

And to the extent disputes arise that are not resolved through negotiation, either party may opt for arbitration after 135 days, and obtain a prompt decision just as the Act expressly permits. 47 U.S.C. § 252(b).

To prevent the requesting carrier from gaming the process, the procedure requires it to certify that it actually plans to use the requested item, to commit to purchase the item at the negotiated price if it is made available, and to pay the cost incurred of any developmental efforts to unbundle additional network elements or provide new interconnection points. Assigning these carriers financial responsibility fulfills the Act's requirement that they pay the cost of providing the items they request. NPRM at ¶ 88. In addition, any requesting carrier should be required to make the same interconnection point or network element available on a reciprocal basis. NPRM at ¶ 45. Taken together these requirements will help to ensure that the requesting carrier is serious and will help to protect against sham requests. The importance of these protections in the current environment cannot be overstated. It can be no coincidence that, alone among potential interconnectors, the major long distance incumbents have requested the longest list of unbundled elements, including a number of elements whose feasibility is most speculative and whose practical use is most unclear. The temptation to generate spurious unbundling requests solely to delay the introduction of new long distance competition is too great for the Commission to ignore.

There are several additional reasons why a process such as that just described is the optimal approach to resolving requests for additional items:

1. The bona fide request process, with its give-and-take between technical staffs, is the best way to ensure that unbundled elements meet the technical and operational needs

of both competitive carriers and incumbent LECs. The determination of technical feasibility and practical implementation simply cannot be done on a theoretical basis by an exchange of paper or by a regulator. As discussed in more detail below, several unbundling proposals mentioned in the notice highlight the need to resolve unbundling requests, at least in the first instance, through direct negotiations between technical staffs, rather than administrative litigation. *Albers Aff.* at 19-20.

2. The bona fide request procedure comports with the Act's policies of (1) encouraging negotiation of inter-carrier arrangements, *see* 47 U.S.C. § 252(a); (2) safeguarding access to proprietary network elements; and (3) judging unbundling requests by whether the failure to provide access to the requested elements "would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer." *See* U.S.C. § 251(d)(2)(B).

3. The bona fide request procedure eliminates the waste and unnecessary burden that would be entailed by requiring the initial unbundling of an arbitrary list of theoretical network components. It also will help protect incumbent LECs from simply ill-considered requests. For example, in Maryland, Bell Atlantic expended considerable resources to design and file an offering for "Flexible Direct Inward Dialing" at the behest of a competing carrier, only to find that not a single order for that service was ever received because carriers decided they actually favored a Remote Call Forwarding solution to interim number portability. *Albers Aff.* at 20. Similarly, although Bell Atlantic has unbundled some 15 interstate "basic service elements" pursuant to the Commission's Open Network Architecture mandate, there has been virtually no demand for 85% of those elements. *Albers Aff.* at 20-21.

4. Finally, the bona fide request process will provide a considerable benefit even if the parties are unable to reach agreement. Unresolved unbundling requests will come to state commissions with a complete record of the underlying technical considerations, thereby conserving the commissions' scarce resources for resolving narrowly-focused disputes, rather than conducting burdensome investigations to gather the information necessary to frame those disputes.

V. **The Points of Interconnection Identified in the Notice Are Technically Feasible and Should Be Adopted as the Initial Set of Required Points**

The notice tentatively concludes that interconnection at the trunk- and loop-side of the local switch, at transport facilities, at tandem facilities, and at signal transfer points is technically feasible. NPRM at ¶ 57. Subject to the limited clarifications or exceptions described below, interconnection at each of these points meets the definition of technical feasibility set out above, see supra p. pp. 21-22, and can reasonably be adopted as an initial set of required interconnection points. The necessary clarifications are four-fold.

First, as the notice recognizes, NPRM at ¶¶ 53-54, the Act contains separate provisions for “interconnection” and for “transport and termination.” Many parties, prior to the Act’s passage, used “interconnection” in a manner inconsistent with the Act to mean “transport and termination,” and that usage still persists. See, e.g., Association for Local Telecommunications Services, Implementing Local Competition Under the Telecommunications Act of 1996, A Proposed Handbook for the FCC (Mar. 1996), at pp. 11-13 (“ALTS Handbook”). To avoid any lingering ambiguity, the Commission should clarify that “interconnection” means the physical linking of two networks, and “transport and termination” means the termination of

calls from another LEC's customers to the serving LEC's customers once the interconnection has been established.

Second, the Commission tentatively concludes that "interconnection at a particular point will be considered technically feasible if an incumbent LEC "currently provides, or has provided in the past, interconnection to any other carrier at that point." NPRM at ¶ 57 (emphasis added). While this may be true in many instances, it will not be true in every instance. In particular, as technology evolves, new types of equipment and technology may eliminate points of interconnection that were feasible in the past with older and simpler technologies. To cite just one example, advanced fiber to the curb systems may not be capable of supporting all the same interconnection points as older generations of technologies. Albers Aff. at 5. As a result, a categorical requirement that permits no exceptions runs the risk of freezing existing technologies in place or, alternatively, inefficiently requiring LECs to provide and maintain two parallel network facilities. Id.

Third, the notice tentatively concludes that, to the extent one LEC provides interconnection at a given point, "all incumbent LECs that employ similar network technology should be required to make interconnection at such points available." NPRM at ¶ 57 (emphasis added). Any standard based on a notion of "similar" technology or network structure, however, is too vague to be workable in practice. For example, digital switches from different manufacturers may have very different capabilities, even though they are arguably "similar network technologies." Albers Aff. at 6. As a result, what is technically feasible with equipment from one manufacturer may not, in all cases, be feasible with equipment from another manufacturer.

Fourth, the notice suggests that “meet point” interconnection arrangements are among those under consideration by the Commission. NPRM at ¶ 64. These arrangements, however, are particularly complex and involve a host of technical issues that the parties to each such arrangement would have to resolve. Albers Aff. at 4-5. In addition, if one carrier forecasts insufficient traffic volumes, customers of both carriers will suffer degradation of service. Id. Accordingly, the Commission should not mandate particular meet point arrangements, but instead should allow carriers to resolve the major technical and forecasting issues through the bona fide request procedure.

VI. Any Initial Set of Unbundled Elements Adopted by the Commission Should be Limited to Loops, Local Switching Ports, Transport, Signaling System and Databases

As noted above, any initial set of network elements prescribed by the Commission should be limited to unbundled loops, local switch ports, transport, and signaling systems and databases needed to route and complete calls. These elements have proven capable of being offered in the marketplace, and meet the definition of technical feasibility described above. However, additional unbundling requirements proposed in the notice -- subloop unbundling and switching “platforms,” in particular -- should not be included in any initial set of elements that must be provided today. Both of these additional “elements” are as yet ill-defined and have never actually been provided or even tested. Instead, to the extent any carriers actually want access to such additional elements, they should be handled through the BFR and arbitration procedure outlined above. This will allow the parties to work together to define the elements they want, to develop the capability to provide it, and will provide a mechanism to quickly resolve any disputes.

A. **Unbundling of Loop Sub-elements Is Untried and Should Be Left to the Bona Fide Request Procedure**

Bell Atlantic today offers unbundled loops in Maryland and is prepared to provide them throughout its region. Potential local interconnectors have confirmed that, along with the other unbundled elements in Bell Atlantic's existing tariffed offerings, the availability of unbundled loops will permit them to enter the local telephone business and provide competing local exchange and exchange access service. No competing local exchange carrier in Bell Atlantic's region has asked for or needs any further unbundling to enter the market and compete, and MCI has confirmed that it is ready to provide local service without any additional unbundled elements.⁵

By contrast, providing access to loop "sub-elements" is something that has never even been tried in the real world, and that makes the technically complex task of providing unbundled loops seem like child's play. Moreover, unbundling the loop into sub-elements is completely unnecessary for the competitive provision of local exchange service. PA Tr. at 100; see also, Jackson Aff. at 3. In fact, no carrier other than AT&T and MCI has requested that Bell Atlantic further subdivide the loop. PA Tr. at 132, 833; Id., MCI Statement 1.1 at 7 (filed Mar. 22, 1995). Yet MCI has expressly conceded that sub-loop unbundling is not necessary for "ubiquitous competition immediately." And, while AT&T has publicly demanded that the loop be unbundled into the same three "basic network functions" identified in the notice, even it has admitted in state regulatory proceedings that it knows of no plans to use the piece parts it has

⁵ See Applications of MFS Intelenet of Pennsylvania, Inc., et al., Docket Nos. A-310203F0002, et al. (Phase II) (Pa. P.U.C.), Tr. at 100, 132, 400, 592-93 (hereafter "PA Tr.").

demand, and that for most loops, sub-loop unbundling would not be “prudent.” PA Tr. at 832-33, 837-38.

Even a cursory listing of some of the significant technical and operational difficulties presented by subloop unbundling serves to explain why it cannot be mandated nationwide in the context of a litigated proceeding. Albers Aff. at 10-12; Jackson Aff. at 3-5. For example, no generally accepted industry standard for loop sub-elements exists today, and special hardware and operational systems would have to be designed, developed and deployed to accomplish such unbundling on a meaningful scale. Albers Aff. at 10; Jackson Aff. at 3-5. Moreover, space in existing facilities where access to such loop sub-elements would have to be provided is extremely limited, and providing multiple carriers free ranging access to all these various facilities would raise serious security concerns that have to be resolved. Albers Aff. at 10; Jackson Aff. at 4-5.

Given this complexity, it is not surprising that every state Commission that has considered subloop unbundling has rejected it, and there is not a single jurisdiction where subloops are available today.⁶ This Commission should not require unbundling of loop sub-elements as part of the initial set of unbundled elements. Instead, such unbundling should occur through the BFR procedure in response to actual demand from a carrier or carriers that would use loop sub-elements to provide a service.

⁶ An Illinois statute requires a LEC to unbundle subloops elements within 180 days of a bona fide request, unless the LEC seeks a waiver. (There reportedly have been no demands, however, for subloop elements.) Ill. Admin. Code Title 83 § 790.320. In Hawaii and Florida, the incumbent LECs have been ordered to calculate the costs of subloop elements, but not ordered to offer access to such elements. Docket 7702, Order 14129 (Haw. P.U.C. Aug. 14, 1995); Docket 950984-TP, Order 96-0444 (F1. PSC Mar. 29, 1996) at 9-10.

In fact, Bell Atlantic has already proposed a subloop unbundling trial to AT&T, and the companies are in the preliminary stages of identifying where and how such a trial would take place. The trial can determine what parts of the network will require reengineering, what the costs will be, and what, if any, elements AT&T actually wants. As with the development of any new service, problems may arise, but at least initially, only the carriers are in a position to solve these problems and make the educated and economic choices of how and whether subloop unbundling should be pursued.

B. The Local Switch Port Provides Access to All of the Capabilities of the Incumbent's Switch and Further Unbundling Should be Accomplished Through the Bona Fide Request Procedure

Bell Atlantic today offers access to its local switch on an unbundled basis in Maryland through its local switch "port," and plans to do so throughout its region. The local switch port permits competing carriers to connect to the LEC's switch, and provides those carriers with access to all of the functions of that switch. Albers Aff. at 13. This includes dial tone, the ability to originate and terminate local and toll calls, access to local usage and vertical services, ringing, dial pulse or touchtone reception and mandated blocking options for 900. The port also provides access to all other switch capabilities, including access to 911 and E911. These are all the features and services to which ALTS has requested access.⁷ A separately available local switch port termination at central office switches therefore gives carriers access to local switching capability, and allows them to combine their loops with unbundled switching capability and offer local exchange service.

⁷ ALTS Handbook, pp. 13-15.

Some parties have suggested, however, that the incumbent LECs should be required to unbundle and provide access to some sort of “switching platform.” E.g., NPRM at ¶ 100. These suggestions are ill-defined at best, and to the extent they have been given any definition at all, raise significant technical problems. Richardson Aff. at 5-6; Albers Aff. at 14. Moreover, every state that has considered such platform proposals has rejected them, and the concept (whatever it is) has never been tested. *Id.*

In any event, based on what little can be discerned from the vague descriptions of these proposals, they appear to have nothing to do with local competition -- instead they are calculated to permit their long distance carrier proponents to avoid access charges and the resale pricing provisions of the Act. *Id.* The proponents of the “platform” approach admit that their aim is to buy interexchange access service and the vertical services that the LECs currently offer at retail, but to do so using the pricing standard that applies to unbundled network elements. PA Tr. at 781-82. The reason for this is clear: interexchange access and vertical services historically have been priced at levels that provide significant contribution to covering the joint and common costs of the LECs’ ubiquitous local networks. By circumventing access charges and the resale provision, the proponents of the platform model hope to obtain a lower price, and eliminate the contribution that LECs currently receive from these services. But the Act simply does not permit such an approach. Consequently, their supposed alternative model for providing access to the local switch should not be included as part of the initial set of unbundled elements.

C. Special Access and Transport Services Have Been Unbundled

As the Commission correctly recognizes, NPRM at ¶ 105, existing interstate tariffs already permit other carriers to obtain access to special access and transport services on an

unbundled basis. Specifically, these tariffs provide interoffice transport services, known as channel mileage or transport, with or without tandem switching, and an entrance facility, channel termination, or cross-connection at either or both ends of the circuit. Bell Atlantic has filed, or will soon file, intrastate tariffs with the same rate elements in all of its states, and those tariffs are either in effect or soon will be. No further unbundling should be required.

D. Interconnection To The SS7 Network Should Be Provided At The STP

The Commission proposes here to require LECs to provide access on an unbundled basis to “databases and associated signaling necessary for call routing and completion,” and asks for comments on where other carriers should be allowed to interconnect to the LECs’ Signaling System 7, or “SS7” networks, NPRM at ¶¶ 107, 108. The answer is that interconnection to the SS7 network should be provided at Signaling Transfer Points, or “STPs,” and doing so meets the statutory requirements.

The STP was designed, in part, to be the common entry point to obtain access to the SS7 network and to afford interconnectors access to all SS7 functions. The STP provides critical network functions that are not replicated at any other location in the SS7 network, and that are essential to the operation of the SS7 network. Albers Aff. at 16; see also Ameritech Operating Companies, DA 96-446 at ¶ 3 (rel. Mar. 27, 1996). Consequently, Bell Atlantic itself connects to the SS7 network through the STP, as do the networks of third parties.

Moreover, affording access at the STP allows other providers to offer their customers any services that use SS7 functions. SS7 access through the STP also provides access to the databases needed for call routing and completion -- Line Information Database and 800 database -- and the associated signaling. See 47 U.S.C. § 271(c)(2)(B)(x). This is all the Act

requires. 47 U.S.C. § 251(d)(2).⁸ And given that SS7 capabilities are competitive, NPRM at ¶ 110, other carriers are in no sense dependent on the LECs for call set-up and other SS7 capabilities in any event. Albers Aff. at 16-17.

The notice, however, cites orders from three states that address the issue of SS7 and database access, and asks whether there are additional points where access should be required, such as the SCP. NPRM at ¶ 109. Contrary to the suggestion in the notice, these orders do not require access at points other than the STP. In fact, only one of these state orders (Colorado) addresses the appropriate interconnection point, and it expressly provides for “access to each Service Control Point through Signal Transfer Points.” 4 CCR 723-39-6.2.⁹ adopted in Proposed Rules Regarding Implementation of §§ 40-14-101 et seq. -- Requirements Relating to Interconnection and Unbundling, Commission Decision Adopting Rules, Docket No. 95R-556T (Co. Pub. Util. Comm’n Mar. 29, 1996) (emphasis added). It does not otherwise specify the points of connection to SS7 networks, except for a requirement that interconnection generally be provided at any “technically feasible point.” 4 CCR 723-39-3.3.2.

Finally, the Commission should reject claims that the software “building blocks” in LECs’ switching systems constitute discrete network elements that should be made available

⁸ Besides providing access to the SS7 network at unbundled rates, Bell Atlantic will, of course, resell any SS7-based telecommunications services that are available to the public at retail. See NPRM at ¶ 111.

⁹ Hawaii, in contrast, merely requires separate cost studies for STPs, SCPs and signaling links, but does not address points of interconnection. Investigation of the Communications Infrastructure of the State of Hawaii, Docket No. 7702, Order No. 14129, 1995 WL 553009 (Haw. P.U.C. Aug. 14, 1995). Louisiana merely mandates non-discriminatory access, so that, if the LEC accesses the SS7 network through the STP, it would have an obligation only to provide similar interconnection to others. Regulations For Competition in the Local Telecommunications Market, General Order, 1996 WL 137695 (La. P.S.C. March 15, 1996).

to allow other providers to offer their own call processing features. NPRM at ¶ 111. The software through which these features are provided is proprietary to the vendors, and Bell Atlantic has no authority to sub-license the software in whole or part. See 47 U.S.C. § 251(d)(2)(A). In addition, this software is designed in such a way that advanced call processing functions, i.e., vertical features, cannot be decoupled from the basic dial tone line and offered separately. Albers Aff. at 17.

E. AIN Access is Currently Feasible Only at the SMS Level

As the Commission recognizes, NPRM at ¶ 114, access to LECs' advanced intelligent network, or "AIN," capabilities do not fall within the scope of the Act's unbundling requirements. In fact, AIN is neither a signaling system nor a database, and does not otherwise qualify as a network element under the Act. 47 U.S.C. § 153(29).

Nonetheless, by incorporating the record of the Intelligent Networks proceeding into the current docket, the notice suggests that the Commission may resolve at least some of the issues raised in that proceeding here. As Bell Atlantic previously demonstrated in the Intelligent Networks proceeding, the only point at which it is technically feasible to provide AIN access is at the Service Management System, or "SMS," level. See, e.g., Comments of Bell Atlantic, CC Docket No. 91-346 (filed Nov. 1, 1993). Providing access at this level, however, would allow other providers to create their own AIN services and obtain access to the full range of Bell Atlantic's capabilities. Consequently, even if AIN access were an issue covered by section 251 (which it is not), providing access at the SMS level meets the requirement of that section. See 47 U.S.C. § 251(d)(2).¹⁰

¹⁰ Moreover, as the notice itself points out, NPRM at ¶ 113, Bell Atlantic and others have proposed a nationwide study to explore the feasibility of developing alternative forms of

F. Operator Call Completion Services Are Services, Not Network Elements

The Commission should not adopt its tentative conclusion that operator call completion services are network elements under Section 251(c)(3). See NPRM at ¶ 116. As the Act plainly states, operator services are services, not network elements, which are components of services.

In addition, contrary to the suggestion of the notice, Section 271 of the Act does not require operator call completion services to be unbundled and made available as network elements. Rather, Section 271 requires the Bell companies to afford nondiscriminatory access to operator call completion services as a precondition to in-region interexchange relief. 47 U.S.C. § 271(c)(2)(B)(vii)(III). Bell Atlantic already provides operator services to other carriers on a nondiscriminatory basis, both under contract and pursuant to interstate tariff, and therefore meets the requirements of this part of the checklist.

There is no need for Commission intervention to ensure that these services are available to new entrants. Operator services are already available from the over 145 other operator service providers in operation in the United States today. "Operator Services," Phone Plus Magazine, July 15, 1995 at 69-76.

third party access to the AIN. In particular, the study would explore the feasibility of developing a "mediation" capability that would permit other carriers to obtain access at Signaling Control Points, as some carriers have requested. This is a capability that currently is not provided by any of the various intelligent network technologies that are in operation in the United States, nor is there any such mediation software currently available that is compatible with Bell Atlantic's AIN platform. Albers Aff. at 18-19. In local proceedings, even AT&T has admitted to being unaware of such software. PA Tr. at 823. Consequently, until such a study is conducted, there is no basis on which to conclude that access at any point other than the SMS is technically or operationally feasible.

G. **The Commission Should Not Adopt National Standards for Provisioning, Maintenance, and Repair**

The Commission should not attempt to develop specific national standards for provision, maintenance and repair, NPRM at ¶ 89, but instead should adopt a rule requiring that terms and conditions for interconnection points and unbundled network elements be non-discriminatory.

Unbundled loops and local switch ports are new services that LECs have little experience in providing. In addition, providing unbundled elements requires more work. For example, provisioning an unbundled loop is more complicated and requires more work than provisioning a dial tone line for an end user. Therefore, the Commission should not mandate that LECs “provide network elements using the appropriate installation, service, and maintenance intervals that apply to LEC customers and services.” NPRM at ¶ 89. Nor should the Commission mandate uniform national standards for provisioning, maintenance and repair. Administrative and operating support systems differ among LECs, and different LECs may have different types of test equipment. Moreover, LECs may be subject to different state service standards. Mandatory national standards cannot take all these various factors into account.

H. **The Commission Should Require that Unbundling Arrangements Offered by an Incumbent LEC be Made Reciprocal**

To the extent the Commission adopts national standards to implement the Act’s interconnection and unbundling requirements, the Commission should require that all arrangements provided by an incumbent LEC for a competing carrier be made reciprocal. NPRM at ¶ 45. The reason for a reciprocity requirement is two-fold.

First, in some instances, particularly new office developments, the new entrant may have the only facilities serving a particular customer. It would be wasteful and inefficient to require the incumbent to duplicate the new entrant's network in order to compete for those customers. Such inefficiencies undermine competition and hurt consumers. Second, reciprocal interconnection and unbundling requirements also will put a "real world" check on potentially unrealistic -- or purely tactical -- unbundling requests.¹¹ Such a requirement will therefore help prevent carriers from transforming a process designed to promote competition into a mechanism for hindering competition.

VII. The Commission Should Reaffirm the Policies Adopted in the Expanded Interconnection Proceedings

Section 251 provides for "physical collocation" by competing local carriers "of equipment necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier." 47 U.S.C. § 251(c)(6). The Act also authorizes state commissions to permit virtual collocation where physical is not "practical" for technical reasons or because of space limitations. *Id.* Although the Act leaves the details of any collocation arrangements to negotiations and to the states, the Commission nonetheless proposes here to adopt "national standards" implementing this requirement. *See* NPRM at ¶ 67.

To the extent the Commission does so, any such standards should track those established by the Commission in its Expanded Interconnection proceedings on switched and

¹¹ *See* Interconnection of Exchange Access Carrier Facilities, RM-7249, MFS Petition for Rulemaking at 11, n.4 (filed Nov. 14, 1989) ("MFS does not ask that the BOCs be required to do anything it would not be willing to do itself. Any interconnection and collocation obligations imposed on the BOCs should apply reciprocally if a BOC desires access to the network of a competing carrier.")

special access collocation. Those policies were adopted following lengthy proceedings and are based on an exhaustive record.¹² Moreover, the LECs affected by those orders now afford physical and/or virtual collocation services to a number of customers. The Commission should not disrupt this process by starting anew here. Instead, it should clarify that, subject to the modifications described below, compliance by a LEC with its existing policies satisfies the requirements of Section 251.

The Commission's existing policies also address a number of specific questions raised by the NPRM. First, with respect to the "premises" where collocation is required, the Commission previously held that the locations where LECs are required to provide physical collocation are limited to central offices, tandem switching locations, and remote nodes that serve as rating points for transport (subject to space availability). 7 FCC Rcd 7369, 7417-18, n.244. The Commission specifically found that collocation at other types of remote nodes is infeasible, because of their small size, because of network security problems, because they generally serve only limited functions, and because of the lack of value to an interconnector. As explained in the attached affidavit, Albers Aff. at 15, these conclusions still apply fully today, and there is no reason for the Commission to reach a different conclusion here.¹³

¹² Expanded Interconnection with Local Telephone Company Facilities, 7 FCC Rcd 7369 (1992) (physical special access collocation); 8 FCC Rcd 7374 (1993) (physical switched access collocation); 9 FCC Rcd 5154 (1994) (virtual collocation).

¹³ The Commission should, however, clarify its tentative conclusion to allow collocation in any LEC owned or leased building where the LEC houses network facilities. See NPRM at ¶ 71. LECs should not be required to provide non-operating space (i.e., administrative space) in a building just because the building happens to house network (i.e., central office) facilities. Instead, mandatory collocation should be limited to the portions of buildings that are set aside for network operations, i.e., environmentally-controlled space that is conditioned for telecommunications equipment.

Second, when the Commission adopted the original special access collocation order in 1992, it established a process by which LECs could obtain waivers for locations where physical collocation was otherwise required. It did not, however, prescribe detailed guidelines for its waiver review process but, instead, reviewed each exemption request based upon the sufficiency of the showing of insufficient space. 7 FCC Rcd at 7490-91. Here, the Act expressly gives the authority to the states to grant waivers. But just as the Commission concluded that detailed guidelines were unnecessary for its own review process, it is unnecessary for the Commission to prescribe detailed rules to be followed by the states.

Third, the Commission previously held that any equipment that an interconnector collocates on the LEC's premises should be limited to only the transmission equipment that is used to connect to the LEC's services, and should not extend to switches or other equipment that is not needed to establish the physical connection between the carriers' networks. Likewise, the 1996 Act requires collocation only of equipment "necessary" for interconnection or access to network elements. 47 U.S.C. § 251(c)(6) (emphasis added); see also NPRM at ¶¶ 66 and 72. As a result, mandatory collocation should continue to be limited only to transmission equipment needed to interconnect with the LEC's network.

There also is no reason for the Commission to revisit all of its collocation, implementation and pricing guidelines here. Instead, the Commission should clarify that compliance with these guidelines satisfies section 251.¹⁴

¹⁴ There is one important respect in which the Commission's pricing guidelines should be revised if they are to serve as guidelines for the states. Specifically, rather than prescribing a specific -- and static -- overhead loading factor as it did previously, the Commission should allow the overhead loadings for collocation services to reflect the loadings associated with rates for comparable access services in effect at any given time. See Motion to Vacate Prescription, CC Docket No. 94-97 (filed Sept. 18, 1995).

However, the Commission should revisit one aspect of its earlier policy in one respect, 7 FCC Rcd at 7403, n.167, and require all LECs and competitive access providers, not just incumbent LECs, to provide collocation. Universal collocation obligations will facilitate interconnection and lower the costs of all service providers. By requiring reciprocity, moreover, the FCC also will deter unrealistic or overly costly collocation requests.

VIII. Prices For Interconnection and Access to Network Elements Must Be Set Based Upon Total Network Costs

As an initial matter, it is important to clarify the context in which the Act's pricing standards apply. Under the Act, the price for interconnection and access to network elements is to be determined in the first instance by negotiated agreements between the parties, subject to review by the states. 47 U.S.C. 251(c)(1), 252(a). If, and only if, an agreement is not reached, either party may petition the state commission to arbitrate any open issue, including price. In that case, any "determinations" of the just and reasonable rates for interconnection and access to network elements are to be made by "a State commission." *Id.*, §§ 252(c), (d).

Under the Act, state commissions must set rates that are "based on the cost ... of providing the interconnection or network element," and that "may include a reasonable profit." 47 U.S.C. §§ 252(d)(1)(A)(i) and (d)(1)(B). In order to satisfy this standard, prices for interconnection and network elements cannot be set at incremental cost, as some claim, but instead must allow the LECs to recover the total costs of constructing and operating their networks. Hausman Aff. at 3-5, Crandall Aff. at 6.

Regulators and economists alike have long recognized that, for a multi-product firm such as a LEC that is characterized by economies of scale and scope, if rates for all -- or

even many -- services were set at incremental cost, the LEC's rates as a whole "will not recover the total cost of the network." See, Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, NPRM, CC Docket No. 95-185 at ¶ 48 (rel. Jan. 11, 1996); ("Bill and Keep NPRM"); see also 7 FCC Rcd at 7429, n.291 ("it would not be reasonable to require the LECs to base [interconnection] charges only on the direct costs of these services, with no loadings for overhead costs"). Under these circumstances, the business would fail over the long term. Hausman Aff. at 9-10, Crandall Aff. at 6-7. This is particularly true in today's environment where basic local exchange services already contribute little, if anything, to covering the total costs of operating the LECs' joint use networks.

Consequently, the pricing standard contained in the statute requires that state commissions set prices at levels that will allow LECs to recover not only their incremental cost, but also a contribution to their joint and common costs. Hausman Aff. at 6. In addition, because incremental cost is a purely forward-looking measure of cost, basing rates on incremental cost would deny LECs the ability to recoup any unrecovered historical investment. Id. As a result, any rates set by state commissions also must provide a contribution to any unrecovered historical costs that the LECs have actually incurred. Id. This is the only approach that will allow the LECs to recover their total cost and allow them an opportunity to earn a reasonable profit.

Remarkably, some parties nonetheless have claimed that the Act actually requires that prices for interconnection and access to network elements be set equal to the "economic" or "incremental" cost to provide them. This is so, they claim, because the Act prohibits use of other cost standards, and because economic cost supposedly "already includes a reasonable profit."

They are wrong.

The only statutory basis these parties can find for their argument is to point to a provision of the Act that bans resort to a “rate-of-return or other rate-based proceeding.” 47 U.S.C. § 252(d)(1)(A) (emphasis added). But, as the legislative history confirms, this merely bars state commissions from initiating a traditional “rate case” or other proceeding that would require burdensome rate-of-return style cost showings. See Senate Report at 21 (“The bill specifically provides that the State may not use or require a rate of return or other rate based proceeding to determine the cost of an unbundled element”) (emphasis added). It does not, however, change the relevant cost standard. To the contrary, it underscores Congressional support for the “cost plus contribution” approach to setting rates under existing price cap regulatory schemes, which are the alternative to the rate-of-return proceedings Congress forbade.

Nor, contrary to the claims of some, does setting prices equal to “economic cost” provide LECs an opportunity to earn a reasonable profit. While a correct measure of incremental cost will include a component to cover a LEC’s forward-looking cost of capital, this is still a cost. Hausman Aff. at 7-8. Profit, in contrast, is defined as the excess of revenues over cost. Id. As a result, until all relevant costs are covered, including the cost of capital, there can be no profit in an economically meaningful sense. Id. Moreover, so long as all prices are set equal to incremental cost, the LECs can never earn a reasonable profit for the company as a whole. They still would be denied the ability to recover the total costs of operating their networks and to earn a reasonable profit on those costs.

Setting prices equal to incremental cost also would constitute a Fifth Amendment violation. By denying LECs the ability to recover their total prospective and unrecovered historical costs, plus a reasonable return on those costs, mandating prices at incremental cost

would deny LEC's their constitutional right to "just compensation" for the dedication of their property to the use of others. As the Supreme Court has made clear, "[i]f the rate does not afford sufficient compensation, the State has taken the use of utility property without paying just compensation and so violated the Fifth and Fourteenth Amendments." Duquesne Light Co. v. Barasch, 488 U.S. 299, 308 (1989). To avoid an unconstitutional taking, an agency must set prices at a level "sufficient to ensure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital" -- that is, there must be "enough revenue not only for operating expenses but also for the capital costs of the business," including "service on the debt and dividends on the stock." Jersey Central Power & Light Co. v. FERC, 810 F.2d 1168, 1178 (D.C. Cir. 1987) (*en banc*) (quoting FPC v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944)). Regulated prices at the level of incremental cost cannot satisfy that standard.

Further, setting rates at incremental cost will not, as some parties have claimed, create incentives for new entrants to build their own facilities. In fact, it will do quite the opposite. If new entrants build their own facilities, they too will have to price their various services at levels that will allow them to recover the total costs of their joint use networks. But as long as AT&T, MCI or others can buy network elements at incremental cost, they do not face the same problem. As a result, no facilities-based provider, whether the incumbent or a new entrant, would be able to compete on equal terms with these providers. Ironically, the net result would be to allow the long distance carriers to take traffic away from the incumbents without investing a dime in their facilities, and to deter entry by legitimate facilities-based competitors.

In addition to exploring the correct economic theory for setting prices, the notice also asks whether there are any "proxies" or "benchmarks" that could be used to judge the

reasonableness of particular rates. Any attempt to set a nationwide proxy is inherently problematic, however, particularly if the proxy is intended as a ceiling on actual rates. Local conditions vary widely around the country, both in terms of the technology being used and in terms of geography, terrain and population density. As the Act recognizes, therefore, state commissions are in a vastly superior position to determine reasonable prices, including reasonable proxies if they are to be used.

Nonetheless, while any proxy that is used by a state commission should not impose an absolute ceiling on rates, it may be possible in some instances to devise a proxy for a rate that is will be presumed lawful in an arbitration proceeding. To cite just one example, elements of the LECs' existing interstate access rates could be used to calculate a proxy for an average unbundled loop price that is presumed lawful. The average is important, however, since LECs will need the flexibility to vary prices proportionately upward and downward across their rate zones to reflect differences in density (with the establishment of rate zones left to the states as it is today for dial tone lines).

Specifically, the same cost numbers that are used to set the interstate subscriber line charge and carrier common line charge, when added together, are equal to roughly 25 percent of the non-traffic sensitive cost to the local loop. In the case of Bell Atlantic, for example, these rate elements recover an average of approximately \$5.50 per line. This translates into a proxy for the average cost of a loop of roughly \$22 per month; to the extent Bell Atlantic establishes unbundled loop prices within a state that, on average, are equal to or less than this amount, they can be presumed lawful without a further showing.

A similar proxy is available to the extent LECs already offer elements under effective tariffs at either the federal or state level. For example, some network elements, such as dedicated transport, common transport, tandem switching, and collocation cross-connects already are available under special access tariffs of switched access, while other network elements, such as unbundled local switch ports, already are available under state approved, cost-based tariffs. Under these circumstances, the rates contained in the tariffs also should be treated as presumptively lawful for purposes of section 251.

IX. The Reciprocal Compensation Provision of the Act Requires, at a Minimum, that Carriers be Allowed to Recover the Cost to Terminate Calls on Their Networks

The Act also imposes a duty on all local exchange carriers -- incumbents and new entrants alike -- to establish reciprocal compensation arrangements for the "transport and termination" of telecommunications. 47 U.S.C. § 251(b)(5). In contrast to the interconnection provision in section 252(d)(2), which applies to the physical connection between the competing networks, the reciprocal compensation provision applies only to the transport and termination of local calls that originate on another carrier's network once the physical connection has been established. The reciprocal compensation provision is accompanied by a separate pricing standard -- to be applied by state commissions in any arbitration proceedings under section 252 -- that is tailored to the particular circumstances when it applies.

Specifically, the Act provides that a state commission shall not consider such arrangements to be just and reasonable unless they provide for the mutual and reciprocal recovery by each carrier of the additional costs incurred to terminate calls that originate on the other carrier's network. 47 U.S.C. § 252(d)(2)(A). Unlike the pricing standard for

interconnection and access to network elements, this provision does not require that the price ultimately set be “based on cost,” but instead establishes a price minimum. Accordingly, the parties must, at a minimum, be able to recover their costs on a reciprocal basis. Precisely because these arrangements are reciprocal, however, and each party must pay the other reciprocal rates, the Act establishes only a minimum, and leaves it to the parties to determine the precise terms above this minimum.

The Act also permits a limited exception to this general rule. The pricing standard does not “preclude” arrangements between the parties that allow the recovery of cost through the “offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill-and-keep arrangements).” Section 252(d)(2)(B)(i) (emphasis added). By its very terms, this provision creates an exception to the right to recover the costs of transporting and terminating calls only where the parties voluntarily waive this right. In fact, by definition, the term “waive” means to “relinquish voluntarily (as a legal right).” See Webster’s Third New International Dictionary (1993); see also Black’s Law Dictionary (6th ed. 1990) “[t]o give up [a] right or claim voluntarily”). It does not, however, permit arrangements such as bill and keep to be imposed by regulatory mandate, whether in the context of an arbitration or as an interim measure. NPRM at ¶ 243.

Moreover, because bill and keep requires LECs to incur the cost of terminating traffic over their networks but precludes them from recovering these costs, a mandated bill and keep arrangement would constitute a taking in violation of the Fifth Amendment. A bill and keep arrangement would permit local competitors to occupy the LECs’ facilities -- wires and switches -- in much the same way that an easement allows the holder to occupy part of a

landowner's property. See Nollan v. California Coastal Comm'n, 483 U.S. 825, 831-31 (1987). And it would allow them to do so at a zero rate that would leave the LECs without any compensation for the cost imposed on them by this occupation of their property. As a result, a regulatorily mandated bill and keep arrangement simply cannot pass constitutional muster. See Richard A. Epstein, The FCC Bill and Keep Order: A Takings Analysis, CC Docket No. 95-185 (May 16, 1996). Since it is well established that "[w]ithin the bounds of fair interpretation, statutes will be construed to defeat administrative orders that raise substantial constitutional questions," the Commission cannot interpret the Act to permit mandatory bill and keep compensation schemes. Bell Atlantic Telephone Companies v. FCC, 24 F.3d 1441, 1445 (D.C. Cir. 1994); see also Rust v. Sullivan, 500 U.S. 173, 190-91 (1991).

Nor would mandating bill and keep make sense from an economic or policy standpoint, even if such mandatory arrangements were not already forbidden by the Act and the Constitution. Mandating bill and keep would force LECs to terminate calls on their networks at a zero rate that is unquestionably below cost. This would create a subsidy for competing providers like AT&T, MCI, MFS, Teleport, TCI, Time Warner, and the nation's largest cable companies, who by no stretch of the imagination are in need of one. It would do so, moreover, at a time that Congress has directed the Commission to eliminate hidden subsidies, and would force the LECs' other customers to bear the cost of this subsidy. And because bill and keep frees a competing provider from any accountability for the costs it imposes on the incumbent LEC, bill and keep eliminates any incentive to use the LECs' termination service efficiently and will lead to economically wasteful behavior. Hausman Aff. at 9-10.