

the unbundling of similar LEC transmission facilities in order to expand competitive opportunities.¹³

Unbundling common transport will allow a CLEC to purchase high capacity common transport facilities between an ILEC end office and an ILEC tandem switch. CLECs can then use these common transport facilities, in combination with non-ILEC tandem switching and dedicated transport, to provide IXCs with access services from the CLEC end office to the IXC POP. If CLECs can provide such services more cost-effectively than ILECs, IXCs should again be permitted, and even encouraged, to use such alternatives.

CAPs and other independent networks today offer competitive alternatives to ILEC tandem switching. CLECs should be permitted to use these and similar facilities to terminate local and toll traffic to their own or other CLEC end users. In addition, CLECs should be permitted to purchase unbundled ILEC tandem switching in conjunction with self-provided transport (or transport purchased from other vendors) in order to send and receive traffic to and from other CLECs.

¹³ See cases cited at n.14 of the Commission's NPRM in CC Docket No. 91-346.

Technical Feasibility

Unbundled dedicated transport is currently available to IXCs under LEC access tariffs. There is no technical reason why the availability of this function could not be expanded to include other carriers. In addition, the Connecticut and New York PUCs have ordered ILECs to make the tandem switch available on an unbundled basis to permit CLECs to transmit calls between their networks. There are also published standards for interconnection of common transport with tandem and end office switches.¹⁴ Thus, there are no technical matters that would preclude a decision to require the unbundling of the three transport elements.

Signaling Elements

SS7 signaling is critical in the provision of modern telecommunications services. Such signaling enables carriers to send information about telephone calls separately from the communications path for the calls. SS7 signaling increases the efficiency of the facilities used to provide the telecommunications paths, and it also makes available a host of new network capabilities that could not be provided through older forms of in-band signaling.

¹⁴ See Appendix D.

SS7 signaling is used in the call set-up process to pass information on the routing and billing of calls between carriers. In that context, signaling systems are used, for example, to provide validation and other information for calling card and other operator services calls, and to identify the carrier for and route 800 number calls. Signaling systems also enable carriers to create and provide the AIN services described above.

Network signaling is provided through the use of three network elements that should be made available on an unbundled basis: signaling links, signal transfer points and service control points.

Description of the Signaling Elements

9. Signaling Links - Signaling links are transmission facilities in a signaling network that are used to carry out-of-band signaling messages: between an end office and a signal transfer point ("STP"); between two signal transfer points; between a tandem switch and a signal transfer point; and between a signal transfer point and a service control point ("SCP"). Except for the last example, which only occurs within a single signaling network, signaling links can provide connections either within a single network or between two networks.

10. Signal Transfer Point ("STP") - An STP is a network element which acts as a "signaling switch" and connects

signaling links in a manner that permits the transfer of appropriate signaling messages between other network elements, including switches, SCPs and other signaling links.

11. Service Control Point ("SCP") - An SCP is a node in a signaling network to which informational requests for service handling, e.g., routing, are directed and processed in real time. Examples of SCPs include the Line Information Database ("LIDB") that contains calling card validation and customer data used to handle other operator services calls, and the 800 databases used to route 800 calls. SCPs are an efficient mechanism in which information needed to serve large customer groups (or all customers) in an ILEC's service area is stored.

Competitive Rationale for Requiring Unbundling of Signaling

Competitive providers of signaling services have already emerged in response to prior Commission interconnection orders.¹⁵ Such efforts should continue to be encouraged, consistent with the Act's pro-competitive policies. Accordingly, ILECs should be required to make signaling elements available separately. For example, CLECs that own their own switches should be able to purchase unbundled use of the ILEC's STP, in

¹⁵ For example, signaling services are being offered by Independent Telephone Network ("ITN") and Minnesota Independent Equal Access Corporation in conjunction with Iowa Network Services.

conjunction with ILEC or self-provided A links to the STP from the CLEC switch. Alternatively, the CLEC should be permitted to purchase an STP from ITN or another competitive vendor in conjunction with an ITN A link. Signaling D links, which are used to connect the STPs of two different networks, are already available on an unbundled and tariffed basis.

Because of the high costs of deploying and maintaining self-owned SCPs (particularly large databases such as the 800 database or a LIDB), even if competitive carriers build their own transmission and switching facilities (or obtain them from third parties) they may need access to ILEC SCPs in order to provide the services supported by these network elements. Accordingly, CLECs should be permitted to purchase access to either the ILEC's SCP or to an alternative SCP. Even though CLECs would not use an ILEC's SCP without also using the ILEC's STP, unbundling of SCPs from STPs allows CLECs to use alternative (or self-provided) SCPs.

Technical Feasibility

The Commission's orders requiring the unbundling of signaling networks precipitated the interconnection of ILEC and IXC, as well as competitive, signaling networks. As a point of reference, AT&T is interconnected to STP pairs belonging to LECs and alternative signaling network providers in 191 LATAs. Most of those interconnections were accomplished during the 2-year

period beginning October 1991, which is coincident with the Commission's order on 800 number portability. Thus, the marketplace is well advanced in making signaling capabilities available, and there would not appear to be any technical impediments to requiring the unbundling of the three identified signaling network elements.¹⁶

Operations Support Systems

In conjunction with the provision of individual unbundled network elements, ILECs must also be required to offer competing carriers the ability to interface with ILEC automated operational interfaces and processes that are used for ordering, provisioning, maintaining, and billing for each unbundled element. The rationale for this requirement arises from the basic pro-competitive and nondiscrimination requirements of Section 251(c)(3). Virtually every ILEC currently uses automated interfaces to internal systems to support and coordinate its provision, maintenance and billing of these network elements in serving its own subscribers. This fact alone supports the conclusion that these capabilities are necessary for competitors to serve the same customers with a quality competitive service offer. In addition, it would be unreasonably discriminatory for

¹⁶ Applicable technical standards and references are listed in Appendix E.

an ILEC to use its operations support systems to foster its own delivery of a network capability, e.g., assignment of AIN triggers to its subscribers, but deny comparable capabilities to alternate carriers that purchase unbundled network elements for use in competition with the ILEC.

Different ILECs use company-specific operations support systems to deliver service capabilities to subscribers.¹⁷ Thus, the Commission should not prescribe the exact details of the operations support systems that must be made available to other carriers. However, there must be agreement on specifications for the individual ILEC systems interfaces and processes between the ILEC and CLECs that will ensure CLECs can provide high-quality services to subscribers. Therefore, if disputes arise regarding such matters, state commissions that are arbitrating such disputes should assure that ILECs make available automated interfaces to support systems that are comparable to those they use themselves to aid in the ordering, provisioning, maintenance and billing of the same capabilities. Overall, arbitrators should assure that requesting carriers have the same automated abilities to place orders, to track the provisioning of service

¹⁷ Several commonly used systems are referenced in Appendix F, together with sample interface specifications.

capabilities, to place and monitor trouble reports and to obtain necessary billing information as the ILEC.

Industry forums and technical committees convened by state commissions, such as in New York and Connecticut, have produced and are improving specifications for operational interfaces to meet the needs of CLECs.¹⁸ The Commission and the state commissions should support this work and also support this work in national forums.

B. Interconnection Points

The Commission must also consider the points at which carriers will be permitted to interconnect with ILECs to obtain unbundled network elements. The sole criterion permitted under Section 251(c)(3) is the technical feasibility of such interconnections. As an initial matter, we propose that the Commission should require ILECs to permit requesting carriers to interconnect with ILEC networks at the points identified below. The review of the technical feasibility of requiring interconnections at such points is essentially incorporated in the discussion of the unbundled network elements described above.

¹⁸ See NYPSC Opinion and Order approving the Rochester Joint Stipulation and Agreement, Opinion No. 94-25, November 10, 1994; DPUC Docket No. 94-10-02, September 22, 1995 DPUC Investigation into the Unbundling of the Southern New England Telephone Company's Local Telecommunications Network.

1. The point of interconnection between the loop feeder and loop distribution element (may require interconnection at the loop concentrator/multiplexer, where used) - This interconnection is necessary for carriers such as CAPs that provide their own loop feeder function through the use of a fiber ring and need to use the capabilities of the loop concentrator/multiplexer and the ILEC's loop distribution facilities.

2. The point of interconnection between the loop distribution and loop feeder element (may require interconnection at the loop concentrator/multiplexer, where used) - This interconnection is necessary for cable or wireless service providers that have their own distribution plant and wish to use the capabilities of the loop concentrator/multiplexer in conjunction with the loop feeder element that connects to the main distribution frame ("MDF") on the ILEC switch.

3. The point of interconnection between the loop feeder element and a CLEC switch - This interconnection, which occurs at the MDF of the ILEC switch, enables a CLEC which purchases an entire unbundled local loop (i.e., all three loop elements) to connect the loop with its own switch. Unbundled loop tariffs of numerous ILECs (e.g., Ameritech, SNET, NYNEX, Bell Atlantic) permit and provide specifications for such

interconnections, which connect the MDF via intra-office facilities that terminate in collocated CLEC space.

4. Interconnection between an ILEC switch and CLEC operator systems- CLECs which purchase ILEC switching but wish to provide their own (or use another vendor's) operator systems interconnect at the ILEC switch through dedicated trunks that route calls dialed using specific digits (e.g., 0+, 0-, 411) to the CLEC's operator systems. Such interconnections are prevalent today, because not all independent LECs have their own operator systems and thus engage BOCs or other operator services providers to perform their operator and directory assistance functions.

5. Interconnection between a CLEC or CAP switch and a LEC signaling A link - This interconnection is needed by CLECs or CAPs which have their own switches and wish to interconnect with an ILEC STP using an ILEC signaling A link. Commission orders require tandem switched signaling to be available pursuant to tariff, thus allaying any issues of technical feasibility.¹⁹

¹⁹ See Expanded Interconnection with Local Telephone Company Facilities, Third Report and Order, FCC 94-118, released May 27, 1994. This form of interconnection is frequently found in rural areas, because rural LECs typically do not have the resources to build and deploy their own signaling networks. In such cases, the rural LECs use the services of nationwide signaling network aggregators such as ITN or SNET. In such cases, the LEC's switches are connected to the signaling aggregator's A link, which terminates in the aggregator's STP. The signaling aggregators are connected to the signaling networks of IXCs and the major LECs through signaling D links, which are also available under tariff pursuant to Commission order.

6. Interconnection between a CLEC's signaling A link and an ILEC STP - This interconnection is needed by CLECs or CAPs that wish to use an ILEC's STP to switch SS7 signaling messages.

The interconnection is made using a 56 kbps transmission link between the CLEC or CAP switch and a port in the ILEC's STP. The technical feasibility of this interconnection should be analogous to that for item 5 above.

7. Interconnection between CAP or CLEC dedicated transport and an ILEC office - This interconnection is needed to permit CAPs to interconnect high-speed (DS-1 or DS-3) facilities at a LEC office in order to provide alternative access services to IXCs. Such interconnections are currently available pursuant to LEC collocation tariffs, which permit CAPs to connect their high-speed facilities to CAP equipment in a cage in the LEC office. This type of interconnection can also be used by CLECs and LECs to install trunk groups between CLEC offices and LEC offices for the purpose of terminating local and toll traffic on each others' networks.

8. Interconnection between ILEC and non-ILEC STPs - This type of interconnection uses a tariffed signaling D link to connect the ILEC's signaling network to another carrier's signaling network. These types of interconnections are in substantial use

today and have allowed the interconnection of ILEC, IXC and independent signaling networks. Such interconnections allow the transmission of both ISUP messages (which are used in call set-up) and TCAP messages (which are non-call associated messages used to provide additional capabilities to carriers and end users).

C. Combinations of Network Elements

Section 251(c)(3) states that an ILEC must offer unbundled network elements "in a manner that allows requesting carriers to combine such elements" in order to provide their own telecommunications services. The Act thus requires that a new entrant be permitted to purchase whatever combination of network elements it determines will most effectively enable it to provide service in competition with the ILEC.

Some entrants will choose to purchase some network elements from the ILEC while provisioning others through other sources, including themselves. Other entrants may elect to purchase all available network elements from the ILEC. It has been suggested that purchasing all available network elements under Section 251(c)(3) would be tantamount to purchasing the ILEC's end-to-end service for resale under § 251(c)(4), and that, because the pricing standards established under § 251(c)(3) are

different from those established under § 251(c)(4),²⁰ the Act should be interpreted implicitly to prohibit a CLEC from purchasing a combination of all available unbundled network elements.

But the suggestion that purchasing all network elements is the same as purchasing the ILEC's service for resale is simply wrong. It ignores the critical differences between these two entry vehicles that led Congress to mandate that competing carriers may offer service through either (or both) mechanisms, and to expressly require that such carriers be permitted to purchase any combination of unbundled elements, with no limitation on the number of elements purchased.

Most fundamentally, when a competitor purchases the ILEC's end-to-end service for resale, its service options are strictly limited to the exact services the ILEC has itself chosen to offer to its retail customers. While the reseller can still exert competitive pressure on the ILEC in the areas of marketing, billing, and customer service, among others things, it cannot differentiate the actual telecommunications services it provides from those of the underlying carrier. Moreover, an ILEC can entirely prevent a reseller competitor from offering a particular service or feature simply by declining to offer that service or

²⁰ See Section 252(d)(1) and (3).

feature to its own retail customers -- as US WEST has done, for example, by discontinuing its offering of Centrex. The ILEC could thus reduce competition down to the "lowest common denominator" for its own anti-competitive advantage.

The unbundling requirement of Section 251(c)(3) provides a safeguard against such conduct, for the same constraints are not present when a competing local exchange carrier purchases all of an ILEC's unbundled network elements. A competing carrier that purchases the unbundled elements is free to make its own choices about the features and functions to include in each retail offering -- just as the ILEC does for its own retail customers.

This could occur in a variety of ways. For instance, a CLEC in US WEST's territory could use the US WEST unbundled elements to offer the Centrex service that US WEST has discontinued. Similarly, a CLEC that buys all 11 network elements from an ILEC which does not employ an AIN SCP can use the ILEC's signaling capabilities to connect to a third party's signaling network, and use the AIN capabilities of that network to provide customers with services and features that are unavailable from the ILEC. AIN enables a carrier to offer a variety of features that require it to identify the calling party and the called party on individual calls, so it can provide specific features requested by the customer. As illustrative

examples, the CLEC could use the additional signaling network to offer an Audible Caller ID service that would enable a customer to assign distinctive rings to different callers; an Emergency Call service that would transmit the caller's medical history data to his or her doctor when the caller calls that doctor on a special emergency number; or a Snow Chain Calling service that would enable a school, by making a single call to a database, to activate a series of simultaneous calls to parents playing a recorded message announcing the school's closing. Such offerings would promote competition, diversity of services and customer choice, and would not be possible if the CLEC were merely reselling existing ILEC services under § 251(c)(4).

Although some competing carriers will wish to purchase all network elements in combination, others can be expected to provide service through a mix of some unbundled elements purchased from the ILEC and some other elements provided directly by the competing carrier or purchased from another source. The specific combinations that new entrants will decide to purchase will vary from firm to firm, and they will likely change over time as technology and competition for the provision of particular elements develops. The Act requires that competing LECs be given broad latitude in determining how the available elements should be combined, because only they will be in the best position to determine the most efficient combinations of

ILEC network and non-ILEC network elements, in light of the pace of competition for different network elements and at which alternative facilities become available and economically feasible. In this respect, the Act enables competitors in the local market to follow the progression that MCI, LDDS, and many other successful carriers followed in the interexchange market as they acquired more customers and greater capital -- the path from pure resellers, to carriers providing service through a mixture of facilities and resale, to national facilities-based carriers.

II. THE COMMISSION SHOULD MANDATE A TSLRIC APPROACH TO UNBUNDLED NETWORK ELEMENT AND INTERCONNECTION RATES AND CHARGES.

Defining the basic network elements that must be offered on an unbundled basis is only half the task of establishing the regulations that will enable firms to become local service providers by combining the ILEC's network elements with facilities or functionalities that the new entrant provides or by developing unique combinations of those elements. As the Act recognizes, this form of entry will not occur in ways that produce maximum benefits to consumers unless the unbundled network elements and interconnections are available at the true economic costs of the network elements. In particular, given the ILEC's incentives to prevent or squeeze competitors, the principal threat to the emergence of competition is that these unbundled elements will be priced above their economic cost.

Section 251 of the Act imposes duties that are designed to prevent these adverse effects by directing that new methods be used to establish costs and charges for unbundled elements. In particular, Section 251 permits, and seemingly requires, that unbundled elements and interconnections be available at just and reasonable rates in accord with the requirements of Section 251 and those of Section 252. Section 252(d)(1) makes it explicit that these charges "shall be based on the cost (determined

without reference to a rate or return or other rate-based proceeding)" and "may include a reasonable profit."

AT&T submits that the Commission should implement these principles of the Act by prescribing a very specific method to establish the charges for unbundled elements that reflects four principles: (1) that the charges be based on the costs of providing telephony services, (2) that those costs be forward-looking, not backward looking costs derived from regulatory cost accounts or otherwise, (3) that the forward-looking costs should reflect the costs of the most efficient technology that is available today for providing the basic network function, not yesterday's technology or technology that would provide other functions as well, and (4) the appropriate costs are long run incremental costs which would here be applied to facilities not services, such that ILECs would have only de minimis common costs. The method that best embodies these principles is the established costing methodology called Total Service Long Run Incremental Cost or "TSLRIC," which is fully consistent with the methods the Commission already applies in other analogous circumstances.

AT&T further submits that the Commission should not only prescribe the costing methodology, but also specify the details of how that methodology is to be implemented by carriers and state commissions. The Congressional intent of creating the

benefits of exchange competition simply cannot be realized unless unbundled elements are available at their economic cost in every state in the nation. That cannot occur unless there is a single cost standard which is uniform and which is not subject to different interpretations by different carriers and different state commissions.

AT&T will now expand on these points by explaining (1) why any cost methodology should reflect those four principles, (2) the TSLRIC method that AT&T believes the Commission should prescribe, and (3) how that method would apply in representative situations.

A. The Necessity and Appropriateness of Basing Charges On Forward Looking Incremental Costs Of Each Element.

As noted, the Act appears to require that charges for unbundled elements be based on their costs as established not by backward looking rate of return regulation, but by forward looking measures of cost. However, the question whether the Act requires or merely permits this result should be an academic one, for the approach that AT&T urges is equally supported by the Commission's precedents and sound economics. It is the only sure way of permitting the maximum development of exchange competition and assuring the competitive pricing of exchange services.

The Commission has recognized that incumbent LECs have the ability to price the essential inputs that they control to

inhibit or prevent competition with the ILEC's services.²¹ For that reason, both basic economics and the Commission's statements establish that it is critical that each incumbent LEC be required to price essential inputs used by its competitors at levels that in fact approximate those that would emerge in an undistorted competitive environment.²² The pricing of essential inputs in these ways assures that efficient entrants will not be excluded artificially from the market.

That requires cost-based pricing because prices in competitive markets invariably are determined by and driven to costs (including the relevant cost of capital employed in the endeavor). That is because prices that exceed costs attract the entry or expansion by other firms and drive prices to cost.

Similarly, this principle requires that rates must be based on a forward-looking measure of cost. The entry and exit

²¹ See, e.g., Notice of Proposed Rulemaking, Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, et al., CC Docket Nos. 95-185 et al. at 4 (January 11, 1996) ("CMRS Order").

²² See, e.g., CMRS Order at ¶ 4 ("we adopt policies that are intended to create or replicate market-based incentives and prices for both suppliers and consumers"); id. at 4-5 (by replicating market-based incentives in this manner, the Commission can ensure "the availability to consumers of goods and services at the lowest overall cost" and "an efficient level of innovation in terms of the development of new services and the deployment of new technology, as well as the efficient entry of new firms. . . . [so that] consumers should receive the maximum benefit from their purchases of telecommunications services").

decisions that cause competitive prices necessarily are based on comparisons of expected costs and revenues, that is, on the net earnings that the firm expects to obtain in that business. These decisions have nothing to do with costs that were experienced in the past or the costs that are recorded in the firm's accounting or other books for ancillary purposes -- as the Commission has expressly recognized.²³

In this regard, relying on backward-looking costs or the costs of existing technologies would be especially inappropriate here. The ILEC's book costs (and the underlying technologies, architectures, and investment) are products of state rate-of-return regulation, which, as the Commission has found, gave incumbent LECs incentives to "operate inefficiently," to "manipulate their reported cost allocations," to "pad" rates with monopoly profits, and "to adopt the most costly, rather than the most efficient, investment strategies."²⁴ These book costs are certain to exceed and be unrelated to the true economic costs

²³ See, e.g., Further Notice of Proposed Rulemaking, Policy and Rules Concerning Rates for Dominant Carriers, 3 FCC Rcd. 3195, 3226-27 (1988) (rates based on historical costs have "no claim to economic rationality," because "current or anticipated costs and revenues are generally the relevant factors influencing business decisions to enter markets and price products").

²⁴ Id. at 3205, 3219.

of providing service -- which is why Sections 251 and 252 appear to foreclose any use of them.

In addition, the forward-looking cost measure must reflect the most efficient technology or means of providing the functionality in question. Entry and exit decisions that determine prices in competitive markets necessarily are based on the most efficient means of providing the services consumers demand. Any firm that prices its services on less efficient and more costly technologies or system architectures is doomed to failure. To replicate competitive prices and outcomes, price regulation must rely on a forward-looking, most efficient technology, and encourage the provision of service by the most efficient firms.

Similarly, the relevant forward-looking costs are long run incremental costs. As the Commission has stated, "economists generally agree that prices based on [long-run incremental costs,] reflect the true economic cost of a service and give appropriate signals to producers and consumers and ensure efficient entry and utilization of the telecommunications infrastructure." CMRS/LEC Interconnection NOI at ¶ 47. Further, if an ILEC's prices for essential inputs exceeded incremental costs and its prices for retail services that use those inputs tended towards incremental costs, the ILEC would

anticompetitively prohibit entry by firms that are significantly more efficient, contrary to the purpose of the Act.

A pricing policy that adopts all the foregoing principles is vital to the achievement of the competitive goals of the Act. Otherwise, an incumbent LEC can be financed through cross-subsidy. That would permit it to succeed at the expense of more efficient rivals, thereby causing unnecessary and wasteful social losses, and undermining the process of and hopes for effective competition. For this reason, it is critical that cost-based charges for interconnection and unbundled BNFs not be corrupted by the addition of subsidies or other "add-ons." Whatever other amounts the Commission or the States may determine that incumbent LECs should be paid, the recovery of those amounts should be independent of, and in no way allowed to distort, the efficient rates for interconnection and unbundled BNFs that are necessary to effective implementation of the Act.²⁵

²⁵ Economic subsidies aside, AT&T does not believe that incumbent LECs should be allowed to recover through any mechanism costs that exceed the forward-looking, least-cost technology measure of providing network elements. The LECs claimed right to absolute parity with "benchmark" rate-of-return-based revenue requirements simply ignores that because of the defects inherent in that approach, those amounts inevitably exceed the true economic costs of providing the services and facilities in question -- and thus the true value of those facilities. Moreover, much of the plant the LECs claim will be "stranded" in fact reflects strategic broadband and "official network" investments (including excess capacity and dark fiber not even in service) unrelated to current telephony requirements. LEC shareholders will have an opportunity to recover those

B. The TSLRIC Approach

TSLRIC is a well-defined and established rate methodology that adheres to all of these fundamental economic principles, that has been designed for use in the industry and the regulatory process, and that would actively promote the competitive goals of the Act. The TSLRIC costing methodology has been adopted or proposed by a number of state regulatory agencies²⁶ and by the Commission itself,²⁷ and, perhaps most

(..continued)

investments in the future through rates for enhanced, video and interexchange services for which those facilities were designed. However, current telephony users should not be strapped with those costs -- directly or indirectly -- and certainly those inflated costs should not be used as a justification for departing from efficient pricing standards for interconnection and unbundled network elements. Finally, no regulated firm is guaranteed recovery of all costs and a regulatory approach that refuses to reward inefficient or strategic investment benefits consumers. As the Commission has frequently noted, the transition from strict rate regulation to full competition drove AT&T to retire billions of dollars of outdated equipment, and, as a result, U.S. interexchange customers are today served by the most advanced technology and at the lowest rates in the world.

²⁶ See, e.g., Proposed Rulemaking Regarding Competitive Telecommunications Services, Case No. 94-424 (June 23, 1995 Ariz. PSC) (mandating that LEC services which are elements of a competitive service be priced at TSLRIC). Arizona, California, Connecticut, Hawaii, Michigan, Nevada, New York, Ohio, Oregon, Tennessee, Texas, Utah, Washington, West Virginia, Wisconsin, and Wyoming have all embraced TSLRIC in some context. The California Public Utilities Commission is investigating the application the TSLRIC methodology in two separate proceedings: Docket No. R. 94-12-001 (addressing subsidy issues) and Docket No. I. 93-04-002 (addressing the unbundling of network elements).

²⁷ See CMRS Order at ¶¶ 47-48.

tellingly, has been advocated as the appropriate pricing standard for interconnection and network elements by the incumbent LECs themselves in regulatory proceedings in which they have found themselves in the positions of new entrants, rather than incumbents.²⁸ The Commission should mandate TSLRIC pricing for interconnection and unbundled BNFs.

The TSLRIC of an unbundled network element is the forward-looking additional cost incurred by the incumbent LEC to supply the entire output of the services that use that element. It includes (at least cost) all necessary additional resources such as capital, labor and profit that the LEC needs to supply

(..continued)

²⁸ See, e.g., US West International, "A Framework for Effective Competition: A Response to OFTEL's Consultative Document at 2 (March 30, 1995) (rates "should be calculated through a 'bottom up' approach which identifies the cost drivers and their long run incremental cost (LRIC), including the appropriate contribution to the cost of capital. There should be no arbitrary mark-up to this LRIC, as any attempt to add common or overhead costs will distort the market, serve as a barrier to effective competition and operate against the public good"); *id.* at 13 ("Arbitrarily increasing [rates] by some mark-up, to bridge the gap between LRIC and accounting measures of the total cost of yesterday's network in today's prices, rather defeats the object of using LRIC in the first place"); *id.* at 12 ("because LRIC is forward looking, competitors are not paying for inefficiencies in an operator's network"); Comments of BellSouth Europe to the European Commission's Green Paper on the Liberalization of Telecommunications Infrastructure and Cable Television Networks at 7 (March 15, 1995) ("Interconnection charges should reflect cost causation and, as such, should be based on long-run incremental costs (LRIC)").