rates toward costs, the Commission reserved the right to adjust rates in the future to bring them into line with forward-looking costs.³⁴ To assist in that effort, the Commission said it would require price cap LECs to start forward-looking cost studies by no later than February 8, 2001 for all services then remaining under price caps.³⁵

Price Cap Performance Review for Local Exchange Carriers, Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262, 12 FCC Rcd 16642, 16700 (1997) (1997 Price Cap Review Order), aff'd in part, rev'd in part, USTA v. FCC, 188 F.3d 521 (D.C. Cir. 1999).

³¹ Access Charge Reform Order, 12 FCC Rcd at 16007-33.

³² Access Charge Reform Order, 12 FCC Rcd at 16001-02.

Access Charge Reform Order, 12 FCC Rcd at 16003.

³⁴ Access Charge Reform Order, 12 FCC Rcd at 16002-03.

³⁵ Access Charge Reform Order, 12 FCC Rcd at 16003.

A. Universal Service

19. One of the primary purposes of universal service support is to allow LECs and other eligible telecommunications carriers to provide certain basic services to customers in high-cost areas without having to charge these customers unaffordable rates.³⁶ Historically, in the interest of meeting the goal of universal service, LEC services have been subsidized or "supported" to enable high-cost consumers to be served at rates that are reasonably comparable to those in lower cost areas. This universal service support has been both explicit and implicit.

20. Explicit Support. Several federal programs have provided explicit universal service support in the form of direct monetary payments to carriers. This support has been provided for both intrastate and interstate services. For example, the Commission's high-cost support mechanism provides support for the costs of the intrastate portion of the local loop that significantly exceed the national average. By providing this federal support for intrastate costs, the Commission assists the states in ensuring that rates for intrastate rates remain affordable and reasonably comparable. Several state universal service programs also provide carriers with explicit support for their intrastate rates so that those carriers can serve customers in high-cost areas without having to charge prohibitively high rates. Carriers have also received explicit federal support for their interstate costs. For example, the Commission's Long Term Support (LTS) mechanism provides certain small carriers with support for the interstate portion of the local loop. This support allows such carriers to reduce the amount of the interstate costs that they would otherwise recover through access charges.

21. Implicit Support. In addition to receiving explicit universal service support, LECs also received implicit universal service support from a variety of sources. Some state rate structures have permitted LECs to charge rates for certain services that significantly exceeded the costs of providing those services, thereby enabling those LECs to charge below-cost rates for other For example, by charging above-cost rates for vertical services (e.g., caller identification, call waiting), carriers can support the rates for basic local service. Commission's interstate access charge structure also provided LECs with implicit universal service support. For example, LECs charge business customers interstate access rates that generally exceed those charged to residential customers, even though the costs of providing access to these groups of customers does not differ significantly. In particular, the multi-line business PICC creates a subsidy running from multi-line business subscribers to residential and single-line business subscribers to help LECs recover revenues that they would not otherwise recover from residential and single-line business subscribers due to the lower SLC caps on those lines.³⁷ In addition, by allowing LECs to recover non-traffic sensitive (flat) costs through traffic sensitive (per minute) rates, high-volume users bear a greater share of the non-traffic sensitive costs than low-volume users, thus creating an implicit support flow from high-volume users to low-volume users. Furthermore, the practice of averaging rates over large geographic areas, for

in part, Texas Office of Public Utility Counsel v. FCC, 183 F.3d 393 (5th Cir. 1999) (affirming in relevant part the

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The "designated" or "core" services a carrier must provide in order to be eligible to receive universal service support include: single-party voice service; voice grade access to the public switched network; DTMF signaling or its functional equivalent; access to emergency services; access to operator services; access to interexchange service; access to directory assistance; and toll limitation services for qualifying low-income consumers. *See* Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8809 (1997) (*Universal Service First Report and Order*), as corrected by Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Errata, FCC 97-157 (rel. June 4, 1997), *aff'd in part, rev'd in part, and remanded*

Commission's decisions regarding implementation of the high-cost universal service support mechanism).

³⁷ See Access Charge Reform Order, 12 FCC Rcd at 16022-26.

both intrastate and interstate services, results in subscribers in low-cost areas subsidizing the rates of subscribers in higher cost areas.

22. Universal Service in a Competitive Environment. This "patchwork quilt" of implicit support helped keep rates largely affordable in a monopoly environment where incumbent LECs could be 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, however, threatens to undermine this implicit support structure over the long run. The 1996 Act removed barriers to entry in the local market, generating competitive pressures that may make it difficult for incumbent LECs to maintain access charges above economic cost. Thus, where existing rules require an incumbent LEC to set access charges above cost for a high-volume user, a competing provider of local service can lease unbundled network elements at cost, or construct new facilities, thereby undercutting the incumbent's access charges. 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. Incumbent LECs have been claiming that this process has already made more than trivial inroads on their high-volume customer base.

23. Recognizing the disruptive effects that competition would have on universal service support mechanisms developed in a monopoly environment, Congress instructed the Commission, after consultation with the Federal-State Joint Board on Universal Service (Joint Board), to establish specific, predictable, and sufficient mechanisms to preserve and advance universal service. Congress concluded that the support provided by these mechanisms "should be explicit and sufficient to achieve the purposes" of section 254, which include the purpose that all Americans should have access to telecommunications services at affordable and reasonably comparable rates. In response to this directive, the Commission has taken several actions to put in place universal service support mechanisms that will be sustainable in an increasingly competitive marketplace. These actions fall into three general categories: (1) reforming our existing universal service support mechanisms;⁴² (2) reforming our interstate access charge regime to identify

See, e.g., U S West Forbearance Petition (Phoenix), CC Docket No. 98-157 (filed Aug. 24, 1998); SBC Communications, Inc. Forbearance Petition, CC Docket No, 98-227 (filed Dec. 7, 1998); U S West Forbearance Petition (Seattle), CC Docket No. 99-1 (filed Dec. 30, 1998); and Ameritech Forbearance Petition, CC Docket No. 99-65 (filed Feb. 5, 1999).

⁴¹ 47 U.S.C. § 254(b), (e). According to the Joint Explanatory Statement, the purpose of the 1996 Act is "to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition" Joint Explanatory Statement of the Committee of Conference, H.R. Conf. Rep. No. 458, 104th Cong., 2d Sess. at 113 (Joint Explanatory Statement).

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.")

⁴⁰ 47 U.S.C. § 254(a), (d). *See also* Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Notice of Proposed Rulemaking and Order Establishing Joint Board, 11 FCC Rcd 18092 (1996) (*Universal Service NPRM*).

Federal-State Joint Board on Universal Service, Seventh Report and Order and Thirteenth Order on Reconsideration in CC Docket No. 96-45, and Fourth Report and Order in CC Docket No. 96-262 and Further Notice of Proposed Rulemaking, 14 FCC Rcd 8078 (1999), petition for review filed sub. nom. Vermont Department of Public Service v. FCC, No. 99-60530 (5th Cir., filed June 23, 1999) (Universal Service Seventh Report and Order); Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Ninth Report and

implicit universal service support and to remove such implicit support from our interstate access charges, ⁴³ and (3) establishing new universal service mechanisms. ⁴⁴ In this Order, we focus our efforts in these last two categories.

B. The Current Situation

- 24. Undoing the Gordian knot of determining the appropriate level of interstate access charges and converting implicit subsidies in interstate access charges into explicit, portable, and sufficient universal service support cannot be accomplished with one stroke of the sword. Determining the cost of providing service in every area of the country is a difficult, time-consuming task that regulators cannot perform with exactitude. The particular method that should be used for determining the cost of providing service is itself a contentious issue as are the results achieved from various proposed methods. The incumbent LECs have traditionally argued that they must maintain their current revenue streams to support universal service, while IXCs and consumer groups have argued that access charges should be reduced by amounts in excess of the amount that is converted into explicit universal service support. The subsidies implicit in geographic averaging must be reduced if competition is to develop outside of urban areas; but these subsidies can never be entirely eliminated, without pricing service on a line-by-line-by-line basis. Affordability concerns deter us from allowing end-user charges in higher cost areas to increase to the point where they recover the cost of providing service in those areas, whether cost is determined on a forward-looking or historic basis. These disputes and concerns have dragged on for years and could do so indefinitely.
- 25. As we devise a transition to a more economically rational approach to access charges and universal service, we need to balance various and sometimes conflicting interests including promotion of competition, deregulation, maintaining affordability for all, and avoiding rate shock to consumers. It is important, however, that the Commission not permit itself to be gridlocked into inactivity by endeavoring to find precise solutions to each component of this complex set of problems. It is preferable and more reasonable to take several steps in the right direction, even if incomplete, than to remain frozen with indecision because a perfect, ultimate solution remains outside our grasp.
- 26. Against this background, certain segments of the industry have developed a comprehensive consensus approach to resolve outstanding issues concerning access charges and universal service. The Order we adopt today will result in lower rates for both low-volume and high-volume long-distance consumers, more competition, fewer line items on consumers' phone bills, greater flexibility for price cap LECs to meet competition, and an explicit, portable interstate access universal support mechanism. It is this comprehensive solution of historically contentious issues that allows us to take these actions while ensuring that consumers in high-cost areas will continue to have affordable service.
- 27. CALLS has presented us with an integrated and cohesive proposal that aims to resolve major outstanding issues concerning access charges: the pending NPRM to address implicit universal

Order and Eighteenth Order on Reconsideration, 14 FCC Rcd 20432 (1999) (*Universal Service Ninth Report and Order*).

⁴³ Universal Service First Report and Order, 12 FCC Rcd at 9162; Access Charge Reform Order, 12 FCC Rcd at 16144-50.

⁴⁴ See, e.g., Universal Service First Report and Order, 12 FCC Rcd at 9007.

service support in access charges,⁴⁵ the X-factor remand,⁴⁶ the *Low-Volume Long-Distance Users NOI*,⁴⁷ the pending NPRM on geographically deaveraging SLCs⁴⁸ and the next scheduled price cap performance review.⁴⁹ In addressing these issues, the CALLS Proposal reduces, and in most instances eliminates, implicit subsidies among end-user classes; makes implicit universal service funding in access charges explicit and portable; provides significant benefits to consumers who make few or no long-distance calls; and sets carrier charges at reasonable levels. Because we find that the CALLS Proposal resolves these issues in a way that benefits consumers and is procompetitive and economically efficient, we adopt certain parts of the plan, largely rate structure components, as mandatory for all price cap LECs for the full five-years of the plan. As discussed in more detail below, for certain rate-level components of the plan, we adopt it as mandatory on an interim basis. Price cap LECs will be able to choose between having these interim rate-level components apply for the full five years or having their rates reinitialized based on forward-looking economic cost.

28. The proposal provides for the following:

- 1. Elimination of the residential PICC;
- 2. Increases to the primary residential and single-line business SLC caps, beginning at \$4.35 on July 1, 2000, and gradually increasing to \$6.50 on July 1, 2003, provided that LECs can justify any increase beyond \$5.00;
- 3. A review of the SLC rates prior to the increase scheduled for July 1, 2002, including evaluation of forward looking cost information;
- 4. Targeting of an X-factor⁵⁰ for switched access to switching and switched transport elements;
- 5. Creation of a separate X-factor for special access services;
- 6. \$2.1 billion in reductions to switched access usage rates effective July 1, 2000;
- 7. Reduction of the switched access X-factor to the Gross Domestic Product-Price Index (GDP-PI) once specific target rate levels are achieved;
- 8. Removal of \$650 million in implicit universal service support from access charges, and the creation of an explicit, portable interstate access universal service support mechanism at the same level;
- 9. Recovery of LEC universal service contributions directly from end users;

⁴⁵ Universal Service Seventh Report and Order, 14 FCC Rcd at 8078.

⁴⁶ Price Cap Performance Review For Local Exchange Carriers, CC Docket No. 94-1, Further Notice of Proposed Rulemaking, 14 FCC Rcd 19717 (1999) (1999 Price Cap FNPRM).

⁴⁷ Low-Volume Long-Distance Users NOI, 15 FCC Rcd 6298.

⁴⁸ Access Charge Reform, CC Docket No. 96-262, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221, 14320-23 (1999) (*Pricing Flexibility Order*).

⁴⁹ 1997 Price Cap Review Order, 12 FCC Rcd at 16707.

The X-factor is a mechanism used to reduce access rates. See Section IV.B. infra for a full discussion.

- 10. Elimination of MUCs by participating long-distance carriers;
- 11.A commitment by participating long-distance carriers to flow through reductions in access rates to residential and business customers over the life of the plan; and
- 12. Adjustment of the Lifeline Assistance universal service support mechanism to shield low-income customers from increases in the residential SLC.
- 29. As an initial point, the CALLS Proposal reduces, and in many cases eliminates, implicit subsidies among customer classes through two means. First, by permitting a greater proportion of the local loop costs of primary residential and single-line business customers to be recovered through the SLC, rather than through the CCL charge and the multi-line business PICC, the CALLS Proposal reduces, and in most instances removes, the subsidies associated with both of the latter charges. Second, by permitting participating LECs to deaverage their SLCs once the CCL charge and multi-line business PICCs are eliminated, the CALLS Proposal reduces the subsidy that subscribers in low-cost areas provide those in higher cost areas.
- 30. The CALLS Proposal reduces these subsidies, and keeps rates affordable in high-cost areas, by replacing the subsidies with explicit interstate access universal service support. In section 254(e), Congress stated that federal universal service support should be made explicit.⁵¹ The CALLS Proposal identifies and removes \$650 million of implicit universal service support in interstate access charges, creates an explicit interstate access universal service support mechanism in this amount to replace the implicit support, and makes interstate access universal service support fully portable among eligible telecommunications carriers.⁵² The CALLS Proposal conforms with our tentative conclusion in the *Universal Service Seventh Report and Order* that price cap LECs should reduce their interstate access rates to reflect any increase in explicit high-cost support.⁵³ In addition, we conclude that this interstate access universal service support mechanism is specific, predictable and sufficient. Moreover, by making universal service support explicit and portable, the interstate access universal service support mechanism should also encourage competitive entry into high-cost areas.
- 31. We note that even as the CALLS Proposal phases out these subsidies, it maintains several safeguards that ensure that the rates consumers pay for the SLC remain well within a zone of reasonableness. The CALLS Proposal maintains an overall cap on the SLC assessed on primary residential and single-line business lines at \$6.50, and could set the cap even lower if price cap LECs cannot justify higher increases. Thus, as explained below, CALLS ensures that basic telephone service does not become too expensive. The CALLS Proposal also asks the Commission to examine the appropriateness of setting the SLC caps for primary residential and single-line business lines above \$5.00 before doing so.⁵⁴ In addition, the CALLS Proposal provides for additional Lifeline support so that low-income subscribers will not be hurt by

⁵¹ 47 U.S.C. § 254(e).

The interstate access universal service support is distinct from the intrastate high-cost support already in place for local rates. *See, e.g., Universal Service Ninth Report and Order,* 14 FCC Rcd at 20436.

⁵³ Universal Service Seventh Report and Order, 14 FCC Rcd at 8139.

As revised, the CALLS Proposal acknowledges that at the time of the cost proceeding, parties can argue that certain revenues, rather than be incorporated into the SLC, should be disallowed. *See Wallman March 30 Letter* at 2.

increases to the primary residential SLC cap. The CALLS Proposal also provides that Lifeline customers will not be assessed universal service charges by price cap LECs. 55

- 32. Low-volume long-distance users also benefit from the CALLS Proposal. First, AT&T and Sprint both commit to having no monthly minimum charge on their Basic Schedule for at least three years. Second, both carriers agree to eliminate their PICC pass-through charges for residential and single-line business subscribers in light of the elimination of the PICCs for those customers. Third, in a move that benefits all subscribers, both carriers have agreed to flow through to residential and business customers the savings they realize from the CALLS-related reductions in access charges. We find that these commitments are in the public interest and adopt them as requirements of this Order.
- 33. Today, we adopt the CALLS Proposal because it accomplishes many objectives that the Commission to date has been unable to achieve in the absence of an industry consensus plan, while providing significant consumer benefits that we would not otherwise be able to ensure on such a wide-scale basis and in such a timely manner. We therefore find the CALLS Proposal to be in the public interest. Certainly there is no guarantee that, at the end of the CALLS Proposal's five-year term, competition will exist to such a degree that deregulation of access charges for price cap LECs is the next logical step. Nevertheless, the CALLS Proposal provides stability during its term and addresses several issues that have served as major obstacles to access charge reform and universal service. We also find the CALLS Proposal to be consistent with our market-based approach to regulation.

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⁵⁵ Wallman March 30 Letter at 3; Appendix B § 69.158.