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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, *et al.*	)))	CC Docket Nos. 98-147, 98-11, 98-26, 98-32, 98-15, 98-78, 98-91, and CCB/CPD No. 98-15 RM 9244

OPPOSITION OF xDSL NETWORKS, INC.

xDSL Networks, Inc. ("xDSL Networks"), by its counsel, respectfully submits its Opposition to the "Petition for Reconsideration" filed by SBC Communications, Inc., *et al.* ("SBC Petition") and the "Petition for Partial Reconsideration, or Alternatively, for Clarification" filed by Bell Atlantic ("BA Petition") on September 8, 1998. As set forth below, xDSL Networks contends that the Commission need not reconsider or "clarify" its positions in the above-captioned proceedings. To do so, as urged by the petitioners, would deal a crushing blow to the future of telecommunications competition by allowing ILECs to extend their *de facto* monopolies to dominate the market for advanced services, perhaps the one area of wireline communications that shows true competitive possibilities.

I. BACKGROUND

A. About xDSL Networks

xDSL Networks, a company formed by Scott Schelle, a pioneer in the field of advanced wireless communications,[1] is principally focused on the competitive provision of high-speed xDSL data services to respond to the powerful growth in demand for high-speed Internet access and broadband media and information services. xDSL Networks is one of many new specialized competitive entities made possible by the changes

[1] Scott Schelle, Founder and President of xDSL Networks, was formerly Chief Executive Officer of American Personal Communications ("APC"). In that capacity, Mr. Schelle brought the nation's first experimental and commercial personal communications service (PCS) to the Baltimore-Washington area. The deployment of APC's PCS service was one of the most successful telecommunications launches in history. APC built a $100 Million network in less than one year, launched services in November of 1995 and served more than 100,000 subscribers in six months.

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legislated by the Telecommunications Act of 1996 (the "1996 Act"). Since xDSL Networks' principal focus is on the provision of high-speed advanced data services over the existing wireline network controlled by the ILECs, it is in a unique position to consider the merits of the arguments posed by the petitioners in this proceeding, and their likely effects on the competitive market for advanced services in the future.

B. The Pressing Need to Preserve Competition in the Provision of Advanced Telecommunications Services

Prior to stating its specific legal objections to the positions urged by SBC, *et al.* and Bell Atlantic, xDSL would like to point out that what is really at stake here is not an arcane definitional distinction, but something much larger: the future of telecommunications competition in the United States. For historical reasons, the ILECs maintained a *de jure* monopoly for years, enabling them to build out a comprehensive wireline network, linking businesses and residential subscribers. They have been well compensated for this work, and they continue to have a commanding dominance in the provision of telephone services. The 1996 Act opened the door to competitive entry in the local telephone market, but the ILECs continue to use their control and possession of bottleneck local loop facilities to leverage their competitive position in the local market. Based on the fact that none of the ILECs has yet been deemed to have fulfilled the "competitive checklist" for entry into the long distance market, it is safe to presume that this use of leverage will continue into the foreseeable future. Accordingly, entry of competitive carriers into the local market has been impeded, deterred and delayed -- as a result, competition for POTS is limited, especially in (generally lower-margin) residential markets. In this setting, competitive carriers have generally been compelled for economic reasons to focus on higher-margin business customers, and have also needed to offer a variety of innovative services in order to approach even minimal profitability.

The only clear-cut exception on the horizon to this competitive morass is the provision of very high-speed data services such as xDSL. Use of the Internet in the United States is simply exploding, and it is increasingly likely to serve as the medium for all types of communications in the future (data, voice, and video). At present, it would appear that xDSL technology is the most promising delivery system of high-speed data applications such as the Internet to the average user, because it can take advantage of the physical properties of

the existing copper twisted pairs that serve most residential and small business users, and can offer them an entirely new and desirable option, at extremely competitive costs and without significant added equipment or facilities installation issues. Since xDSL technology as applied in this context is a very recent innovation, it is not presently dominated by any company or group of companies. Thus, unlike the situation with POTS, which is unlikely to yield any significant competitive breakthroughs in the immediate future (especially for residential users), xDSL is potentially a fertile field for real competition.

Put in perspective, the decision the Commission faces in this proceeding is whether to nurture this fragile and rare competitive possibility in keeping with the stated objectives of the 1996 Act, or to allow it to be crushed by the relentless quest of the ILECs to use their possession and control of the bottleneck local loop to turn the market for xDSL services into their own private province. Apart from the more delicate legal distinctions that the Commission must make in this proceeding, the truth is that the petitioners seek to dominate xDSL and other advanced services, and deny them to competitors by controlling the copper loops needed to provide the services. This new "eruption" of *de facto* monopoly is anathema to the stated objectives of the 1996 Act, and should be nipped in the bud by the Commission in this proceeding. Nothing less than the future of competition in wireline telecommunications services is at stake here.

II. DISCUSSION

A. The 8th Circuit Decision in *Iowa Utilities* Does Not Require the Commission to Reconsider or "Clarify" its Stated Position with regard to Conditioned Loops

Both petitioners contend that, since the Commission's rule requiring ILECs to provide CLECs "superior quality" unbundled network elements ("UNEs") or "superior quality of access" to UNEs upon demand[2] was

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[2] *See* 47 C.F.R. 51.311(c), (now vacated) which formerly provided as follows:

> To the extent technically feasible, the quality of an unbundled network element, as well as the quality of the access to such unbundled network element, that an incumbent LEC provides to a requesting telecommunications carrier shall, upon request, be superior in quality to that which the incumbent LEC provides to itself. If an incumbent LEC fails to meet this requirement, the incumbent LEC must prove to the state commission that it is not technically feasible to provide the requested unbundled network element or access to such unbundled network element at the requested level of quality that is superior to that which the incumbent LEC provides to itself. Nothing in this section prohibits an incumbent LEC from providing interconnection that is

vacated by the 8th Circuit in the *Iowa Utilities* decision,[3] the Commission may not require ILECs to provide CLECs "conditioned loops." Conditioned loops (the argument goes) are "superior" in quality to the loops the ILECs provide to themselves, and therefore the ILECs cannot be compelled to provide them to CLECs unless the ILECs are also providing such "conditioned loops" to themselves. *See* BA Petition at 3; SBC Petition at 2-4.

This argumentation by the petitioners is misleading, because it is fraught with both conceptual difficulties and factual assumptions that are not entirely accurate. Not only do the petitioners deliberately misconstrue the intent of the 8th Circuit's decision, but they also attempt to create a false impression. It is necessary to take a step back from the sinuous path of the petitioners' logic to put things in perspective.

First, it is important to come to grips with what it really means to have a "conditioned loop." For purposes of offering a service such as xDSL technology over a loop to a customer, it is only necessary that there be an uninterrupted copper loop in good condition less than 18,000 feet in length between a CLEC's digital subscriber line access multiplexer ("DSLAM") and the end user. Rather than being some futuristic network configuration or facility, this is in fact the most primitive arrangement conceivable, historically predating relatively recent innovations such as fiber optic cables, remote concentration devices, etc. Although it is not possible to state with certainty, it is entirely conceivable that many of the existing loops owned and operated by ILECs are "conditioned" for xDSL services -- solely by virtue of the fact that they have been left in their most primitive state, without the addition of load coils, bridge taps, digital loop carrier ("DLC") systems, or other devices which intervene between the telephone company central office and a given end user. Accordingly, the premise that access to "conditioned" loops suitable for use by competitive providers of xDSL services is somehow a form of access "superior" to that the ILEC affords to itself is absurd and outrageous. ILECs have been affording themselves this level of access since the invention of the telephone.

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lesser in quality at the sole request of the requesting telecommunications carrier.

[3] *See Iowa Utilities Bd. v. FCC*, 120 F.3d 753, 812-3 (8th Cir. 1997), cert. granted, 118 S.Ct. 879 (1998).

Second, the artful manner in which the petitioners approach this subject of "conditioned loops" obscures the fact that "conditioning" a loop does not work any improvement in its "quality." If it is determined that a given loop in its current state cannot support xDSL services due to load coils, bridge taps, remote concentrators or other elements which intervene between the ILEC central office and the end user, "conditioning" that loop simply involves taking these elements out of the loop and there are numerous technical alternatives to accomplish this. In other words, "conditioning" the loop for xDSL services, if necessary, consists of *removing* elements from it. By ordering a "conditioned loop," CLECs are not requesting some new, exotic, element – they are simply requesting what *already exists* in the ILECs' networks. This is a far cry from the 8th Circuit's concern that ILECs might be required to provide access to a "yet unbuilt superior" networkrather than the existing network.[4]

Petitioners have seized upon language in the 8th Circuit Order that draws distinctions between "superior," "equal in quality" and "inferior" access, but these distinctions are considerably more complex than they appear. For example, as pointed out in the BA Petition, access to loop configurations that are "superior" for one advanced telecommunications service (*e.g.*, ISDN) are "inferior" for other advanced telecommunications services. *See* BA Petition at 5. Unfortunately, the Commission itself has facilitated the tactical use of this distinction by referring to loops conditioned for xDSL as a possible example of "superior" access.[5] This use of such "catch phrases" to make the distinctions necessary to regulate advanced services, however, can fail to address the most essential issues, *viz.*: what is the ILEC actually being asked to do to comply with requests for "conditioned" loops? Do these loops differ in a dramatic way from existing configurations? Are they fundamentally different from existing practices? When these considerations are analyzed, it will be seen that, at least for xDSL services, the "conditioning" of loops is no more than assessing the capabilities of existing

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[4] *Iowa Utilities*, 120 F.3d at 813.

[5] *See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCC Rcd 15499, para. 314 and n.680 (1996). Indeed, if the Commission should reconsider anything, it should reconsider its use of an xDSL conditioned loop as an example of a superior quality network element. This misconception has unfortunately helped to fuel the arguments of the petitioners, and it should be reexamined.

loops, and removing impediments where necessary. Even if the "superior/inferior" distinction has meaning in some context, it clearly does not adequately address the facts with regard to xDSL conditioned loops.[6]

Finally, the petitioners create a false impression by insinuating that the ILECs do not, or will not, provide "conditioned loops" to themselves. At least as regards xDSL services, it is well known that this is not the case. The ILECs are providing, or will provide, xDSL services over conditioned copper loops to the public. See attached "Exhibit A" (containing news releases by Bell Atlantic, SBC Communications, Southwestern Bell and Pacific Bell advertising their ADSL services).[7] If this is a situation where the ILECs are looking to the future, and claiming that *they themselves* will not offer this service (but that it will be offered by unregulated subsidiaries), this is disingenuous. The Commission has tentatively concluded that CLECs may have any type of access the ILEC provides to itself or its affiliates.[8] If the ILECs do not intend to offer xDSL services over copper loop in the future, how do they intend to offer them? From all accounts, especially the petitioners' own news releases, it is obvious that ILECs intend to offer xDSL services in precisely the same way that competitive

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[6] This analysis is also valid for the provision of "conditioned" loops to CLECs when the loops in question are concentrated at some point by the use of DLC systems or other remote concentrators. Even if a given loop is intercepted by such a device, there are many alternatives for gaining access to the end user served by that loop, including, but not limited to: (i) allowing subloop unbundling, permitting the CLEC to access the subscriber's copper loop before it runs through the digital loop carrier or other such device; (ii) allowing collocation of CLEC DSLAMs or other remote multiplexing devices at ILEC DLC locations; (iii) where possible (*i.e.*, where the total run of the loop is less than 18,000 feet) running copper loop to the DLC location to intercept the copper loop before it enters the DLC; (iv) ILEC upgrade of the DLC to third generation devices that integrate a DSLAM; and (v) ILEC collocation of a separate DSLAM at the DLC and sale of xDSL service at the location to the CLEC at wholesale rates for CLEC resale. The most suitable alternatives from a technical standpoint may depend on the specific facts in each case, but none of these alternatives is "superior" access within the meaning of the 8th Circuit's order. Moreover, the alternative to finding an acceptable means of allowing CLECs access to copper loops served by DLCs and other remote concentrators is to allow the universe of POTS subscribers served by such devices on ILEC networks (currently estimated to be 25% of all POTS subscribers) to become a *de facto* ILEC monopoly market. This grim possibility would cut the heart out of competition in provision of xDSL services, and would be averse to the public interest.

[7] As can be seen from the exhibits, the ILECs are advertising that xDSL services can be provided over the subscriber's existing facilities. Accordingly, the ILECs' assertion that the Commission's requirement that they provide conditioned loops to CLECs is tantamount to requiring them to provide a grade of access "superior" to the grade of access they afford to themselves is unmitigated nonsense.

[8] *See, e.g., Advanced Services Order, NPRM* at ¶ 172.

carriers would like to – if CLECs are allowed to compete The petitioners' tongue-in-cheek approach to such questions, arguing in the abstract while at the same time engaging in activities that belie their legalistic positions, does not advance the Commission's analysis of the situation or contribute to the public interest.

B. The Commission Was Correct in Denying the ILECs' Request for Regulatory Forbearance

Petitioners' request that the Commission reconsider its determination to refrain from regulatory forbearance is no more than an unconvincing rehash of arguments already made to, and rejected by, the Commission. Ameritech, US WEST, Bell Atlantic and SBC all filed petitions before the Commission seeking various types of regulatory relief from the application of Sections 251 and/or 271 of the 1996 Act which the petitioners claimed could be provided by means of forbearance. To this end, the various petitioners argued that Section 706 of the 1996 Act constitutes an independent basis for the exercise of forbearance, potentially enabling the Commission to overrule the requirements of Section 10 of the Communications Act of 1934, as amended (the "Act") which make Sections 251 and 271 mandatory "until [the Commission] determines that those requirements have been fully implemented."[9] The Commission took a serious look at this theory, analyzed it carefully in the context of the *Advanced Services Order*,[10] and soundly rejected the petitions on the basis that Section 706 does not grant independent authority to forbear from the application of Sections 251 and 271 prior to the completion of their requirements.[11]

Nothing in the BA Petition or the SBC Petition responds to the careful analysis conducted by the Commission, which weighs the language of the statute, the broader statutory scheme, the legislative intent and legislative history, and policy considerations to arrive at the conclusion that Section 706 may not override the requirements in Section 10 of the Act. In fact, other than quibbling with the result, the petitions do not offer any fresh analysis, or even attempt to explain the faults in the Commission's logic or approach. Although these non-

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9 *Advanced Services Order* at ¶ 67, quoting 47 U.S.C. § 160(d).

10 *See id.* at ¶¶ 65-80.

11 *Id.* at ¶ 69.

arguments may be brought before the Commission under 47 CFR Section 1.106, they do not have any weight, and should be rejected out of hand.

Moreover, because the Commission concluded that Section 706 does not constitute a separate and independent ground for regulatory forbearance, it did not need to consider whether forbearance would be in the public interest. It is clear that the petitioners' contentions would fail this analysis. There is no conceivable public interest in enabling the monopoly carriers to extend their dominance to advanced services by leveraging their control of the local loop. Contrary to their assertions, this would not speed the availability of advanced services to all Americans – rather, it would deter competitive entrants from making these services available. And, even if the ILECs could launch these services more quickly and efficiently (which is not a foregone conclusion), there would be additional disadvantages – the lack of meaningful competition would inevitably result in higher prices, less choice, less-than-robust innovation: all of the vices of the monopoly system.

Accordingly, even if the Commission were to determine that Section 706 did provide a legal means to exercise forbearance, to do so would cause irreparable damage to the public interest. As stated above, however, the Commission considered it unnecessary even to reach this branch of analysis, and xDSL urges it to "stick to its guns," especially in view of the lack of any persuasive evidence from the petitioners that its determination on forbearance was incorrect.

III. CONCLUSION

The petitioners in this proceeding have thrown down the gauntlet before the Commission in their attempts to thwart the competitive purposes set forth in the 1996 Act. The ILECs would like to have an exemption from the application of the pro-competitive mandates set forth in Sections 251 and 271 for the provision of advanced telecommunications services. Apart from the legal issues involved in this, it is bad public policy. For historical reasons, we are seeing that it is exceedingly difficult to dislodge the former monopoly providers from their domination of the POTS market, particularly in residential applications. But this adverse situation should not be carried over into new and exciting offerings such as high-speed xDSL data services, which are, and ought to be, the competitive battlefields of the present and future. ILECs must allow CLECs the

access they require to offer xDSL services on a competitive basis, and accidents of history or network configuration should not be permitted to serve as bulwarks against the advance of competition into this promising arena. The Commission need not reconsider or "clarify" its holdings in the *Advanced Services Order,* because those holdings are correct, and consistent with law: requiring ILECs to provide conditioned loops to CLECs is not "superior" access, but merely affords competitors access to existing, rather hum-drum, network features that are absolutely necessary to a competitive environment. Finally, Section 706 does not afford a separate basis for regulatory forbearance, but even if it did, such forbearance would be anathema to the public interest, and should not be considered a serious option.

Respectfully submitted,

xDSL NETWORKS, INC.

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Dated: October 5, 1998

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Exhibit A

ILEC News Releases Concerning Their Offerings of xDSL Services

Exhibit A.1 -- Bell Atlantic xDSL News Releases

Exhibit A.2 – SBC Communications xDSL News Releases

Exhibit A.3 – Pacific Bell xDSL News Releases

Exhibit A.4 – Southwestern Bell xDSL News Releases

Exhibit A.1
Bell Atlantic xDSL News Releases

News Center

News Release

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Bell Atlantic Introduces Infospeed DSL Service to the Washington, D.C., and Pittsburgh Markets

Launch Supported by Alcatel, Apple, Compaq, CompUSA, Dell, Globespan, Snap and Westell

New Pricing, Discounts and Innovative Marketing Programs for 'Always-On' Internet Access Services

October 5, 1998

Media contact: Larry Plumb, 703-295-4360
Joan Rasmussen, 703-974-8815

WASHINGTON, D.C. -- Bell Atlantic Infospeed sm DSL service now is available in selected Washington, D.C., and Pittsburgh metropolitan areas. The company will make a high-speed, high-quality Internet connection an affordable and convenient possibility for millions of consumers in the coming weeks. The company also announced a new lower price for the basic service package -- $59.95 a month.

The digital high-speed service will provide an "always-on" link to the global Internet. No dialing. No busy signals. You're there, with one click of the mouse.

Infospeed DSL is Bell Atlantic's brand name for ADSL, or Asymmetric Digital Subscriber Line technology, which will provide Internet access to consumers at speeds 11 to 126 times faster than that afforded by a 56 kilobits per second (Kbps) modem. By taking advantage of unused capacity available in existing telephone lines, the technology allows consumers to use a single phone line to send faxes or make phone calls while they're surfing the Internet.

Infospeed DSL is available in some Washington, D.C., and Pittsburgh areas now and will be expanded to additional communities in those areas throughout the fall and in 1999. It will be offered to consumers in the Philadelphia area and on the Hudson River waterfront in New Jersey beginning next month. New York City, Boston and other markets will be added early next year.

"The early response to our plans to offer this service has been even greater than we had hoped," said Bruce Gordon, group president-Retail for Bell Atlantic. "Bell Atlantic has received more than 13,000 inquiries about the service since we made our first announcement in June, spurring us to accelerate our efforts to bring Infospeed DSL to market with innovative programs and partnerships."

New, Lower, Entry-Level Price Coupled with Introductory Discounts

Bell Atlantic's entry level package of DSL service and Internet access -- Bell Atlantic Personal Infospeed -- will be offered at $59.95 a month for unlimited use, $10 less than the price announced in June. Personal Infospeed features speeds up to 640 Kbps, with Bell Atlantic.net(sm) Internet access and a link to a special version of the Snap portal service that is designed for Bell Atlantic's high-speed users. See related Bell Atlantic news release about the Snap portal service.

Pricing for Bell Atlantic's other two package options remains the same:

*Bell Atlantic Professional Infospeed is $109.95 a month for unlimited use. Professional Infospeed features speeds up to 1.6 megabits per second (Mbps), with Bell Atlantic.net and the special Snap portal service.

*Bell Atlantic Power Infospeed is $189.95 a month for unlimited use. Power Infospeed offers speeds up to 7.1 Mbps, with Bell Atlantic.net and the Snap portal

Customers will be able to choose from among the three options that most closely meet their needs, subject to distance limitations.

Initial fees will be less than $149 for the Bell Atlantic service packages during promotional periods -- including the cost of setting up a connection and equipment, such as ADSL modems, needed to operate the service. To enjoy the full benefit of the promotions, customers must make a one-year commitment to Bell Atlantic.net and return the modem manufacturer's cash-back coupon for $50.

The up-front, set-up costs during the promotional period include a $99 one-time network connection fee and - for Bell Atlantic.net subscribers -- an ADSL modem for $99 (or $49 using the cash-back offer from Westell). Some additional equipment needed to connect with Infospeed, such as an Ethernet card or circuit board for desk-top computers, will be supplied at no charge to Bell Atlantic.net customers if they need it. Fees for inside wiring work and fees for a specialist to aid in the set-up of the person's at- home computer also will be waived for Bell Atlantic.net customers during promotional periods.

After installation is complete, technical support will be available to all Infospeed DSL customers, 24 hours a day, seven days a week. Finally, the service will come with a customer-care, money-back guarantee for all charges if a customer decides not to continue service within 30 days of installation.

Marketing and Alliance Programs

Bell Atlantic's drive to bring Infospeed DSL to market also is supported by a diverse set of companies -- ranging from PC manufacturers such as Apple, Compaq and Dell, retailers such as CompUSA and content providers such as Snap, to telecommunications equipment and modem manufacturers such as Alcatel (formerly DSC) and Westell. See attached Bell Atlantic sidebar for additional information. See also related news releases from the respective companies

The Bell Atlantic efforts include the "ISDN Rewards," "Refer-a-Friend" and "Switch to Infospeed" programs. There are incentives for customers to purchase Bell Atlantic.net service, powered by Infospeed DSL, and to encourage their friends to do so as well. See attached sidebar for details.

Bell Atlantic announced last week its "ISP Partnership Program," which compensates participating Internet service providers (ISPs) for Infospeed sales they stimulate. ISPs can package their own Internet access offerings with three levels of high-speed connections from Bell Atlantic, each priced at a flat monthly rate: Infospeed DSL 640K at $39.95, Infospeed DSL 1.6M at $59.95 and Infospeed DSL 7.1M at $109.95.

Customers can make a reservation for Bell Atlantic Infospeed DSL services today via the Bell Atlantic Web site at www.bellatlantic.com/infospeed or by calling 1-877-525-ADSL. They also can preview Bell Atlantic's high- speed portal featuring Snap by visiting www.bellatlantic.net/infospeed.

Bell Atlantic is at the forefront of the new communications and information industry. With more than 41 million telephone access lines and more than seven million wireless customers worldwide, Bell Atlantic companies are premier providers of advanced wireline voice and data services, market leaders in wireless services and the world's largest publishers of directory information. Bell Atlantic companies are also among the world's largest investors in high-growth global communications markets, with operations and investments in 23 countries.

SIDEBAR #1 for Bell Atlantic Infospeed DSL News Release

October 5, 1998

Programs by Companies Supporting Bell Atlantic Infospeed DSL

Alcatel*

Alcatel (formerly DSC) supplies network technology that is essential to the deployment of ADSL and to Bell Atlantic's live demonstration of Infospeed sm DSL service.

Apple*

The iMac is Infospeed DSL-ready and will be supported by Bell Atlantic. Apple and Bell Atlantic are working to support other generations of the Macintosh* platform.

Compaq*

Compaq computers are Infospeed DSL-ready. Compaq will co-promote both Infospeed DSL service and DSL-ready computers through direct mail campaigns and through joint events in CompUSA* stores. Compaq will indicate its computers are Infospeed DSL-ready in retail outlets in the Bell Atlantic region.

CompUSA

CompUSA will market Infospeed DSL service with in-store demonstrations and circulars it mails customers in areas where DSL is deployed. The leading computer retail chain will provide Internet training powered by high-speed DSL in appropriate stores. CompUSA also will provide technical support and other services for Infospeed DSL customers.

Dell*

Dell, the leading direct computer systems company, will participate in joint marketing programs with Bell Atlantic and will assemble made-to-order, Infospeed DSL-ready computers.

Globespan*

Globespan provides the integrated circuit that is an essential part of the ADSL modem which integrates voice and high speed data, enabling people to talk on the phone and surf the Internet simultaneously over the same telephone line when they subscribe to Infospeed DSL service.

Snap*

Snap, the leading Internet portal service jointly owned and operated by CNET and NBC, is teaming with Bell Atlantic Internet Solutions to create a version of its portal service and search engine geared to take advantage of the power of Infospeed DSL.

Westell*

Westell, which manufactures the ADSL modems used to deliver Infospeed DSL service, is providing $50 cash-back coupons for the first 20,000 of their modems sold prior to June 30, 1999.

_____ *Brand names may be trademarks of their respective companies.

SIDEBAR #2 for Bell Atlantic Infospeed DSL News Release

October 5, 1998

Bell Atlantic Marketing Programs

ISDN Rewards Program If consumers have previously purchased an ISDN (Integrated Services Digital Network) modem from Bell Atlantic, they can receive an ADSL modem from the company at no additional charge when Infospeed sm DSL service becomes available in their area. So customers who want high-speed Internet access need not wait until ADSL-powered Infospeed is available in their area. Bell Atlantic ISDN service is available -- today -- to nearly 20 million households in the mid-Atlantic region and the Northeast. ISDN can provide Internet connections more than 4 times faster than traditional 28.8 Kbps modems.

Refer-a-Friend Program Bell Atlantic will give customers $100 for each successful referral of a new Infospeed DSL customer they make. When consumers order Bell Atlantic.net sm and Infospeed DSL, Bell Atlantic will send them referral cards to give to friends and neighbors. When one of these friends orders Infospeed and Bell Atlantic.net and keeps the two services for 60 days, the original party will receive a $100 sales referral check. If a customer gets 10 neighbors to subscribe, he or she will get $1000 from Bell Atlantic!

Switch-to-Infospeed Program Consumers already subscribing to a cable modem or satellite- delivered high-speed Internet service will be given an incentive to switch to Bell Atlantic.net, powered by Infospeed DSL. The price of the ADSL modem will be cut in half once a customer mails or faxes a copy of a recent bill from their cable modem or satellite Internet provider.

Bell Atlantic Infospeed DSL Fact Sheet

Acronyms and Names:

- ADSL - Asymmetric Digital Subscriber Line technology
- DSL - Digital Subscriber Line: generic term for a family of high speed digital technologies that includes "ADSL"
- ISDN - Integrated Services Digital Network
- ISP - Internet service provider. A type of company that provides computer access to the Internet and World Wide Web.
- Kbps - Kilobits per second (as in thousands of bits per second, a measure of how fast data, or "bits," are transmitted)
- Mbps - Megabits per second (as in millions of bits per second)
- Infospeed sm DSL - Bell Atlantic's brand name for ADSL service
- Bell Atlantic.net sm - Brand name for Bell Atlantic's mass market Internet access service

Infospeed DSL Characteristics:

- More than 11 to 126x faster than a standard 56 Kbps analog modem
- Customers can choose from among several Internet service providers
- Service is "always on" - no lengthy log-on process, no busy signals
- Uses existing copper telephone lines
- Customer is able to use fax or phone capabilities simultaneously while being on-line with his or her computer
- Offered in three speed options, providing flexibility for customers

  1. Up to 640 Kbps downstream; 90 Kbps upstream
  2. Up to 1.6 Mbps downstream; 90 Kbps upstream
  3. Up to 7.1 Mbps downstream; 680 Kbps upstream

Meaningful Speed Comparisons:
Time needed to download newest version of Internet browser software (about 16 megabits)
56 Kbps = ~5 minutes
640 Kbps = ~30 seconds
1.6 Mbps = ~11 seconds
7.1 Mbps = ~3 seconds

Service Phase-In:

- Early October: Washington, DC, area; Pittsburgh area
- November: Philadelphia; New Jersey Hudson River waterfront
- Early 1999: New York City area, Boston area
- Mid 1999: Other markets to be announced

Prices for Infospeed DSL, with Bell Atlantic.net Internet access service:

- Personal Infospeed (up to 640 Kbps) -- $59.95*
- Professional Infospeed (up to 1.6 Mbps) -- $109.95*
- Power Infospeed (up to 7.1 Mbps) -- $189.95* *Monthly flat rates; includes ISP and related charges

Prices for Infospeed DSL alone:

- Infospeed 640K-- $39.95*
- Infospeed 1.6M -- $59.95*
- Infospeed 7.1M -- $109.95*
- Monthly flat rates; ISP charges are in addition

One-time Charges*:

- Network connection fee -- $99
- ADSL modem -- $49 during promotional period, including manufacturer's cash-back coupon.
- Price without discounts: $325

- Ethernet card for desktop computer -- provided at NO CHARGE during promotional periods if card is not already provided by PC manufacturer. Price without discounts: $50
- Wiring work inside the home and specialist assistance for home set-up -- FEES WAIVED during promotional periods. Normal charge: $99

*30-day money-back guarantee for all charges (from day of installation)

Features of Bell Atlantic.net powered by Infospeed DSL:

- Special edition of Snap portal service designed to take advantage of high-speed capabilities
- Free browser software in Windows 95* or Windows NT 4.0* versions or in Macintosh version
- Electronic mail
- Access to newsgroups
- Five megabytes of space for personal Web page
- Free access to expert help desk services, 24x7

*Trademarks of Microsoft Corporation

System Requirements for Bell Atlantic.net powered by Infospeed DSL:

- Pentium Intel-equipped, IBM-compatible PC* (75 MHz), 32 megabytes of memory, 25 megabytes of free hard disk space, an ADSL modem, a CD-ROM drive and available space for an Ethernet card
- iMac, 32 megabytes of memory, 25 megabytes of free hard disk space, an ADSL modem, and a CD-ROM drive

*Some other systems may also be compatible.

Customer Contact Information:

- Relevant Web sites: www.bellatlantic.com/adsl; www.bellatlantic.net/infospeed; www.bellatlantic.net
- Toll-free numbers for reserving Infospeed: 1-877-525-ADSL

Key facts about Bell Atlantic:

- Corporate headquarters at 1095 Avenue of the Americas, New York City, NY, 10036
- Service territory spans from Maine to Virginia, covering 13 states and the District of Columbia
- 41 million telephone lines in service
- More than 7 million wireless phone customers.

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Exhibit A.2
SBC Communications xDSL News Releases

SBC Communications Announces Broad ADSL Deployment Across California

Pacific Bell Plans To Have Service Available To More Than 5 Million California Business And Residential Customers By End Of Summer

San Francisco, California, May 27, 1998

SBC Communications, Inc. announced today that Pacific Bell will begin broadly deploying high-speed Asymmetrical Digital Subscriber Line (ADSL) service in more than 200 communities across California to satisfy customers' increased demands for bandwidth and faster Internet access.

Designed primarily for Internet and telecommuting applications, ADSL enables businesses of all sizes to work smarter and home Internet enthusiasts to surf faster. Packaged with Internet service, ADSL provides online consumers and small businesses with accelerated access to the World Wide Web. As a stand-alone connection, ADSL also allows telecommuting employees and after-hours home workers to connect to their employers' corporate networks via dedicated, secure links.

Following a successful market trial of ADSL initiated last fall, Pacific Bell plans to initially deploy ADSL in **87 central offices** serving all or part of more than 200 communities throughout the state. Within the next few months, cities such as San Jose, San Francisco, Oakland, Anaheim, Los Angeles, San Diego and Sacramento will have Pacific Bell ADSL service. The ADSL-equipped central offices currently serve approximately 4.4 million households and 650,000 business customers.

"SBC recognizes the value of the data communications market for our customers and our business. Pacific Bell's broad-based rollout of ADSL in California is one example of the commitment we are making to support our customers' data needs," said Royce Caldwell, President of SBC Operations.

"Pacific Bell is stepping up to the plate to deliver lightning fast Internet access to millions of our customers in California, home of the world's most demanding and intensive Internet users," said Jim Callaway, Pacific Bell president of public affairs. "This broad geographic rollout delivers on our commitment to provide Californians with the speed they need

at a competitive price so that they can take greater advantage of the power of the Internet. It gives them the ability to receive and send data to anyone, anywhere, anytime. The California marketplace already has the highest percentage of "wired" households and the greatest number of second phone lines of any state in the country. The introduction of ADSL technology will solidify the Golden State's position as the center of the Internet world," he added.

The much-anticipated offering is expected to bolster California's economic, environmental and social development, according to state Senator Steve Peace (D-La Mesa). "I applaud Pacific Bell's commitment to accelerate deployment of this advanced telecommunications infrastructure on behalf of California businesses and consumers," said Senator Peace. "This is truly the technology that California needs to remain competitive in the 21st century, for it has social, educational and business applications that benefit each and every one of us."

Pacific Bell plans to begin commercial deployment in July. Pacific Bell is making filings with regulatory authorities to provide this service.

ADSL provides telecommuters and branch offices with secure, dedicated links to corporate networks at transmission speeds of up to 1.5 megabits per second (Mbps) - 50 times faster than 28.8 kilobits per second (Kbps) modem speeds. By comparison, it would take a 28.8 Kbps modem 41 minutes to download a short video clip (72 Mbps) that could be downloaded in 48 seconds using ADSL technology. It is also a high-speed, always-on, direct Internet access solution that enables users to download data, graphics, audio and video files over existing telephone lines while simultaneously using a phone or fax machine.

Three ADSL offerings will be available from the company and priced as follows pending regulatory approval and processes:

- **"Home Pack DSL"** includes the ADSL connection and Internet service, and is designed for high-volume home Internet users. "Home Pack" provides transport speeds starting at 384 kilobits per second (Kbps) downstream and 128 Kbps upstream. Total monthly price for home Internet access package starts at $89, including $59 ADSL connection and $30 dedicated Internet service from Pacific Bell Internet Services.

- **"Internet Access Pack DSL"** also includes the ADSL connection and Internet service, and is designed to meet the higher-speed Internet access needs of all businesses. "Internet Access Pack" includes two speed options:
    - up to 384 Kbps downstream and 384 Kbps upstream to meet the needs of small office/home

office (SOHO) and small businesses requiring internet access. Total monthly price for business Internet package starts at $199, including $99 ADSL connection and $100 dedicated Internet service from Pacific Bell Internet Services.
  - up to 1.5 megabits per second (Mbps) downstream and 384 Kbps upstream for small businesses needing more bandwidth and for medium and large businesses where many employees share a single internet connection. Total monthly price for the business Internet package for small offices starts at $339, including $189 ADSL connection and $150 dedicated Internet service from Pacific Bell Internet Services.

- **"Office Pack DSL"** includes the ADSL service and is designed to meet the dedicated and secure remote access needs of large business customers. "Office Pack" includes two speed options:
  - up to 1.5 Mbps downstream and 384 Kbps upstream. Total monthly price for high-speed corporate network connection is $189.
  - up to 384 Kbps downstream and 384 Kbps upstream. Total monthly price for high-speed corporate network connection is $99.

  Additional charges may apply for purchases of customer premise equipment and network integration services.

A one-time installation charge of $125 applies for each ADSL package. Pacific Bell will make ADSL equipment available to its residential and business customers; pricing for ADSL equipment will vary by ADSL package.

"Pacific Bell's plans to broadly deploy high-speed connectivity is a major win for California's personal computer users," said Robert T. Jenkins, Intel vice president and director of corporate licensing. "We congratulate Pacific Bell's commitment to major statewide deployment of ADSL access." Jenkins, who chairs the executive committee of the California Manufacturers' Association (CMA), said that a recently issued CMA study predicted that "640,000 new jobs and an increase of more than $200 billion in gross state output by 2001" will result from broadly deployed services such as Pacific Bell's ADSL.

"Commercial deployment of ADSL is but one component of our unfolding data strategy. Over the next few months, we intend to introduce a full range of data transport and networking services that meet the complex demands of businesses and consumers," said Ed Mueller, president and CEO of Pacific Bell.

According to Beth Gage, a broadband consultant at TeleChoice, the North American DSL market is expected to reach an installed base of 110,000 lines this year, 355,000 in

1999 and more than one million in 2001. "California's high tech industries and other factors contribute to its position as the most wired region in the US," Gage said. "As mass market DSL services become available consumers and businesses will benefit from vastly improved Internet response times for retrieving and transmitting data. Eliminating the local access bandwidth bottleneck for consumers and small businesses will have definite side effects - increased use of the Internet for business applications and consumer entertainment, and continued growth of new applications and services that will take advantage of new access capabilities."

Due to existing technology and distance limitations, ADSL will not be available to all customers served by the ADSL-equipped central offices. Initially, the service will be available to approximately 60 percent of the households and businesses in each service area. To receive the service, customers must be located within 16,000 feet of a ADSL-equipped central office and their lines must meet certain transmission criteria.

While existing phone lines can be adapted for ADSL, the following hardware and software is required: an ADSL modem; a "splitter" that divides voice and data line traffic; and a Network Interface Card that connects the modem to a personal computer.

As a member of the Universal ADSL Working Group (UAWG) comprised of leading telecommunications, hardware and software companies, Pacific Bell's parent company, SBC Communications, Inc., believes its ADSL offering helps satisfy the UAWG's goal of bringing high-speed access to the mass market.

Pacific Bell will provide one-stop shopping for hardware, service and support and can assist customers in obtaining and installing these devices. California residents can call 1-888-884-2DSL or visit the Pacific Bell Web site at **www.pacbell.com/products/business/fastrak/adsl/** for additional information.

Pacific Bell provides basic and leading-edge telephone services and products to over 13.8 million business and residential customers -- a total of more than 17.6 million access lines -- throughout California. It is a company of SBC Communications Inc., a global leader in the telecommunications industry with nearly 34 million access lines and 5.6 million wireless customers across the United States, as well as investments in telecommunications businesses in 10 countries. Under the Southwestern Bell, Pacific Bell, Nevada Bell and Cellular One brands, SBC, through its subsidiaries, offers a wide range of innovative services, including local and long-distance telephone service, wireless communications, paging, Internet access, and messaging, as well as telecommunications equipment, and directory advertising and publishing. SBC (www.sbc.com) has more than 118,000 employees and reported 1997 revenues of $25 billion. SBC's equity market value of $80 billion (as of March 31, 1998) ranks it as one of the largest telecommunications companies in the world.

Pacific Bell
ADSL Central Offices
1998 Summer Deployment

The following central offices cover all or part of more than 200 communities in California.

Alameda	Los Angeles (5)
Albany	Milpitas
Alhambra	Mountain View
Anaheim (2)	National City
Arcadia	Newport Beach
Berkeley	Northridge
Beverly Hills	North Hollywood
Burbank	Oakland (3)
Burlingame	Palo Alto (2)
Canoga Park	Pasadena
Colma	Pleasanton
Compton	Redwood City
Concord	Reseda
Costa Mesa	Sacramento (4)
Culver City	San Bruno
Danville (2)	San Carlos
El Toro	San Diego
Escondido	San Francisco (5)
Fair Oaks	San Gabriel
Fremont (2)	San Jose (5)
Fullerton	San Mateo
Garden Grove	San Ramon
Glendale	Santa Ana (2)
Hayward	Santa Clara (2)
Hollywood	Sherman Oaks

Irvine	Simi
La Crescenta	Sunnyvale
La Jolla	Tustin
La Mesa	Van Nuys
Laguna Nigel	Ventura (2)
Livermore	Walnut Creek
Los Altos	

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