

associated with adding DSL service to that loop. As a result, ILECs provide ADSL service to consumers and Internet Service Providers in a manner that discriminates against data CLECs, which must procure a second loop to the customer premises and pay the ILEC upwards of \$20-25 per month for leasing that loop as an unbundled element.

The extent of this impairment to CLEC services is made clear by the following table, which compares Bell Atlantic's unbundled loop rates in several states with Bell Atlantic's ADSL tariff rates.

**Table 1. Bell Atlantic Discriminatory DSL and Loop Rates**

State	Bell Atlantic ADSL Monthly*	Monthly UNE Conditioned Loop Rate**
Virginia	\$29.95	\$19.87/\$24.47/\$41.26
Maryland	\$29.95	\$13.63/\$14.37/\$27.40/\$19.90
DC	\$29.95	\$17.52
New York	\$29.95	\$21.02/\$28.26
New Jersey	\$29.95	\$15.02/\$19.58/\$25.12
Massachusetts	\$29.95	\$19.87/\$27.24/\$29.38/\$32.84
New Hampshire	\$29.95	\$42.44
Pennsylvania	\$29.95	\$13.16/\$14.35/\$17.75/\$27.74
Delaware	\$29.95	\$11.68/\$14.70/\$18.21

\* With Volume and Term Discount, as per Bell Atlantic Trans. NO. 1138.

\*\* De-averaged rates in most states. Does not include pricey non-recurring charges for conditioning these links. See Covad June 3 *Ex Parte* in CC Docket No. 96-98 (detailing proposed Bell Atlantic New York pricing schedule that would systematically charge over \$3,000 to remove bridge taps and load coils from one loop).

Table 1 clearly demonstrates the impairment that ILEC refusals to provide line sharing imposes on CLECs, as well as the competitive significance of the free ride that ILEC ADSL service receives because it does not have to pay for the loop.<sup>36</sup> Not only do CLECs have to deal with a myriad of rates (while Bell Atlantic can offer consistent,

<sup>36</sup> Additionally, a telecommunications carrier is clearly prohibited from using services that are not subject to competition (such as voice service to residential consumers, which is supported by the universal service policies and subsidies) to subsidize services that are subject to competition. 47 U.S.C. § 254(k).

region-wide pricing because of its zero loop costs), in many regions, the monthly rate is *greater* than Bell Atlantic's final ADSL tariff rate. This impairment is particularly important for deployment of xDSL technology to small business and especially residential end users, who are the likely consumers of a mass market DSL service that utilizes a shared DSL/POTS line.

From the perspective of Section 251(d)(2), forcing a requesting carrier to acquire more unbundled functionality from the ILEC network than it needs clearly "impairs" the requesting carrier's ability to provide the (high-speed data) service it "seeks to provide" as the Commission has previously determined. First, just as the loop itself remains a bottleneck monopoly available only from the ILEC, so too is sharing of data and voice service over a single loop available only from an ILEC. Second, the economic reality is that in the absence of line sharing, the cost of a stand-alone unbundled loop (*see* Table 1) will need to be recovered from a CLEC's DSL prices. Maintaining a price competitive with ILEC DSL services would therefore require CLECs to lose money, since the market price would exceed their direct costs (loop, DSLAM, collocation, transport, etc.).

In short, denial of line sharing "would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer" under Section 251(d)(2)(B) because it would be economically impossible for a competitive DSL provider to offer high-speed data services to these consumers at a profit. This is not a situation in which "the business receives a handsome profit but is denied an even handsomer one,"<sup>37</sup> but is instead a situation that would foreclose any profit at all.

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<sup>37</sup> *AT&T v. Iowa Utils. Bd.*, 119 S.Ct. 721 (1999), slip op. at 23 n.11.

Moreover, for many consumers, line sharing may be the *only* means through which they may have a choice of xDSL service providers – because that particular consumer may only have one twisted copper pair going to her house. For example, dozens and dozens of Covad’s loop orders are being “held” by U S WEST because facilities for a separate stand-alone loop were not available. In the Bell Atlantic region, there is no defined process for dealing with the lack of facilities. Covad only receives a notification that there are no facilities to fill its loop order for a separate loop, and then the order sits idle in the Bell Atlantic ordering system, with no coherent process to install the needed facilities.<sup>38</sup> Competitive DSL service to consumers with these “facilities” issues is more than “impaired” by U S WEST’s and Bell Atlantic’s refusal to provide line sharing – it is denied outright.

The damage done by the impairment and denial discussed above is not limited to competitors; consumers are severely harmed as well. The ILECs’ refusal to line share constricts consumer choice by forcing customers to purchase two services (voice and high-speed data) from one provider even if the customer wishes to purchase these two distinct services from two different providers. Furthermore, consumers with only one loop available can be completely denied DSL services if they live in any of the many areas not served by an ILEC DSL offering.

**c. Denial of Line Sharing Violates Section 251(c)(3)’s Nondiscrimination Requirement**

Even apart from Section 251(d)(2)(B), line sharing is compelled under the basic statutory requirement for nondiscrimination. Section 251(c) mandates that ILECs

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<sup>38</sup> Even with repeated escalations on an order-by-order basis, these applications for stand-alone unbundled loops remain unanswered.

provide both interconnection and unbundling on a nondiscriminatory basis. In the *Local Competition Order*,<sup>39</sup> the Commission held that nondiscrimination requires ILECs to provide to CLECs the same facilities and capabilities they utilize for their own services. This decision, which was affirmed by the Eight Circuit and not challenged before the Supreme Court, means that where ILECs offer DSL services by means of line sharing, they are obligated to make that same line sharing capability available to CLECs. Likewise, where an ILEC attributes no incremental cost to the placement of DSL services on the higher frequencies of a loop with existing ILEC POTS, the Section 251(c) nondiscrimination requirement compels the ILEC to offer unbundled access to those data frequencies.

As a result, ILEC refusals to provide line sharing denies CLECs nondiscriminatory access to the functionalities of outside plant. It is clear from the record that line sharing is necessary to provide CLECs with access to the data frequencies of a loop in the same manner that the incumbent LEC provides DSL services to itself and ISPs. Consequently, line sharing is required by the statutory nondiscrimination provisions of Section 251(c)(3).

### **3. Comparing the Access and Unbundled Element Approaches**

Covad has presented two legal bases on which the Commission should order line sharing – as an interstate access service and as an unbundled network element. In general, Covad believes that the interstate access service rationale provides the

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<sup>39</sup> *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499 (1996) (“*First Local Competition Order*”), *aff’d in part and vacated in part sub nom.*, *Competitive Telecommunications Ass’n v. FCC*, 117 F.3d 1068 (8<sup>th</sup> cir. 1997), *aff’d in part and vacated in part sub nom.*, *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8<sup>th</sup> Cir. 1997), *rev’d in part and aff’d in part and remanded sub nom.*, *AT&T v. Iowa Utils. Bd.*, 119 S.Ct. 721 (1999).

Commission a much better method of ensuring the swift deployment of competitive broadband services.

As discussed above, the whole purpose of access service regulation and tariffs is to provide *different* providers of *different* services (interexchange, foreign exchange, special access, information services, etc.) just, reasonable and nondiscriminatory methods of utilizing the local facilities of the incumbent LECs. The mechanisms established by the Commission in ensuring that IXCs or competitive access providers pay for *only the ILEC facilities they use* is a central tenant of the Commission's *Expanded Interconnection* and *Access Charge Reform* initiatives. These same principles should be applied in the DSL line sharing context – CLECs with their own DSLAMs that want to access the shared line functionality of the ILEC network should not be forced to resell an end-to-end ILEC DSL service. Rather, they should be permitted to interconnect with that shared line functionality (data channel frequencies on the loop) at the central office level before those loops hit the ILEC DSLAM.

Ordering line sharing as an access service promises swifter implementation and more immediate competitive broadband deployment. A Commission order declaring line sharing to be a UNE would no doubt result in arbitration of precise UNE terms and pricing on a state-by-state basis. The end result would be inconsistent and disparate terms and prices across the nation. More importantly, the process of state-by-state arbitrations would delay the availability of DSL line sharing to CLECs for no less than nine months to a year. Such a result is inconsistent with the Commission's goal of promoting the deployment of competitive broadband services.

Ordering DSL line sharing as an access service, however, provides the Commission, through the tariff filing and review process, a mechanism to establish uniform terms, conditions and prices within the statutory window of ILEC tariff investigations. In their federal ADSL tariffs, ILECs have already established that there are no significant state-by-state differentials in the price of providing DSL service – the same should hold true for DSL line sharing.

Finally, ordering line sharing as an interstate access service – provided that the Commission devotes sufficient resources to tariff review – also will provide a more reliable means of ensuring that ILECs are offering line sharing on a nondiscriminatory basis. In Section II below, Covad argues for a flexible incremental cost and imputation pricing standard for line sharing that could be utilized by the Commission in reviewing ILEC interstate access tariffs. Implementing an imputation rule would be less administratively burdensome if the same body – in this case, the Commission – reviews both the tariff rate of the input (line sharing) and the service to which the price of that input is imputed (ILEC retail DSL service).

## **II. LINE SHARING IS IN THE PUBLIC INTEREST BECAUSE IT WILL PROMOTE THE DEPLOYMENT OF FACILITIES-BASED, RESIDENTIAL BROADBAND SERVICES**

As the Commission observed in the *Further Notice*, the availability of line sharing will promote customer choice in the selection of telecommunications services.<sup>40</sup>

Although market forces will ensure that competitive and nondominant providers will

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<sup>40</sup> *Further Notice* at ¶ 94 (“each end user customer should be able to choose from a broad array of services and from whom to obtain these services. In particular, we believe allowing consumers to keep their voice service provider while allowing them to obtain advanced services on the same line from a different provider will foster consumer choice and promote innovation and competitive deployment of advanced services.”).

provide the types and combinations of services that consumers demand, the Commission must ensure that incumbent LECs do not wield their possession of the bottleneck local loop facilities in a manner that will force consumers to choose a bundle of services from only one source.

In this Section, Covad discusses several policy considerations that, together, present a compelling public interest case for line sharing.

**A. Line Sharing will Provide Millions of Consumers with an Immediate Competitive Choice for Broadband Services**

The availability of competitive broadband services to residential consumers has been one of the Commission's top priorities since passage of the 1996 Act.<sup>41</sup> Since passage of the Act, Covad and other CLECs have built, and continue to build, next-generation DSL networks that contain literally thousands of DSLAMs in ILEC central offices that already pass millions of homes.<sup>42</sup> To date, the major barriers in this deployment have been the ILECs themselves – through persistently anticompetitive collocation, unbundled loop and unbundled transport practices.

As Chairman Kennard recently noted, consumer choice is the primary value enshrined in the 1996 Act – “the belief that given an array of options, individuals can best

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<sup>41</sup> The Commission has stated that “[w]idespread access to broadband capability can increase our nation's productivity and create jobs,” and that “[a]ccess to broadband can also meaningfully improve our educational, social, and health care services.” *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, Report, FCC 99-5 (rel. Feb. 2, 1999) at ¶ 2.

<sup>42</sup> Covad's network already passes well over 11.2 million homes and businesses. See Covad Communications Company, “Covad Communications Announces First Quarter Results,” Apr. 23, 1999 (Covad network passes 11.2 million homes and businesses). Since the April 23, 1999 release, Covad has launched new service in three additional metropolitan markets – Chicago, San Diego, and Atlanta. Covad's service is on-line in 12 regions currently encompassing 28 Metropolitan Statistical Areas. Covad has

decide what is best for them.”<sup>43</sup> DSL line sharing will present millions of consumers with a near-*immediate* choice of broadband services from a range of facilities-based DSL service providers.

Line sharing accomplishes this public interest objective by breaking down the barriers to nondiscriminatory access to local loop functionality that the ILECs already use for their DSL service. As discussed above, denial of line sharing denies data CLECs that nondiscriminatory access to this critical network functionality.

The primary victims of this discrimination are residential consumers. ILECs themselves have recognized that the most cost-effective means of providing ADSL service to these consumers is through line sharing with their own ISP customers or affiliates.<sup>44</sup> And, for a substantial number of consumers that have only one loop available to their house, line sharing may be the *only* means through which those consumers may have a choice of xDSL service providers.

Line sharing presents an opportunity for data CLECs to leverage their currently deployed DSLAMs, interoffice networks, and backbone to support competitive, mass-market services to residential consumers. By establishing the price point of consumer-grade DSL services at \$29.95 per month,<sup>45</sup> competitive response by a company like

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announced plans to deploy its networks in a total of 22 regions, encompassing 51 metropolitan statistical areas nationwide.

<sup>43</sup> Oral Testimony of William E. Kennard, Chairman, Before the Senate Commerce Committee, May 26, 1999.

<sup>44</sup> See generally Attachment 2.

<sup>45</sup> See Table 1 (Bell Atlantic monthly price at \$29.95); U S WEST, “U S WEST reduces the cost of 256 Kbps high-speed access from \$40/month to an industry-leading \$29.95/month!”, <http://www.uswest.com/products/data/dsl/pricing.html>.

Covad must depend upon the availability of line sharing. The ILECs cannot have it both ways – they cannot continue to have their ADSL service get a “free ride” on their outside plant while denying that functionality to CLECs like Covad. Consumer choice is the hallmark of a competitive market, and incumbent LECs are denying that choice today.

**B. Line Sharing has Several other Economic and Policy Benefits**

By denying CLECs line sharing, the incumbent LECs are continuing the under-utilization of the outside plant in a highly inefficient manner that would thwart competitive entry. By fostering a competitive market with competitive industry output, line sharing would utilize these assets more efficiently and thereby create the following public interest benefits:

*More Efficient Utilization of Outside Plant.* In short, it is simply a waste of resources (and sometimes expensive) to install a second line to a customer’s house for DSL service when one line can do the job. Yet, ILECs are forcing CLECs (and society) to incur that waste by refusing to share lines with CLECs in the same way they share lines with their own services and ISP resellers.

Incumbent LECs have seized upon this inherent efficiency in marketing pitches discussing their ADSL roll-outs. Attachment 2 is a compendium of quotes from ILEC web sites discussing how ADSL shares the line with voice service, and how they utilize the “one line is better than two” theme to distinguish themselves from competitors like Covad, who must now pull a second line.

For example –

- U S WEST boasts that its service “sav[es] you from additional phone lines.” Its “MegaBit Services, based on DSL technology, uses an existing

phone line to transmit data signals as well as analog voice signals.”  
Attachment 1, US WEST No. 3.

- BellSouth seems absolutely gleeful about this shared line functionality: “Since BellSouth.net FastAccess service ‘piggybacks’ on your existing copper phone line, you can talk on the phone (or send a fax) and be on the internet at the *same time!*” Attachment 2, BellSouth No. 2.
- Pacific Bell lists “data over voice” as a “benefit” of its DSL service, Attachment 2, Pacific Bell No. 2, and Bell Atlantic tells customers that “you still use your phone line as you do now.” Attachment 2, Bell Atlantic No. 4.
- Southwestern Bell questions potential customers, “Does this sound familiar? Choosing between voice and data. . . FasTrak DSL puts you in the driver’s seat. You can use voice and data simultaneously over the same phone line.” Attachment 2, SWBT No. 2
- GTE also lists “simultaneous voice and data connections over the same line” as a benefit of its service: “There’s no need for a second phone line.” Attachment 2, GTE No. 3.

Indeed, U S WEST explains that it does not provide DSL services out-of-region because such deployment involves “obstacles” that U S WEST does not face in-region.<sup>46</sup> One such “obstacle” is clear – U S WEST can deploy ADSL services over shared lines in-region, but cannot do so out-of-region.

*End Artificial Limitations on Total Industry DSL Output.* ILEC cost allocation practices, where ILECs face a zero incremental cost for outside plant while CLECs pay \$20-25 per month, essentially mean that only the ILEC can afford to provide DSL services to mass market residential consumers. Standard economic theory predicts in the

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<sup>46</sup> “While we do intend to deploy MegaBit services out of region, we are starting with cities in region. *There are simply fewer obstacles to clear for deploying in region.*” Attachment 2, U S WEST No. 3 (emphasis added).

presence of a single provider of services, total industry output is severely restricted and society incurs a “deadweight” loss in the process.<sup>47</sup>

This deadweight loss is, however, only the “tip of the iceberg.”<sup>48</sup> Adam Smith observed that monopoly “is a great enemy to good management,” and there is plenty of empirical analysis to substantiate the fact that monopoly provisioning results in “X-inefficiencies,” rent-seeking behavior, and waste.<sup>49</sup>

Examples of these inefficiencies are already evident in the DSL market. Trade reports indicate that ILECs currently have huge backlogs of DSL orders that they are unable to fill, and there are several reports as to the shoddiness of ILEC DSL installation and provisioning practices.<sup>50</sup> If these practices were occurring in an environment where there were several competing providers of facilities-based DSL service (which DSL line sharing would provide), customers would be flocking to other providers.

*Achieve Efficient Allocation of DSL output as between ILECs and CLECs.*

Because ILECs have priced their DSL services on the basis of zero incremental loop costs, and because CLECs cannot do so, there is a severe misallocation of DSL output between ILECs and CLECs. As a result, even if a CLEC may have a better OSS, a better

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<sup>47</sup> F.M. Scherer & David Ross, *Industrial Market Structure and Economic Performance* Ch. 18 (1990) (discussing welfare loss from non-competitive markets).

<sup>48</sup> *Id.* at 667.

<sup>49</sup> *Id.*

<sup>50</sup> See Deborah Solomon, “Pac Bell Stumbles with DSL: Users cite delays and access problems,” *San Francisco Chronicle*, Mar. 26, 1999; Simson L. Garfinkel, “Bell Atlantic’s New High-Speed Service Disappointing Compared to Cables’s,” *Boston Globe*, Apr. 29, 1999 (“The problem is Bell Atlantic’s ‘peering’ agreements – the connections the company has with other Internet providers. Bell Atlantic doesn’t have many.”); Mike Mills, “How it Works,” *Washington Post*, Feb. 18, 1999 (“The first thing many people ask when they hear about high-speed Internet access using digital subscriber line, or DSL, technology, is ‘How can I get it?’ The second is usually ‘What do you mean I can’t get it?’”).

team of field installation technicians, and a better marketing and sales staff, that CLEC simply cannot achieve an appropriate market share because of this fundamental cost disparity. This result harms society because the CLEC's perceived cost differential *vis a vis* the ILEC is wholly unrelated to any real economic difference in the services that are sold.

*Promotion of Innovation in DSL Network Management Services.* Data CLECs like Covad, Rhythms, and NorthPoint have deployed large, distributed systems to manage their DSL traffic. The network and interoffice management configuration of these networks differ, and it is this type of experimentation and innovation that competition fosters.<sup>51</sup> By promoting the growth of facilities-based DSL networks into more and more central offices, line sharing would encourage the development of even more rival approaches to DSL network management. ILEC attempts to stifle competition in the DSL market by refusing to provide line sharing would deprive the public of the benefits of this competition in developing new and innovative interoffice and intercity network management systems.<sup>52</sup>

*Utilize Ratepayer Assets as Ratepayers Choose.* As Covad pointed out in its Petition to Deny Bell Atlantic's ADSL volume and term discount tariff,<sup>53</sup> the complete

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<sup>51</sup> Paradyne has said that the network management system is "[p]erhaps one of the most essential elements of a comprehensive DSL system." *DSL Sourcebook* at Chap. 4. Covad's intercity system permits nationwide interconnectivity – which means that a resident in Alexandria, Virginia can telecommute to her employer in San Francisco, California. Similar functionalities could permit an ISP with a POP in one city to sign up DSL customer lines in another city, an application that would permit small and mid-sized ISPs to provide national service to local customers with branch offices in several cities.

<sup>52</sup> Indeed, one observer attributes the poor quality of Bell Atlantic's Infospeed DSL service not to the DSL connection between the home and the central office but to the manner in which Bell Atlantic has interconnected its network with other ISPs. See Garfinkel, *supra* note 50.

<sup>53</sup> *Supra* note 4.

cost of ILEC outside plant is currently being paid for through regulated intrastate dial-up rates, intrastate interexchange access charges, and interstate interexchange access charges. In the end, consumers have already paid the full cost of their loops. Since the ILEC has recovered the full cost of a consumer's loop, it has no right to condition the consumers' full utilization of those loops on the purchase of ILEC data services. Moreover, in the many areas where ILECs offer no DSL services, the ILECs' refusal to line share completely denies consumers any use of the digital portion of the loop. Failure to provide line sharing, in essence, requires ratepayers to pay for an entire asset but deprives them of the opportunity to utilize that asset to its fullest extent.

*Prevent Anticompetitive ILEC Conduct.* If the ILECs have their way in this proceeding, CLECs would have to enter two markets simultaneously in order to compete for the residential broadband market. In such an environment, the opportunity cost to the ILECs of selling a "complete" unbundled loop over which a CLEC would provide both voice and data would be the sum of the lost voice business and the lost data business. That opportunity cost would generally exceed the forward-looking TELRIC price of unbundled loops. As a result, because ILECs would face a higher perceived opportunity loss by selling a "complete loop" than by selling a "shared loop", they would have a greater incentive to engage in anticompetitive behavior to prevent the CLECs from obtaining "complete" unbundled loops than for "shared" loops.

Indeed, the anticompetitive incentives perceived by the ILECs already are evident in their unlawful behavior with respect to unbundled network elements such as

collocation, loops, transport, and operations support systems.<sup>54</sup> CLECs should have the option of using existing ILEC voice lines to avoid the ILEC-created impediments – such as “no facilities” issues or “special construction” charges – that frequently deny CLECs access to “complete” unbundled local loops.

*Diminish ILEC Incentive to Keep Unbundled Loop Costs High.* Because the opportunity cost losses of selling a CLECs a “complete” loop are greater than selling a “shared” loop, the absence of line sharing will keep in place a strong incentive for the ILEC to keep “complete” unbundled loop prices artificially high. In addition, higher “complete” loop rates increase the differential between CLEC and ILEC perceived outside plant for DSL services, and ILECs should be expected to attempt to maximize this price differential to further their competitive advantage in the data market. DSL line sharing reduces these incentives, because the potential for monopoly rents in markets for high-speed data communications services would be reduced. As a result, ILEC incentives to keep “complete” unbundled loop prices (and other unbundled elements, for that matter) high would be commensurately diminished.

*Mitigate Potential for Competitive Harm due to Prize Squeeze.* In the end, denial of line sharing permits ILECs to engage in classic price squeeze behavior. For example, Bell Atlantic currently sells its wholesale DSL service from a menu that begins at \$29.95 per month at the same time that it charges Covad loop prices listed in Table 1 that,

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<sup>54</sup> That frequently egregious behavior is documented in *Arbitration of: Covad Communications Company and Pacific Bell*, No. 74 Y181 0313 98 (American Arbitration Association Jan. 19 and Feb. 2, 1999) (finding that Pacific Bell acted in bad faith towards Covad, breached its interconnection agreement, and violated the Telecommunications Act of 1996); *Covad Communications Company, et al. v. Bell Atlantic Corp., et al.*, No. 1:99CV01046 (D.D.C. April 28, 1999). Indeed, the Commission’s collocation reform in this Proceeding was premised on demonstrated, persistent anticompetitive behavior by the ILECs.

depending on the circumstances, approach, equal, or exceed that monthly price. If this situation persists and becomes widespread, this price squeeze will threaten to marginalize or eliminate CLEC providers of DSL to the residential and small business market segments. The result will have nothing to do with underlying economic efficiencies. The elimination of competition through such a price squeeze will artificially increase prices and restrict output, and ILECs will have little or no further incentive to innovate or provide responsive, high-quality service.

**C. Requiring CLECs to Enter Voice and Data Markets Simultaneously Will Not Advance Competitive Residential DSL Deployment in a Commercially Timely Manner**

In the *Further Notice*, the Commission sought comment on whether the ability of CLECs to deliver voice services over a packet-switched network obviates the need for line-sharing. ILECs can be expected to argue in this proceeding that CLECs can “line share with themselves” by providing both voice and data services over a stand-alone unbundled loop. As demonstrated below, the need for line sharing is not obviated by the technical feasibility of voice-over-DSL or by the prospect that CLECs may offer analog voice and DSL over stand-alone unbundled loops.

While it is, of course, technically possible to provide both services over the loop, and while various voice-over-DSL technologies are currently in development,<sup>55</sup> to argue that these facts justify ILEC refusals to provide line sharing ignores a fundamental reality: *requiring* a company to enter two markets simultaneously (voice and high-speed

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<sup>55</sup> See, e.g., Covad Communications Company, “Covad Successfully Executes Trials of Combined Voice and Data over DSL,” June 7, 1999; “Rhythms and MCI WorldCom Complete Unprecedented Voice and Data over DSL Test,” June 4, 1999.

data) as a condition of entering one market (high-speed data) will suppress entry generally in a manner inconsistent with the public interest and antitrust law principles.

Society has a strong interest in allowing competitors to compete in those segments of the industry where they can make the most distinctive contributions. As the Supreme Court noted in *Eastman Kodak v. Image Technical Services*,<sup>56</sup> “one of the evils proscribed by the antitrust laws is the creation of entry barriers to potential competitors by requiring them to enter two markets simultaneously.”<sup>57</sup> Local voice services are widely available through the ILECs, and ILECs remain the clear, dominant provider of those services. In contrast, demand for high-speed digital services is far outstripping the ILECs’ willingness and ability to supply such services.<sup>58</sup> CLECs should be permitted to enter the business where the need for additional competitors is greatest, without being required to simultaneously enter another business.

Requiring CLEC entry into voice services as a prerequisite for effective residential DSL entry would raise the barriers to entry and substantially delay the deployment of competitive high-speed digital services to residential and small businesses. The capital costs of providing voice services are substantial. Before entering the voice market, a data CLEC would have to either (a) raise the large sums of capital required for

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<sup>56</sup> 504 U.S. 451, 485 (1992).

<sup>57</sup> Kodak had argued that independent film developers were exploiting Kodak’s investment in product development and sales to siphon off service revenues, and that the developers should be required to enter the film manufacturing market themselves. The Supreme Court noted that the film developers made substantial investments in service, and emphatically rejected Kodak’s “free-riding” argument. Here, as in *Kodak*, it is undisputed that the data CLECs have made substantial investments in data services. The ILECs’ accusations of free-riding, *Telecommunications Reports/TR Daily* (May 3, 1999) at 5 (speech by Bell Atlantic President James Cullen characterizing line-sharing as an FCC-sponsored “free ride” on “our [Bell Atlantic’s] copper loops,”) is as meritless here as the free-riding argument in *Kodak*.

<sup>58</sup> See note 50, *supra*.

entry, or (b) negotiate, consummate, and implement strategic partnerships with voice providers. Even assuming that one or both approaches would be feasible, implementing either approach would result in substantial delays before a CLEC could simultaneously offer voice and data services. Moreover, CLECs would have to build management teams and operating systems to develop and operate a voice business. That too would be a time-consuming process.<sup>59</sup>

The delays that would result from burdening a nascent data communications business with the simultaneous development of a voice business must be viewed in the context of the competitive dynamics of this emerging industry. Digital data businesses are commonly referred to as “first-mover plays” because of the significant advantages enjoyed by the first competitor to sign up customers and technology “lock-in” effects. To win customers away from incumbents, second-in entrants must overcome the natural reluctance of customers to change providers, the substantial costs of changing customer premise equipment associated with a change in providers, and the long-term contracts that ILECs and other DSL providers typically enter into with customers and ISPs.<sup>60</sup> In such an environment, barring CLECs from competing effectively for consumers who would be the primary beneficiaries of line sharing (small businesses and mass market residential users) for even a modest period of time may permanently preclude the development of effective competition. The economic losses to consumers and society

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<sup>59</sup> Building a voice management team would also be expensive. Competition for first-rate telecommunications talent is intense.

<sup>60</sup> See note 3, *supra* (Bell Atlantic 1998 promotional material indicating that it will give ISPs that sign up to resell Bell Atlantic’s DSL service a \$200 per-subscriber bounty).

caused by that delay will never be recouped, and thus should not be tolerated where they can be entirely avoided through line sharing.

Finally, ILEC arguments that data CLECs should “simply enter the voice market” begs the question as to whether entry into the voice market for small businesses and mass market residential consumers is practicable or even possible in the current environment. The voice market is very complex, and customer expectations of rapid installation and ease of use are high. The records in the *UNE Remand* and various 271 proceedings are replete with examples of barriers to entry that continue to exist in the small business and mass market residential markets.<sup>61</sup> Many of these barriers have been imposed by ILECs themselves, through their outright refusals to provide combinations of network elements, a functioning OSS, unbundled shared transport, interconnection trunking, and a host of other issues.

Even if the Commission assumes that markets for voice services to small businesses and residential consumers is now completely barrier-free, the Commission’s proper focus on consumer choice in the *Further Notice* would lead the Commission to order line sharing. True consumer choice gives consumers the ability to pick and chose different suppliers for whatever product or service they may wish to buy.

Logically extended, the ILEC argument against line sharing could be used to persuade the Commission to (1) eliminate all of its equal access and access charge rules (since IXCs can simply “capture the customer” and provide integrated local and long distance service, there is no need to regulate ILEC access charges); (2) repeal all of its

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<sup>61</sup> As Commission staff recently found, CLECs have a miniscule share of the nation’s access lines – 3%, and many of these lines are resold lines, not unbundled-loop lines. *See* Note 30, *supra*.

*Computer III/Computer III* rules, which govern the relationship between information service providers and the RBOCs (since information service providers can now become CLECs and “capture the customer” for both voice and ISP services, Commission need not concern itself with discrimination and cross-subsidization issues), and (3) eviscerate its Part 68 CPE compatibility rules (since new carriers can now “capture the customer” and provide customers new phone installation, there is no more need to have standardized RJ-11 jacks). The rules discussed above – equal access, *Computer II/Computer III*, and Part 68 – all were developed by the Commission in order to promote competition in services and equipment manufacturing and to promote more efficient utilization of the network. The Commission should reaffirm those basic principles in this proceeding by ordering DSL line sharing.

In short, requiring simultaneous entry into the voice and data markets should be rejected because it would:

- Unnecessarily stall deployment of broadband services to residential and small business consumers by competitive DSL providers while the cornucopia of voice regulatory issues (*e.g.*, OSS, signaling systems, shared transport, OS/DA, E911 trunking, reciprocal compensation arrangements) continue to get “worked out.”
- Erect substantial barriers to entry into providing high speed data services to small businesses and residential users, the primary beneficiaries of line sharing.
- Force new entrants to divert their efforts from designing services that have the greatest need of additional competitors and deployment (residential broadband).
- Deny consumers the full benefit of loops that they have fully paid for.
- Unfairly constrain consumer choices with respect to voice and data services.

- Create even more incentives for ILECs to engage in anticompetitive behavior; and
- Fail to create widespread efficiency gains because mass market DSL deployment to residential consumers would essentially have to “wait” for residential voice competition to develop.

As a result, the Commission *must not* tie the availability of competitive broadband xDSL entry to resolution of the disputes that are implicated by entry into the voice market. The result would be continued delay of *all* entry into *all* market segments.

**D. The Price Charged to CLECs for DSL Line Sharing Should Approximate Incremental Cost and be Nondiscriminatory**

There should be two overriding principles that the Commission applies in establishing pricing of line sharing. First, prices (either in the access or unbundled element regime) should be established on the basis of forward-looking incremental costs. Second, the price should be truly nondiscriminatory – that is, the ILEC must be required to impute the exact *same* incremental cost charges in their federal or state DSL tariffs. The FCC or, where appropriate, state commissions, must then be prepared to enforce those tariffs and imputation policies.

As discussed above, by attributing zero outside plant cost to their DSL services, ILECs are essentially justifying their current ADSL services on the basis of incremental cost. As a result, the only nondiscriminatory means of pricing the line sharing access service or element is by charging CLECs the same incremental costs that ILECs impute to their own DSL service. Only in this environment will the public interest benefits of line sharing discussed above be realized.

While ILECs currently price their DSL services by imputing zero outside plant cost to their DSL service, this does *not* mean, however, that the line sharing element or

service will be available to CLECs “for free.” Other incremental costs directly attributed to DSL services – such as central office cross-connects, ILEC technician time, and OSS revisions attributable to DSL services – may, when fully-examined by the relevant regulatory body and established on a forward-looking cost basis, properly be charged to CLECs. In addition, arguing that data CLECs are asking for a “free” ride ignores the millions of dollars that companies like Covad have spent investing in DSLAMs, collocation, data switches, and interoffice transport. Considerable portions of these investments have flowed directly to ILECs (through collocation charges and unbundled transport charges), as they control the essential inputs for the competitive offering of DSL service.

The simple pricing mechanism Covad has proposed would achieve the public policy benefits of line sharing without involving the industry in a lengthy series of cost cases. This pricing mechanism can be established *immediately*, especially if the Commission orders DSL line sharing as an interstate access service, as Covad argues for above. As a result, deployment of broadband services by competitive DSL providers to residential and small business consumers would not be held up any longer.

In summary, Covad’s proposed pricing methodology for line sharing would be simple for the Commission to administer, facilitate near-immediate availability of line sharing (thereby promoting competitive residential deployment), and would avoid long and extensive cost-allocation proceedings. In return, the methodology contemplates swift and certain enforcement of the imputation requirement in ILEC DSL tariffs by the Commission. Implemented as such, Covad’s pricing proposal will achieve many of the

benefits of the “separate advanced services affiliate” proposed by the Commission in the *First Advanced Wireline Services Order*.<sup>62</sup>

**E. Line Sharing will Promote Deployment of Alternative Facilities**

Line sharing will not, as some ILECs will no doubt argue, create “disincentives” for CLEC investment in alternative facilities.<sup>63</sup> Far from it. By definition, as discussed above, line sharing will only be available to carriers that have collocated a DSLAM in the appropriate central office. As a result, the availability of line sharing will only *increase* the incentive of CLECs to collocate and deploy even more DSLAMs in ILEC central offices.

In addition, since line sharing is particularly attractive for small business and residential applications, the increased incentive to collocate DSLAMs will occur in geographic areas that have yet to see much alternative fiber facilities deployment. Indeed, the availability of line sharing may make the deployment of competitive interoffice fiber transport facilities to these outlying residential and even rural areas more attractive. As data CLECs like Covad collocate into more and more ILEC central offices and sign up consumers through line sharing, data CLEC demand for high-capacity interoffice fiber transport into and out of those residential and rural offices will also grow. This growth in interoffice bandwidth demand in these neighborhoods will spur the

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<sup>62</sup> Although not all. For example, “Separate but Unequal” OSS systems for CLECs orders of inferior quality to ILEC internal provisioning will remain in place, until such time as the ILECs are compelled to provide true parity to CLECs.

<sup>63</sup> See *Further Notice* at ¶ 97.

deployment of additional fiber transport facilities into these neighborhoods, by both ILECS and CLECs.<sup>64</sup>

When it comes to promoting facilities deployment, line sharing is a true “win-win-win.” Millions of consumers will be given a near-immediate choice in DSL service providers. That growth will spur collocation of even more CLEC-owned DSLAMs and data communications switches in residential and rural areas. And that deployment will increase the incentive for rival fiber transport providers (including the ILEC) to build new fiber facilities deeper and deeper into those neighborhoods. The “last mile” will no longer be the bottleneck – DSL-equipped “last miles” will become the engine that will drive fiber deployment into residential and rural areas.

### **III. THE COMMISSION’S SPECTRUM MANAGEMENT POLICY MUST ENSURE PARITY OF OPPORTUNITY FOR CLEC DSL SERVICES**

The Commission’s interim spectrum management standard was an important first step in ensuring that CLECs maintained the ability to deploy the first wave of new innovative, cutting-edge loop technologies. However, technology is changing at a breakneck pace and, as the Commission noted, it was merely an “interim” solution. To accommodate the next generation of even more innovative loop technologies, the Commission must adopt several new procedures. Without the Commission’s intervention, CLECs and consumers alike will have to endure the deliberate pace set by the lumbering incumbents.

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<sup>64</sup> ILEC deployment of DSL by themselves in these regions will not cause as much demand for fiber. Standard economics teaches that the presence of multiple competing DSL suppliers will result in more industry output for those services than if those services were only available from one provider.

To date, ILECs have dominated the standard setting and development process,<sup>65</sup> and ILECs have wielded their control over the outside plant to require CLECs to undergo extensive pre-deployment tests of any technology that does not fit within the ILEC's own retail service plans. As a result, the Commission must keep in mind a few key points in developing its spectrum management policy –

- Interference in the loop distribution plant is a fact. Consequently, the Commission should not seek to eliminate interference between individual loops, but instead assure that only technologies with tolerable levels of interference are permitted on the outside plant.
- CLEC deployment of new, often more efficient, xDSL “flavors” (such as SDSL, HDSL-2, RaDSL, VDSL) must not be subjected to undue procedural roadblocks.
- ILECs have, and will continue to, adopted loop qualification and binder group management policies that have built-in preferences for their own retail ADSL services.

Administering a pro-competitive, pro-innovation, pro-consumer choice spectrum management policy is one of the tasks in which Covad believes the Commission should assert a central role. The Commission took a similar action in the 1970s with regard to its Part 68 rules for CPE, and the result has been two decades of highly innovative

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<sup>65</sup> For example, *none* of the start-up data CLECs are full members of the Universal ADSL Working Group, which helped develop and promote the G.lite standard. Membership of the UAWG consists of Ameritech, Bell Atlantic, BellSouth, British Telecom, Deutsche Telecom, France Telecom, GTE, MCI, NTT, SBC Communications, Singapore Tel, Sprint, U S WEST, Compaq, Intel and Microsoft. “UAWG Q&A”, [http://www.uawg.org/q\\_and\\_a.html](http://www.uawg.org/q_and_a.html). The UAWG has done admirable work in getting the interoperable G.lite standard approved by the ITU, but the closed door to participation by the *all data CLECs* in that group is a model the Commission should not seek to repeat.

development of telephone handsets, computer modems, fax machines, etc. Given the need for equipment manufacturers to have uniform and predictable policies, national rules and procedures are absolutely essential. State experimentation with regard to new loop technologies should be permitted, but whenever an ILEC seeks to deny a CLEC deployment of a technology, there needs to be a uniform, national process to handle that dispute. Otherwise, the same battles will be fought over and over in every state, and equipment innovation in the United States will be stalled.

In short, a workable spectrum management policy, complete with expedited dispute resolution procedures, is precisely the type of work the Commission should be doing in the 21<sup>st</sup> Century.<sup>66</sup> A proper spectrum management policy would not favor the technologies of either incumbent or entrant but would ensure that all players have parity of opportunity to develop and deploy DSL loop technologies.

**A. The Spectrum Management Policy Must Contemplate and Support Multiple Flavors of DSL**

As Joshi points out in her attached affidavit (Attachment 1, Section III), Covad currently deploys three different “flavors” of DSL – SDSL (symmetrical DSL), ADSL (asymmetric DSL), and IDSL (“ISDN” DSL). Covad deploys three flavors of DSL because different consumers require different capabilities. SDSL, by providing business-class symmetrical service, is ideal for small businesses and telecommuters who may upload large files to the Internet ISP or a corporate LAN. IDSL utilizes ISDN coding schemes to provide 144 kbps to customers over any loop that can support ISDN service.

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<sup>66</sup> FCC, “A New Federal Communication Commission for the 21<sup>st</sup> Century,” March 17, 1999, <http://www.fcc.gov/Reports/fcc21.html>. In this Report, the Commission discussed its important role in promoting the compatibility of “digital video technologies” and “efficient use” of the radio spectrum.