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FEDERAL COMMUNICATIONS COMMISSION
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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

COMMENTS OF MACHONE COMMUNICATIONS

MachOne Communications, Inc. ("MachOne"), by its attorneys, respectfully submits these comments on the Commission's Notice of Proposed Rulemaking ("NPRM") in the above-captioned proceeding.[1]

INTRODUCTION

As a new, venture capital-backed company developing innovative services based on high-speed digital subscriber line ("DSL") technologies for use in the residential marketplace, MachOne agrees with the NPRM's proposal to place incumbent local exchange companies ("LECs" or "ILECs") and their competitors on an equal footing for the provision of advanced telecommunications services. We are concerned, however, that the NPRM has based its approach to competitive data services principally on a view of DSL technology as implemented today, not as it could exist if deployed freely by ILEC competitors, and thus may inadvertently fail to recognize the competitive and economic benefits of "shared access" to unbundled loops.

The roll-out out of DSL services has been hampered by incumbent LEC recalcitrance at providing the unbundled network elements ("UNEs") needed to offer new DSL applications.

[1] *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, CC Docket No. 98-147, FCC 98-188 (rel. Aug. 7, 1998) ("NPRM"). SBC Communications, Inc. ("SBC") has file petition for reconsideration of this decision, contending

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These UNEs include not only the "conditioned loops" and collocation space discussed in the NPRM, but also access by DSL competitors to existing local loops used by ILECs for their retail services, so that such DSL competitors can also use such loops for data-only purposes. This sort of shared loop access is a technically feasible network capability that SBC and other LECs have denied to competitors (while using for their own DSL services) on the theory that competitors must take "everything or nothing" — full voice and data use of the loop — and are not permitted shared access to loops for purposes of providing data-only DSL services.

If shared loop access were widely available, competition for advanced telecommunications services would grow exponentially, as (1) consumers would not be required to purchase a second telephone line in order to have access to high-speed data services, and (2) competitors would offer DSL services to markets, such as the residential market, where loop costs make a stand-alone data service uneconomic. Shared loop access is plainly technically feasible because incumbent LECs, such as SBC's Pacific Bell subsidiary ("PacBell"), are already deploying their own DSL services using these very same shared loop access arrangements. Consequently, in addition to enforcing its existing requirements for competitive LEC access to DSL-capable

that the Commission's determination that incumbent LECs must offer "conditioned" loops on an unbundled basis to competitors violates Section 251 of the Act, 47 U.S.C. § 251.

conditioned loops, the Commission should clarify that the *Local Competition Report and Order*[2] also requires incumbent LECs to make shared loop access available as an unbundled network element pursuant to Section 251 of the Act, 47 U.S.C. § 251.

DISCUSSION

MachOne is a California-based company developing advanced DSL-based services. MachOne has developed and successfully tested DSL filter/splitter technology that permits simultaneous use of a single local loop by different carriers for both traditional voice telecommunications services ("POTS") and DSL-based high-speed data services.[3] Nonetheless, during interconnection negotiations with PacBell, MachOne's affiliate PDO Communications, Inc.[4] has been unable to secure access to the loop for the provision of DSL services unless it purchases a "complete" unbundled loop and provides both voice and data services. According to PacBell, the Commission's *Local Competition Report and Order* prohibits so-called "spectrum unbundling" and requires competitive LECs to take "exclusive use" of local loops.

This position, if accepted by this Commission[5] and the state commissions,[6] would make competition in high-speed data services economically infeasible except for high-volume, high-

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[2] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, CC Docket No. 96-98, FCC 96-325 (rel. Aug. 8, 1996)("Local Competition Report and Order"), *rev'd in part, Iowa Utilities Board v. FCC*, 120 F.3d 753 (8th Cir, 1997), *cert. granted*, 118 S. Ct. 683 (Mem.) (1998).

[3] MachOne's filter/splitter technology enables two alternative approaches to sharing an ILEC loop. The first approach, which might be called "temporal" sharing, allows the loop to be used for data purposes when the loop is not being used for regular circuit-switched traffic, such as voice calls. The second approach, which might be called "spectral" sharing, allows the loop to be used simultaneously for voice and data traffic, with the voice traffic handed off to the ILEC and the data traffic carried by the competitive LEC.

[4] PDO Communications, Inc., is a California PUC-certified competitive LEC.

[5] The clarification we seek here from the Commission is clearly within the Commission's authority to implement the Act. As the Commission is aware, state PUCs have parallel jurisdiction under the Act, including the responsibility to conduct arbitrations that address and resolve issues such as proper interpretation of the Act's unbundled network provisions. PDO and Pac Bell are currently involved in arbitration proceedings before the California PUC, and the shared loop access issue is pending there.

[6] In the PDO/Pac Bell arbitration noted in footnote 5 above, PacBell has argued, among other things, that permitting shared loop access for DSL services would undermine a source of revenues needed to support the provision of below-cost services. This Commission, however, has made clear that universal service support is to be recovered in a competitively neutral manner pursuant to Section 254 of the Act, not through prices for unbundled

margin business markets, where customers can afford the increased costs associated with purchasing additional lines solely for DSL services. It would also create a de facto incumbent LEC monopoly for DSL services, because PacBell and other ILECs are currently deploying ADSL and other high-speed data services that employ precisely the sort of shared spectral loop access proposed by MachOne. It is technically feasible to implement DSL in a manner to provide high-speed Internet and other data services over the same telephone line consumers currently use to carry their voice telecommunications calls. In order to meet the procompetitive principles outlined in the NPRM, this line-sharing capability of local loops must be made equally available to both incumbent LECs and their competitors.

To understand the competitive impact of MachOne's proposal, one must first understand the advantages that PacBell and other ILECs otherwise will have in the DSL market by virtue of their control over bottleneck local exchange facilities. PacBell has begun to offer a form of DSL service, known as ADSL, to retail customers using the same telephone line that those customers purchase from PacBell for POTS. PacBell's proposed ADSL tariff requires customers to purchase POTS service from PacBell if they wish to buy PacBell ADSL service.[7]

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loops. And the U.S. District Court for the Northern District of California, reversing the California PUC's ruling in the AT&T/PacBell arbitration, has held that a state commission may not impose non-cost based access charges on UNE prices in order to meet universal service policy concerns, because "to allow incumbents to continue to levy access charges to pay the costs of universal service runs counter to the Act's specific mandate that hidden subsidies for universal service be replaced with explicit funding." *AT&T Communications of California, Inc. v. Pacific Bell*, No. C-97-0080 SI, slip op. at 15 (N.D. Cal. May 11, 1998).

[7] Direct Testimony of Dan Jacobsen on Behalf of Pacific Bell, *Petition for Arbitration by PDO Communications, Inc.*, *A.98-060052*, at 3 (California PUC, filed July 10, 1998).

In this situation, PacBell attributes the entire cost of the telephone line to the underlying POTS service to which the customer subscribes, and only requires that its ADSL service recover the costs incremental to providing that service plus any contribution built into the prices for unbundled network elements (such as the loop) that other entrants would need to purchase to compete with PacBell.[8] PacBell recovers the actual cost of the loop from the local exchange service that it requires its ADSL customers to buy.

PacBell is unwilling to allow its DSL competitors the right to leverage the local loop bottleneck in the same manner that PacBell — or its affiliate, pursuant to the NPRM's separate affiliate proposal — will permit itself to provide ADSL service. Instead, PacBell offers its DSL competitors two alternatives. They can provide DSL services over a "stand-alone" line, in which case they must recover all of the cost of that line from the DSL service.[9] Or, they can provide both DSL and POTS services over a single telephone line, in which case they must acquire the resources and expertise to provide POTS services as well as DSL services. Both alternatives unnecessarily increase the costs of entry into the DSL market relative to the costs that PacBell's DSL line of business must face.

MachOne's approach makes it possible for entrants to offer DSL services over the same line that a consumer uses for POTS service without having to take over responsibility for providing the POTS service. Shared loop access allows competitors to focus solely on the DSL market without having to acquire the resources or the expertise to provide other types of telecommunications services. It also removes the cost disadvantage that a DSL-only provider would face if it had to provide DSL service over a stand-alone line. Thus, more providers should be

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[8] *Id.*

[9] *Id.* at 2.

able to enter the DSL market, and they should be able to do so in a manner that enables them to incur no greater costs than Pacific or its affiliate will incur. Easier entry means a greater chance of effective competition for DSL services, and consequently greater access to advanced telecommunications services for all Americans, including residential end users.

Shared loop access has not been opposed by incumbent LECs on the basis of any legitimate technical considerations. Indeed, it is self-evident that if the incumbent LEC can provision DSL services over the same loop used for POTS services, so too can competitive DSL services be provided over the same loop already used for voice telecommunications. Rather, PacBell and other ILECs have taken the position that the Commission's *Local Competition Report and Order* prohibits shared loop access, and thus requires competitive LECs either to provide both voice and data services over a single, separate unbundled loop, or to recover all of the costs of an unbundled loop solely from their DSL data services.

This reading of the *Local Competition Report and Order* makes little sense. First, in defining the local loop UNE as a transmission facility between the customer premises and the central office, the Commission ruled that "the ability to offer various digital loop functions in competition with incumbent LECs may be particularly beneficial to small entities by allowing them to serve niche markets."[10] Second, Section 51.5 of the Commission's rules includes the "features, functions, and capabilities that are provided by means of [loop] facilities" in the definition of "network element," 47 C.F.R. § 51.5. Thus, the capability of sharing a voice loop for the provision of DSL data services is plainly a network element that must be unbundled by incumbent LECs. Third, the Commission addressed competitive LECs' rights to loop access in Sections 51.307(d) and 51.30(c) of the rules, which provide respectively that an incumbent LEC

[10] *Local Competition Report and Order* ¶ 380.

must provide competitors with "access to the facility or functionality of a requested network element separate from access to the facility or functionality of other network elements," and that a competitive carrier "is entitled to exclusive use" of "an unbundled network facility." 47 C.F.R. §§ 51.307(d), 51.30(c). Thus, competitive LECs are permitted access to some functionalities of the loop (shared loop usage) separate from other loop functions, but are "entitled," if they choose, to exclusive use of the entire unbundled facility.

The Commission's treatment of shared loop access in Paragraph 385 of the *Local Competition Report and Order* is entirely consistent with this conclusion. There, the Commission declined to define a loop in terms of its functionalities alone, because that "would preclude the provision of certain services in favor of others." *Local Competition Report and Order* ¶ 385. The Commission reasoned that:

> Giving competing providers exclusive control over network facilities dedicated to particular end users provides such carriers the maximum flexibility to offer new services to such end users. In contrast, a definition of a loop element that allows simultaneous access to the loop facility would preclude the provision of certain services in favor of others. For example, carriers wishing to provide solely voice-grade service over a loop would preclude another carrier's provision of a digital service, such as ISDN or ADSL, over that same loop.

Id. (emphasis supplied). Despite the claims of PacBell and others, this is not a decision by the Commission that competitive LECs are required to obtain exclusive use of a loop.[11] Rather, as the text makes clear, the Commission concluded that it would not limit competitive LECs to access to a portion of the loop, because doing so would prevent new entrants from offering some of the services they desired. In the case of shared loop access, however, the provision of one service (voice-grade telecommunications) in no way precludes the simultaneous provision of another service (DSL data services) over the same loop. Accordingly, although competitive

[11] Indeed, we note that current ADSL technology *allows* both voice and data to be carried on a single loop. *Cf. Local Competition Report and Order*, ¶ 385; ftn. 833.

LECs are entitled to demand exclusive access to unbundled loops for the provision of both voice and DSL services, the *First Report and Order*, at the very least, does not preclude them from obtaining access to a smaller portion of the loop's functionalities where, as in the case of MachOne, the competing carrier desires to offer data services using a shared loop.

The NPRM seeks comment on these issues, asking whether "two different service providers should be allowed to offer services over the same loop, with each provider utilizing different frequencies to transport voice or data over that loop." NPRN ¶ 162. Although this sort of spectrum-based shared loop access is only one form of loop sharing possible using DSL technology — for instance, MachOne's technology permits data and voice services to use the same loop through temporal sharing — the answer to the Commission's inquiry is clearly yes. Indeed, as noted above, the Commission's Rules, including the definition of network elements, already contemplate shared loop access by competitive LECs. Accordingly, the Commission need not break any new ground in the NPRM, but rather need only clarify that its *Local Competition Report and Order* already permits competitive LECs to obtain shared loop access for the provision of DSL services.

The NPRM also asks for comment on the "advantages and disadvantages" of different approaches to service offerings possible via loop sharing, including sale by the competitive LEC of the loop's voice channel (where an entire unbundled loop is purchased) and resale of the incumbent LEC's voice service (where only data access is used). MachOne believes that given the technological capabilities of DSL, the Commission need not and should not determine which service structure is "best." The NPRM concludes, for instance, that if an ILEC allows its data affiliate to resell voice services over a shared loop, competitive LECs should likewise be permitted to do so. NPRM ¶ 162. That is plainly correct. At the same time, as discussed above the

Commission made clear in the *Local Competition Report and Order* that competitive LECs are not limited to using UNEs to provide the same services offered by incumbents. Hence, whether or not voice resale is offered to an ILEC affiliate, a competitive LEC is entitled to resell voice services. Likewise, if a competitive LEC chooses to exercise its right to "exclusive" control of the loop, it follows that it necessarily has the right to sell (or sublease) access to that loop to another carrier for voice services. All of these arrangements are permissible, and it is the marketplace and consumers, not this Commission, that should decide the relative advantages and disadvantages of different marketing approaches.

In sum, DSL technology provides the potential to revolutionize the provision of high-speed data services, create a burgeoning competitive market, and extend local competition to some market segments, especially residential subscribers, where competition is long overdue. Shared loop access is technically feasible and permitted by the Commission's existing rules. The NPRM should clarify that loop sharing is not prohibited by the 1996 Act, and should find that shared loop access is a network element, access to which incumbent LECs are required to provide on an unbundled basis to competing telecommunications carriers.

CONCLUSION

As part of its efforts to ensure the availability of advanced telecommunications services to all Americans, the Commission should clarify that shared access to local loops is an unbundled network element for purposes of Section 251 of the Act, and that competitive LECs may, consistent with the Act and notwithstanding incumbent LEC arguments about so-called "spectrum unbundling," provide DSL and other data services over such shared loop facilities without being required also to provide voice telecommunications services.

Respectfully submitted,

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