

ukase that it would shut down ADSL implementations by CLECs in California that were not identical to its own. Fortunately for Covad's existing and future customers, SBC's initial threat not only would have violated its interconnection agreement with Covad, which contained a type of "riparian rights" approach to spectrum management, but also seemed based on an incorrect interpretation of outdated technical material.

Yet, in Texas and other states, SBC soon succumbed again to the temptation to claim other potential "harms to the network" in a manner that would make deButts proud. Covad's understanding of the SBC current position to be as follows: (1) SBC alone defines and determines "harm to the network"; (2) SBC decrees that the technology it plans to deploy is *per se* acceptable; (3) SBC declares that any CLEC implementation of DSL service is inherently suspect; (4) SBC requires that a CLEC first prove to SBC's satisfaction that the CLEC's chosen technology cannot, under any circumstances, cause a condition that might remotely be termed "harm to the network"; and (5) the CLEC is unceremoniously billed to support this SBC-administered "spectrum management program."

SBC's self-coronation as Spectrum Czar would, not surprisingly, allow immediate deployment of SBC's DSL technology of choice while SBC delays the entry of not only DSL competitors but ISDN and T1 competitors as well. The Commission has faced and successfully addressed these issues in the past, when confronted with deButt's monolithic Bell System. Aggressive and immediate *federal* action can effectively remove this looming impediment to entry.

Covad's proposed solution, outlined in Attachment 4, is adaptable and roughly analogous to procedures the Commission has encouraged in the past among the radio

community whereby an industry group, operating on a co-equal basis (thereby incorporating some cost-benefit analysis), develops interference procedures under government oversight. Covad's proposal also would clearly establish that the pending nature of this industry-driven solution cannot be used by incumbent LECs to deny CLECs the ability to provide services using any particular flavor of DSL technology demanded by CLEC customers in the meantime.

As the Commission correctly observed in ¶ 162, frequency issues relating to the provision of DSL services are not limited to interference concerns among physically proximate loops in a binder group or cable. Particular forms of ADSL technology (but, importantly, not *all* DSL technologies) separate frequency bands in a loop into a "POTS channel" at the lower band and a "data channel" at the upper band. Issues surrounding "spectrum unbundling" seem to stem primarily from the inelastic demand for analog POTS services and the more elastic demand for high-bandwidth data communications services—an inherent potential for cross-subsidization that results from using one physical facility to support both services. As a result, it is not surprising that ILEC federal tariffs for ADSL service directly engage in this cross-subsidization between POTS and data, whereby the *entire* cost of the local loop is assigned to the regulated POTS service while absolutely *no* cost of the local loop is assigned to the data service. As long as CLECs are faced with this environment, CLECs should have the ability to place a data signal on top of the ILEC's voice signal.⁵⁶ Only then will CLECs have parity of opportunity with ILEC ADSL service offerings.

⁵⁶ The Commission has decided to pursue the ILEC DSL tariff filings through separate investigations. Covad is a participant in those proceedings and has filed on the jurisdictional issue upon which the Commission has requested comment. In the second part of that proceeding, as bifurcated by the Commission, Covad anticipates that the Commission will investigate this cost-allocation issue. In that

*d. Redefining the Local Loop to Ensure Competitive LEC Access to
Loops Capable of Providing Advanced Services (§ 164)*

Covad believes that most, if not all, of the competitive issues faced by CLECs regarding the availability of DSL-capable loops can be addressed by more precise rules that describe the ILEC's obligations to provide these loops. The simple fact that no DSL-capable loop product is generally available in any Bell Atlantic state—even though Bell Atlantic recently filed an ADSL Service tariff with this Commission—demonstrates that the current rules need to be strengthened.

As a result, Covad has concluded that the current definition of the local loop should be augmented in order to ensure the competitive provision of advanced services. Covad's proposed rules (Attachment 4) take account of the existing and future network typology and foreseeable technical advances.

In particular, Covad believes that spectrum management (§§ 159-61), spectral unbundling (§ 162), uniform standards for equipment (§ 163), remote terminal issues (§§ 165-72), and subloop unbundling (§§ 173-76) can properly be regarded as “UNE definition” issues. The Commission has, pursuant to Section 251(d)(2), plenary authority to “determin[e] what network elements should be made available” and is to consider whether “the failure to provide such network elements would impair the ability of the

future proceeding, Covad will propose the following cost allocation principle to be applied when circuit switched voice (POTS) is provided over the same loop as ADSL: since the lower frequency POTS band comprises 1/100th of the usable frequencies of the loop and the upper frequency ADSL band comprises the remaining 99/100^{ths} of the usable frequencies, costs should be allocated on the same basis. Covad anticipates that, in the interest of treating consumers fairly, regulators will insist that the price of circuit switched voice alone fall to 1/100th of its present price given the ILEC bundled price (POTS and ADSL). Such a decision would alleviate the potentially considerable USF subsidy problem associated with the provision of a subsidized, circuit switched local voice service over the same facility as a non-subsidized high-bandwidth data service.

telecommunications carrier seeking access to provide the services that it seeks to offer.”

47 U.S.C. § 251(d)(2). As discussed above, the Commission has the authority to define an unbundled network element to include all “*features, functions and capabilities*” of a network facility. 47 U.S.C. § 153(29). Covad believes that its proposed local loop unbundling rule includes all of these critical issues and would allow CLECs to opportunity to utilize the full capabilities of existing copper loop outside plant.

A failure to consider spectral issues and standards, remote terminal issues and subloop unbundling in defining DSL-capable unbundled loops would *clearly* “impair” the ability of CLECs like Covad to provide the competitive DSL services of their choosing to all Americans.

In implementing detailed unbundled xDSL-capable loop rules, the Commission must be fully cognizant of the following fact. If advanced services are to be available to all Americans on a reasonable and timely basis, it is not enough to limit CLECs only to those services that the ILECs currently choose to provide. Rather, the principle of parity of opportunity—not to mention the unbundling provisions of the Act—requires that CLECs be given the opportunity to use all of the *features, functions and capabilities* of the existing network infrastructure⁵⁷ in any manner to provide any service, regardless of the ILEC’s incentives to stall deployment and competition from new technologies. As stated above, in defining network elements, the Commission is *required* to examine

⁵⁷ Covad employees associated with regulatory processes tend to bristle when told by ILEC representatives (usually as part of the denial of a reasonable request to achieve competitive parity), “You can say what you want, but it’s *our* network, after all.” This is true, but not *entirely* true. The existing network was constructed with funds collected from a captive public by a monopoly service provider largely on a rate-of-return basis. Accordingly, ILECs *administer the existing network as a public trust*. This principle is just one that underpins the 1996 Act and the FCC’s implementation of its provisions. It is one too often forgotten or deliberately obscured.

whether “the failure to provide such network elements would impair the ability of the telecommunications carrier seeking access *to provide the services that it seeks to offer*”—not just the services that the ILEC chooses to offer. 47 U.S.C. § 251(d)(2).⁵⁸

If CLECs are artificially restricted in their ability to provide particular consumers with flavors of xDSL that those consumers demand simply because ILECs choose not to deploy the requisite form of xDSL, then a valuable national resource (the existing local loop infrastructure) will not be used to best advantage to bring advanced services to all Americans. Put another way, Covad does not want to provide only the services that ILECs want to provide, it wants to provide the services Americans demand.

e. Unbundling Loops Passing through Remote Terminals (¶¶ 165-76)

The Commission has correctly recognized that one of the critical areas where its plenary authority in defining UNEs can significantly impact broadband deployment is with regard to loop unbundling requirements. Covad supports the Commission’s tentative conclusion that “providing an xDSL-compatible loop as an unbundled network element is presumed to be ‘technically feasible’ if the incumbent LEC is *capable* of providing xDSL-based services over that loop.” *NPRM* at ¶ 167. The Commission’s proposal that the *capability* of providing xDSL services is the key to defining this element—because technical feasibility (and the Commission’s mandate in Section 252(d)(2)) does not depend upon whether the ILEC has actually chosen to deploy a

⁵⁸ It is important not to understate this issue. Recent ILEC deployment of xDSL services has focused upon ADSL, an asynchronous service where the user has a large amount of “downstream” (to the home) bandwidth but has only limited “upstream” (away from the home) bandwidth. The fact that ILECs are now focusing upon ADSL deployment is no doubt related to the fact that this deployment does not risk cannibalizing significant ILEC revenues from T1, fractional T1, and frame relay services.

particular service. The Commission's proposal in ¶ 167 would implement the standard of parity of opportunity described above.⁵⁹

Covad also supports the Commission's initiative in ¶ 169 to address directly issues related to providing xDSL services to customers served by remote terminals, or RTs. The objectives of parity of opportunity and broadband deployment may be significantly thwarted when ILECs control facilities (such as terminal DSLAMs) that act as potential choke points in the digital transmission path. Currently, Covad has two options when faced with an order from a customer living in an area served by an Integrated Digital Loop Carrier system (IDLC): (1) obtain a twisted pair "work around" from the ILEC (often at considerable additional cost), which will increase the length of the copper run from the end user and decrease the transmission speed accordingly;⁶⁰ or (2) should the IDLC support ISDN, pay the ILEC to install an ISDN-compatible line card in the remote terminal that supports IDSL (ISDN DSL) service, which has a maximum speed of 144 kbps. Clearly, remote concentration devices have a significant effect upon the bandwidth of services that Covad is able to offer.

Fortunately, next generation Digital Loop Carrier ("DLC") systems may be designed around remote DSLAMs that can support multiple DSL technologies. DSL equipment vendors are actively developing suitable digital line cards that may be inserted into these DLCs. As a result, a fiber-fed, next-generation DLC might be able to support

⁵⁹ While Covad supports the Commission's concern articulated in ¶ 172 about "comparative disadvantage" between ILEC and CLEC xDSL offerings, Covad again states that "parity of service" is not sufficient to achieve the Commission's goals. In order for CLECs to deploy the broadband services that Americans want—not just the services ILEC monopolies want to deploy—CLECs must be granted "parity of opportunity" to make available the xDSL service of its choosing. Section 251(d)(2) requires no less.

⁶⁰ In ¶ 170 of the *NPRM*, the Commission correctly observed that this work-around would impact available bandwidth.

more bandwidth than a simple, end-to-end copper loop, because the fiber-fed DLC shortens the copper loop length.⁶¹

Nevertheless, deployment of these next-generation DLCs and DSL line cards is currently at the discretion of the resident ILEC, which will no doubt maintain its legendary Bellhead mentality, complete with the incentive not to deploy equipment that would interfere with existing T1 and ISDN revenues. Over time, the competitive issues associated with remote terminals and DLCs are not at all trivial, because the number of loops served by DLCs is increasing as fiber is deployed towards the periphery of the network.

Mandating that ILECs provide CLECs with “collocation” at remote terminals (suggested by the Commission in ¶ 170), as noted earlier, is an option that CLECs seeking to provide DSL services should have. However, it is not likely to have much immediate, near-term impact upon deployment, because substantial remote terminal collocation would involve a tremendous number of collocation potentially complicated by physical space, access, rights of way, and local zoning and permit issues.⁶² In addition, the Commission’s subloop unbundling proposals (¶¶ 173-76) are, as noted earlier, another option for CLECs seeking to provide DSL services should have, and Covad has proposed draft rules for their implementation.

Covad suggests that the FCC focus its initial efforts in this proceeding on resolving remote terminal issues through the unbundled loop definition process, with

⁶¹ Another potential benefit is a significant reduction in the potential for spectral interference, as long copper cable runs to the serving wire center would be reduced.

⁶² The Commission need not be reminded of the long and drawn-out experiences with wireless tower siting issues (local municipalities), pole attachments (electric power companies), and inside wiring (landlords).

particular attention to the impairment standard of Section 252(d)(2). Specifically, Covad proposes that the definition of the local loop element include the obligation of the ILEC to install, upon request and where technically feasible, a suitable digital line card of the CLEC's choosing at a remote terminal and provide demultiplexing capability at the relevant central office. This requirement does not require that the ILEC provide in any way a "superior" service than the ILEC currently provides itself. Indeed, the process of installing a suitable line card at a remote terminal is *precisely* the sort of work that ILECs perform at those terminals *every day* in providing ISDN, analog or even T-1/HDSL services. Simply applying this principle to next-generation DLCs and DSL line cards of the CLEC's choosing is, in Covad's opinion, the swiftest means of ensuring broadband deployment to these neighborhoods.

In addition, Covad's proposed rules (Attachment 4) would incorporate the following principles—

- Providing an xDSL-compatible loop as an unbundled network element is presumed to be "technically feasible" if the incumbent LEC is capable of providing xDSL-based services over that loop;
- The incumbent LEC shall bear the burden of demonstrating that it is not technically feasible to provide requesting carriers with xDSL-compatible loops; and
- The competitive LEC may request any "technically feasible" method of unbundling the DLC-delivered loop, and the incumbent LEC is obligated to provide the particular method requested.

Covad urges that the Commission to articulate its final conclusions with technical precision, so as to avoid ILEC interpretations that would limit CLEC access to facilities necessary to support only the services ILECs provide. As stated above, Covad should have the same opportunity to utilize full features, functions and capabilities of the outside plant transmission facilities, even if the ILEC chooses not to exploit those capabilities. Any decision to the contrary would “impair” the ability of Covad to provide the service “it seeks to offer.” 47 U.S.C. § 251(d)(2).

In addition, Covad believes public policy should strongly support the deployment of remote DSLAMs capable of supporting more than one technology. To do otherwise, assuming the availability of this equipment in the reasonably near future, would be to severely limit future innovation. Technology “lock-in” could occur because the subsequent acquisition and installation cost would deter speedy replacement. Therefore, unless the Commission adopts appropriate rules, the existing ILEC may, depending on the loop lengths associated with a particular remote terminal, be able to deny end users the ability to obtain any DSL technology other than the one it chooses to deploy in a one-technology-only remote DSLAM.⁶³ Accordingly, if the objective is to hasten the deployment on a competitive basis of advanced services to all Americans, the Commission should adopt rules that will apply in a variety of circumstances—

- Where ILECs will deploy remote DSLAMs in support of DSL services, those DSLAMs should support multiple DSL technologies not simply the one selected by the ILEC.

⁶³ ADSL bandwidth may be a blessing today, but another DSL technology may better meet demand for the streaming video component of an internet picture phone, or for the at-home worker who needs to upload large files, or for demands commonplace in 3 to 5 years that are not presently imagined.

- Where ILECs will not deploy remote DSLAMs in a timely manner, CLECs must be afforded the opportunity to provide DSL service optimally depending on the circumstances. This may require a copper build around, or, if demand warrants it, subloop unbundling, physical collocation of a CLEC DSLAM within a remote terminal, the construction of a CLEC remote terminal in the existing right of way, and upstream transport provided by a third party.

Covad has proposed rules that it believes meet these objectives. The ILEC 706 mantra—“We must not be forced to unbundle our DSLAMs or we will stamp our collective foot and not deploy them”—is not simply about central offices. As more fiber is deployed towards the periphery of the network and technology development and deployment allows for DSL transmission through digital loop carriers, the potential bottleneck in the provision of advanced services will expand from the central office to encompass the remote terminal and its immediate vicinity.

f. Effects of Additional Requirements for Local Loops (§ 177)

As discussed above in the context of additional collocation requirements, Covad is very concerned that even if the Commission writes detailed xDSL-capable loop rules, ILECs will force CLECs to play a waiting game while the ILEC “prepares a tariff” and challenges those requirements in court. As a result, Covad encourages the Commission to make clear that its rules are effective immediately upon the effective date of the Order, and that ILECs shall immediately be required, upon release of the Order, to re-negotiate existing interconnection agreements at the request of CLECs. The Commission should clearly state that an ILEC’s unwillingness to effectuate any necessary changes to existing

interconnection agreements within thirty days of a CLEC's request shall be deemed to be a *prima facie* case of bad faith negotiation and a violation of a Commission order.

The Commission also should make clear that to the extent that any state unbundling requirement, tariff, arbitration decision, or state or local legal requirement conflicts with the Commission's national minimum standards, those state or local requirements are immediately preempted.

C. Additional Unbundling Obligations

In ¶ 180, the Commission asks for comment on additional specific requirements for unbundling network elements used by incumbent LECs in the provision of advanced services. Covad proposes that the Commission order ILECs to provide "DS3 Links" on an unbundled basis. *See* Attachment 4, Section 51.319(h).

DS3 links are dedicated, point-to-point digital circuits that provided bandwidth of 45 Mbps. Incumbent LECs commonly provide DS3 links to their own advanced services customers, including Internet Service Providers and other end-users of high-bandwidth services. In particular, an Internet Service Provider might order a DS3 link between its premises and the point-of-presence of another telecommunications carrier or major Internet POP. As the Internet grows and expands, the local bandwidth needs for ISPs and corporations will cause there to be an ever-increasing demand for DS3 circuits.

Provision of a DS3 Link on an unbundled basis is clearly technically feasible. Indeed, Bell Atlantic provides this unbundled network element in the State of New York to CLECs—but it does not make this network element available on an unbundled basis to CLECs in any other Bell Atlantic service territory. The fact that Bell Atlantic flatly refuses to provide DS3 Links to requesting carriers on an unbundled basis in other Bell

Atlantic states is yet another example of the ILEC “trench warfare” attitude that slows down deployment of advanced services throughout the nation.

Requiring ILECs to provide DS3 Links as unbundled network elements meets the standards of Section 252(d)(2) of the Act. First, provision of this element is not “proprietary” as that term is used in Section 252(d)(2)(A)—these links are provided by ILECs to customers today, oftentimes on a tariffed basis. Bell Atlantic provides DS3 links on an unbundled basis in the State of New York, and DS3 circuits are commonly found in ILEC FCC and state access tariffs.

Second, the failure to provide access to DS3 Links “would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.” 47 U.S.C. § 251(d)(2)(B). If a CLEC wishes to offer DSL services to a business that want to support telecommuters or an ISP’s customers, it will need to connect that business or ISP to its DSL network with a high-bandwidth, DS3 connection. If that business is not on top of a fiber ring constructed by a fiber-based CLEC, the ILEC may be the only option available to connect that business to the CLEC’s DSL network. Without access to DS3 Links from the ILEC, the ability of the CLEC to provide the advanced telecommunications services “that it seeks to offer” would clearly be “impair[ed]” as that term is used in Section 251(d)(2)(B). Parity of opportunity mandates that the Commission rectify the spotty availability of DS3 Links on an unbundled basis nationwide.

D. The Commission’s Separate Affiliate Proposal

As made clear by Covad’s testimony to the Commission’s Broadband Forum on July 9, 1998, Covad believes that when an ILEC provides xDSL services, it should be

required to go through the same procedures and processes that Covad and other CLECs go through. If this means that Covad must obtain physical collocation arrangements through expensive cage facilities, the ILEC should have to incur the same expense and time delay. If this means that Covad must deal with antiquated and manual loop information, the ILEC should have to do the same. If Covad is provided with a clunky, GUI-based OSS interface, the ILEC should face the same OSS when it wants to provide DSL services.

Therefore, while Covad applauds the Commission's focus on structural solutions to the structural problems caused by ILEC control over essential facilities such as local loops and central office space, Covad has two fundamental objections to the Commission's separate affiliate proposal.

First, the construct is voluntary. If good public policy dictates a separation of function (essential network facilities from DSL service provision) at this time then good public policy *requires* such a separation. If the Commission has the jurisdiction to oversee the implementation of a separate "something", then the Commission has the jurisdiction to order its implementation. Indeed, there is extensive unremediated court criticism of the Commission for failing to compel sufficient separation to support competitive objectives.⁶⁴ Separate affiliates in name only but not in practice are window

⁶⁴ The FCC effort to eliminate the requirement that the Bell Operating Companies provide enhanced services through a structurally separate affiliate met with stiff resistance. In *California PUC v. FCC*, 905 F.2d 1217 (9th Cir. 1990), the United States Court of Appeals for the Ninth Circuit vacated and remanded the FCC's *Computer III Orders*. The court concluded that the FCC had failed to demonstrate that the "changed circumstances" relied on by the Commission had, in fact, reduced the risk of BOC cross-subsidization. On remand, the Commission modestly strengthened the non-structural safeguards and re-adopted its decision to lift structural separation. On appeal, the Ninth Circuit again vacated the FCC's order. This time, the court found that the FCC had failed to demonstrate that its non-structural safeguards were adequate to prevent the BOCs from discriminating against rival ESPs. 39 F.2d 919 (9th Cir.1994). In particular, the court noted that the FCC had failed to consider the fact that, in the years since the adoption of the *Computer III Orders*, the Commission had significantly "watered down" the requirement that ONA

dressings—they will give the Commission the impression that it has “done something” while in reality it has done nothing.

Second, the proposal does not sufficiently separate ILEC functions. In order to ameliorate these inherent structural problems, a *truly* separate entity, with separate equity ownership, is required, not the “we hope the ILECs will go for this” separate affiliate proposed by the Commission.

In the *NPRM*, the Commission proposes seven criteria establishing the framework under which an ILEC advanced services affiliate would not qualify as an ILEC, and would not thereby be subject to section 251(c) obligations. Covad believes that the degree of separateness is insufficient. The principle purpose of the proposal is to eliminate (or greatly reduce) the present incentives an ILEC has to favor its own provision of DSL service and to discriminate against Covad and other CLECs in their access to and use of essential elements such as collocation space and local loops.

In order to achieve that goal, the separate entity should be *truly* “truly” separate. - *NPRM* at ¶ 92. This means not only “independent operation” as the Commission suggests, but a independent corporation with no sharing of officers, personnel, facilities or other assets, and an independent board of directors, made truly independent (and legally liable for their actions) by public stock ownership of the entity. Frankly, Covad is concerned about the ability and long term willingness of the Commission to enforce sufficient separation and would prefer that the separation be largely self-enforcing, which shareholder derivative suits caused by separate equity ownership could provide.

lead to the fundamental unbundling of the BOC’s local networks. Despite the court’s decision, the Commission has continued to allow the BOCs to provide enhanced services on an integrated basis, provided the carriers file individual comparably efficient interconnection plans for each enhanced service.

If the Commission is not willing to require complete structural separation, then Covad believes that other steps should be taken to help open up ILEC networks—in *all* cases, even if the ILEC provides DSL services on an integrated basis.

- In providing their own integrated DSL service, ILECs should order DSL loops services through the same OSS and interfaces that CLECs must order unbundled DSL loops. ILECs should not be allowed to hide-behind integration of services and provide itself a better OSS and interface than CLECs receive.
- All ILEC provision of *any* DSL service (regardless of integration/separation status) prior to the general availability of xDSL-capable loops to CLECs throughout the service territories of that ILEC will be investigated immediately by the Commission, would be considered a *per se* violation of discrimination standards, ultimately punishable by forfeitures and other Commission enforcement tools.
- If ILECs provide DSL services on an integrated basis, they must permit CLECs to place DSL equipment in ILEC central offices at parity with the manner the ILEC has placed that DSL equipment in the central office. If the ILEC places that equipment in the office without use of a collocation cage, CLECs should be permitted to place similar equipment in that office without a cage.
- The Commission should swiftly adopt the collocation and loop proposals of the *Notice*, including immediate adoption of cageless physical collocation and more-detailed xDSL-capable loop rules. The sooner the Commission acts, the

sooner these rule changes become part of the Section 271 “competitive checklist.”

- As discussed more fully below, the Commission should strongly state that it will not entertain *any* petition for “limited” interLATA relief from any ILEC that has not fully-implemented these collocation and DSL-loop rules. ILECs should not be given the ability to fight new collocation and loop rules in court while they file petition after petition for “limited” interLATA relief.

Since the Commission has essentially established the “separate affiliate” proposal as an option to incumbent LECs, Covad eagerly awaits reviewing comments by the incumbent LECs as to whether they would indeed “opt in” to such a construct. As a result, Covad reserves the right to provide input on these incumbent LEC comments at the reply stage of this proceeding. However, the ultimate solution to the structural problems at issue is a *real* structural solution—a solution that, unless mandated by the Commission, Congress or the courts, may only come when ILECs realize that facilitating, not fighting, CLEC use of their outside plant may be their only survival technique. That day has not yet begun to dawn.

E. Limited InterLATA Relief

The Commission has requested comment on criteria to evaluate RBOC requests for targeted LATA boundary changes and on the existence of other forms of interLATA relief that should be considered. *NPRM* at ¶190.

Covad’s principal concern is that after issuance of an Order in this proceeding, RBOCs not be given the ability to game the process by appealing new collocation and unbundled loop rules in court while they file petition after petition for “limited”

interLATA relief pursuant to the Commission's proposal. Even after those appeals are exhausted, RBOCs still may stall further collocation and loop requirements at the state level, by requiring CLECs to await the filing of "tariffs" for these services.

Accordingly, Covad proposes that RBOCs be granted no interLATA adjustments, or interLATA "relief" of any kind by the Commission until such time as the Commission rules established in this proceeding are actually put into region-wide effect by that same RBOC. RBOCs cannot be permitted to file appeals of market-opening initiatives that stem from this proceeding while they take advantage of any "relief" they obtain from this proceeding. In addition, RBOCs should not be permitted to request "limited relief" in some of their service territories while they affirmatively thwart competition in their other service territories.

III. CONCLUSION

The following exchange took place this spring between the Vice President, located at the podium of a conference sponsored by the Economic Strategy Institute in Washington DC, and the Chief Executive Officer of Intel, then in Beijing. Mr. Grove joined the conference both visually and auditorily via satellite.

Mr. GROVE: From a computing standpoint the Internet is a data network. It's a network all of its own. Today, that's not how we implement it. Today, the Internet is run on a combination of commercial data networks and we borrow part of the voice networks to complete the cycle. But if God got interested in creating the Internet, he would not create it the way we have it today. [Laughter] He would have used new approaches, exactly as you (Vice President Gore) pointed out we need to do ourselves. And the Internet would be a network separate from and completely differently designed, than the voice network that we borrow from today...

VICE PRESIDENT GORE: You said "*He* would have created differently." That's a little controversial these days. [Laughter] ...

MR. GROVE: Well, I will take the Creator of the Internet in any gender that he or she might show up in. [Laughter] *Provided he or she brings a broadband last mile connection with her.* [Laughter]

While the Commission is hardly the "Creator of the Internet", the Commission does have the power to facilitate the provision of advanced services to all Americans on a competitive basis. In effect, the Commission *can* "bring a broadband last mile" to the American public, but only if the Commission takes the appropriate market-opening and incentive-based regulatory steps. Covad requests that its discussion of policy issues and proposals for final rules be given serious consideration in this proceeding.

Respectfully submitted,

[submitted electronically]

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Dated: September 25, 1998

Attachment 1

Affidavit of Thomas J. Regan Covad Communications Company

**Before the Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Deployment of Wireline Services Offering)	CC Docket No. 98-147
Advanced Telecommunications Capability)	
)	

**AFFIDAVIT OF THOMAS J. REGAN
ON BEHALF OF COVAD COMMUNICATIONS COMPANY**

Witness Qualifications

1. My name is Thomas J. Regan, and I am the Director of Collocation and Operations for Covad Communications Company ("Covad"), a Silicon Valley-based start-up competitive local exchange carrier. I have held this position since March 31, 1997.

2. Prior to joining Covad, I was employed at Pacific Bell for 27 years. At Pacific Bell, my most recent position was Expanded Interconnection Service Product Manager, reporting to the Executive Director. In this capacity, I managed a 300% increase in collocation requests in 1996. I was responsible for the statewide management of Pacific Bell's offering and implementation of physical collocation by Competitive Local Exchange Carriers (CLECs) of their own CLEC equipment in Pacific Bell's Central Offices.

3. I directed Pacific Bell's collocation teams involving personnel from Pacific Bell's Operations, Engineering, Real Estate and Security departments with respect to the

construction of more than 120 collocation cages in approximately 70 central offices (“CO”).

4. I prepared Pacific Bell’s complete market financial package for the FCC’s and the California Public Utilities Commission’s regulatory approvals on each new request for physical collocation in a non-tariffed CO (that is, a CO that previously had no collocators and had not been configured for physical collocation). I also led Pacific Bell’s team in the preparation and costing of new cross-connect products for physical collocators, as well as related tariffs. In addition, I managed Pacific Bell’s collocation and billing and account crediting process for collocating CLECs.

5. Prior to commencing my role as product manager for collocation and expanded interconnection at Pacific Bell, I was a senior engineer for Pacific Bell responsible for a variety of large-scale network engineering projects. I participated in the deployment of new switch-based products and developed new processes to facilitate the introduction of new products throughout the Bay Area. Significant projects in this position included leading the implementation of 15 major Advance Digital Technology projects; coordinating the engineering and provisioning of customer requests for large Centrex, Centrex-IS, PRI ISDN, Voice Mail, SDS 56 and other tariffed products; and coordinating Pacific Bell’s engineering and operations activities to deploy major new network products, serving as the Network Technology Department’s point of contact for field trials and first office applications of new switch technology.

6. In addition, I previously served as Pacific Bell’s Service Manager for Bank of America’s account in San Francisco between 1986 and 1990. I was responsible for ensuring Bank of America’s satisfaction with all voice and data services which included

63 data networks, three data centers, two alarm centers, a merchant services center, a business service center and a money transfer center. I completed several key voice and data projects for Bank of America, including the six phase ATM, alarm consolidation, point-of-sale transfer, circuit inventory identification and rehome for north and south locations, fiber surveillance, and ADN on the California Data Network, and reduced error rates on the Bank of America voice network and converted it from analog to digital statewide, and improved its point of sale network capabilities and efficiency. Prior to 1986, I held a number of other positions at Pacific Bell, including the following: Customer Service Supervisor; Division Staff Training Facilitator; Distribution Services, Installation and Prewire Supervisor; and Distribution Services Cutover Supervisor.

7. I am currently responsible for all of Covad's collocation arrangements nationwide and supervising a substantial staff of highly qualified individuals with literally dozens of years experience with collocation and incumbent LEC operations. Over the past year, I have been responsible for obtaining physical collocation arrangements with Pacific Bell, GTE, Ameritech, Bell Atlantic and U S WEST. Covad currently has several hundred collocation requests in varying stages of being processed by incumbent LECs. I was a key Covad negotiator on the cageless physical collocation terms included in Covad's interconnection agreement with U S WEST Communications, Inc. in the State of Washington.

Covad's Physical Collocation Requirements

8. When Covad decides to enter a market, it undertakes a "blanket" physical collocation strategy, involving all offices in the relevant market. For example, in the Baltimore/Washington corridor, the geographic spread of Covad's collocation

applications range from as far south as Fredericksburg, Virginia to as far north as Westminster, Maryland. Unfortunately, Bell Atlantic is currently claiming that there is “no space” for physical collocation in many of these offices, including Frederick, Maryland, and Waldorf, Maryland.

9. The equipment Covad and, presumably, other similar CLECs focused upon DSL services, collocate in an ILEC central office does not take an inordinate amount of space or power. Covad physically collocates DSLAMs (“Digital Subscriber Line Access Multiplexers”) (MCS: 14.38” x 12” x 21.25”; Wt: 74 lbs and LCS: 12.13” x 12” x 21.25”; Wt: 65lbs), and other cabling and equipment which it uses to access and interconnect with unbundled network elements such as local loops and dedicated transport and manage its services over such loops and transmission facilities. Covad’s equipment is rack-mountable. Covad typically occupies two bays in a CO, and those two bays can collocate sufficient equipment in order to serve 500 – 1,000 subscribers, sufficient to meet Covad’s near term needs. A bay of equipment is 23 inches wide and approximately one foot deep. Each year, technological improvements allow carriers like Covad to serve more customers with less equipment. Therefore, Covad’s needs for physical collocation space in any one CO are relatively modest. By way of comparison, Covad’s equipment is the size of a stereo system, while many voice-oriented CLECs have often collocated DLC (Digital Loop Carrier)-type equipment that is more typically the size of a refrigerator.

10. Since the passage of the Telecommunications Act of 1996 (the “Act”), which requires physical collocation and makes it possible for CLECs to use unbundled network elements to provide competition over wide geographic areas, new companies such as

Covad have adopted a strategy of physically collocating in dozens of ILEC central offices. ILECs are now facing unprecedented demand for physical collocation.

Current ILEC Physical Collocation Options are Inadequate

11. Today, ILECs generally require CLECs to collocate equipment in a segregated collocation room or area, even though construction of these segregated collocation rooms are very costly, time-consuming, and prevent CLECs from collocating in a number of central offices because of ostensible space considerations. Covad's agreement with U S WEST in the State of Washington is, I believe, the first time that an ILEC has agreed to provide a CLEC with the ability to physically collocate individual bays of equipment in the ILECs central office without resort to construction of a segregated collocation room or area.

12. Under cage-based collocation practices, the steps which precede the actual installation of equipment are extremely time consuming and vary with the central office at issue. Essentially, the implementation of cage-based collocation involves two fundamentally different scenarios. In central offices where there are no existing physical collocators ("Case A"), the CO does not have a pre-conditioned or configured collocation room suitable for cage-based physical collocation. In the second case ("Case B"), the CO has been surveyed and the cage-based physical collocation room has already been segregated and prepared for collocation (i.e., a separate entrance for the collocators has been built, including any new staircases, doorways, hallways, and security card access) and may be pre-built with the necessary infrastructure (iron-work and HVAC) in place. (In Case B, empty cages may or may not have been built.) In most instance, a POT-Bay

("Point of Termination") must be engineered, furnished and installed (EFI-ed) before a new collocating carrier such as Covad can provide service from the office.

13. If a CO already has physical collocation facilities for other parties (Case B), then the infrastructure such as space design and related engineering, and any required reclamation and lay out, and air conditioning are already in place. It should be a relatively simple to provide an additional cage to a CLEC and certainly should not take four months, which is what some ILECs commit to.

14. Covad's focus is on collocation in residential central offices which frequently fall into Case A—that is, the offices that do not have any pre-existing physical collocators and therefore no existing segregated physical collocation room. As a result, Covad is often asked to pay for (and wait) for construction of the entire infrastructure that cage-based collocation mandates must be in place in a segregated section of the central office. This process is expensive and time-consuming. An appropriate section of the central office must be identified and designated for such cage-based collocation, typically based on the ILEC's ability to create collocation space not only for Covad for multiple collocators. Any space reclamation, such as removal of obsolete equipment and/or relocation of other non-CO essential uses such as administrative, recreational, storage and staging functions, must be performed. HVAC (air-conditioning) and ironwork must be provided. Providing for the entire infrastructure for cage-based physical collocation is a significant, non-trivial project that requires the ILEC to expend considerable resources and time to carry out. Many times, Covad has been asked to pay for the construction of segregated rooms much larger than needed actually by Covad—in one office in the District of Columbia, Covad has been asked to construct a room the size of 2100 square