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The End of Telecommunications?
An Epilogue to *Tangled Web: The Internet and*
Broadband Open Access Policy

by

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The Public Policy Institute, formed in 1985, is part of the Policy and Strategy Group at AARP. One of the missions of the Institute is to foster research and analysis on public policy issues of importance to mid-life and older Americans. This publication represents part of that effort.

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Foreword

For older persons, like all Americans, the Internet is rapidly becoming an essential tool of modern life. Indeed, many Americans over the age of 50 now rely on the Internet to communicate with friends and family, search for health and medical information, pay bills, conduct their banking, track investments, engage in work-related activities, make online purchases, read the news, and more. The importance of Internet access will only increase as additional information and essential services are brought online.

Broadband technology, which provides an always-on, high-speed connection to the Internet, represents the next step in the evolution of the Internet. Currently, most consumers who use the Internet do so through a dial-up telephone line connection, a type of “narrowband” Internet access technology that delivers content at a relatively slow speed. Broadband access promises to transform the user’s online experience by expanding their ability to download and access information, and enabling a range of new and enhanced voice, video, and data services that have the potential to fundamentally change the way consumers live.

Many of the benefits of ubiquitous and affordable access to broadband networks will be of particular value to older Americans. For example, with a broadband connection to support monitoring devices and interactive video, home health care becomes a viable option for many consumers, and particularly those with limited mobility or those who may not be well enough to travel. A broadband connection also facilitates life-long learning opportunities at convenient times and places, especially for individuals who have jobs, disabilities, or family responsibilities that make it difficult to travel to a classroom. Telecommuting, ordering movies on demand, and participating in electronic town hall meetings are but a few of the many other applications consumers can enjoy with a broadband connection.

The full potential of an end-to-end broadband Internet may not be realized, however, if the owners of broadband Internet access networks are able to exercise control over Internet content and stifle competition in the Internet service marketplace. The astonishing growth of the narrowband Internet over the past decade and the benefits that have resulted from its development have occurred, in large part, because consumers have had open and unfettered access to and use of the Internet, Internet content, and other on-line services. In contrast, cable broadband network owners are permitted to choose the Internet service providers who use their systems, effectively closing their infrastructure to competitors. Moreover, while federal law and regulation currently require that a local telephone company’s digital subscriber line (DSL) service—the other leading broadband Internet access technology—be provided on an open access basis, the Federal Communications Commission (FCC), in issuing a proposed rulemaking recently, has tentatively decided to remove these open access obligations.

Almost two years ago, AARP’s Public Policy Institute (PPI) commissioned Dr. Trevor R. Roycroft of the J. Warren McClure School at Ohio University to examine how competing Internet service and content providers use the broadband network and how their actions may affect the future development of the Internet. In the completed analysis, entitled *Tangled Web: The Internet and Broadband Open Access Policy*, Roycroft provided strong support for

the requirement of open access, regardless of the technology associated with the provision of Internet access facilities.

Recent developments in the marketplace and at the FCC prompted PPI to commission Dr. Roycroft to update *Tangled Web*. More specifically, PPI asked Dr. Roycroft to review and assess the technological, market, and proposed policy changes that have taken place over the last 18 months and provide policy options for sustaining competition in the market for Internet access services.

AARP appreciates the important work accomplished by Dr. Roycroft in advancing our understanding of policy issues surrounding broadband open access. The author's analysis of this issue makes a convincing case for opening access to cable broadband facilities and continuing the openness of telephone company facilities as the only pro-competitive policy that will protect the current success and future promise of the Internet.

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Executive Summary

Background

A January 2001 AARP Public Policy Institute report, *Tangled Web: The Internet and Broadband Open Access Policy*,¹ addresses emerging policy issues surrounding broadband open access. The “tangled web” to which the title of the report referred is the contradiction in Federal Communications Commission (FCC) policy regarding access to the Internet. The FCC requires telephone companies to provide Internet service providers (ISPs) with nondiscriminatory access to the telecommunications facilities that they control, allowing consumers a free choice of Internet access services. However, cable television companies, another provider of telecommunications facilities that allow consumers to reach the Internet, are not required to provide nondiscriminatory access to ISPs. The immediate result is that consumers who use cable television broadband technology may lose the ability to choose their ISP. However, additional consequences could include the stifling of innovation and harm to competition for Internet services and e-commerce activities.

Tangled Web concluded that this contradiction in policy is a potential threat to the development of the Internet. The Internet is based on, and has been so successful as a result of, the openness of Internet technology, including access facilities. This openness has unleashed a flood of innovation, which has delivered significant benefits to businesses and consumers. No firm, or group of firms, has been able to exercise control over the Internet to date due to the openness of the underlying Internet technology and the openness of the access arrangements that allow consumers to utilize telecommunications services to connect to the Internet.

The recommendations offered in *Tangled Web* were simple: classify cable Internet facilities as telecommunications services and require open access to these facilities. The report did not call for any further regulation, but suggested that the open access requirement would provide the leverage necessary for independent ISPs to negotiate reasonable agreements with cable television companies for use of their broadband facilities. The report did counsel, however, that monitoring the progress of independent ISPs’ access to cable broadband facilities was prudent, as cable companies would still exercise market power, given their control of the broadband telecommunications technology.

In the intervening eighteen months, there have been significant developments that raise considerable concern about the future of broadband open access and the Internet. Some of the developments are technological or market-oriented. However, regulatory developments have been the most dramatic. The FCC concluded its *Inquiry* into the cable broadband question by classifying cable broadband service as an “information service” rather than a telecommunications service.²

¹ Available at: http://research.aarp.org/consume/d17331_tangled.html

² In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and other Facilities; Interim Order on Petition for Declaratory Ruling; and Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, GN Docket No. 00-185, CS Docket No. 02-52. Declaratory Ruling and Notice of

This classification may shelter cable companies from any requirement to provide open access to broadband telecommunications facilities that allow customers to reach the Internet. Additionally, the FCC launched a *Notice of Proposed Rulemaking* (NPRM) addressing the appropriateness of continuing to classify the broadband Internet access facilities controlled by telephone companies (digital subscriber line or DSL) as telecommunications services. In this NPRM, the FCC tentatively concludes that wireline broadband Internet access services are also information services.

Thus, the FCC is preparing to “untangle” the contradiction in current broadband access policy by removing all broadband Internet access facilities from open access obligations. This development is most unfortunate from the perspective of consumers who use the Internet, ISPs, providers of electronic commerce services, developers of Internet applications, and society as a whole, which has benefited from the competitive market for Internet access and services. In reaching its conclusions, the FCC reveals a fundamental misunderstanding of the nature of the Internet and the meaning of competition for Internet access services. According to the FCC, their approach is designed to promote competition. However, by “solving” the problem of contradictory policy with regard to access to broadband Internet access facilities, the direction taken by the FCC threatens to replace the wide-open competition, which has characterized the marketplace for Internet services, with a monopoly or tight oligopoly.

The FCC has stated its hope that intermodal competition, i.e., competition among various technology platforms for Internet access, will prevent anti-competitive behavior.³ However, as will be discussed below, current market conditions indicate that intermodal competition is not capable of providing market forces that are adequate to prevent discriminatory behavior against ISPs on the part of cable television companies and telephone companies who today provide virtually all broadband infrastructure.

Purpose and Methodology

The purpose of this report is to update developments in broadband open access policy and to provide policy options for sustaining competition in the market for Internet access services. This report begins with an assessment of technological and market changes that have occurred in the past 18 months. The report then examines the overlapping set of rulings and rulemakings that are currently underway at the FCC. The FCC’s declaratory ruling on the status of cable broadband facilities, its cable access rulemaking, and its rulemaking addressing telephone company broadband Internet access facilities are analyzed and discussed from a consumer perspective.

Proposed Rulemaking. March 15, 2002. ¶ 7. (Hereinafter, this document will be referred to as the “Cable Modem Rulemaking.”)

³ Review of Regulatory Requirements for Incumbent LEC Broadband Services; SBC Petition for Expedited Ruling That it is Non-Dominant in its Provision of Advanced Services and for Forbearance From Dominant Carrier Regulation of These Services, CC Docket No. 01-337, Notice of Proposed Rulemaking, FCC 01-360, 16 FCC Rcd 22745 (Dec. 20, 2001). ¶ 30-31.

Principal Findings

Market and Technological Developments

Subscribership for broadband Internet access services has continued to grow since January of 2001. Cable television Internet access facilities are the most widely utilized, followed by digital subscriber line (DSL) service. These two technological platforms dominate the marketplace, providing over 98 percent of all residential broadband Internet access. Evidence of price competition in the market for broadband Internet access is lacking, and high prices for broadband services may be contributing to the relatively small percentage of U.S. households who have adopted broadband services. At the same time that competition among various broadband platforms (i.e., intermodal competition) has been slow to emerge, competition among providers who share the telephone company broadband platform due to regulatory mandates (i.e., intramodal competition) has suffered because of the general decline of the competitive local exchange carrier market segment.

Cable Modem Rulemaking

In its *Cable Modem Rulemaking*, the FCC concludes that cable modem *service* is an information service, but leaves the critical issue of the appropriate regulatory treatment of the cable modem *platform* unresolved. By failing to address the treatment of the cable modem platform, the FCC has reduced prospects for competition in Internet access and Internet services markets. Also, the FCC's conclusion that existing and future relationships between cable companies and unaffiliated Internet service providers (ISPs) reflects *private carriage* removes desirable legal protections from ISPs.

Consumer Demand for Multiple ISPs

On the issue of consumers' ability to reach Internet services from sources other than their primary ISP, described as "click-through" access by the FCC, this report finds that the potential for market and technical impediments requires proactive steps. Consumers may be deterred from selecting Internet services from other sources due to increased expense associated with such a choice or to overt interference on the part of their primary ISP. Restrictions such as those already imposed by the FCC on AOL Time Warner as a result of their merger should be adopted as general policy with regard to the relationship between broadband Internet access providers and unaffiliated providers of Internet access, Internet services, and Internet content. This report also finds that it would be entirely appropriate to now impose open access requirements on cable companies.

Wireline Notice of Proposed Rulemaking (NPRM)

As described in their recent *Wireline Notice of Proposed Rulemaking*, the FCC's tentative conclusion that broadband Internet access provided by telephone companies is an information service ignores basic technological facts and a long history of FCC decisions to the contrary. Broadband Internet access facilities do not, by themselves, generate a single information service—a broadband connection without an Internet service provider is incapable of providing any information services. High-speed Internet access facilities only allow a

more efficient use of information services, which are provided by an ISP. The policy direction indicated by the FCC in their recent *Wireline Notice of Proposed Rulemaking* has the potential to remove vital competitive safeguards, with the likely result being reduced competition for Internet access, Internet services, and Internet content.

Comments filed by each of the four Bell Operating Companies (BOCs) in response to the FCC's *Wireline NPRM* reveal important differences in their positions. These differences illustrate the desirability of continuing to apply a consistent pro-competitive policy for broadband Internet access facilities controlled by local telephone companies. Continuation of current policies based on obligations imposed by both the Telecommunications Act of 1996 and the FCC's series of *Computer Inquiries* is appropriate.

Finally, this report finds that a reasonable interpretation of the Universal Service requirements of the Telecommunications Act of 1996 should result in customers of basic telephone service sharing the benefits of increased economies of scope that result from telephone company provision of both basic voice and high-speed data services.

Conclusions

The FCC's current policy direction places competition for Internet access services in jeopardy. In order to protect competition for Internet services, the FCC should do the following:

- Require cable companies to provide open access to their networks, thus offering customers a choice of ISPs.
- Impose requirements on cable companies in their dealings with ISPs like those it imposed when approving the AOL Time Warner merger, including a prohibition of service quality discrimination.
- Require that telephone companies continue under the *Computer Inquiry* framework, which makes telecommunications transmission facilities available to providers of Internet access services on a non-discriminatory basis.
- Require that the broadband facilities and DSL services provided by telephone companies continue to be subject to the unbundling and resale provisions of the Telecommunications Act of 1996.

As the title of this epilogue indicates, the general direction of the FCC's recent rulemakings on the issue of broadband access to the Internet attempts to end the role of "telecommunications" and "telecommunications services" as those terms are legally defined and applied to Internet access facilities. The FCC must recognize that the end of "telecommunications" will dramatically reduce competition for Internet services and stifle innovation, an outcome that would result in incalculable harm to consumers.

Broadband Internet access facilities are not information services, but are telecommunications facilities that should be made available to third-party ISPs. Open access to these facilities will ensure that competition and innovation will continue to be associated with Internet technology. Opening cable broadband facilities and continuing the openness of telephone

company facilities are essential to customer choice and the economic benefits of competition. Open access to broadband Internet access facilities is the only pro-competitive policy that will protect the current success and future promise of the Internet.

I. Market and Technological Developments

Since early 2001, subscription rates for local exchange telephone company (LEC) digital subscriber line (DSL) services have increased from approximately 1.7 million to 4.8 million customers.⁴ Cable companies remain the market leaders in deployment of broadband Internet access facilities with subscription increasing from about 3.5 million to over 8 million households at the end of the first quarter of 2002.⁵ DSL and cable broadband facilities continue to dominate all other technologies for broadband access. Kinetic Strategies, a telecommunications research firm, identifies only 195,000 subscribers to broadband Internet access services other than DSL and cable (this includes subscribers to all satellite and fixed wireless Internet access services).⁶

One notable trend in the provision of broadband services by telephone companies is the relative performance of incumbent LECs (ILECs) and competitive LECs (CLECs). With the implementation of the Telecommunications Act of 1996, local exchange markets were opened to competition. The new CLEC segment of the industry included firms with a nationwide presence such as Rhythms, Covad, and NorthPoint. These firms provided broadband Internet access using unbundled network elements (UNEs) acquired from ILECs under the provisions of the Act. Comparing the provision of broadband access technology from 4th quarter 2000 to 4th quarter 2001 shows that ILEC DSL lines in service increased 101 percent, while CLEC DSL lines in service *decreased* by five percent.⁷ The reduction in DSL deployment by the CLEC sector, in a period when ILECs were experiencing robust growth reflects the market and financial difficulty faced by the upstart firms. Many CLECs which focused on the broadband technology, including Rhythms and NorthPoint, have vanished from the marketplace, indicating that competition for the provision of broadband access facilities within the local exchange side of the industry is weaker now than it was at the end of 2000.⁸

Other market developments have led to reduced alternatives to either cable or DSL broadband. Broadband fixed wireless technology has not performed well in the marketplace, leading to bankruptcy filing from upstart providers and other firms abandoning the approach. Winstar, Teligent, and Advanced Radio Telecom, three leading fixed wireless carriers, all filed for bankruptcy in 2001.⁹ The technologies relied on by these firms, such as multichannel multipoint distribution service (MMDS) and local multipoint distribution service (LMDS), have been hindered by high installation costs, line of sight restrictions, and

⁴ http://www.xdsl.com/content/resources/deployment_info.asp
Accessed: July 1, 2002.

⁵ <http://www.cabledatcomnews.com/cm/cmic16.html>
Accessed: July 1, 2002.

⁶ Ibid.

⁷ http://www.xdsl.com/content/resources/deployment_info.asp
Accessed: July 1, 2002.

⁸ See, for example: "The DLEC's Demise," *Network World*, January 7, 2002, pages 34-36.

⁹ Other firms purchased the assets of Winstar and Teligent. Advanced Radio Telecom re-emerged as First Avenue Networks in early 2002.

other technical problems.¹⁰ Line of sight limitations are pronounced in urban areas where the architectural landscape may prevent the needed direct sight-lines from being established.¹¹ Sprint and AT&T have both exited the fixed wireless business in the past year,¹² and WorldCom may be considering selling their fixed wireless assets in an effort to raise cash.¹³ Other wireless Internet access technologies, such as third generation wireless, have had problems securing the needed spectrum in the U.S. In Europe and Japan, where the third generation services have already been deployed, they have met with disappointing customer interest.¹⁴ Overall, broadband wireless Internet access options still play a very small role in the overall market.

Activity in wireless Internet access using unlicensed spectrum and a wireless standard for local area networks (IEEE 802.11b also known as “Wi-Fi”) has increased in the past year.¹⁵ With Wi-Fi, subscribers to wireline broadband Internet access service place an antenna or network of antennas within their homes or offices, ostensibly for their own use. As the signals from the antenna may extend outside of the premises, Internet access may be provided on an accidental basis to other individuals—nearby residents or passersby—who use the wireless access network without the antenna owner’s knowledge. Alternatively, efforts are being made to establish “freenets” where reciprocal sharing of wireless access takes place in a geographic area. In other cases, entrepreneurs have set up networks within their businesses to allow access, or even offer Internet access services to the public for a fee.¹⁶ The major problem with Wi-Fi technology is that, as the spectrum is unlicensed, it is possible that overuse of the resource may cause the quality of the access service to degrade.¹⁷ Additional problems may emerge as cable and telephone company broadband Internet access service providers begin to take steps to prohibit Wi-Fi users from reselling or sharing their services.¹⁸

In the past 18 months, technology available for the delivery of broadband Internet access has changed only marginally. The market for broadband Internet access, however, shows signs

¹⁰ See, for example, “As it Cuts Back Fixed-Wireless Service, Sprint Considers Using Spectrum for Mobile Offerings,” *Telecommunications Reports, TR Daily*, October 18, 2001.

¹¹ Wolinsky, Howard. “Bloated Dreams,” *America’s Network*, August 1, 2001.

¹² “As it Cuts Back Fixed-Wireless Service, Sprint Considers Using Spectrum for Mobile Offerings,” *Telecommunications Reports, TR Daily*, October 18, 2001. See also “AT&T Exits Fixed Wireless Business; Quarterly Results Surpass Expectations,” *Telecommunications Reports, TR Daily*, October 23, 2001.

¹³ “WorldCom’s Statement On Asset Sales Generates Skepticism Among Analysts,” *Telecommunications Reports, TR Daily*, April 26, 2002.

¹⁴ For a view on the market response in Europe, see: “Road to paradise pitted with potholes,” *Telephony*, January 29, 2001, page 16. For a view on the market response in Japan, see: “Japan is slow to accept the latest phones,” *New York Times*, April 22, 2002, page C4.

¹⁵ Wingfield, Nick. “As Wireless Network Prices Drop, Wi-Fi Demand Soars,” *Wall Street Journal Online*, June 26, 2002.

¹⁶ For a sampling of information on freenets, see: <http://www.business2.com/webguide/0,1660,70560,00.html>
For a useful technical summary of IEEE 802.11b see:

http://www.wirelessethernet.org/downloads/IEEE_80211_Primer.pdf

For a less technical view, see two recent *New York Times* articles: “Wi-Fi Networks Let Nearby Laptops Share Wireless Connections,” and “The Corner Internet Network vs. the Cellular Giants,” both March 4, 2002.

¹⁷ A phenomenon known as the “tragedy of the commons.”

¹⁸ Charney, Ben “Cable Companies Cracking Down on Wi-Fi.” *News.com*. July 9, 2002.
Accessed July 16, 2002 at: <http://news.com.com/2100-1033-942323.html>

of settling into a market structure that is characterized by localized duopoly or monopoly. Cable companies and incumbent local exchange telephone companies are currently providing the overwhelming majority of broadband Internet access facilities. Statistics released by the FCC's Industry Analysis Division indicate that as of June 30, 2001, 22.2 percent of zip codes reported no high-speed Internet access services available, with another 20.3 percent having one provider, and 16.7 percent having two providers.¹⁹ Thus, over 55 percent of zip codes have either no service, or at best, a duopoly.²⁰ However, statistics also show that cable and DSL technologies are available to a high percentage of U.S. households, especially in high density areas.²¹ According to information provided for the record in the FCC's *Cable Modem Inquiry*, cable modem service is *available* to approximately 73 percent of U.S. households.²² Recent trade information indicates that it is likely that cable modem service availability will grow further by the end of 2002, with major cable systems other than AT&T expecting at least 90 percent of customers to have access to high-speed Internet access.²³ These data indicate that broadband facilities are widely available.

A. Pricing of Broadband Internet Access Services

While broadband Internet access facilities appear to be available to a significant proportion of households in the U.S., consumers have not flocked to the new service.²⁴ One factor influencing the relatively low subscription rates may be price. Cable modem and DSL providers have gravitated to a price point of about \$50 per month (i.e., about the price of a second phone line and ISP services).

Price competition between DSL and cable modem service is not evident. Analysis published by the Meta Group states:

Higher prices for high-speed Internet access—via DSL (digital subscriber line) or cable—is the natural follow-up to the major industry shakeout of the last year. With much of the competition gone, and with many of the surviving major players carrying huge debt loads and desperate for profits, prices have to rise.

¹⁹ "High-Speed Services for Internet Access: Subscribership as of June 30, 2001," Federal Communications Commission, Industry Analysis Division, Common Carrier Bureau, February 2002. Table 9.

²⁰ As was pointed out in *Tangled Web*, the existence of two providers in a zip code does not imply that all customers in the zip code would have access to both providers. Distance limitations on DSL and cable coverage areas may reduce customer options.

²¹ "High-Speed Services for Internet Access: Subscribership as of June 30, 2001," Federal Communications Commission, Industry Analysis Division, Common Carrier Bureau, February 2002. Table 11.

²² Cable Modem Rulemaking, ¶ 1.

²³ *Communications and Engineering Design*, April 2002. "Hey, big spender...Is cable's big spend on plant rebuilds & upgrades really ending?" Accessed July 1, 2002 at: <http://www.cedmagazine.com/ced/2002/0402/04f.htm>

²⁴ While broadband Internet access is available to over 70% of U.S. households (*Cable Modem Rulemaking*, ¶1), only about 10% of U.S. households subscribe to all varieties of broadband service. Accessed July 1, 2002 at: (<http://www.cabledatacomnews.com/cm/cmic/cm16.html>).

The market-share gold rush is over, at least for now. No one has the stomach for more price competition. Carriers will go for profits and try to be the last one standing....

The shakeout has left the entire industry to an oligopoly of large players including the telephone companies, a few large cable operators and, of course, AOL Time Warner. The question is whether this field will act like the airline market—and other markets dominated by a few large players—in which the dominant players tend to raise and lower rates together.

Are all the players so beaten up financially that when one starts raising rates, the others will follow rather than try to cut their rates to steal market share? We think they are, and we expect all of them to raise rates slowly over the next 12 to 24 months until they reach profitability. For the moment, profits and cash are back in style.²⁵

Predictions of lockstep pricing and price leadership have been borne out with cable and DSL pricing movements. For example, in early 2001, SBC raised its price for DSL access from \$39.95 per month to \$49.95 per month.²⁶ “In May (2001), Verizon upped its prices, with plans now ranging from \$49.95 to \$79.95 a month. BellSouth and EarthLink also have followed suit.”²⁷ Rather than viewing these price increases on the DSL side as an opportunity to capture market share, cable modem providers followed the price increase pattern.²⁸ Major cable broadband providers are also beginning to increase prices for bandwidth, introducing “tiered pricing” schemes that boost rates for bandwidth.²⁹

B. Summary

While broadband access is increasingly available, the prospects for “intermodal” competition, i.e., competition between Internet access providers using a wide variety of access technologies, is not particularly bright at this time. Most customers who do have a choice will be choosing between a cable company’s cable modem service and an ILEC’s DSL service. As was discussed previously, there is little evidence of price competition between cable modem and DSL service providers. This duopoly market structure does not

²⁵ “Commentary: High prices for net access,” *News.com*, April 20, 2001.

Accessed July 1, 2002 at: <http://news.com.com/2009-1033-256201.html?legacy=cnet>

²⁶ “High Speed Rate Hikes May be on the Horizon,” *News.com*, February 26, 2001.

Accessed July 1, 2002 at: <http://news.com.com/2100-1033-253099.html?legacy=cnet>

²⁷ “Beware Baby Bells,” *BusinessWeek Online*, August 21, 2001.

Accessed July 1, 2002 at: http://www.businessweek.com/bwdaily/dnflash/aug2001/nf20010821_941.htm

²⁸ “AT&T hikes cable access rate,” *News.com*, May 1, 2001. Accessed July 1, 2002 at:

<http://news.com.com/2100-1033-256829.html?legacy=cnet>

See also: “Look Out! Broadband prices rising,” *ZDNet News*, May 30, 2002. Accessed July 1, 2002 at:

<http://zdnet.com.com/2100-1105-928512.html>

²⁹ See, Kary, Tiffany, “Cable Companies Move to Tiered Pricing,” *News.com*, April 17, 2002.

Accessed July 1, 2002 at: <http://news.com.com/2100-1033-885299.html>

See also, Walker, Leslie, “Confessions of an Unabashed Bandwidth Hog,” *WashingtonPost.com*, June 20, 2002. Accessed July 1, 2002 at: <http://www.washingtonpost.com/wp-dyn/articles/A14399-2002Jun19.html>

bode well for consumers, especially if customer choice of ISP is limited. Overall, market conditions indicate that open access to broadband Internet access facilities continues to be necessary to promote competition for Internet services.

II. *Cable Modem Rulemaking*

In its *Cable Modem Notice of Inquiry*, the FCC set out to determine the appropriate “legal and policy environment for cable modem service and the cable modem platform.”³⁰ The scope of the issues pursued by the FCC thus extended beyond cable modem service as a *service* and also sought to consider the appropriate policy treatment of the *cable modem platform*, specifically *access* to the cable modem platform.³¹ By cable modem platform, the FCC singled out for policy analysis “the underlying (high-speed transmission) facilities used to provide cable modem service.”³²

The *Cable Modem Notice of Inquiry* appeared to acknowledge the difference between service and platform and placed the analysis of the appropriate treatment of the cable modem *platform* on a par with the analysis of cable modem *service*. The FCC used the term “cable modem service” sixty (60) times, while it used the term “cable modem platform” fifty-nine (59) times. This balance in the framing of the issue left open the possibility that the FCC would find the Internet access services offered by cable providers could be classified differently from the underlying broadband transmission facilities. For example, cable modem services could be classified as *information services* while the platform could have been classified as a *telecommunications service*.

The FCC, following the *Cable Modem Notice of Inquiry*, issued a *Declaratory Ruling and Notice of Proposed Rulemaking* (hereinafter the *Cable Modem Rulemaking*).³³ In the *Cable Modem Rulemaking*, the FCC concludes that “cable modem service, as it is currently offered, is properly classified as an interstate information service, not as a cable service, and that there is no separate offering of telecommunications service.” However, this conclusion seems fundamentally flawed, as the *Cable Modem Rulemaking* entirely avoids the cable modem platform issue.³⁴ Whether cable modem technology is associated with telecommunications service is critical, as telecommunications services fall under Title II of the Communications Act, which imposes *common carrier* obligations. Information services may still be regulated by the Commission, but under Title I of the Act, which does not impose *common carrier* obligations.

³⁰ *In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, GN Docket No. 00-185, September 28, 2000, ¶ 14.

³¹ *Ibid.*, ¶ 2.

³² *Ibid.*, ¶ 1, note 1.

³³ *In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities. Internet Over Cable Declaratory Ruling. Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*. GN Docket No. 00-185. CS Docket No. 02-52. Declaratory Ruling and Notice of Proposed Rulemaking. FCC 02-77. March 15, 2002.

³⁴ The term “cable modem platform” appears only three times in the *Cable Modem Rulemaking* (on two occasions in citations to comments received, and in the third case in a citation to the *Notice of Inquiry*).

Ignoring the cable modem platform is a serious oversight. The FCC clearly recognized in the *Cable Modem Notice of Inquiry* that issues surrounding both the cable modem service and cable modem platform deserved attention. Independent ISPs do not need to purchase retail cable modem service, but they do need access to cable modem platforms, i.e., the high-speed transmission facilities which cable companies control. By remaining silent on the platform issue, the effect of the *Cable Modem Rulemaking* is to prevent open access to cable company broadband plant, and to threaten competition on the Internet.

Even though the FCC ignored the platform issue in the declaratory ruling, AOL Time Warner is already offering what looks like a platform of telecommunications services to third-party ISPs (due to merger restrictions imposed by the Federal Trade Commission and the FCC). The FCC argues that this provision of telecommunications results in *private carriage* rather than *common carriage*:

To the extent that AOL Time Warner is providing a stand-alone telecommunications offering to EarthLink or other ISPs, we conclude that the offering would be a private carrier service and not a common carrier service, because the record indicates that AOL Time Warner determines on an individual basis whether to deal with particular ISPs and on what terms to do so.³⁵

The FCC avoided examination of whether the cable modem platform is a telecommunications service, and thus missed an opportunity to appropriately identify the cable company's cable modem platform as a candidate for *common carrier* regulation. Private carriage can become a euphemism for discrimination and market foreclosure if there is demand for telecommunications service from a broad customer class, i.e., ISPs' demand for the cable modem platform.

In conclusion, the *Cable Modem Rulemaking* concluded that the law does not require the cable modem platform to be made available to unaffiliated ISPs. Determining that cable companies offer ISPs private carriage deprives ISPs of significant legal protection. As a result, the policy that emerges establishes an unsound foundation for continued competition in the market for Internet and ISP services offered over cable broadband facilities.

III. Consumer Demand for Multiple ISPs

In the *Cable Modem Rulemaking*, the FCC requested comments on whether consumer demand for multiple ISPs can be provided by "click through" access and what market conditions might lead to the requirement for open access.

³⁵ *Cable Modem Rulemaking*, ¶ 54.

A. Consumer Demand for Multiple ISPs and “Click Through Access”

Internet users may seek Internet services and content from providers other than their ISP. For example, an ISP may offer e-mail services, but its customer may choose to use e-mail services offered by Yahoo!, Hotmail, or some other provider. In addition, a customer may access content not offered on her home page if she knows the URL or web address and can type it in directly, rather than clicking on an icon. The FCC refers to this exercise of customer choice as “click through” access. The FCC seeks comment on whether “click through” access to Internet services and content on the World Wide Web produces the same or almost the same value as a regulatory system mandating multiple ISP access arrangements.³⁶

Technically, unimpeded “click through” access is not the only issue when it comes to the deterrence of customer choice for Internet services. The additional expense of securing unaffiliated services may also reduce customer choice. Although the FCC points to “free” Internet services offered by portal providers like Yahoo!, users must pay additional fees to take advantage of all but the most basic features associated with Yahoo!’s e-mail. Yahoo!’s free e-mail service includes a four-megabyte (4 MB) limit on the amount of e-mail a user can store. To obtain storage space that would be more consistent with a regular e-mail user’s needs, Yahoo! imposes fees for larger mailboxes.³⁷ Thus, “click through” access to Internet services should also be considered in the context of additional fees that may be associated with Internet services available from providers other than a consumer’s ISP. Lack of e-mail features, banner ads, privacy concerns, and junk mail may also deter customer choice. “Click through” access does not necessarily provide a costless alternative to a cable company’s Internet services.

Important technical considerations also emerge with the ability of consumers to utilize alternative Internet services, as cable companies have the technical capability to hinder “click through” access. The FCC indicates that they are unaware of any allegation that an ISP has denied “click through” access. Furthermore, while noting that discrimination by a cable operator’s ISP against non-affiliated sources of content is possible, the FCC states that they are unaware of a “single allegation that a cable operator has done so.”³⁸ However, control over the delivery of content is an emerging business practice in cable networks that is critically important for streaming video and Internet telephony, for both affiliated and non-affiliated providers of content. Consider the following excerpts from a white paper available from *Cable Datacom News*.

Best-effort data services provide limited revenue-growth potential for cable operators. However, by implementing end-to-end Quality of Service (QoS) controls, operators can expand the customer base by offering a wide variety of business and residential services, build increased customer loyalty by offering

³⁶ *Cable Modem Rulemaking*, ¶ 86.

³⁷ For the pricing schedule, see:

<https://ordering.yahoo.com/or/yym/splash?577&Pkgs=us%3aym%3aspace&.osig=3Anzm>
Accessed July 1, 2002.

³⁸ *Cable Modem Rulemaking*, ¶ 87.

bundled services supporting voice, data, audio, and video traffic, and create multiple revenue streams from the HFC (high frequency cable) network...

To provide subscribers and third-party providers with predictable levels of service, it is essential that traffic flows be contained at each level of the QoS hierarchies. *Overload or misbehavior* within the HFC network by any given provider must be contained within the network resources committed to that service provider—and not be allowed to impact other providers sharing the network....³⁹

The “overload or misbehavior” mentioned in the quote above that cable operators might control include practices that threaten the performance of the network, *or that threaten the performance of the cable operators’ revenue streams*.⁴⁰ Thus, in a cable operator’s data network, where service quality is administratively determined, the cable operator’s ability to discriminate against “click through” access is a real concern that deserves proactive protection. In fact, the FCC has previously recognized the potential for mischief in the relationship between a cable operator and unaffiliated ISPs. In the approval of the AOL Time Warner merger, the FCC adopted conditions that discourage service quality discrimination:

Technical Performance: All contracts between AOL Time Warner and unaffiliated ISPs for access to Time Warner’s cable systems shall contain a clause warranting that, to the extent AOL Time Warner provides any Quality of Service mechanisms, caching services, technical support customer services, multicasting capabilities, address management and other technical functions of the cable system that affect customers’ experience with their ISP, AOL Time Warner shall provide them in a manner that does not discriminate in favor of AOL Time Warner’s affiliated ISPs on the basis of affiliation.⁴¹

These conditions on technical performance address some of the issues that could lead to discrimination against rival ISPs that share the cable broadband facility. With the AOL Time Warner merger, the FCC recognized that control over quality of service (QoS) is a strategic variable for cable operators, one that could easily be utilized to discriminate against and disadvantage rival ISPs. Thus, the conditions prohibiting technical performance discrimination contained in the AOL Time Warner merger approval Order, quoted above, should be applied to all multiple system cable operators.

The conditions imposed by the FCC on AOL Time Warner address behavior toward *rival ISPs*; however, the technical performance constraints (quoted above) are not sufficient to protect “click through” access to other providers of content on the Internet. Thus, it is

³⁹ “QoS: One HFC Network, Multiple Revenue Streams,” white paper prepared by RiverDelta Networks, *Cable Datacom News*. Accessed July 1, 2002 at:

<http://www.cabledatacomnews.com/whitepapers/paper08.html>

Emphasis added.

⁴⁰ This threat to cable operators’ revenue streams is particularly acute with unaffiliated streaming media.

⁴¹ *In the Matter of Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner, Inc. and America Online, Inc., Transferors, to AOL Time Warner, Inc., Transferee*. Memorandum Opinion and Order, January 22, 2001. ¶126, footnotes omitted.

appropriate to establish conditions on the operation of cable systems with regard to third-party sources of Internet services, content, and e-commerce. The cable company's affiliated ISP must be required to provide non-discriminatory "click through" to Internet services, content, and e-commerce provided by independent third parties. Non-affiliated ISPs that may use a cable company's broadband facilities, and that may be pressured by cable companies to discriminate against independent providers of e-commerce or Internet services, should also provide non-discriminatory "click through." As was noted in the above quote on the capabilities of QoS on cable systems, cable operators have the ability to control access to third-party sites. Restrictions on technical performance similar to those identified in paragraph 126 of the FCC's AOL Time Warner merger approval Order should be applied to prevent "click through discrimination" to third-party providers of Internet services, content, and e-commerce.

B. Changing Market Conditions

Should the *Cable Modem Rulemaking* not impose multiple ISP access requirements, the FCC seeks comment on whether future events might warrant the imposition of multiple ISP access requirements. As was discussed above, changes in the market environment during the past 18 months point to multiple ISP access to cable broadband facilities being entirely appropriate *now*. Market data show that cable and DSL services are the dominant broadband technologies, thus making cable operators and incumbent LECs the dominant firms involved in the provision of broadband Internet access facilities. Market conditions in mid-2002 point to a pressing need for multiple ISP access to broadband facilities.

IV. Wireline Notice of Proposed Rulemaking (NPRM)

In contrast to the cable modem Internet access facilities, telephone company broadband facilities are a technological platform that has been subject to open access requirements and Title II regulation. The regulatory structures that have governed telephone company broadband technology include those resulting from the FCC's *Computer Inquiries*, which required the offering of telecommunications facilities separately from information services; the Telecommunications Act of 1996, which further expanded the availability of telephone company technology through unbundling requirements; and subsequent FCC Orders, which held that unbundling obligations apply to telephone company broadband plant, so that the overall bandwidth might be utilized by the ILEC and CLEC simultaneously to provide voice and high-speed data services.

In a separate proceeding, initiated in February 2002, the FCC addressed the issue of whether or not broadband Internet access facilities provided by telephone companies should continue to be classified as telecommunications services.⁴² The FCC tentatively concludes that

⁴² *In the Matter of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities. Universal Service Obligations of Broadband Providers. Computer III Further Remand Proceedings: Bell*

broadband Internet access services provided by telephone companies are *information services*, but goes on to suggest that it may also be appropriate to no longer apply the *Computer Inquiry* and Telecommunications Act of 1996 frameworks to telephone company broadband facilities.⁴³

The provision of Internet access service on an integrated basis by the Bell operating companies (BOCs) is a relatively recent development. Prior to February 2000, BOCs were only allowed to provide Internet access services through separate affiliates. The BOCs could and did provide narrowband and broadband transmission facilities which allowed customers to reach the ISP of their choice.⁴⁴ Thus the separability of DSL service (i.e., transmission facilities) from Internet access service for telephone companies like the BOCs was the norm prior to early 2000.

The FCC states that broadband Internet access offered over telephone lines, like cable modem service, is “a single integrated offering to the end-user.”⁴⁵ This ignores the basic technological facts of this provision and a long history of FCC decisions to the contrary. The transmission facility exists regardless of whether it connects the user to the Internet. The FCC attempts to identify characteristics of broadband Internet access transmission as somehow creating information services. “Because wireline broadband Internet access services fuse communications power with powerful computer capabilities and content, these services appear to fall within the class of service that the Commission has traditionally identified as ‘information services,’ which blend communications with computer processing.”⁴⁶ Within the context of broadband Internet access facilities, either provided over cable plant or telephone company plant, the high-speed pathway does not, in and of itself, create a single information service. What the high-speed Internet access facility does is to allow a more efficient use of the information services that are provided by an ISP. Transmission speed has never been a relevant criterion for distinguishing a telecommunications service from an information service.

The FCC’s tentative conclusion that wireline broadband Internet access service is an information service is erroneous. Broadband connections have distinguishing features, such as the ability to more easily have an “always on” connection, and the ability to transmit large amounts of data quickly, which may improve the service quality of certain applications, such as streaming media. However, an improved functionality associated with certain information services does not transform the broadband transmission capability itself into an information service. A broadband connection without an Internet service provider is incapable of providing *any* information service.

Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review – Review of Computer III and ONA Safeguards and Requirements. CC Docket No. 02-33. CC Dockets Nos. 95-20, 98-10. Notice of Proposed Rulemaking. February 15, 2002. (Hereinafter, the *Wireline NPRM*.)

⁴³ See Appendix B in *Tangled Web* for a discussion of *Computer Inquiry* requirements.

⁴⁴ The Telecommunications Act of 1996 had continued the prohibition on integrated BOC provision of information services like Internet access, with a four-year sunset provision. The FCC did not extend the prohibition.

⁴⁵ *Wireline NPRM*, ¶ 21.

⁴⁶ *Wireline NPRM*, ¶ 13.

The FCC's tentative conclusion that broadband Internet access services are information services also raises issues with regard to other technologies that are utilized for providing broadband Internet access. The FCC's primary focus is on DSL services. However, telephone companies can also provide broadband Internet access service using T-1s, high capacity dedicated digital services like DS-1 or DS-3, or high capacity optical services, like OC-3. The FCC ought to consider carefully whether all of these technologies are also information services if they are associated with Internet access. From a technological perspective these alternative transmission facilities, as is the case with DSL services, in and of themselves, do not provide information services.

The classification of broadband Internet access service as an information service, while incorrect, need not threaten competition for Internet access services and the Internet at large. The FCC could impose safeguards on the BOCs' provision of Internet access service which would protect competition in the ISP market. However, the FCC appears to open the door to reduced competition for Internet services by exploring the removal of important requirements that apply to any technological platform that supports broadband Internet access. Namely, the FCC invites commenters to suggest how the classification of broadband Internet access service as an information service would impact the regulatory frameworks associated with the *Computer Inquiries* and the Telecommunications Act of 1996. The main focus of the FCC's request for comments is tilted toward DSL services; however, the impact of their ruling would extend to other high-speed data services that are offered by telephone companies which could be utilized to provide Internet access.

The FCC's apparent direction could dismantle much of the progress that has been made over the past 30 years with regard to access to monopoly or near-monopoly facilities controlled by telephone companies. Removing the *Computer Inquiry* framework as it applies to broadband Internet access facilities controlled by telephone companies would remove obligations that currently make access to these facilities available to ISPs on a non-discriminatory basis. In addition, the ability of CLECs to purchase unbundled access to these facilities could be eliminated. The entire foundation of openness to telephone company plant that was pursued by the FCC through its historic series of *Computer Inquiries*, as well as the intent of Congress as stated by the Telecommunications Act of 1996, is potentially undermined by the FCC's proposal. The regulatory environment that resulted from the *Computer Inquiries* is likely the only reason why the Internet has emerged as the hothouse of innovation and competition from which the public has received tremendous benefit. If telephone companies had been allowed to discriminate against ISPs, it would be very likely that competition would have been crushed, and that a very different Internet would have emerged.

An example of a closed access "Internet" run by a telephone company is France's "Minitel" system. This system led to adoption of information technology, but at a rate slower than what has been experienced in the U.S. open access environment. The closed Minitel system resulted in the isolation of France from the benefits of the global Internet.⁴⁷ Elimination of telephone company open access requirements would be a serious reversal of the pro-

⁴⁷ "France's Experience with the Minitel: Lessons for Electronic Commerce over the Internet." OECD, October 20, 1998.

competition policies which have been mandated by Congress and pursued until now by the FCC.

The FCC's logic, while generally directed at telephone company broadband Internet access facilities, also has the potential to spill over into narrowband Internet access facilities and even voice services. Technology is available today that allows voice grade services to be simultaneously provided over DSL connections.⁴⁸ If telephone company broadband facilities are viewed as information services, there will be a strong set of incentives for telephone companies to avoid open access requirements by integrating voice and data over DSL. Thus, it is easy to imagine open access to narrowband Internet access facilities failing to survive in the long term if broadband Internet access facilities are viewed as providing a "single integrated offering to the end-user." Abandoning open access requirements for broadband telecommunications plant controlled by ILECs could begin the process of closing the narrowband side of the access network.

The FCC requests that commenters address "whether the provision of wholesale xDSL transmission should be considered 'telecommunications' or 'telecommunications service' under the Act."⁴⁹ Wholesale DSL services are currently offered by some BOCs, and as was mentioned above, DSL service is not uniquely attributed to Internet access. There is no basis for moving DSL services in their entirety to the "telecommunications" classification, where common carrier obligations do not apply. Furthermore, and related to this question, the FCC also seeks comment on the issue of whether the wholesale offering of DSL service to ISPs results in the service being directly offered "to the public" and "whether and how the Commission might regulate incumbent LEC provision of broadband to third-party ISPs as private carriage."⁵⁰ Private carriage is not an appropriate treatment for the relationship between unaffiliated ISPs and ILECs. Private carriage would encourage discrimination and open the opportunity for the refusal of service. As SBC indicates in its Comments in the *Wireline NPRM*:

SBC *might* also seek to negotiate private carriage arrangements that would be tailored to the unique circumstances of particular ISPs; these deals *might* involve revenue sharing and other mutually beneficial business arrangements. SBC *might* also seek to enter into network-to-network interface arrangements with ISPs that are technically more efficient than the current arrangements.⁵¹

On the other hand, SBC *might not* undertake these activities, or it *might* only undertake those activities for ISPs that are willing to live with the terms and conditions associated with SBC's interests. Those terms will likely disadvantage competitors, leaving SBC free to discriminate with service quality and prices. Private carriage should not be utilized to enable discrimination from a firm which otherwise holds itself out to a segment of the public as offering telecommunications services. Private carriage certainly should not be introduced

⁴⁸ "Voice over DSL" provides the voice service through the high-frequency portion of the loop and should not be confused with line sharing.

⁴⁹ *Wireline NPRM*, ¶ 26.

⁵⁰ *Ibid.*

⁵¹ "Comments of SBC Communications Inc.," *Wireline NPRM*, May 3, 2002. Page 25. Emphasis added.

into a market where ILECs have until recently offered DSL services on a stand-alone basis to the public.⁵²

From a legal perspective, the courts have recognized the potential for a firm to manipulate its service offerings as a means to avoid regulatory obligations. The critical determination in assessing the status of a carrier is whether the carrier has held itself out to the public or to a definable *segment* of the public as being willing to transport for hire, indiscriminately.⁵³ The test “is an objective one, relying upon what the carrier actually does rather than upon the label which the carrier attaches to its activity or the purpose which motivates it.”⁵⁴

The FCC also requests comment on whether progress in local competition sufficient to satisfy the section 271 process should result in the elimination of common carrier obligations associated with the *Computer Inquiry* framework.⁵⁵ Satisfaction of Section 271 does not ensure alternative facilities-based competition and should not negate common carrier classification or obligations. As the FCC is well aware, in markets such as the long distance market, where all carriers are now classified as “non-dominant,” the Title II requirements remain in force.

Declaring AT&T non-dominant will not remove AT&T from regulation. Like other non-dominant carriers, AT&T will still be subject to regulation under Title II of the Act. Specifically, non-dominant carriers are required to offer interstate services under rates, terms, and conditions that are just, reasonable, and not unduly discriminatory (Sections 201-202), and non-dominant carriers are subject to the Commission's complaint process (Sections 206-209). Non-dominant carriers also are required to file tariffs pursuant to [AT&T's] streamlined tariffing procedures (Sections 203, 205) and to give notice prior to discontinuance, reduction, or impairment of service.⁵⁶

A. Positions of Bell Operating Companies (BOCs)

The four BOCs, Verizon, SBC, BellSouth, and Qwest, agree that bundled Internet access and broadband DSL service should be classified as an information service. However, there are important differences in their positions that are worth discussing. Disagreements among the BOCs illustrate the desirability of continuing to apply the Telecommunications Act framework to telephone company broadband Internet access facilities.

The FCC requested that comments address the issue of ILEC obligations under sections 251 and 252 of the Telecommunications Act, namely obligations to provide unbundled network

⁵² Recall that prior to February 8, 2000, all BOC-provided DSL services were stand-alone telecommunications services, without Internet access provided directly by the BOC.

⁵³ *Las Vegas Hacienda, Inc. v. Civil Aeronautics Bd.*, 298 F.2d 430 (9th Cir.), cert. denied, 369 U.S. 885, 82 S.Ct. 1158, 8 L.Ed.2d 286 (1962).

⁵⁴ *Ibid*, at 434.

⁵⁵ *Wireline NPRM*, ¶ 48.

⁵⁶ *In the Matter of Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, FCC 95-427, October 23, 1995, ¶ 13.

elements and to make services available for resale. The BOCs generally agree on the classification of broadband Internet access as an information service and state that “incumbents have no obligation to offer (broadband Internet access) for resale at a wholesale discount under section 251(b)(1) or 251(c)(4). . . .”⁵⁷ As was discussed above, this conclusion might be harmless to competition for Internet services, as long as non-discriminatory access to the underlying transmission facilities (i.e., *Computer Inquiry* and Telecommunications Act unbundling requirements) continue to be guaranteed.

On the issue of access to the underlying transmission facilities (i.e., packet switches, high frequency portions of local loops, etc.), SBC, Verizon, and BellSouth argue that “[t]he plain language of the statute limits an incumbent LEC’s unbundling obligations to facilities ‘used in the provision of a *telecommunications service*’.”⁵⁸

SBC and Verizon further argue that unbundling requirements depend on what the *incumbent LEC* does with the technology:

Furthermore, for purposes of the unbundling requirement of section 251(c)(3), the Act defines “network element” as “a facility or equipment *used in the provision of a telecommunications service*” and the “features, functions, and capabilities that are provided by means of *such* facility or equipment.” From this it follows that unless an incumbent local telephone company uses a given facility or feature to provide a telecommunications service, the company has no obligation to offer that facility or feature on an unbundled basis. . . .”⁵⁹

SBC and Verizon’s position would establish a significant barrier to competition. The ILEC would have the ability to withhold UNEs which could be utilized to provide both information services and telecommunications services simply because the ILEC used (or claimed to use) the facility in the provision of information services. However, this interpretation ignores the plain language of the Communications Act. When defining a “network element,” the Act is not specific as to *who* provides the telecommunications service using the network element: “The term ‘network element’ means a facility or equipment used in the provision of a telecommunications service.”⁶⁰ Thus, the use of the element by the incumbent does not control the unbundling requirement; rather, the capability of providing a telecommunications service is what matters. Verizon and SBC’s interpretation should be rejected by the FCC.⁶¹

⁵⁷ SBC Comments, page 31. See also: Qwest Comments, page 9; Verizon Comments, page 33; and BellSouth Comments, page 12 (although BellSouth is less specific on the resale issue, and Qwest states that resale of stand-alone DSL would be permissible).

⁵⁸ SBC Comments, page 32. Similar positions are stated by: BellSouth, Comments, page 17, and Verizon, Comments, pages 30, 33-34.

⁵⁹ Verizon Comments, page 33, footnote omitted, italic emphasis in original, underline emphasis supplied. A similar statement appears in SBC’s Comments, page 32.

⁶⁰ 47 U.S.C. § 153(29).

⁶¹ SBC, while arguing that 251(c) unbundling should not apply, seems to leave the door open for CLECs to obtain DSL loops on an unbundled basis as long as the CLEC does not want the UNE “for the sole purpose of providing a broadband information service.” Verizon, however, does not offer such a caveat in its Comments.

While SBC and Verizon agree (incorrectly) that it is the ILEC's use of a facility that determines its eligibility for unbundling, there are important differences between this view and the views of the two other BOCs on the issue of when CLECs should have access to UNE's that can be used to provide information services.

BellSouth suggests that an *impairment test* be applied to determine whether loops can be used by a CLEC to provide *information services*:

CLECs would not be locked out of the information service market, however. Where the Commission deems the lack of any network facility would impair a CLEC from offering the telecommunications services it seeks to offer, then the CLEC will be able to purchase that facility from an ILEC. Accordingly, a CLEC will be able to obtain a loop, as long as loops continue to meet the impairment test, in order to provide telecommunications services. Once the CLEC has access to the loop, it could use it to provide telecommunications *as well as information services*.⁶²

According to BellSouth, the FCC should make a *case-specific* determination that a particular CLEC is impaired from offering telecommunications services before it allows the CLEC to offer information services over the unbundled loop. Such a process, while perhaps allowing CLECs broader access to UNEs than under Verizon's proposal to withhold all broadband UNEs, would nonetheless hinder local competition by requiring case-by-case analysis rather than relying on a general policy. BellSouth's proposal should be rejected.

Qwest's position is unique among the BOCs as it posits a pro-competitive view of broadband services and facilities offered by ILECs. Unlike SBC in Missouri and Arkansas,⁶³ Qwest continues to offer DSL service on a stand-alone basis, without ISP services.⁶⁴ Thus, Qwest concedes the appropriateness of offering resale stand-alone DSL service, as well as the continued unbundling of broadband facilities:

Significantly, CLECs would still have the right under 251(c)(4) to obtain the wholesale discount with respect to any *stand-alone* DSL transmission service that ILECs provide to end users. Unlike bundled information services, stand-alone DSL transmission services sold directly to end users are "telecommunications services" and sold "at retail."⁶⁵

Whether the *ILEC itself* uses a given type of facility for the provision of a "telecommunications service," or exclusively instead for the provision of an "information service," the facility nonetheless can be a "network element" so long as *the CLEC* seeks to "use" it for the provision of a "telecommunications service." Although paragraph 61 of the *Notice* suggests uncertainty on this issue, the

⁶² BellSouth Comments, page 18, emphasis added, footnote omitted.

⁶³ In its Section 271 proceeding in Missouri/Arkansas, SBC argued that it does not provide DSL telecommunications service at retail, and thus had no obligation to make these services available for resale pursuant to the section 251(c)(4) discount.

⁶⁴ See: <http://www.qwest.com/residential/products/dsl/index.html>
Accessed July 1, 2002.

⁶⁵ Qwest Comments, page 9, emphasis in the original.

Commission already seems to have resolved it in the *UNE Remand Order*, where it “interpret[ed] the term ‘used’ in the definition of a network element to mean ‘capable of being used’”—rather than actually used by the ILEC—“in the provision of a telecommunications service.”⁶⁶

The differences in the BOC positions illustrate the need for a consistent pro-competitive policy. The policies advocated by SBC, Verizon, and BellSouth would stifle competition and should be rejected by the FCC.

Unbundling of broadband facilities and resale of DSL service is a pro-competitive policy that should be continued. The FCC has already ruled that it is the capability of an element, not the *use* by the ILEC that matters; this logic should continue to be applied. Furthermore, the FCC should not allow the arbitrary withholding of DSL transmission service, as argued by SBC in the Missouri/Arkansas 271 proceeding, which would result in the unavailability of wholesale DSL services. A consistent pro-competitive policy for Internet access and Internet services requires continued application of the Telecommunication Act’s section 251 and 252 obligations to telephone company broadband facilities.

B. BOC Positions on the *Computer Inquiries*

The BOCs are uniform in their opposition to the application of *Computer Inquiry* requirements for broadband Internet access services.⁶⁷ The *Computer Inquiry* rules require telephone companies that provide “enhanced” or “information services” to also unbundle and separately make available the transmission component of the service to competing information service providers. These rules enable ISPs to provide Internet access services.

The basis on which the BOCs argue that the *Computer Inquiry* constraints should be lifted includes regulatory parity with cable operators, and the alleged fact that there are ample opportunities for ISPs to seek alternative broadband transmission options to reach their customers. “Consumers and ISPs may purchase broadband transmission services from facilities-based CLECs, from UNE-based CLECs, and from entirely distinct platform providers, including cable modem providers, satellite providers, and wireless providers.”⁶⁸ However, as was noted previously, this presumption of competition is not supported by the facts. Furthermore, neither cable companies, nor satellite or fixed wireless providers, are under obligation to establish relationships with all ISPs.

At the same time that competition has not emerged on the intermodal competition front, the BOCs are arguing that the *Computer Inquiry* and Telecommunication Act mechanisms associated with intramodal competition (i.e., competition between ISPs who share non-discriminatory access to the transmission facility) should be weakened or eliminated. The market from an ISP’s viewpoint is far from competitive. Cable companies, satellite

⁶⁶ Qwest Comments, page 11, emphasis in the original.

⁶⁷ SBC Comments, page 18; Verizon Comments, page 34; Qwest Comments, page 21; BellSouth Comments, page 19.

⁶⁸ Qwest Comments, page 26.

providers, and fixed wireless providers may refuse to establish a relationship with an ISP. By constraining the market power of the BOCs, the *Computer Inquiry* framework offers the only opportunity for ISPs to obtain non-discriminatory prices, terms, and conditions for broadband Internet access facilities. Its removal would force a uniform closed-access environment for ISPs and their customers. As has been discussed in this paper, and in *Tangled Web*, the lack of non-discriminatory access to broadband facilities will harm the Internet itself, and will deny the benefits of unfettered innovation to the public.

BOC commenters' mention of regulatory symmetry raises a valid concern. However, preventing ISPs from achieving non-discriminatory access to broadband facilities for their customers is an inappropriate way to address this concern. The solution is to require that cable companies (as well as other access technology providers) provide open access to their transmission facilities. While the FCC has concluded that cable modem service should be governed under Title I, it can and should mandate that cable companies provide customers ISP choice. As is discussed by the FCC in the *Cable Modem Rulemaking*, its ability to exercise ancillary authority over interstate services provides the avenue for regulation under Title I.⁶⁹

C. Section 254(k) and Subsidies from Basic Service

When telephone companies provide broadband Internet access service, the facilities are shared between the DSL and basic local services; namely, loop plant is shared. As a result of the sharing of the local loop, the introduction of DSL technology generates economies of scope. Economies of scope are present because the cost of providing the voice-grade and high-speed data services are lower than if the services were provided separately. In competitive markets, the recovery of joint and common costs that are associated with economies of scope are determined by market forces. In regulated monopoly markets, regulators must supervise the allocation of the joint and common costs.

All customers of the universal service offering should have the ability to share in the economies of scope associated with the introduction of broadband Internet access services, not only the customers of voice-grade services who also purchase broadband Internet access. In a competitive market, a multi-product firm would not be able to withhold the unit cost reductions associated with scope economies from an individual service line. Market forces would result in the cost savings being spread across service lines.

BellSouth argues that as “an initial matter, broadband Internet access is an interstate information service. Every interstate service is competitive.... Thus, there is no issue of subsidization of competitive services by noncompetitive services.”⁷⁰ This is inconsistent with actual market conditions. For the overwhelming majority of residential and small business customers, the subscriber line charge (SLC) is a noncompetitive, unavoidable, interstate “service.” As such, subsidization of the broadband Internet access service is

⁶⁹ *Cable Modem Rulemaking*, ¶ 75-76.

⁷⁰ BellSouth Comments, page 33.

possible through the SLC. It is appropriate for the FCC to address the issue of how revenues from broadband Internet access service may be utilized to lower prices for interstate SLCs. Broadband Internet access services (as well as stand-alone DSL services) should contribute to the recovery of loop costs, and SLCs should be reduced for all customers as a result.⁷¹

⁷¹ See Gabel, D, “Current Issues in the Pricing of Telecommunications Services.” Report prepared for AARP Public Policy Institute (D17416), 2001. Available at: http://research.aarp.org/consume/d17416_pricing.html

V. Conclusion

The FCC has stated its hope that intermodal competition, i.e., competition between various technology platforms for Internet access, will prevent anti-competitive behavior.⁷² However, as was discussed above, current market conditions indicate that intermodal competition is not capable of providing market forces which are adequate to prevent discriminatory behavior against ISPs on the part of cable television companies and telephone companies, who today provide virtually all broadband infrastructure. Thus, promoting open access to broadband facilities, i.e., intramodal competition, is necessary to ensure that the vibrant competition and innovation associated with Internet services continues in the future. With regard to cable modem technology, this means that open access requirements, and provisions like those imposed on AOL Time Warner to prevent service quality discrimination, should be imposed on all multiple system cable operators. In addition, discrimination against unaffiliated third-party providers of Internet services should also be prevented.

With regard to issues raised by the *Wireline NPRM*, classification of telephone company Internet access services as information services is not justified as the broadband access facilities do not, in and of themselves, provide any information services. Whether or not the FCC does decide to classify telephone company broadband Internet access services as information services, it should continue to enforce the *Computer Inquiry* framework and provisions of the Telecommunications Act of 1996. For both cable and telephone company broadband facilities, *common carriage*, not *private carriage*, should provide the framework for classifying broadband Internet access facilities provided to ISPs and to end-users. Competition in the market for Internet services depends on non-discriminatory access to transmission facilities. The free flow of information, content, and commerce also depends on this open access to transmission facilities.

Broadband Internet access facilities are not information services, but are telecommunications facilities that should be made available to third-party ISPs. Open access to these facilities will ensure that competition and innovation will continue to be associated with Internet technology. Opening cable broadband facilities, and continuing the openness of telephone company facilities, is essential to customer choice and the economic benefits of competition. Open access to broadband Internet access facilities is the only pro-competitive policy that will protect the current success and future promise of the Internet.

⁷² *Review of Regulatory Requirements for Incumbent LEC Broadband Services; SBC Petition for Expedited Ruling That it is Non-Dominant in its Provision of Advanced Services and for Forbearance From Dominant Carrier Regulation of These Services*, CC Docket No. 01-337, Notice of Proposed Rulemaking, FCC 01-360, 16 FCC Rcd 22745 (Dec. 20, 2001), ¶ 30-31.