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Attachment A

Telecommunications Mergers, Should The Disability Community Care?

The World Institute on Disability, pursuant to the Federal Communications Commission's January 31, 2000, Public Notice,¹ submit these comments on the Supplemental Filing of Bell Atlantic Corporation ("Bell Atlantic") and GTE Corporation ("GTE") and, in particular, on the potential of this proposed merger to bring significant benefits to people with disabilities and all Americans. We encourage the Commission to approve this merger with the proposed conditions because it is in the public interest and has the potential to enable and ensure the participation of people with disabilities in the telecommunications revolution.

I. Statement of Interest

World Institute on Disability (WID) is a private, nonprofit organization that serves as a research, training and public policy development center for the disability rights and independent living movements. Its board of directors and staff are predominately people with a wide variety of disabilities, and its work focuses on policy areas that are critical to the integration of people with disabilities into society. WID's Division on Technology Policy serves as a resource for disability organizations and individual activists who believe that people with disabilities can be empowered through technology. Its work centers search for ways to remove and prevent barriers to such use in the design of technology.

II. Introduction

Telecommunications is central to today's society – more and more it defines how we communicate, how we learn and how we work. The growing prominence of technology in both our economy and society underscores the urgency to ensure that all Americans have access to affordable telecommunications services. For people with disabilities this urgency is even greater

¹ Public Notice, Commission Seeks Comment on Supplemental Filing Submitted by Bell Atlantic Corporation and GTE Corporation, CC Docket No. 98-184, DA 00-165 (rel. Jan. 31, 2000).

as advanced telecommunications services can significantly enhance the quality of life for people with disabilities.

On January 27, 2000, Bell Atlantic and GTE submitted a "Supplemental Filing" proposing "a comprehensive package of commitments" modeled after the conditions the Commission adopted in approving the SBC/Ameritech merger. The conditions include a variety of commitments that will benefit the disability community. For example, the applicants proposed the creation of a separate affiliate for advanced services, which will accelerate competition in the advanced services market and prod all carriers to hasten broadband deployment.

We believe that approval of the Bell Atlantic/GTE merger with the adoption of the proposed conditions is in the public interest. And it will bring significant benefits to consumers by promoting the availability, usability and affordability of telecommunications technologies to all Americans, including people with disabilities.

III. The Proposed Merger is in the Public Interest

The proposed merger of Bell Atlantic and GTE will create a truly national competitor with the ability to bring substantial public interest benefits to all consumers. In combining the complementary assets of Bell Atlantic and GTE, consumers will see real and direct competition in services across the board, including Internet, long distance, local and wireless. The increased competition will bring consumers the long awaited benefits promised by the 1996 Telecom Act, greater choices, lower prices, increased convenience and new and innovative products and services.

In addition, approval of the proposed merger will encourage increased infrastructure investment and help ensure the deployment of advanced technologies to those who can truly benefit

from them. The potential applications of broadband technologies, particularly for people with disabilities, are enormous. For example, with telemedicine people can remain at home and independent even if they live some distance from their doctors. Distance learning allows students to attend school from their living rooms. Video relay enables people who are deaf or hard of hearing to communicate real-time through sign language; and it allows deaf students to attend any class with the assistance of an interpreter, using a screen in the classroom and a remote interpreter located miles away.

And unlike other mergers, there is no material risk of competitive harm. Bell Atlantic and GTE's service areas do not overlap, and neither is a likely potential competitor of the other. So the proposed merger will not hinder the growth of competition by eliminating potential significant competitors to one another.

IV. The proposed commitments bolster support for merger approval.

A. Enhanced Lifeline program

Although the proposed merger is in the public interest, the companies offer, in their supplemental filing, substantial commitments that will produce still greater benefits for people with disabilities. Due to factors such as unemployment and high health care costs, people with disabilities are disproportionately poor. Accordingly many are eligible for or enrolled in the Lifeline program. The applicants are proposing a series of commitments to ensure that these consumers continue to receive high quality, affordable telephone service. For example, they proposed to offer enhanced Lifeline plans and either refrain from imposing or eliminate altogether mandatory minimum charges for long distance service. They also committed to targeting deployment of their own advanced services to include low-income consumers in rural and urban areas.

B. Separate subsidiary for advanced services.

Bell Atlantic and GTE have committed to establishing a separate affiliate for advanced services that will accelerate competition in local, long distance and advanced services. The creation of a separate subsidiary will yield two substantial consumer benefits. It will provide the merged company with a significant incentive to secure 271 approval throughout the Bell Atlantic service area, thus accelerating the growth of local and long distance competition. At the same time, increased competition will hasten the deployment of advanced services to those who can truly benefit from them.

C. Rollout of advanced services for low-income urban and rural areas.

Advanced services can significantly enhance the lives of people with disabilities. Technologies that enable distance learning, video relay, telecommuting and telemedicine can help people with disabilities lead full and independent lives. Unfortunately, advanced services are typically deployed to highly competitive markets with higher-income customers; and as discussed, a disproportionate number of people with disabilities are poor or low-income.

Bell Atlantic and GTE have committed to making their affiliate's advanced services more widely available to low-income consumers, which include people with disabilities, by targeting deployment to include more rural and urban areas. They have stated that in each state that Bell Atlantic/GTE deploys advanced services to wire centers, a certain percentage of these wire centers will be the urban and rural wire centers that have the greatest number of low-income households.

D. Increased out-of-region competition.

Increasing competition for telecommunications services will benefit consumers by lowering prices, providing more choices and producing new and innovative products and

services. Bell Atlantic and GTE have committed to spending a substantial sum on out-of-territory competitive entry. This “out-of-region expenditure” will be used to provide services that compete with traditional telephone services offered by incumbent local exchange carriers or to provide advanced services to consumers outside the Bell Atlantic and GTE service areas.

V. A national full-service network can better meet the needs of people with disabilities.

The merger of Bell Atlantic and GTE will create a national, full-service network with greater potential to serve the needs of people with disabilities. A national customer base provides incentive and justification for investment in accessible communications products and services; it creates a market that enables a company to profitably serve customers with disabilities.

In a recent report by WID and Jim Tobias of Inclusive Technologies asserts that most companies do not provide services to meet the distinct needs of customers with disabilities because they can’t justify the expense from a business case perspective.² (See Attachment A) Companies find that the disability population, or customer base, within each telephone company’s service area is not large enough to justify the capital investment needed within each company’s network. Such investments, however, can make sense for a company that has a national network and a national market. A company with a national customer base can afford to invest in accessible communications services because its market enables it to profitably serve customers with disabilities.

VI. The merger must result in the widespread adoption of universal design principles.

Bell Atlantic has consistently been a leader in promoting accessibility and universal design policies. It has continually demonstrated its commitment to accessibility as evidenced not

² *Telecommunications Mergers, Should the Disability Community Care?*, Deborah Kaplan and Jim Tobias, March 1, 2000.

only by the products and services offered but also by its accessible Web pages and its adoption of the following universal design principles:

- Provide quality services that can reasonably accommodate a broad range of diverse customers, including individuals with disabilities;
- Go beyond its responsibilities under the Americans with Disabilities Act to review existing services to determine which ones need to be more accessible;
- Design and develop new services to be accessible to a broad range of diverse customers; and
- Employ these universal design principles company-wide and through its relationships with customers, employees, shareholders and suppliers.

The merged company must demonstrate its continued commitment to the important principles of universal design and accessibility. The merged company must also adopt the best practices of each company in these important areas and in the arena of consumer education and protection.

VII. Conclusion

We urge the Commission to ensure that Bell Atlantic and GTE use this merger to strengthen the new company's commitment to the principles of Section 255 and universal design. We believe that the new company will be better able to meet, and hopefully exceed these obligations as a result of its expanded scope and scale and drawing upon its longstanding commitment to serve its customers. The national, full-service telecommunications company created from the merger of Bell Atlantic and GTE is in the public interest, as it will bring consumers the benefits of choice, increased competition and innovation promised by the 1996 Telecommunications Act. More importantly, the creation of a national network and customer base will significantly benefit people with disabilities by enabling the merged company to profitably develop and market accessible products and services.

For these reasons we urge the Commission to approve the merger of Bell Atlantic and GTE with the proposed conditions and expeditiously grant their pending license transfer applications.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Deborah Kaplan", with a long horizontal flourish extending to the right.

Deborah Kaplan
Executive Director
World Institute on Disability

**Telecommunications Mergers:
Should the Disability Community Care?**

A Report By:

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Jim Tobias, President, Inclusive Technologies**

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Deborah Kaplan, World Institute on Disability
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Telecommunications Mergers: Should the Disability Community Care?

New voice synthesis capabilities built into modified personal computers have created a radical improvement in communication for blind and visually impaired people. A lot of the value of these gains may be lost, however, as online navigation software includes graphical user interfaces that have not been made accessible.

Many of the new telecommunications services rely on audiotext, e.g. press 1 for service, press 2 for equipment. Customers who are hard of hearing, deaf, cognitively impaired, or have limited motion ability find these services extremely difficult or impossible to navigate.

Competition in the equipment market has resulted in some helpful and affordable innovations. The diversity of vendors is important an element. For instance, Radio Shack 's lowest priced telephone speaks the numbers as they are pressed. It's a very useful design for consumers who are visually impaired as well as consumers who have cognitive impairments.

There have also been wonderful advances in the technology arena over the past decade. We have seen tremendous economic growth through the accelerating development of networks, software applications and faster, smaller, less expensive computer hardware. For people with disabilities the question that remains unanswered, however, is: "Will we share in the benefits of this technological explosion?"

The hard-won rights that came with the Americans with Disabilities Act will become meaningless in the digital economy if we are unable to access and navigate Internet-based services and other widely used communication tools of the era.

As the most ubiquitous communications tool of our century, telecommunications has frequently posed a significant barrier to the type of communication that Alexander Graham Bell envisioned with the creation of the telephone.

In the past, telecommunications companies have asserted that they could not meet the distinct needs of all of their customers with disabilities because it was not economically justifiable from a business case, "bottom line" perspective. Although many of the network services discussed later in this paper could be offered today, companies are not providing them because under a strict business case model, the disability population within each within telephone company's operating region is too small to justify the capital investment within each company's network.

The recent FCC decision on Section 255 is a significant one and will help for audiotext and voice mail services. But this is just a first step in the march to full communications parity. The ultimate goal is the creation of an environment where corporations have incentives to invest in accessible communications services, where individual user

expenses for assistive technology equipment are reduced as a result of these investments, and where the needs of all customers are considered and met to as wide a degree as possible.

In this paper we contend that the potential of multiple national, full-service telecommunications companies can help achieve this goal. The disability community has an interest in proposed mergers that will result in the creation of national players serving national markets. We want to encourage national companies to make a strong commitment to the spirit behind Section 255, the spirit of universal design. Additionally, we want to acknowledge and support companies that have made a commitment to universal design. We believe that a national market gives telecommunications companies greater potential to make products and services accessible because it provides a market that enables them to profitably serve customers with disabilities.

HOW DOES DISABILITY AFFECT TELECOMMUNICATIONS?

From the U. S. Census, we know that more than 11 million people have difficulty hearing normal conversation; more probably have difficulty hearing over the telephone. There are 10 million people who have difficulty seeing newspaper print; they may also have difficulty reading telephone directories, bills and the displays found on many new phones. More than 16 million people have difficulty lifting and holding a 10-pound object; many of them may not be able to lift, hold, and press buttons on telephones. From other sources we know that there are tens of millions more whose difficulty speaking, remembering, concentrating, or reading jeopardizes their ability to use telephones and other forms of modern telecommunications. Many of these people would love to be able to use the phone, or a fax machine, or the Internet, but cannot find a solution to the barriers before them.

For years, the disability community has argued that telephone companies could better meet the needs of their community without having to subsidize the segment. A couple of local telephone companies have attempted to follow this mandate within their territories, and the results, to date, have been mixed. Traditional market research and customer data or profiles about the disability segment are extremely limited, which hinders corporate marketing efforts. In addition, the communications needs of people with disabilities varies as a result of the specific functional challenges each person faces; the needs of a totally deaf consumer are different from a hard of hearing consumer and different from a blind or mobility impaired consumer. When the national population of people with disabilities is grouped by functional limitation, and then further segmented by telephone company operating areas, the resulting numbers for each company are extremely small in proportion to the overall line counts.

NEW OPPORTUNITIES

New opportunities for meeting the needs of customers with disabilities now exist because of broad industry change brought on by changes in technology and the regulatory environment.

What is clear today that was not when the 1996 Telecommunications Act was passed, is that distance and artificial LATA boundaries are irrelevant in the evolving telecommunications infrastructure. The rapid development and deployment of the Internet has irrevocably eliminated the need for an artificial structure with boundaries imposed for regulatory reasons. If the Internet can carry any traffic anywhere, anytime at the same cost, why can't the traditional voice network?

The distinctions among local, toll, long distance and international services are imposed only by regulations, not telecommunications technology. Now, on the horizon of the 21st century, technology insists on leveling all pre-existing barriers to allow for innovation and expansion.

The combination of technical innovations, such as Advanced Intelligent Network (AIN), and the marketing scale possible with a national network and customer base, creates the potential to deliver outstanding customized advanced services for people with disabilities. A company with a national network can win the hearts, minds, and pocket books of the disability community by recognizing the opportunity we outline in this paper.

WHAT IS AIN?

The Advanced Intelligent Network is an emerging technology that moves service feature functionality out of the central office switch and onto a separate element, the Service Control Point (SCP). Because the local switch will be responsible only for routing calls, not for service features, the SCP can customize services to meet the varied needs customers in the same Central Office.

The implementation of AIN allows for the "mass customization" of telephone service. Customers will be able to arrange their telephone service features as they choose, based on individual preferences rather than on platform constraints. AIN architecture is designed to permit the rapid implementation of new features at lower cost, ideally to the point where a relatively small customer base could support almost any desired feature. This effect has already been demonstrated in the personal computer industry. Operating systems that are open to anyone who wants to develop software have resulted in better service for both mass and niche markets. The costs of developing and mounting new services continues to decline until customers are being served almost one at a time.

It is important to understand how the combined individual benefits of an intelligent network and a national company's customer base can exponentially benefit customers with disabilities. As the cost of offering new features and services declines, it becomes increasingly economically feasible for a company to offer highly specialized services. This is especially true if the size (and resources) of the telecommunications company is increasing. At the same time, a national market means more people with disabilities are within the reach of each company: all the people with hearing loss are within a company's service area, for example, rather than just one-seventh or one-fourth. So the cost/benefit analysis computation is dramatically different from that experienced today; the costs of providing the service decrease at the same time that the target customer base for the new services increases, which results in a significantly lower cost per

customer. Both trends should lead to the same result: increased availability of customized services at lower prices.

BENEFITS OF AIN FOR PEOPLE WITH DISABILITIES

There are many potential benefits of AIN customization for people with disabilities. Speech technology, protocol conversion and special routing of calls can address some of the services these consumers desire. It is also important to note that building intelligence into the network lessens the need for expensive specialized equipment at the customer's end.

The cost of assistive technology is widely recognized as the most significant barrier to full technological participation today. Through network-based services, users would essentially be "renting" specialized features as needed at nominal cost, rather than purchasing them in the form of assistive devices that they must maintain, replace and upgrade.

AIN capability allows companies to offer innovative customized features. More importantly, a national network nullifies the need to consider distance and artificial boundaries.

EXAMPLES OF POTENTIAL SERVICES

We describe six network services that provide real examples of profitable business cases using AIN features and the national market to justify the investment. Additionally we discuss how AIN will benefit customers who use assistive technology and provide examples of areas for better service integration that consumers with disabilities will value.

DeskSet is an information system for people who are blind or visually impaired. Its functions include a talking clock, calculator, note-taker and appointment calendar. The user interface consists of a standard telephone and telephone line, or a wireless telephone and wireless service. The user employs the telephone keypad or speech for input, and receives output in speech. An advanced user device under consideration would integrate a Braille or computer keyboard. DeskSet behaves like a portable suite of productivity tools and can be integrated into the user's other media, such as electronic mail and computer access.

VADEC (Voice Activated Dialing and Environmental Control) is a telephone system and environmental control for people who are mobility impaired. It uses remote speech recognition to control the user's telephone functions and also uses off-the-shelf technology to turn on and off appliances, lights, etc. The user's outgoing and incoming calls are processed by voice, as are all commands for environmental control.

INVOCA (Intelligent Network Voice Output Communication Aid) is a communication aid for people who are speech impaired. Its interface is a standard telephone or speakerphone. A remote computer and a high quality speech synthesizer are controlled

via the telephone keypad. (An advanced user device would integrate a specialized keyboard.) With INVOCA, speech synthesis and natural speech conversations can occur over the phone or in person.

Auto Forward is for TTY users who use the Telecommunications Relay Service (TRS) to communicate with people who do not have TTYs. Currently these users have two major complaints. On the outgoing side, they complain that they must dial 10 digits to get the equivalent of dial tone. That is, in order to reach TRS they must first dial its toll-free number and then enter the number of the party they want to call.

On the incoming side, the problem is greater. People who use a regular voice telephone to call a TTY user via TRS must first dial the TRS toll-free access number and then tell the Communications Assistant (CA) the number they want to be connected to. This is not a serious problem for experienced TRS users. However, those who have never used TRS may be confused by the need to access two numbers in succession and may not place the call at all. TTY users believe that this happens often and hampers their integration in employment, education, and general social participation.

An intelligent network feature would make it possible to identify a telephone line and make TRS its default connection. That is, anyone placing a call from that line would be automatically connected to TRS without having to dial a TRS access number. The first prompt a TTY user would see upon taking the phone off the hook would be the TRS operator asking what number to dial. Similarly, all incoming calls to that telephone line would connect directly to TRS, thus eliminating the need for callers to first dial the TRS access number. The caller would simply dial the TTY destination number and the automatically connected TRS operator would tell the caller that the relay call was being placed (or whatever call introduction the TTY user selected). Outgoing or incoming calls that do not require TRS could be handled however the user prefers. That is, by pressing one button, direct voice-to-voice or TTY-to-TTY calls could be handled without using a TRS operator.

Prescription Line is a service for people who are hard of hearing. It allows the user to have a telephone line configured to match an audiological profile. The frequency response and gain on the line are optimized for the user's hearing, taking into consideration their use of hearing aids, with or without a T-coil.

Protocol Translation Gateway is a service that can translate the Baudot tones of a TTY into standard text, allowing the call to be completed to services that are incompatible with Baudot. This service becomes very viable with a national customer base. It has been difficult, especially for the wireless industry, to offer services that are compatible with Baudot. PC users cannot communicate directly with TTY users except through a special TTY modem. The Protocol Translation Gateway could automatically send the TTY user's calls to a gateway that would translate the Baudot tones to ASCII data, for example, and complete the call to any data terminal, including wireless. Likewise it would perform the same function in reverse for a party calling the TTY user.

OTHER BENEFITS

Other benefits that are not networked based include better assistive technology integration and improved customer service integration.

Assistive technology integration means network services are designed to work with the kind of equipment most customers have, usually a standard telephone. Some customers with disabilities use special equipment, like TTYs, adapted computers, or communication aids. If the network "knew" what kind of equipment the user had, it could adapt itself to provide better service. For example, TTY users could receive all network messages, like dial tone, busy signals and "number not in service" recordings, in TTY tones. Callers using a speech synthesizer could have their calls answered with a natural-sounding message telling the other party about the synthesizer and the need to be patient while messages are constructed. Business customers already have some of these advantages, since their network services are closely linked to the kinds of telephones they have. Consumers with disabilities should be able to take advantage of this same integration.

Consumers with disabilities also often complain that they cannot get consistent answers to their questions, or consistent treatment from the various telecommunications companies they must deal with. Integrated Customer Services could be another benefit of competing national networks. In addition to the network services, customers could be assured that their preferences would be implemented consistently. For example, a customer could get Braille or Large Print bills for all of their telecom services, not just from one of the companies with whom they do business. Toll discounts and Directory Assistance exemptions are other examples. TTY users who notify their telephone company (local, toll and long distance) that they use a TTY are eligible for toll discounts, meaning their calls are billed at a reduced rate. Companies offer the discounts on per minute charges based on the premise that it takes longer to type a conversation than it does to voice a conversation.

TTY callers have complained that this inhibits their ability to use another company, such as a dial-around service, to place a call. Another problem area is passing through the discounts to a TTY caller when they use the relay service, especially when companies offer discount calling plans to all customers as promotions or special offers. For many relay systems, the network on which the CA places the call is different than the local phone company. So the data for billing is not available to the company operating the relay.

CONCLUSION

While proposed corporate mergers may appear to have no relationship to the needs of people with disabilities, a closer examination shows the potential for better, more accessible products and services at reasonable prices. We have identified two major reasons that these companies should look more seriously at the disability market:

- a national network means lower cost (for marketing and implementing universal design) and the ability to reach 54 million people with disabilities, and
- technologies have developed in a way that companies can offer more customized products and services at lower costs.

Broad trends in telecommunications technology and business structure can have a significant impact on our goal of more accessible and useful technology for persons with disabilities. As disability advocates, we know that we can benefit from some business trends that are not labeled "disability". Progress in technology and expanding market scope nationally can improve the lives and opportunities of this segment of the population. It is our hope to see companies take advantage of this opportunity to serve customers with disabilities.