

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of

Implementation of Sections 255 and 251(a)(2) of the
Communications Act of 1934, as Enacted by the Telecommunications
Act of 1996

Access to Telecommunications Service, Telecommunications Equipment and
Customer Premises Equipment by Persons with Disabilities

WT Docket No. 96-198

REPORT AND ORDER AND FURTHER NOTICE OF INQUIRY

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By the Commission: Chairman Kennard and Commissioners Ness and Tristani issuing separate
statements; Commissioners Furchtgott-Roth and Powell approving in part, dissenting in part and
issuing separate statements.

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A. OVERVIEW**1. Introduction**

1. In this Report and Order (Order) we adopt rules and policies to implement sections 255 and 251(a)(2) of the Communications Act of 1934, as amended (Act).¹ These provisions, which were added by the Telecommunications Act of 1996 (1996 Act),² are the most significant opportunity for the advancement of people with disabilities since the passage of the Americans with Disabilities Act (ADA) in 1990.³ These provisions require manufacturers of telecommunications equipment and providers of telecommunications services to ensure that such equipment and services are accessible to persons with disabilities, if readily achievable. Congress has recognized that, although we are moving into the information age with increasing dependence on telecommunications tools, people with disabilities remain unable to access many products and services that are vital to full participation in our society. The purpose of sections 255 and 251(a)(2) of the Act is to amend this situation by bringing the benefits of the telecommunications revolution to all Americans, including those who face accessibility barriers to telecommunications products and services. The rules we adopt in this Order will have an historic effect on the ability of Americans with disabilities to access and utilize telecommunications technologies and services.

2. Our nation has an estimated 54 million Americans with disabilities. Persons with disabilities are the largest minority group in the United States, yet despite their numbers, they do not experience equal participation in society. Statistically, most Americans will have a disability, or experience a limitation, at some point in their lives. While only 5.3% of persons 15-24 years of age have some degree of functional limitation, 23% of persons in the 45-54 age range experience functional limitation. The percentage of those affected by functional limitations increases with age: 34.2% of those aged 55-64; 45.4% of those aged 65-69; 55.3% for those aged 70-74; and 72.5% for those aged 75 and older.⁴ The number of persons with functional limitations will also increase with time. Today, only about 20% of Americans are over age 55, but by the year 2050, 35% of our population will be over age 55.⁵

3. Congress has responded to this need for access and opportunity for individuals with disabilities by passing landmark legislation in a range of areas: education, employment, tax policy, transportation and assistive technology. These laws include the ADA,⁶ the Individuals with

47 U.S.C. 255, 251(a)(2).

Telecommunications Act of 1996, Pub. L. No.104-104, 110 Stat. 56 (1996).

Americans With Disabilities Act of 1990, Pub. L. No.101-336, 104 Stat.327 (codified in scattered sections of 42 U.S.C.). *See e.g.*, Title rning Public Accommodations, 42 U.S.C. 12181(7) (ADA).

U.S. Department of Commerce, Bureau of the Census, Series P-70, #8; Survey SIPP, 1984.

U.S. Department of Commerce, Bureau of the Census, "Projections of the Population of the United States, by Age, Sex and Race: 1983 to 21 years: "1990-2050").

42 U.S.C. 12101 *et seq.*

Disabilities Education Act of 1997,⁷ the Assistive Technology Act of 1998,⁸ and the Workforce Investment Act of 1998,⁹ which amended section 508 of the Rehabilitation Act.¹⁰ Congress has also passed legislation focused specifically on access to communications: Title IV of the ADA (telecommunications relay services)¹¹ the Telecommunications Accessibility Enhancement Act of 1988,¹² the Hearing Aid Compatibility Act of 1988,¹³ and the Television Decoder Circuitry Act of 1990.¹⁴ All of these laws recognize the importance of access to all aspects of society, and access to communications technology in particular.

4. Through the 1996 Act, Congress recognized the importance of access to telecommunications for all people. Telecommunications has become such a common tool that its use is essential for participation in nearly all aspects of our society. Today, most Americans rely on telecommunications for routine daily activities, such as making doctors' appointments, calling home when they are late for dinner, participate in conference calls at work, and making airline reservations. Moreover, diverse telecommunications tools such as distance learning, telemedicine, telecommuting and video conferencing enable Americans to interface anytime from anywhere. Understanding that communications is now an essential component of American life, Congress intended the 1996 Act to provide people with disabilities access to employment, independence, emergency services, education, and other opportunities.

5. More specifically, telecommunications is a critical tool for employment. If telecommunications technologies are not accessible to and usable by persons with disabilities, many qualified individuals will not be able to work or achieve their full potential in the workplace. Congress recognized the importance of creating employment opportunities for people with disabilities with Title I of the ADA,¹⁵ which addresses the employer's responsibilities in making the workplace accessible to employees with disabilities. As noted by UCPA, when essential job functions require the ability to use and operate devices and services, people with disabilities are at a disadvantage when these devices and services have not been designed with accessibility in mind.¹⁶ Unemployment among people with severe disabilities is roughly 73%, at a time when our

Pub. L. 105-17, June 4, 1997, 11 Stat. 37, *codified in* 20 U.S.C. 1401 *et seq.*

Pub. L. 105-394, Nov. 13, 1998, 112 Stat. 3627, *codified in* 29 U.S.C. 3001 *et seq.*

Pub. L. 105-220, Aug. 7, 1998, 112 Stat. 936, *codified in* 29 U.S.C. 2801 *et seq.*

⁷ 29 U.S.C. 798.

¹ 47 U.S.C. 225.

² Pub. L. 100-542, Oct. 28, 1988, 102 Stat. 2721, *codified at* 40 U.S.C. 762.

³ Pub. L. 100-394, Aug. 16, 1988, 102 Stat. 976, *codified at* 47 U.S.C. 610.

⁴ Pub. L. 101-431, Oct. 15, 1990, 104 Stat. 961, *codified in* 47 U.S.C. 303(a), 330(b).

⁵ 42 U.S.C. 12131 *et seq.*

⁵ See UCPA comments, attachment, p. 3.

country is experiencing the lowest unemployment rate in years. Persons with disabilities who are employed earn on average only one-third the income of the non-disabled population.¹⁷ The rules we adopt today complement Title I of the ADA by giving employers expanded tools with which to employ and accommodate persons with disabilities.

6. Access to telecommunications can also bring independence. The disability community has told the Commission of the frustration of not being able to check the balance of a checking account using telecommunications relay service, or not being able to tell if a wireless phone is turned on, or not being able to use a calling card because of inadequate time to enter the appropriate numbers. The rules adopted in this Order may be essential in bringing a great measure of independence to members of the disability community. Access to telecommunications services also plays a critical role in life-threatening emergencies. The Commission has received numerous reports from relatives of senior citizens saying that their elderly parents could live on their own, if only they had telecommunications equipment that they could use.

7. The benefits of increased accessibility to telecommunications are not limited to people with disabilities. Just as people without disabilities benefit from the universal design principles of the ADA and the Architectural Barriers Act (for example, a parent pushing a stroller over a curb cut), many people without disabilities will also benefit from accessible telecommunications equipment and services. Indeed, many of us already benefit from accessibility features in telecommunications today: vibrating pagers do not disrupt meetings; speaker phones enable us to use our hands for other activities; and increased volume control on public payphones allows us to talk in noisy environments. We expect many similar results from the rules we adopt today. More importantly, we all benefit when people with disabilities become active in our communities and in society as a whole. Congress clearly intended that these provisions would make a real difference in the lives of people with disabilities, and of all Americans. As the Senate stated in its report on these accessibility provisions:

The Committee recognizes the importance of access to communications for all Americans. The Committee hopes that this requirement will foster the design, development, and inclusion of new features in communications technologies that permit more ready accessibility of communications technology by individuals with disabilities. The Committee also regards this new section as preparation for the future given that a growing number of Americans have disabilities.¹⁸

2. Background

8. Congress set forth a comprehensive framework to achieve accessibility in sections 255 and 251(a)(2). In particular:

¹⁷ National Organization on Disability and Louis Harris and Associates, "Survey of Americans with Disabilities," July 23, 1998.

¹⁸ S. Rep. No. 104-23, 104th Cong., 1st Sess. 52 (1995), as quoted in NAD comments at 10.

Section 255(a) defines the terms "disability" and "readily achievable" to have the same meaning as set forth in the ADA.¹⁹

Section 255(b) requires a manufacturer of telecommunications equipment or customer premises equipment (CPE) to ensure that the equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities, if readily achievable.²⁰

Section 255(c) requires a provider of telecommunications service to ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable.²¹

Whenever the accessibility requirements of sections 255(b) and 255(c) are not readily achievable, section 255(d) requires manufacturers and service providers to ensure compatibility with existing peripheral devices or specialized CPE commonly used by individuals with disabilities to achieve access, if readily achievable.²²

Section 251(a)(2) provides that each telecommunications carrier has the duty not to install network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to section 255 or 256.²³

Section 255(f) states that nothing in this section shall be construed to authorize any private right of action to enforce any requirement of this section or any regulation thereunder. The Commission shall have exclusive jurisdiction with respect to any complaint under this section.²⁴

Section 255(e) states that within 18 months after the date of enactment of the Telecommunications Act of 1996, the Architectural and Transportation Barriers Compliance Board (Access Board) shall develop guidelines for accessibility of telecommunications equipment and customer premises equipment in conjunction with the Commission. The Board shall review and update the guidelines periodically.²⁵

¹⁹ 47 U.S.C. 255(a).

²⁰ 47 U.S.C. 255(b).

²¹ 47 U.S.C. 255(c).

²² 47 U.S.C. 255(d).

²³ 47 U.S.C. 251(a)(2).

²⁴ 47 U.S.C. 255(f).

²⁵ 47 U.S.C. 255(e). The Access Board is an independent Federal agency whose primary mission is to increase access for persons with disabilities. In addition to its duties under the Act, the Access Board: (1) develops minimum guidelines and requirements for standards issued under the ADA and the Architectural Barriers Act; (2) enforces the Architectural Barriers Act; and (3) develops accessibility standards for electronic

9. To implement its obligations pursuant to section 255(e), the Access Board convened the Telecommunications Access Advisory Committee (TAAC)²⁶ to develop recommended equipment accessibility guidelines for consideration by the Access Board. The TAAC included representatives from equipment manufacturers, software firms, telecommunications providers, organizations representing persons with disabilities, and other persons interested in telecommunications accessibility. The TAAC released its Final Report in January 1997.²⁷

10. Thereafter, the Access Board adopted the Telecommunications Act Accessibility Guidelines (the guidelines) for equipment in its Order (Access Board Order),²⁸ drawing heavily on the *TAAC Report* recommendations. The guidelines consist of: (1) general accessibility requirements; (2) specific guidance on the ways in which the functions necessary to operate a product should be made accessible if readily achievable;²⁹ and (3) standards for compatibility with peripheral devices and specialized CPE.³⁰ The *Access Board Order* also contains an Appendix which is advisory in nature and provides expanded descriptions of the guidelines, offering suggestions of strategies to assist in achieving accessible design.

11. In April 1998, the Commission issued a *Notice of Proposed Rulemaking (NPRM)*, building in part from the Access Board guidelines and in part from a *Notice of Inquiry* it adopted in September 1996.³¹ In the *NPRM*, the Commission made tentative conclusions about the scope of the Act's coverage, the definition of the term "readily achievable," and other key matters. Over two hundred individuals, organizations, and businesses filed comments and reply comments in response to the *NPRM*.³² This Order is a final step in the development and adoption of the rules to implement section 255.

mation standards under section 508 of the Rehabilitation Act.

⁵ See Access Board, Telecommunications Act Accessibility Guidelines for Telecommunications Equipment and Customer Premises Equipment of Appointment of Advisory Committee Members and Notice of First Meeting, 61 Fed. Reg. 13813 (Mar. 28, 1996).

⁷ Telecommunications Access Advisory Committee, Access to Telecommunications Equipment and Customer Premises Equipment by Individuals with Disabilities, Final Report, Jan. 1997 (*TAAC Report*).

³ 36 C.F.R. Part 1163.

² The Access Board Guidelines organize these product functions into the two general categories of (1) input related functions and (2) output related functions. For each category the Access Board lists the kinds of accessibility solutions that should be evaluated, such as the ability to operate without vision and the ability to provide auditory information in visual form.

¹ Architectural and Transportation Barriers Compliance Board, *Telecommunications Act Accessibility Guidelines*, 36 C.F.R. Part 1193, 63 FR 5608-41 (1998) (*Access Board Order*).

¹ *Implementation of Section 255 of the Telecommunications Act of 1996; Access to Telecommunications Service, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities*, Notice of Proposed Rulemaking, WT Docket No. 96-198, 13 FCC 11911 (1998) (*NPRM*); *Implementation of Section 255 of the Telecommunications Act of 1996; Access to Telecommunications Service, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities*, Notice of Inquiry, WT Docket No. 96-198, 11 FCC 19152 (1996).

² See list of commenters and reply commenters in Appendix C, *infra*.

3. Summary

12. A summary of the decisions in this Order is provided below:

We adopt rules identical to or based upon the Access Board guidelines, with a few minor exceptions.³³

We require manufacturers and service providers to develop a process to evaluate the accessibility, usability, and compatibility of covered services and equipment.³⁴

We require manufacturers and service providers to ensure that information and documentation provided to customers is accessible to customers with disabilities, if readily achievable. Where manufacturers and service providers furnish employee training, such training programs must consider certain factors relating to accessibility requirements.³⁵

With minor changes, we adopt the Access Board definition of the term "accessibility," incorporating the list of ways in which the functions of a product should be made accessible. We also apply this definition to both equipment and services.³⁶

Consistent with the Access Board definition, we define the term "usability" as access to the full functionality of, and documentation for, the product or service, including instructions, billing, product or service information (including accessible feature information), documentation, and technical support functionality.³⁷

We adopt four of the Access Board's five criteria for determining "compatibility." We do not include the criterion of compatibility with prosthetic devices, but instead include that criterion in our definition of "accessibility."³⁸

Consistent with the ADA, we define the term "readily achievable" as easily accomplishable and able to be carried out without much difficulty or expense. Determinations as to what is "readily achievable" will be made on a case-by-case

³ See section A.4, *infra*.

⁴ See section B.3, *infra*.

⁵ See section B.3, *infra*.

⁵ See section B.3, *infra*.

⁷ See section B.3, *infra*.

⁸ See section B.4, *infra*.

basis considering factors which include: (1) the cost of the action; (2) the nature of the action; and (3) the overall resources available to the entity.³⁹

We determine that section 255, by its terms, applies to the design and production of each individual product and service offered by a manufacturer or service provider. The obligation of a manufacturer or service provider to review the accessibility of a product or service, and incorporate accessibility features, where readily achievable, must occur at every natural opportunity.⁴⁰

We require the universal deployment of accessibility features that can be incorporated into product design when readily achievable. For those features or actions that cannot be universally deployed, but are readily achievable to incorporate into some products and services, manufacturers and service providers have the flexibility to distribute those features across their products or services as long as they do all that is readily achievable.⁴¹

We determine that, pursuant to section 251(a)(2), a telecommunications carrier may not install network features, functions, or capabilities that do not comply with the accessibility requirements of this Order.⁴²

We determine that the terms "telecommunications" and "telecommunications services" have the meanings set forth in section 3 of the Act.⁴³

We determine that the terms "telecommunications equipment" and "customer premises equipment" have the meanings set forth in section 3 of the Act, and include software integral to the equipment's operation.⁴⁴

We determine that the term "manufacturer" means an entity that makes or produces a product, including any entity that exercises significant control over the design, development or fabrication process.⁴⁵

In order to ensure the accessibility of telecommunications services, we assert ancillary jurisdiction to extend the accessibility requirements of this Order to

³⁹ See section C, *infra*.

⁴⁰ See sections C.2, C.3, *infra*.

⁴¹ See section C.2.a, *infra*.

⁴² See section B.5, *infra*.

⁴³ See section D.1.a, *infra*.

⁴⁴ See section D.1.b, *infra*.

⁴⁵ See section D.2, *infra*.

providers of voicemail and interactive menu service, as well as to manufacturers of equipment which performs those functions.⁴⁶

We adopt an informal complaint procedure in which manufacturers and service providers must attempt to resolve the customer's concerns and respond to the Commission within 30 days. Manufacturers or service providers are not required, as an initial response to each complaint, to supply a detailed analysis of what is and is not readily achievable to accomplish. The Commission may, based on a single complaint or a trend or pattern of practices, initiate inquiries or investigations to determine if a manufacturer is fulfilling its section 255 obligations.⁴⁷

We encourage, but do not require, consumers to contact the covered entity in advance of filing an informal complaint with the Commission. We allow complainants to file a formal complaint for adjudication of a dispute at any time.⁴⁸

4. Authority to Promulgate Rules

13. In the *NPRM*, we tentatively concluded that we had authority to adopt regulations implementing section 255 pursuant to section 4(i), 201(b), and 303(r).⁴⁹ As supported by the record, we conclude that we have authority to adopt regulations to implement section 255.⁵⁰ We find that the language of section 255(f), which bars any private right of action to enforce any requirement of this section *or any regulation thereunder*, expressly contemplates the Commission's enactment of regulations to carry out its enforcement obligations under the provisions of section 255.⁵¹ Furthermore, in a case challenging the Commission's authority to adopt rules pursuant to another provision of the 1996 Act, the Supreme Court held that [section] 201(b) explicitly gives the FCC jurisdiction to make rules governing matters to which the 1996 Act applies.⁵² In other words, an individual provision of the Communications Act need not contain an express grant of rulemaking authority in order to empower the Commission to adopt

⁵ See section D.3, *infra*.

⁷ See sections E.1, E.2, *infra*.

³ See section E.3, *infra*.

⁹ *NPRM*, 13 FCC Rcd at 20400, 26. Specifically, we found that it is well established that an agency has the authority to adopt rule inister congressionally-mandated requirements. We stated that nothing in section 255 bars the Commission from exercising the rulema ority granted in sections 4(i), 201(b), and 303(r) to clarify and implement the requirements of section 255.

⁹ See Lucent comments at 3; NAD comments at 2; OKDRS comments at 1; PCIA comments at 6-7; TDI comments at 5. *But see* BSA comr 5-16; CEMA comments at 5 (citing section 255(e) as justification for adopting the Access Board's guidelines rather than issuing additional ru ens comments at 3 (although the Commission has sufficient authority to promulgate rules pursuant to section 255, rules would be too rigid train innovation).

¹ See 47 U.S.C. 255(f); *see also NPRM*, 13 FCC Rcd at 20403-05.

² *AT&T Corp. v. Iowa Util. Bd.*, 119 S.Ct. 721, 730 (1999).

implementing regulations. For these reasons, we reject the arguments of some parties that Congress' deletion of Senate bill language requiring the Commission to promulgate rules to implement section 255 should be construed as limiting the Commission's discretionary rulemaking power.⁵³ We conclude, therefore, that at a minimum, section 255 itself grants us authority to enact rules to implement the provisions of section 255.⁵⁴ In addition, most commenters supported exercising this authority because covered entities would benefit from having rules that provide clear guidance in fulfilling their section 255 obligations.⁵⁵

14. The extensive record herein supports the adoption of rules consistent with the Access Board's guidelines.⁵⁶ Accordingly, we adopt rules in this Order that are identical to or based upon the Access Board guidelines, with a few minor exceptions.⁵⁷ Moreover, as explained below, because the Access Board guidelines, though directed to equipment, are sufficiently broad in their language, we conclude below that they can effectively serve as the basis for rules for both covered services and equipment. Therefore, we apply our rules uniformly to both covered services, as well as covered equipment.

15. We note, however, that we have the discretion to depart from the Access Board guidelines where merited. Most commenters did not question our discretion to depart from the Access Board guidelines,⁵⁸ although some urged us to use our discretion to adopt the guidelines wholesale and apply them to services.⁵⁹ In addition, some commenters felt that we should depart from the guidelines only under special circumstances.⁶⁰ While we acknowledge the Access Board's expertise in identifying the access requirements of persons with disabilities in a comprehensive manner, we find that the Commission would not be bound to adopt the Access Board's guidelines as its own, or to use them as minimum standards, if it were to conclude, after

³ See comments filed in response to the *Notice of Inquiry*; CEMA comments at 13; ITI comments at 7; SWBT comments at 2. See also *Notice of Inquiry*, 11 FCC Rcd at 19163, 29 (citing S. 652, 104th Cong., 1st Sess., 262(g)).

⁴ See, e.g., USA comments at 14-15.

⁵ See, e.g., ACB comments at 2; Ameritech comments at 6-7; CCIA comments at 2; NCD comments at 2; SHHH comments at 2-3; TDI comments at 14-15; Trace comments at 2.

⁶ See, e.g., ACB comments at 2-3; CPB/WGBH comments at 3; IDHS comments at 2; WID comments at 2; Access Board comments at 1-2; NCD comments at 4; SHHH comments at 3-5; TDI comments at 6; USA comments at 4-5; WI-TAN comments at 2.

⁷ For example, we have declined to adopt the Access Board's volume control standard because it directly contradicts existing Commission rule 68.317. See 25, *infra*. In addition, we recognize the need to relocate "accessible with prosthetics" from a compatibility criterion to accessibility. See 27, *infra*.

⁸ Bell Atlantic comments at 3; BSA comments at 13-14; CEMA comments at 7; Lucent comments at 3; Siemens comments at 3-4; TDI comments at 2.

⁹ IDHS comments at 1; NAD comments at 4; NCD comments at 2; USA comments at 4-5; UCPA comments at 2; WI-TAN comments at 2; TDI comments at 9; OkATP comments at 1-2.

¹⁰ See, e.g., Access Board comments at 3 (departures from the guidelines which provide less accessibility would result in FCC actions which are inconsistent); AFB comments at 4-5 (Commission must show substantial basis for departing from the guidelines based on the record).

notice and comment, that such guidelines were inappropriate.⁶¹ Typically, unless otherwise provided by statute, "guidelines" are distinct from rules and, like a general statement of policy or procedure, are not considered to have the force and effect of law.⁶² Because section 255(e) requires that the Commission participate in the Access Board's formulation of guidelines, however, we believe that Congress intended that such guidelines be given significant consideration in implementing section 255. The fact that Congress mandated the Board's continuing involvement through periodic review and updating of guidelines under section 255(e) further supports our decision to give significant consideration to the Board's guidelines, as we have done throughout our deliberations. We also recognize that these guidelines are the product of extensive deliberations between the disability community and the telecommunications industry, which gives them considerable credibility in our view.

B. REQUIREMENTS FOR COVERED ENTITIES

1. Overview

16. The requirements that covered entities (as discussed in section D, *infra*) must follow are outlined below. First, as stated in the statute, a manufacturer of telecommunications equipment or customer premises equipment shall ensure that the equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities, if readily achievable. Second, a provider of telecommunications service shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable. Finally, whenever the requirements set forth above are not readily achievable, such a manufacturer or provider shall ensure that the equipment or service is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, if readily achievable.

17. To implement these statutory requirements, we must consider and interpret the key terms used in section 255, including "disability," "accessible to and usable by," "compatibility," and "readily achievable." The meanings of these terms are critical to the obligations of entities covered by section 255.

2. Disability

18. Section 255 provides that the term "disability" has the meaning given to it by section 3(2)(A) of the Americans with Disabilities Act (ADA).⁶³ The ADA defines disability as "(1) a

¹ The language and legislative history of section 255 are not particularly instructive about the role Congress intended for the Board's guidelines. Although Senate Bill S.652, on which the final legislation is modeled, had indicated that the Commission regulations should be consistent with standards developed by the Access Board, this language was omitted without explanation from the final legislation. In view of the non-binding nature of the guidelines, this deletion stripped the guidelines of their status as binding standards.

² See 5 U.S.C. 553(b)(3)(A); see also *Aulenback, Inc. v. Federal Highway Admin.*, 103 F.3d 156, 168-69 (D.C. Cir. 1997); *Telecommunications Arch and Action Center v. FCC*, 800 F.2d 1181 (D.C. Cir. 1986).

³ 47 U.S.C. 255(a)(1), citing 42 U.S.C. 12102(2)(A).

physical or mental impairment that substantially limits one or more of the major life activities of an individual; (2) having a record of such an impairment; or (3) being regarded as having such an impairment."⁶⁴ Without expressly defining disability, the Access Board explained that its guidelines are required to principally address the access needs of individuals with disabilities affecting hearing, vision, movement, manipulation, speech, and interpretation of information.⁶⁵

19. We adopt the ADA definition of disability in its entirety, as required under Section 255 of the Act. Indeed, the statutory language requires that we apply the same definition as set forth in the ADA. We further agree with commenters that, in implementing section 255, we should follow any applicable judicial and administrative precedent stemming from this definition, except in those limited circumstances in which such precedent is shown to be unsuitable to a specific factual situation.⁶⁶ We disagree with TIA that the definition of disability should be limited to include "only those persons with functional limitations that affect their ability to use telecommunications equipment and CPE."⁶⁷ TIA's proposal would effectively limit the definition of "disability" to the first prong of the ADA definition, because such a definition would not reach persons with a record of an impairment or persons who are "regarded as" having disabilities. We decline to depart from or alter the ADA definition, where Congress expressly incorporated the ADA definition of disability in its entirety.

20. In order to provide an additional measure of guidance to manufacturers and service providers, and consistent with the Access Board, we conclude further that, at a minimum, the statutory reference to "individuals with disabilities" includes those with hearing, vision, movement, manipulative, speech, and cognitive disabilities.⁶⁸ We agree that individuals with these disabilities experience the great majority of access barriers that section 255 was intended to address. By no means, however, is the definition of "disability" limited to these specific groups. Determinations of what constitutes a "disability" under section 255 must be made on a case-by-case basis.

3. "Accessible To and Usable By"

21. Section 255 requires equipment manufacturers to ensure that their equipment is designed, developed and fabricated to be "accessible to and usable by" individuals with disabilities, if readily achievable, and requires service providers to ensure that the service is "accessible to and usable by" individuals with disabilities, if readily achievable. The terms "accessible to" and "usable

⁴ 42 U.S.C. 12102(2)(A).

⁵ *Access Board Order*, 63 Fed. Reg. 5608. By way of example, traditional voice telephone service may not be accessible to people with disabilities because dialing is obstructed and visually displayed information is inaccessible, and people with cognitive disabilities may be unable to interact with short-delay automated answering services.

⁶ *See, e.g.*, Air Touch comments at 2; AT&T comments at 7; NAD comments at 20; Oklahoma DRS comments at 1; SHHH comments at 9; comments at 12; AIM comments at 1; AFB comments at 20.

⁷ TIA comments at 20.

⁸ *Access Board Order*, 63 Fed. Reg. 5608. NAD comments at 20; SHHH comments at 9; TDI comments at 12; AFB comments at 20.

by" are not defined in either section 255 or the ADA.

22. The Access Board adopted a functional approach, defining equipment "accessible to" individuals with disabilities as including various input, control and mechanical functions, as well as output, display and control functions.⁶⁹ The Access Board guidelines for equipment define usable by as meaning that individuals with disabilities have access to the full functionality and documentation for the product, including instructions, product information (including accessible feature information), documentation, and technical support functionally equivalent to that provided to individuals without disabilities.⁷⁰ The Access Board states that the usable by" requirement is intended to convey the important point that products which have been designed to be accessible are usable only if an individual has adequate information on how to operate the product."⁷¹ In addition, section 1193.37 of the Access Board's rules calls for pass-through of cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide telecommunications in an accessible format," in order to ensure, among other things, that signal compression technologies do not remove information needed for access, or restore it upon decompression.⁷²

⁶⁹ The Access Board's input, control and mechanical functions at 36 C.F.R. 1193.41 are:

- usable without vision
- usable with low vision and limited or no hearing
- usable with little or no color perception
- usable without hearing
- usable with limited manual dexterity
- usable with limited reach or strength
- usable without time-dependent controls
- usable without speech
- usable with limited cognitive skills

The output, display and control functions listed by the Access Board at 36 C.F.R. 1193.43 are:

- availability of visual information
- availability of visual information for low vision users
- access to moving text
- availability of auditory information
- availability of auditory information for people who are hard of hearing
- prevention of visually-induced seizures
- availability of auditory cutoff
- non-interference with hearing technologies
- hearing aid coupling

⁷⁰ 36 C.F.R. 1193.3.

⁷¹ *Access Board Order*, 63 Fed. Reg. 5616.

⁷² 36 C.F.R. 1193.37.

23. We adopt the Access Board's definitions of "accessible to" and "usable by." We initially proposed in the *NPRM* to combine these terms under one definition under our rules, reasoning that the term "accessible to" should be used in its broadest sense to refer to the ability of persons with disabilities actually to *use* the equipment or service by virtue of its inherent capabilities and functions.⁷³ Upon further review, however, we believe that it is more precise, and will provide clearer guidance to entities covered by section 255, for us to follow the lead of the Access Board and define these two terms separately because the requirements of "accessible to" and "usable by" embrace two distinct concepts.⁷⁴ While "accessible to" generally refers to the incorporation of specific features in products and services that will allow people with disabilities to access those products, we agree with the Access Board that "usable by" generally refers to the ability of people with disabilities to learn about and operate those features effectively.⁷⁵ Although the Access Board guidelines were designed in the context of equipment and CPE accessibility, we conclude that these guidelines are equally applicable to the services context, and thus our definition of accessibility and usable applies to both equipment and services. We also adopt the proposal made in the *NPRM* to ensure that support services (such as consumer information and documentation) associated with equipment and services are accessible to and usable by people with disabilities.⁷⁶

24. We conclude that, with one technical exception⁷⁷ and one addition,⁷⁸ the input, control and mechanical functions in section 1193.41 of the Access Board guidelines and the output, display and control functions in section 1193.43 of the Access Board guidelines shall constitute the definition of "accessible to" under the Commission's rules. We disagree with Phillips and TIA that adoption of the Access Board list as part of our definition of "accessible to" could be read as requiring manufacturers to incorporate all 18 functions into each product, and

³ *NPRM*, 13 FCC Rcd at 20427-28, 75. Several commenters recognize that both accessibility and usability are necessary factors in enabling persons with disabilities to use telecommunications services and equipment, but did not advocate distinguishing between them. AIM comments at 7; NC Assistive Technology comments at 1; Trace comments at 6. SBC interprets "accessible to and usable by" to impose an obligation to ensure that a person with disabilities may actually use a telecommunications service or piece of equipment, and that functionally will require accessible support services such as product information and instructions. SBC comments at 6. TIA was less concerned whether the definitions were separate or if usability was incorporated into accessibility, as long as it is clear that accessible product information and support are essential and required by section 255 if readily achievable. TIA reply comments at 18-19.

⁴ NAD disagrees with the combination of accessibility and usability, arguing that the requirements of usability are quite distinct from those needed to achieve accessibility. NAD comments at 6. SHHH argues that it is important to preserve the nuances of "usability" and "accessibility," and therefore opposes the combination of the terms. SHHH comments at 10-11. TDI argues that each term has an independent objective and should be treated as such, and the Commission should maintain the distinction between the two terms as presented by the Access Board guidelines. TDI comments at 12-13. *See also* UCPA comments at 7.

⁵ *See Access Board Order*, 63 Fed. Reg. at 5616.

⁵ *NPRM*, 13 FCC Rcd at 20428, 76.

⁷ *See infra* 25.

⁸ *See* 26, *infra*.

thus would require manufacturers to "attempt the impossible."⁷⁹ Phillips' and TIA's argument ignores the fact that all assessments of a product's or service's accessibility, and decisions regarding which of the 18 areas on the list can be addressed, must be made within the boundaries of the readily achievable qualification of the statute. The list is not a set of mandates, but rather a list of areas covered entities should be considering when designing products and services. For this reason, we agree with commenters that the definition is fair and appropriately descriptive.⁸⁰

25. We do not adopt section 1193.43(e) of the Access Board rules, which would require that volume control telephones provide a minimum of 20 dB adjustable volume gain. We decline to adopt this 20 dB volume control standard under our rules because it conflicts with rules that we have previously adopted pursuant to the Hearing Aid Compatibility Act.⁸¹ While we recognize the rationale behind Access Board's decision to provide a more stringent volume control standard, we decline to supersede existing Commission rules developed under a lengthy negotiated rulemaking pursuant to a section of the Act focused expressly on this issue. Furthermore, because the industry has, since 1997, been making plans to incorporate our HAC Act volume control requirements in all telephones to be manufactured in, or imported for use in, the United States after January 1, 2000, it would be unduly disruptive and burdensome for us to alter the volume control technical standards at this time.

26. We also do not adopt a separate requirement regarding net reductions similar to that in section 1193.30 of the Access Board's guidelines. We believe that this requirement is addressed under the readily achievable definition and analysis. As we noted in the *NPRM*, the fact that a product has particular accessibility features is evidence that inclusion of those features in later products from the same producer is readily achievable.⁸² The flexibility of the readily achievable analysis recognizes that it will generally be unacceptable to completely eliminate an existing accessibility feature, but that legitimate feature trade-offs as products evolve are not prohibited.

27. We do, however, add to our rules one input factor to the list developed by the Access Board. Specifically, the definition of "accessible to" shall include being "operable with prosthetic devices." The Access Board's guidelines under section 255(d) for compatibility included "compatibility of controls with prosthetics" as one criterion.⁸³ We agree with Trace, however, that prosthetic devices should not be considered peripheral devices subject to the compatibility

⁷⁹ Phillips comments at 9; TIA comments at 31.

⁸⁰ See, e.g., AIM comments at 1; AT&T comments at 7; LDA comments at 1; NAD comments at 6-7; NCD comments at 17; SHHH comments at 13.

⁸¹ 47 U.S.C. 610. Under section 68.6 of the Commission's volume control rules, 47 C.F.R. 68.6, all wireline telephones (including corded telephones) manufactured or imported for use in the United States as of January 1, 2000 must have a volume control feature in accordance with the technical specifications at 47 C.F.R. 68.317. In general, these technical specifications require analog and digital telephones to provide a minimum of 12-18 dB of volume gain. See 47 C.F.R. 68.317.

⁸² *NPRM*, 13 FCC Rcd at 20443, 114.

⁸³ 36 C.F.R. 1193.51(c).

requirements of section 255(d), but rather that manufacturers and service providers should be required to consider direct access to input controls by persons using prosthetic devices as part of their "accessibility" obligations under sections 255(b) and (c).⁸⁴ Because some people with disabilities rely on prosthetic devices, we conclude that consideration of direct access by such persons is appropriately encompassed in the definition of "accessible to."⁸⁵

28. We adopt the Access Board's definition of "usable by" as our definition under the rules. As many commenters that addressed this issue recognized, providing access to all supporting documentation and support services is an essential ingredient for the successful implementation of section 255 and is encompassed by our definition of "usable by."⁸⁶ Support services include, but are not limited to, access to technical support hotlines and databases, access to repair services, billing and any other services offered by a manufacturer or service provider that facilitate the continued and complete use of a product or service. Support services also include efforts by manufacturers and service providers to educate its sales force about the accessibility of their products and how accessibility features can be used.

29. We further conclude, consistent with the Access Board's guidelines and supported by the record, that "usable by" means manufacturers and service providers ensure that consumers with disabilities are included in product research projects, focus groups, and product trials, where applicable, to further enhance the accessibility and usability of a product, if readily achievable.⁸⁷ Consumers with disabilities, even if they can access the functionalities of a specific product, may still face significant barriers in the use of telecommunications equipment and services. We believe that Congress, through its inclusion of the words "usable by," intended that consumers with disabilities should be able to use telecommunications equipment and services on terms equal to those of any other customer, and that participation in the activities described above is an important step towards reaching this goal.

30. We also conclude, consistent with the Access Board guidelines and the statutory definition of CPE, that specialized CPE, such as direct-connect TTYs,⁸⁸ are considered a subset of CPE. The statute's requirement that manufacturers and service providers ensure compatibility with CPE which has a specialized use does not change the fact that this equipment still meets the definition of CPE as discussed *infra* in paragraphs 80 *et. seq.* We define specialized CPE as CPE

⁴ Trace comments at 5, 14.

⁵ Trace comments at 5-6.

⁶ *See, e.g.*, AccLiv comments at 2; ACB comments at 3; NAD comments at 5-6; SHHH comments at 10; California PUC comments at 7-8; PUC comments at 2-3.

⁷ *See* Appendix B, sections 6.13 and 7.13. *See also* AccLiv comments at 2-3; ACB comments at 3-4 ; CPB/WGBH comments at 3-5; PUC comments at 2-3; LDA comments at 1-2; PCEPD comments at 8-9; LICIL comments at 2-3; WID comments at 2-3; CILNM comments at 1-3 ; ITC comments 1-2; SIL comments at 2-3; AFB comments at n. 4; WI-TAN comments at 2-3.

⁸ A TTY is a piece of equipment that employs interactive text-based communications through the transmission of coded signals across a standard telephone network.

which is commonly used by individuals with disabilities to achieve access.⁸⁹ Thus, manufacturers and service providers have the same obligations to ensure accessibility and usability of SCPE as they do for any other CPE.⁹⁰

4. Compatibility

31. Section 255 requires that, when it is not readily achievable to make equipment and services accessible to or usable by individuals with disabilities, the manufacturer or service provider shall ensure that the equipment or service is "compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, where readily achievable."⁹¹

32. The Access Board defines peripheral devices as [d]evices employed in connection with telecommunications equipment or customer premises equipment to translate, enhance, or otherwise transform telecommunications into a form accessible to individuals with disabilities.⁹² It further explains that "peripheral devices" refers to, for example, audio amplifiers, ring signal lights, some TTYs, refreshable Braille translators, text-to-speech synthesizers and similar devices that must be connected to a telephone or other customer premises equipment to enable an individual with a disability to originate, route, or terminate telecommunications. The Access Board also states that peripheral devices cannot perform these functions on their own.⁹³ The Access Board defines "specialized customer premises equipment" (SCPE) as [e]quipment, employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications, which is commonly used by individuals with disabilities to achieve access.⁹⁴ The Access Board guidelines categorize specialized CPE as a subset of CPE and state that manufacturers of specialized CPE should also make their products accessible to all individuals with disabilities, where readily achievable.⁹⁵ Finally, the Access Board lists five criteria for determining compatibility: (1) external access to all information and control mechanisms; (2) existence of a connection point for external audio processing devices; (3) compatibility of controls with prosthetics; (4) TTY connectability; and (5) TTY signal compatibility.⁹⁶

⁸⁹ 63 Fed. Reg. 5615-16 (1998).

⁹⁰ Of course, as the Access Board notes, "the provisions for accessibility and compatibility are required only when the feature or function is provided. For example, the requirement to provide a visual output applies only where an auditory output is provided. Thus, if a product provides auditory output for its operation, a corresponding visual output is not required." *Access Board Order*, 63 Fed. Reg. 5616 (1998).

⁹¹ 47 U.S.C. 255(d).

⁹² 36 C.F.R. 1193.3.

⁹³ *Access Board Order*, 63 Fed. Reg. 5613.

⁹⁴ *Id.*

⁹⁵ *Id.* at 5616.

⁹⁶ 36 C.F.R. 1193.51.

33. As proposed in the *NPRM*,⁹⁷ and supported by the record,⁹⁸ we will use the Access Board compatibility criteria as our starting point. We adopt four of the five criteria set forth by the Access Board as the definition of "compatibility" under section 255. We do not adopt the criterion of "compatibility of controls with prosthetic devices," which we have instead added to the definition of accessibility.⁹⁹

34. Furthermore, we agree with commenters that we should adopt the Access Board's definitions of "peripheral devices" and "specialized CPE."¹⁰⁰ As proposed in the *NPRM*,¹⁰¹ the definitions of the terms "peripheral devices" and "specialized CPE" limit the compatibility requirement to those devices that have a specific telecommunications function or are designed to be used primarily to achieve access to telecommunications. Thus, for example, equipment used in direct conjunction with CPE, such as amplifiers for persons with hearing disabilities, or screen readers for persons with visual disabilities, would be considered either peripheral devices or specialized CPE. In contrast, assistive technology devices such as hearing aids or eyeglasses, which have a broad application outside the telecommunications context, used in conjunction with peripheral equipment or specialized CPE, would not themselves be considered specialized CPE or peripheral devices under the Act.¹⁰²

35. To comply with its compatibility obligations, a manufacturer or service provider must assess whether it is readily achievable to install features or design equipment and services so that the equipment or service can meet the criteria of compatibility. We agree with NAD that compliance with these criteria must be mandatory.¹⁰³ We also agree with commenters who point out that as technology evolves, the guidelines and the definition of "compatibility" may need to be revised.¹⁰⁴ Furthermore, in recognition of the fact that these criteria were intended for equipment and CPE, we encourage service providers to consult with the disability community to identify other criteria for compatibility of services, in addition to TTY signal compatibility. Additionally, we encourage industry to develop voluntary industry-wide standards to augment the mandatory

⁷ *NPRM*, 13 FCC Rcd at 20434, 92.

³ AccLiv comments at 3; CPB/WGBH comments at 5; Illinois Deaf and Hard of Hearing Commission comments at 3; NAD comments at IH comments at 12; TDI comments at 17.

⁹ See 25-27, *supra*.

⁰ Also, as discussed in 30, *supra*, we have concluded that "specialized CPE" is a subset of CPE and thus subject to the "accessible to" requirements of the statute.

¹ *NPRM*, 13 FCC Rcd at 20433, 90.

² The Assistive Technology Act of 1998, Pub. L. 105-394, at section 3(a)(3), defines an assistive technology device as "any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional abilities of individuals with disabilities." 29 U.S.C. 3003(a)(3).

³ NAD comments at 7-8.

⁴ TDI comments at 16-17.

criteria we adopt today, because it will offer the industry flexibility in advancing the goals of compatibility in accordance with the requirements of section 255.

36. We require manufacturers and service providers to exercise due diligence to identify the types of peripheral devices and specialized CPE "commonly used" by people with disabilities with which their products and services should be made compatible, if it has not been readily achievable to make those products and services accessible. In the *NPRM*, we had proposed using the concepts of affordability and availability to help define the statutory term "commonly used" in section 255(d).¹⁰⁵ Commenters objected strongly to the use of these concepts,¹⁰⁶ however, as well as to our proposal to rely on state equipment distribution programs as a guide to determine "commonly used" equipment. Commenters argued that state equipment programs were limited by their own funding constraints or selection process and did not accurately represent the equipment preferred by consumers.¹⁰⁷ We agree. We conclude, therefore, that affordability and general market availability are insufficient, and in some cases inappropriate, criteria for determining whether a specific peripheral device or piece of specialized CPE is "commonly used" by persons with disabilities. We agree with commenters who note that peripheral devices or specialized CPE may be commonly used by members of a certain disability population, even if those devices are relatively expensive and only available through specialized outlets.¹⁰⁸ Further, we note that, when determining whether a particular device is commonly used by individuals with disabilities, a manufacturer or provider should look at the use of that device among persons with a particular disability. Contrary to some commenters' proposals, we decline to maintain a list of functions (e.g., converting text to speech) or devices to determine what equipment is "commonly used,"¹⁰⁹ because what is "commonly used" by consumers may change rapidly as technology evolves.

5. Network Features, Functions, or Capabilities

¹⁵ *NPRM*, 13 FCC Rcd at 20433, 87-90.

¹⁶ See e.g., IDHS comments at 2; Missouri Assistive Technology Council and Project comments at 3; NAD comments at 8; NCD comments at 11; UCPA comments at 8; USA comments at 12; AIM comments at 2; AFB comments at 22; Ok-ATP comments at 2; TDI reply comments at 8.

¹⁷ IDHS comments at 2; Missouri Assistive Technology Council and Project comments at 3; NCD comments at 18; TDI comments at 3; UCPA comments at 8; Trace comments at 6-7; TDI reply comments at 8. Cf. NAD comments at 8; SHHH comments at 11-12 (arguing that using state equipment distribution programs as guidelines could create a useful rebuttable presumption).

¹⁸ IDHS comments at 3; Missouri Assistive Technology Council and Project comments at 3; Motorola comments at 48; NAD comments at 11; TDI comments at 15.

¹⁹ IDHS comments at 2 (list to be posted on the FCC web site); ITI comments at 24 (supporting an informational list, but opposing a mandatory list); Missouri Assistive Technology Council and Project comments at 3; NAD comments at 9 (FCC in conjunction with the Assoc. of Accessing Specialists), SHHH at 11, TDI at 15 (after consultation with consumer groups); USA comments at 12; Ok-ATP comments at 2; ITI comments at 17 (urging the Commission keep the list in order to assure impartiality); MMTA reply comments at 10-11 (holding that unless there are standards, manufacturers should be given broad latitude in deciding what is 'commonly used'); TIA reply comments at 27-29 (preferring a list to provide notice; and by requiring compliance with industry interoperability standards and the use of standard connectors, a list could encourage a forcing approach to compatibility).

37. Section 251(a)(2) of the Act requires that telecommunications carriers not install network features, functions, or capabilities that do not comply with the guidelines or standards established pursuant to section 255. We conclude that telecommunications carriers must not install service logic and databases associated with routing telecommunications services, whether residing in hardware or software, that do not comply with the accessibility requirements of these rules. This is consistent with the definition of telecommunications equipment discussed in section D.1.b., *infra*, and our tentative conclusion in the *NPRM* that section 251(a)(2) governs network configuration.

38. This is an important provision given the role of common carriers and the realities of network architecture. Without this provision, network architecture could inhibit the use of the accessible services and equipment otherwise required by these rules. In the traditional public switched telephone network (PSTN), an ordinary call may traverse a number of switches between the calling party and the called party. Prior to the mid-1960s, the service logic necessary to route calls across the network was hardwired into switching systems.¹¹⁰ In the mid-1960s, stored program control (SPC) switching systems were introduced. This provided a somewhat more flexible environment and allowed the creation of new services.¹¹¹ These new services included Custom Calling Services such as call waiting, call forwarding, and three way calling. Even greater flexibility was provided with the deployment of common channel signaling (CCS) or signaling system number 7 (SS7) in the mid-1970s and with the subsequent development of the Intelligent Network (IN) concept.

39. The "intelligence" (*i.e.*, the service logic) of the IN is taken out of the individual switches and placed in software and associated data bases residing in computer nodes called Service Control Points (SCPs). The SCPs are distributed throughout the network. In the IN architecture, the individual switches access the software/data bases residing in the SCPs via the SS7 network. The fundamental advantage of this architecture is that the network becomes service-independent. That is, new capabilities can be rapidly introduced into the network and services can be more easily tailored to meet the requirements of individual customers. This is because the necessary changes in service logic occur in software rather than hardware and at only a limited number of locations rather than at each switch.

40. This architecture of the PSTN is the basis for widely deployed and accepted services such as the Custom Local Area Signaling services (CLASS) and 800-number and Alternative Billing Services (ABS).¹¹² It is also the basis for an expanding number of other services that change the features, functionality, and capabilities of the PSTN. By using software-based logic programmed into the network and information such as the calling and called party telephone numbers, the time-of-day, information entered by the customer placing or receiving the call, and information stored in the network, calls can be handled in a host of different ways. One simple example, a service called Area Number Calling Service, is described as follows:

¹⁰ "Intelligent Network," a tutorial sponsored by Telcordia Technologies (formerly Bellcore) available [//www.webforum.com/in/topic01.html](http://www.webforum.com/in/topic01.html).

¹¹ *Id.*

¹² Van Bosse, John G., *Signaling in Telecommunications Networks*, John Wiley & Sons, New York (1998), pp. 59-60.

This [Area Number Calling] service is useful for companies or businesses that want to advertise one telephone number but want their customer's calls routed to the nearest or most convenient business location. The SCP service logic and data (e.g., zip codes) are used to match between the calling party's telephone number and their geographic location. The call is then routed to the company or business location that is closest to or most convenient for the calling party.¹¹³

41. In the architecture just described, there may be multiple entities involved. In addition to the service providers, there are entities that supply the equipment used in the network. In terms of the network equipment, this may include (a) the manufacturer of the switching equipment including both hardware and software (including that necessary for basic call processing); (b) the manufacturer of the computer and related equipment used in the SCP; and (c) the manufacturer/supplier of the software-based service logic and databases used in the SCP. In some instances, the supplier of each of these parts may be the same entity and, at the other extremes, multiple entities may be involved. We note that the service provider may furnish its own software and databases necessary to create or maintain telecommunications services. Indeed, giving the provider the ability to create new and customized services was one of the main motivations for the migration to the service independent architecture.

42. Because service logic and databases associated with routing telecommunications services, whether residing in hardware or software, create network features, functions, and capabilities, we adopt this rule. Thus, we conclude that, in accordance with section 251(a)(2) of the Act, telecommunications carriers must not install service logic and databases (software- or hardware-based) that do not comply with the standards established pursuant to section 255. The above analysis is consistent with the definition of telecommunications equipment contained in the Act.¹¹⁴ That is, both hardware and software are included in the definition of telecommunications equipment given in the Act. Our findings are also consistent with our tentative conclusion in the *NPRM* that section 251(a)(2) governs carriers' *configuration* of their network capabilities. Stated another way, providers configure their networks through the installation of service logic and databases. As we indicated in the *NPRM*, we view section 251(a)(2) to mean that the resulting configuration "should facilitate -- not thwart -- the employment of accessibility features by end users."¹¹⁵

C. READILY ACHIEVABLE

1. Definition of "Readily Achievable"

43. Section 255(b) and (c) require manufacturers of telecommunications equipment or

¹³ "Intelligent Network," a tutorial sponsored by Telcordia Technologies (formerly Bellcore) available [//www.webforum.com/in/topic10.html](http://www.webforum.com/in/topic10.html) (downloaded June 20, 1999).

¹⁴ 47 U.S.C. 153 (45)

¹⁵ *NPRM*, 13 FCC Rcd at 20422-23, 63.

customer premises equipment and providers of telecommunications service to design the equipment or service to be accessible to and usable by individuals with disabilities, if "readily achievable."¹¹⁶ If the requirements of subsections (b) and (c) are not readily achievable, the manufacturer or service provider must ensure that the equipment or service is compatible with existing peripheral devices or specialized CPE commonly used by people with disabilities to achieve access, if "readily achievable."¹¹⁷

44. Under section 255, the term "readily achievable" has the meaning given to it in section 301(9) of the ADA.¹¹⁸ The ADA provides:

The term "readily achievable" means easily accomplishable and able to be carried out without much difficulty or expense. In determining whether an action is readily achievable, factors to be considered include --

- (A) the nature and cost of the action needed under [the ADA];
- (B) the overall financial resources of the facility or facilities involved in the action; the number of persons employed at such facility; the effect on expenses and resources, or the impact otherwise of such action upon the operation of the facility;
- (C) the overall financial resources of the covered entity; the overall size of the business of a covered entity with respect to the number of its employees; the number, type, and location of its facilities; and
- (D) the type of operation or operations of the covered entity, including the composition, structure, and functions of the workforce of such entity; the geographic separateness, administrative or fiscal relationship of the facility or facilities in question to the covered entity.¹¹⁹

45. Title III of the ADA, where the term "readily achievable" is found, requires places of public accommodation to "remove architectural barriers, and communication barriers that are structural in nature, in existing facilities, and transportation barriers in existing vehicles and rail passenger cars used by an establishment for transporting individuals . . . where such removal is readily achievable."¹²⁰ Title III also requires an entity that "can demonstrate that the removal of a barrier . . . is not readily achievable," to "make such goods, services, facilities, privileges, advantages, or accommodations available through alternative methods if such methods are readily

¹⁶ 47 U.S.C. 255(b), (c).

¹⁷ 47 U.S.C. 255(d).

¹⁸ 47 U.S.C. 255(a)(2).

¹⁹ 42 U.S.C. 12181(9).

²⁰ 42 U.S.C. 12182(b)(2)(A)(iv).

achievable."¹²¹

46. The United States Department of Justice (DOJ), which is responsible for implementation and enforcement of Titles II and III of the ADA, adopted the ADA's definition of "readily achievable" in its rules, with some modifications.¹²² Specifically, the DOJ reordered the factors, replaced the term "covered entity" with "parent entity," and added the term "if applicable" to the beginning of the third and fourth factors.¹²³ While the DOJ preserved all four statutory factors in its regulation, it also added a factor allowing "legitimate safety requirements, including crime prevention measures" to be considered.¹²⁴ The DOJ provided a non-exhaustive list of sample actions that a public accommodation could take to fulfill its obligation, if readily achievable, to remove barriers, such as installing ramps, making curb cuts, installing flashing alarm lights, and widening doors.¹²⁵ The DOJ also developed a "priority list" in its regulation, urging public accommodations to take "readily achievable" actions to remove barriers in accordance with those priorities.¹²⁶

47. We adopt the ADA's definition of "readily achievable." We agree with the DOJ that this definition is intended to ensure that a "wide range of factors be considered in determining whether an action is readily achievable."¹²⁷ Under ADA precedent, a flexible, case-by-case analysis is

²¹ 42 U.S.C. 12182(b)(2)(A)(v).

²² The definition of "readily achievable," as adopted by the DOJ at 28 C.F.R. 36.104, states:

lily achievable means easily accomplishable and able to be carried out without much difficulty or expense. In determining whether an action is readily achievable, the following factors, if applicable, shall be considered include--

The nature and cost of the action needed under this part;

The overall financial resources of the site or sites involved in the action; the number of persons employed at the site; the effect on expenses and resources; legitimate safety requirements that are necessary for safe operation, including crime prevention measures; or the impact otherwise of the action upon the operation of the site;

The geographic separateness, and the administrative or fiscal relationship of the site or sites in question to any parent corporation or entity;

If applicable, the overall financial resources of any parent corporation or entity; the overall size of the parent corporation or entity with respect to the number of its employees; the number, type, and location of its facilities; and

If applicable, the type of operation or operations of any parent corporation or entity, including the composition, structure, and functions of the workforce of the parent corporation or entity.

²³ See 28 C.F.R. Part 36, App. B at p. 43. The DOJ noted that its inclusion of "parent entity" was consistent with the House Judiciary Committee's description of the larger entity of which the local facility is a part. *Id.*, citing H.R. Rep. No. 485, 101st Cong., 2d Sess., Pt. 3 at 40-45 (1990). The DOJ also noted that its re-ordering of the factors and the addition of the term "if applicable" was intended to make clear that the inquiry concerning factors will start at the site involved in the action itself. *Id.*

²⁴ *Id.* We note that the propriety of considering legitimate safety requirements has been recognized in case law arising under the Rehabilitation Act of 1973. See *School Board of Nassau County v. Arline*, 480 U.S. 273 (1987).

²⁵ 28 C.F.R. 36.304(b).

²⁶ 28 C.F.R. 36.304(c).

²⁷ See 28 C.F.R. Part 36, App. B at page 42.

employed in determining whether removal of barriers is "readily achievable." We agree with commenters that individual facts and circumstances will vary, and that what is readily achievable must be determined on a case-by-case basis.¹²⁸ Our goal, therefore, is to set forth an analytical framework that will provide guidance to manufacturers and service providers as they take the steps needed to make their products and services accessible to people with disabilities.

48. The primary focus of a "readily achievable" analysis should be upon three general considerations delineated in the ADA definition, namely (1) the cost of the action; (2) the nature of the action; and (3) the overall resources available to the entity, including resources made available to the entity by a parent corporation, if applicable, depending on the type of operation and the relationship between the two entities.¹²⁹ We decline to include consideration of feasibility, expense, and practicality, as proposed in our *NPRM*.¹³⁰ After reviewing the record, we are persuaded that "readily achievable" determinations should track more closely the ADA definition that is incorporated in section 255. In our rule, we have modified the definition so that it more closely correlates with the terms used in section 255. For example, we have replaced the word "facility" throughout the definition with the terms "manufacturer" and "service provider," as appropriate. We also have inserted the terms "if applicable" before the third and fourth prongs of the definition. We believe that these modifications will provide clearer guidance to entities covered by section 255 with respect to the application of "readily achievable."¹³¹ If our experience enforcing this statute persuades us that including some other considerations may prove beneficial, we will, at a later time, consider including them.¹³² Furthermore, we agree with those parties who have argued that, in interpreting section 255, we should look to the "substantial body of judicial decisions interpreting and applying" the terms of the ADA, including the phrase

²⁸ Bell Atlantic comments at 5; CEMA comments at 5; PCIA reply comments at 7.

²⁹ See 42 U.S.C. 12181(9).

³⁰ *NPRM*, 13 FCC Rcd at 20437-40, 100-106.

³¹ See Appendix B, sections 6.3 and 7.3 for text of the final rule.

³² Commenters expressed various views as to which factors appropriately could be considered in determining what is readily achievable. For example, many from the disability community expressed the view that market factors or cost recovery should not enter into a readily achievable analysis. See, e.g., Access Living of Metropolitan Chicago comments at 4; ACB comments at 4; Access Board comments at 4-5; Blackseth comments at 1; Center for Independent Living comments at 1; Center for Disability Rights comments at 2; CEMA comments at 10; CPB/WGBH comments at 2; Geeslin comments at 1; Illinois Deaf and Hard of Hearing Commission comments at 4, NAD comments at 21 and 32; NAD comments at 21; President's Committee on Employment of People with Disabilities comments at 13; Rank comments at 1; CILNM comments at 5-6. Other commenters encouraged the Commission to modify the factors to take into account the differences between architectural and transportation barrier removal, on the one hand, and the telecommunications industry, on the other hand. See, e.g., American Council on the Blind comments at 8; AT&T comments at 8; Bell South comments at 8-9; ITI comments at 31-32; Missouri Assistive Technology Council and Project comments at 4 (however, objecting to market considerations as not allowed under ADA); Motorola comments at 24-31; MMTA comments at 10; NAD comments at 12 (compliance with universal design policy may not be measured by readily achievable analysis of a finite list of features); see also comments at 6; TDI comments at 16; USA comments at 7-8; Vickery comments at 8; Wi-Tan comments at 4; WID comments at 5; Call comments at 8 (start with the ADA but add other factors); Oklahoma Assistive Technology Project comments at 3. Finally, some commenters thought a determination of what is readily achievable is so fact-specific that no list of factors adequately would address the complexity of issues that can arise in individual cases. See, e.g., Bell Atlantic comments at 5; CCIA comments at 1-2.

"readily achievable."¹³³

2. Application of Readily Achievable

a. In General

49. In implementing the requirements of section 255, we decline to adopt a "product line" framework proposed primarily by manufacturers of equipment.¹³⁴ Under this approach, a manufacturer or service provider would not need to conduct a "readily achievable" analysis for each produce or service, but instead would ensure that select products within its product lines are accessible to persons with disabilities. We conclude that section 255, by its terms, applies to the design and production of individual products and service offered by a manufacturer or service provider. Section 255(b) states that a manufacturer shall ensure that the equipment is designed, developed and fabricated to be accessible to individuals with disabilities, if readily achievable.¹³⁵ Likewise, section 255(c) directs providers of telecommunications service to ensure that the service be accessible, if readily achievable.¹³⁶ This language strongly suggests that Congress intended to make these accessibility requirements applicable to each piece of equipment and to each service, and not more generally to product lines.

50. Equally important, we believe that our interpretation of the statutory language best realizes what we consider to be two primary goals of section 255. First, the statute ensures that consumers with disabilities have access to the telecommunications products and services that are available in the general market. Thus, we concur with the comments submitted by consumers with disabilities, who oppose a product line framework because it would not permit them to utilize anything but "specialized" products.¹³⁷ Second, section 255 brings universal design and access engineering principles to the telecommunications industry, similar to developments in the architectural and transportation industries that have resulted from the ADA and Architectural Barriers Act.¹³⁸ We view section 255 as a statute designed to change the *status quo* by requiring manufacturers and service providers to consider products and services for persons with disabilities not as a specialized field, but as part of the general market. Adoption of a product line approach would fail to ensure accessibility of all products and services, wherever it is readily achievable.

³³ Air Touch comments at 4-5. *See also* NAD comments at 21.

³⁴ *See, e.g.*, Motorola comments at 6-24; CEMA comments at 8-10; TIA comments at 9-18; Lucent comments at 5, 8-10.

³⁵ 47 U.S.C. 255(b).

³⁶ 47 U.S.C. 255(c).

³⁷ AccLiv comments at 3; ACB comments at 3.

³⁸ Architectural Barriers Act of 1968, 42 U.S.C. 4151 *et. seq.* *See also* PL 105-394, section 3(a)(17), November 13, 1998 (Assistive Techno of 1998), which defines "universal design" as "a concept or philosophy for designing products and services that are usable by people with st possible range of functional capabilities, which include products and services that are directly usable (without requiring assistive technolog products and services that are made usable with assistive technologies." 29 U.S.C. 3003(a)(17).

51. We recognize that there are accessibility features that can be incorporated into the design of products with very little or no difficulty or expense.¹³⁹ These features must be deployed universally. We will not identify specific features that fall into this category, because it necessarily varies given the individual circumstances. Manufacturers and service providers must make their own determinations based on the factors in the readily achievable definition. Thus, manufacturers and service providers cannot decline to incorporate modest features that will enhance accessibility simply because some other product or service with the feature may be available. We expect that, over time, more and more features will be incorporated into all products in this manner, and that features that today may not be readily achievable soon will become routine and universally adopted.

52. With respect to those features or actions that are not readily achievable to be deployed universally, but are readily achievable to be incorporated into some products and services, manufacturers and service providers have the flexibility to distribute those features across product or service lines as long as they do all that is readily achievable. In addition, we expressly encourage manufacturers and service providers to work closely with the disability community to ensure that under-represented disability groups, and multiple disabilities (such as deaf-blindness), are not ignored.

53. Finally, in those instances where accessibility under subsections (b) or (c) of section 255 is not readily achievable, service providers and manufacturers are required to comply with subsection (d), which states that they must ensure that their equipment or services are compatible with existing specialized CPE or peripheral devices commonly used by persons with disabilities to achieve access, if readily achievable.

54. We believe this framework will provide manufacturers and service providers a viable means for compliance with section 255, while promoting accessibility to the maximum extent possible. We expect that different companies, faced with their unique circumstances, may well come to different conclusions about deployment of accessibility features. We believe that is a desirable outcome that will maximize the range and depth of accessible products and services available to customers and will capitalize on the positive forces of competition.

b. Cost of the Action Needed

55. In determining whether an action is "readily achievable," one consideration is the "cost" of the action.¹⁴⁰ In the *NPRM*, we asked a number of questions regarding how to determine cost.¹⁴¹ After consideration of the record, we conclude that "cost," for purposes of the "readily achievable" evaluation, is the incremental amount that a manufacturer or service provider expends to design, develop, or fabricate a product or service to ensure that it is accessible. We recognize

³⁹ For some examples of accessible design features, see *EZ Access Strategies for Cross-Disability Access to Kiosks, Telephones and V* available at the Trace web site (<http://www.trace.wisc.edu>).

⁴⁰ 42 U.S.C. 12181(9)(A).

⁴¹ *NPRM*, 13 FCC Rcd at 20441-47, 111-121.

that it may be difficult at times for a manufacturer or service provider to identify the incremental cost of making its products or services accessible. For the sake of simplicity, however, this analysis should begin by calculating, to the extent possible, the incremental cost of facilities, plant, labor, software, hardware or other concrete actions necessary to design the product or service to enhance or provide accessibility. For example, a manufacturer of wireless handsets might calculate the cost of designing and installing a nub on the "5" key of a phone's keypad that would provide a tactile cue for persons with vision disabilities. The incremental cost of adding keypads with a nub would be the total cost of producing the phone with keypads with a nub, less the total cost of producing the phone without keypads with a nub.

56. Although we tentatively concluded in the *NPRM* that it would be appropriate to consider net costs, taking into account such factors as the potential for recovery of expenses from consumers through increased sales or higher product prices, we now reject that approach for several reasons.¹⁴² We believe that an assessment of market factors, such as the ability of a service provider or manufacturer to recover its costs through price changes, would involve speculation. Moreover, not considering market factors is consistent with ADA precedent, and we are not convinced that there are any factors specific to telecommunications that compel us to adopt an interpretation of costs different from that under the ADA. Indeed, the Access Board has argued that because "readily achievable" is a term rooted in the ADA, we should not stray from the well-established interpretation given to "costs" under prior disability rights statutes, particularly when it could have adverse consequences for the disability community.¹⁴³ We also are persuaded that introducing cost recovery or market considerations into the meaning of "cost" could defeat one of the primary purposes of section 255 -- enhancing access to telecommunications equipment and service for a population whose needs have not been addressed by the market alone.¹⁴⁴ For all these reasons, we conclude that "costs" means incremental costs to design, develop or fabricate accessible products or services.

57. While we have concluded that we will not consider market factors in determining what is readily achievable, we do not rule out the ability of manufacturers and service providers to take these market factors into account when making the decisions discussed in section C.2., *supra*, regarding deployment of more significant readily achievable accessibility features throughout its products.

58. We will permit manufacturers and service providers to consider the cost of disability access actions for a product or service in conjunction with the cost of other actions taken by them to comply with these rules during a fiscal period, as proposed by a number of commenters.¹⁴⁵

¹² *Id.*

¹³ Access Board comments at 4.

¹⁴ See Blackseth comments at 1; Geeslin comments at 1; Ireland comments at 11; Kailes comments at 2; LDA comments at 2; Missouri Ass'n of the Deaf comments at 4; Sergeant comments at 2; USA comments at 10; Wilson comments at 1; Meecham comments at 1.

¹⁵ See, e.g., Motorola comments at 37.

This is consistent with the DOJ's approach in its ADA regulation.¹⁴⁶ We agree with DOJ and various commenters that, in some circumstances, it may be appropriate to consider the cost of other accessibility actions as a factor in determining whether a measure is readily achievable. Therefore, manufacturers and service providers may take into account the cumulative cost¹⁴⁷ of all accessibility actions over a specific fiscal period in determining whether an action is "readily achievable." We underscore, however, that "cumulative costs" cannot be the only factor used by a manufacturer or service provider to determine whether a measure is "readily achievable." In particular, the ability to take into account cumulative costs shall not permit a manufacturer or service provider to predetermine caps or quotas on its total spending for section 255 compliance for a given fiscal period. The fact that a manufacturer or service provider already may have spent a certain amount of resources to install an accessibility feature in one product does not terminate its obligation to determine whether it is readily achievable also to install the feature into other products. In short, cumulative access expenditures is simply one factor that can be taken into account in case-by-case determinations.

59. We anticipate that, for some accessibility features, the cumulative cost of including a feature in all products may be well within the bounds of what is readily achievable. Cumulative costs may become a limiting factor, however, when the cost of a certain feature is more significant but still readily achievable, or the manufacturer already has expended considerable resources in installing the same or other features in other products. The "readily achievable" evaluation always must be made in light of the overall resources available to the manufacturer or service provider. Where a particular accessibility measure is not "readily achievable," a manufacturer or service provider then must consider other alternative, readily-achievable measures to make products accessible.

60. Finally, a number of commenters have suggested that the impact of adding an accessibility feature on the timing of a product or service rollout should be taken into consideration during "readily achievable" assessments.¹⁴⁸ A manufacturer or service provider may consider whether inclusion of an accessibility feature significantly will delay production or release of a product, and therefore increase production costs, provided that the manufacturer or service provider demonstrates that it did in fact consider accessibility at the design stage.¹⁴⁹ Of course, the mere fact that inclusion of a feature will add time and cost to production will not, alone, render the measure not readily achievable.

c. Nature of the Action Needed

61. Another consideration in the "readily achievable" analysis is the nature of the action

¹⁴⁶ See 28 C.F.R. Part 36, App. B at page 45.

¹⁴⁷ The term "cumulative cost" would include both the incremental cost of the accessibility feature for the specific product or service and the cost of the entity's section 255 compliance efforts during the same fiscal period.

¹⁴⁸ See, e.g., Phillips comments at 7; Lucent comments at 5; CEMA comments at 14.

¹⁴⁹ See letter of Karen Peltz Strauss, NAD, et al. to Magalie Roman Salas, FCC, dated January 20, 1999 (NAD Ex Parte) at 6.

needed to make equipment or service accessible to persons with disabilities. The Access Board stated in the advisory appendix to its guidelines that "the nature of the action or solution involves how easy it is to accomplish, including the availability of technology or expertise, and the ability to incorporate the solution into the production process."¹⁵⁰ While commenters generally have not framed their comments in terms of "nature of the action," many address the concepts of "fundamental alterations" and "technical feasibility," which we believe fall within the ambit of "nature of the action."

62. The Access Board found that the "fundamental alteration" concept derives from the "undue burden" test under the ADA and, since "undue burden" is a higher standard than "readily achievable," that the concept of fundamental alteration is implicit in the readily achievable analysis.¹⁵¹ Since a covered entity must, hypothetically, demonstrate a much more onerous burden in order to be relieved of any obligations under the "undue burden" standard of the ADA, it follows that any actions that constitute an undue burden, including fundamental alterations, are also not "readily achievable." We agree, and therefore believe that a manufacturer or service provider is not required to install an accessibility feature if it can demonstrate that the feature fundamentally would alter the product. Specifically, we agree with several commenters that manufacturers and service providers are not required to incorporate accessibility features within a product that fundamentally alters the product in such a way as to reduce substantially the functionality of the product, to render some features inoperable, to impede substantially or deter use of the product by individuals without the specific disability the feature is designed to address, or to alter substantially and materially the shape, size or weight of the product.¹⁵² We caution parties that the "fundamental alteration" doctrine is a high standard and that the burden of proof rests with the party claiming the defense.¹⁵³ In this connection, we note that all accessibility enhancements in one sense require an alteration to the design of a product or service. In order to be a fundamental alteration, however, the feature must alter the product substantially or materially.

63. In the *NPRM*, we tentatively concluded that technical infeasibility should be one factor in determining whether an accessibility feature is readily achievable. We now conclude that, when assessing the "nature of the action" in a readily achievable analysis, manufacturers and service providers are not required to incorporate accessibility features that are technically infeasible, subject to several limitations. As an initial matter, while technical infeasibility is a consideration, we agree with commenters that it does not exist merely because a particular feature has not yet been implemented by any other manufacturer or service provider.¹⁵⁴ We also caution that technical infeasibility should not be confused with cost factors. In other words, a particular

⁵⁰ *Access Board Order* at 63 Fed. Reg. 5633 (1998).

⁵¹ *Access Board Order* at 63 Fed. Reg. 5614 (1998).

⁵² TIA comments at 49-50; SHHH reply comments at 3; TDI reply comments at 13; TIA reply comments at 4.

⁵³ *See generally Southeastern Community College v. Davis*, 442 U.S. 397 (1979); *Alexander v. Choate* 469 U.S. 287 (1985).

⁵⁴ *See, e.g.*, SHHH comments at 14.

feature cannot be characterized as technically infeasible simply because it would be costly to implement.

64. We agree with several commenters, however, that in some rare instances, "technical infeasibility" may result from legal or regulatory constraints.¹⁵⁵ We also agree with several commenters that technical infeasibility encompasses not only a product's technological limitations, but also its physical limitations. We note, however, that manufacturers and service providers should not make conclusions about technical infeasibility within the "four corners" of a product's current design.¹⁵⁶ Section 255 requires a manufacturer or service provider to consider physical modifications or alterations to the existing design of a product. Finally, we agree with commenters that manufacturers and service providers cannot make bald assertions of technical infeasibility. Any engineering or legal conclusions that implementation of a feature is technically infeasible should be substantiated by empirical evidence or documentation.¹⁵⁷

d. Resources of the Covered Entity

65. Once the cost and nature of the action needed have been determined, it is necessary to ascertain the overall resources of the manufacturer or service provider. We conclude that we should follow the two-step analysis of a covered entity's resources set forth by the DOJ in its ADA regulation.¹⁵⁸ Accordingly, the resources of the "covered entity" (*i.e.*, the manufacturer or service provider) first are examined.¹⁵⁹ The resources of any parent corporation or comparable entity with a legal relationship with the manufacturer or service provider would be examined and taken into account, unless the covered entity or parent can demonstrate why any legal or other constraints prevent the parent's resources from being available to the covered entity.¹⁶⁰

66. Commenters disagreed as to whether the resources of a parent or other entity should ever be included in the evaluation of the "overall financial resources of the covered entity." Although this phrase from the ADA definition may be susceptible to different interpretations, we conclude

¹⁵⁵ BellSouth comments at 9. For example, standards under Part 68 of our rules designed to prevent harm to the network may render a proposed feature infeasible, if the proposed feature would need to exceed Part 68 signal strength limitations. *See also* CTIA comments at 7 (indicating that certain conditions for wireline services may affect feasibility).

¹⁵⁶ AFB comments at 23.

¹⁵⁷ AFB comments at 24; Bell South comments at 9; Campaign for Telecommunications Access comments at 14; CTIA comments at 7-8; NCD comments at 4, 21-22; NCD comments at 24; Nortel comments at 8; SHHH comments at 14 (asserting that it is not sufficient to demonstrate that a feature is not feasible); UCPA comments at 11.

¹⁵⁸ *See* 28 C.F.R. Part 36, App. B at page 43.

¹⁵⁹ *See* 28 C.F.R. Part 36, App B at p. 44: ". . . the line of inquiry concerning factors will start at the site involved in the action itself . . . all resources, size, and operations of the parent corporation or entity should be considered to the extent appropriate in light of the geographical location, and the administrative or fiscal relationship of the site or sites in question to any parent corporation or entity."

¹⁶⁰ In this regard, the geographical separateness and the administrative or fiscal relationship of the entities would be considered. *See, e.g.*, comments at 11-12; Bell Atlantic comments at 6-7.

that the better construction of the statute is that, for purposes of the readily achievable analysis, the covered entity must take into account any and all financial resources available to it, including resources from third parties. We believe this interpretation is consistent with the text of the statute, as well as the purposes of section 255. The ADA definition speaks broadly about the covered entity's "overall financial resources" without limiting those resources to those derived from the entity's own product sales or investment revenues. The statute's broad phrasing thus supports our conclusion that all available resources should be included, regardless of their source. Where a covered entity benefits from resources of either an affiliated entity, or a third party with whom it has some legally binding relationship, it would be anomalous to determine that those resources should be expressly excluded in determining whether an action is readily achievable within the meaning of section 255. We do not believe that Congress intended to pretend that such resources do not exist. Significantly, our reading is consistent with the DOJ definition of readily achievable, which substitutes the term "parent entity" for covered entity when referring to the resources that should be examined.¹⁶¹

67. In reaching our conclusion, we reject Lucent's argument that "inclusion of corporate resources does not yield competitively neutral outcomes."¹⁶² Just the contrary is true. If we were to narrowly circumscribe our assessment of resources by ignoring the fact that some covered entities may have resources available to them from a third party, our readily achievable assessment would not be competitively neutral. Rather, those companies that are benefiting from external resources shielded from readily achievable assessments would have an unfair advantage over companies that do not have access to such resources. We do not believe that Congress intended such a result. Moreover, if we ignored financial resources from third parties, then companies would have an incentive to spin off their operations into smaller subsidiaries in order to lessen the impact of section 255. We decline to adopt an interpretation that could needlessly undermine the statute in that manner.

68. We conclude that in evaluating its "overall resources", the covered entity must take into account financial resources of any kind that may be available from a third party. This would include any capital or other financial assets, recourse to guarantees that may be used for the covered entity's debt financing or to otherwise assist its business, resources in the form of labor or services, or any other items that would affect the "overall financial resources" available to the manufacturer or service provider. Resources of another entity shall be taken into account regardless of whether that other entity is a telecommunications manufacturer or service provider.

69. In some cases, consideration of the resources of another entity may not be applicable because of the nature of the legal relationship between the parties, or because no resources in fact are available to the manufacturer or service provider from the outside entity. For example, as Bell Atlantic notes, our affiliate transaction rules or similar state requirements may limit the ability of an affiliate providing non-regulated services to draw upon the resources of its regulated parent.¹⁶³

¹⁶¹ See 28 C.F.R. Part 36, App. B. at p. 43.

¹⁶² Lucent Comments at 9.

¹⁶³ Bell Atlantic comments at 7; CEMA reply comments at 4-5; USTA reply comments at 12.

70. In the *NPRM*, we proposed establishing a "rebuttable presumption" that reasonably-available resources are those of the covered entity legally responsible for the equipment or service that is subject to the requirements of section 255.¹⁶⁴ Commenters were divided on the merits of this proposal.¹⁶⁵ After reviewing the record, we have concluded that the better approach is to evaluate the resources of any parent company, or comparable entity with legal obligations to the covered entity, but permit any covered entity (or parent company) to demonstrate why legal or other constraints prevent those resources from being available to the covered entity. We note that the evidence required to make such a showing resides with the covered entity and its parent, and thus it is reasonable to put the burden on the covered entity, or parent, to show why such resources are not available. A deficiency with the presumption proposed in the *NPRM* is that it may have had the unintended effect of putting the burden on the consumer to prove that a parent's resources were available to the subsidiary, a burden that would be difficult for any consumer to satisfy because relevant evidence would be almost exclusively in the possession of the parent or covered entity.

3. Timing of Readily Achievable Assessments

71. The readily achievable obligation imposed by section 255 is both prospective and continuing.¹⁶⁶ While it is appropriate to consider the time needed to incorporate accessibility solutions into new and upgraded products, technological advances that present opportunities for readily achievable accessibility enhancements can occur at any time in a product cycle.¹⁶⁷ A manufacturer's or service provider's obligation to review the accessibility of a product or service, and add accessibility features where readily achievable, is not limited to the initial design stage of a product. We conclude that manufacturers and service providers, at a minimum, must assess whether it is readily achievable to install any accessibility features in a specific product whenever a natural opportunity to review the design of a service or product arises. If it is readily achievable to include an accessibility feature during one of these natural opportunities, the manufacturer or service provider must install the feature. Natural opportunities could include, for example, the redesign of a product model, upgrades of services, significant rebundling or unbundling of product and service packages, or any other modifications to a product or service that require the manufacturer or service provider to substantially re-design the product or service.

72. Cosmetic changes to a product or service may not trigger a manufacturer's reassessment

⁵⁴ *NPRM*, 13 FCC Rcd at 20440-41, 109.

⁵⁵ NAD comments at 24; SHHH comments at 14; Lighthouse comments at 3; TDI comments at 18-19; COR reply comments at 9; NCD comments at 5; GTE comments at 9; SBC comments at 11 (supporting proposal). *Cf.* USA comments at 11; USA reply comments at 12; comments at 50-51; ITI comments at 28; ITI reply comments at 21 (objecting to proposal).

⁵⁶ *Cf.* 28 C.F.R. Part 36, App. B at p. 44: "The obligation to engage in readily achievable barrier removal is a continuing one. Over time, a barrier that initially was not readily achievable may later be required because of changed circumstances."

⁵⁷ By a product "cycle," we generally mean the life of the product from the time the product is first designed to the time it is distributed to consumers, and we do not intend to include the expected life of the product, once purchased by the consumer, as within the product "cycle."

of a product's accessibility.¹⁶⁸ Thus, simply changing the color, make, model name or designation of a product, or the marketing materials associated with the product, without changing the product's actual design, usually will be considered a "cosmetic" change. In such instances, however, manufacturers or service providers also should ensure that any new documentation or manuals included with the product are accessible to and usable by people with disabilities, if readily achievable. We also note that, at times, the "rebundling" of a CPE or service package may amount to a cosmetic change, if the rebundling is very short-lived (*e.g.*, as part of a promotional campaign) and does not impact the operation, or interoperability, of the individual components of the bundle.

73. Finally, we emphasize that section 255 does not require manufacturers of equipment to recall or retrofit equipment already in their inventories or in the field. The mere fact that a product or service has left the "drawing board", however, does not terminate the manufacturer or service provider's section 255 obligations with respect to that product or service.

4. Documentation of Readily Achievable Assessments

74. We believe that the framework for readily achievable assessments we have outlined in this Order will ensure that the broadest range of products will become accessible to the broadest number of users. Over time, design principles and features that were considered "significant" may become modest due to technological advances and the maturing of the access engineering field. We anticipate, furthermore, that manufacturers and service providers will recognize that making modest alterations to products will not require intensive and cumbersome accessibility design reviews.¹⁶⁹ As proposed in the *NPRM*, we conclude that we should not at this time delineate specific documentation requirements for "readily achievable" analyses. We fully expect, however, that manufacturers and service providers, in the ordinary course of business, will maintain records of their accessibility efforts that can be presented to the Commission to demonstrate compliance with section 255 in the event consumers with disabilities file complaints.

D. SERVICES AND EQUIPMENT COVERED BY THE RULES

75. Section 255 applies to any "manufacturer of telecommunications equipment or customer premises equipment" and to any "provider of telecommunications service."¹⁷⁰ As discussed below, we conclude that, in so far as these phrases are broadly grounded in the Communications Act, our sole task here is to explain their application in the context of section 255. We will, however, as explained below, assert our ancillary jurisdiction to cover two non-telecommunications services.

1. Telecommunications and Telecommunications Service

⁵⁸ We caution, however, that some "cosmetic" changes, such as changes to the font or characters printed on a product, could have an adverse impact on accessibility.

⁵⁹ See NAD Ex Parte in WTB Docket 96-198 at 4.

⁷⁰ 47 U.S.C. 255.

76. Section 255(c) requires that any "provider of telecommunications service shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable." Section 3 of the Act defines "telecommunications" as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."¹⁷¹ It defines "telecommunications service" as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used."¹⁷²

77. We adopt our tentative conclusion in the *NPRM* that the phrases "telecommunications" and "telecommunications services" have the general meanings set forth in the Act.¹⁷³ Many commenters supported this conclusion.¹⁷⁴ Telecommunications services, however, does include services previously classified as adjunct-to-basic. Adjunct-to-basic services are services which literally meet the definition of enhanced services, now called information services, established under the Commission's rules,¹⁷⁵ but which the Commission has determined facilitate the completion of calls through utilization of basic telephone service facilities and are included in the term "telecommunications services."¹⁷⁶ Adjunct-to-basic services include such services as call waiting, speed dialing, call forwarding, computer-provided directory assistance, call monitoring, caller identification, call tracing, and repeat dialing.¹⁷⁷

78. We decline to expand the meaning of "telecommunications services" to include information services for purposes of section 255, as urged by some commenters.¹⁷⁸ In the *NPRM*, we recognized that under our interpretation of these terms, some important and widely used services, such as voicemail and electronic mail, would fall outside the scope of section 255 because they are considered information services.¹⁷⁹ We conclude, however, that we may not

⁷¹ 47 U.S.C. 153(43).

⁷² 47 U.S.C. 53(46).

⁷³ *NPRM*, 13 FCC Rcd at 20409-10, 36.

⁷⁴ *See, e.g.* Bell Atlantic comments at 4; GTE comments at 4; ITI comments at 8; SBC comments at 3; Microsoft reply comments at 4.

⁷⁵ *See Non-Accounting Safeguards Order*, 11 FCC Rcd at 21958.

⁷⁶ *See North American Telecommunications Association Petition for Declaratory Ruling under Section 64.702 of the Commission's Ruling on the Integration of Centrex, Enhanced Services, and Customer Premises Equipment*, ENF No. 84-2, Memorandum Opinion and Order, 1 FCC Rcd 349 (1985) (*NATA Centrex Order*), *recon.*, 3 FCC Rcd 4385 (1988).

⁷⁷ *NATA Centrex Order*, 101 FCC 2d at 359-61.

⁷⁸ *See, e.g.* Blackseth comments at 1; IDHS comments at 2; Kailes comments at 3; PCPED comments at 11; USA comments at 8. Commenters urged the inclusion of certain enumerated information services in the definition of "telecommunications services." *See, e.g.* Diebold comments at 1; Ireland comments at 2; Lapointe comments at 2-3; TDI comments at 8; WI-TAN comments at 4.

⁷⁹ *NPRM*, 13 FCC Rcd at 20413, 42.

reinterpret the definition of telecommunications services, either for purposes of section 255 only or for all Title II regulation. First, we emphasize that the term "information services" is defined separately in the Act.¹⁸⁰ As we noted in the *NPRM*, there was no indication in the legislative history of the 1996 Act that Congress intended these terms to have any different, specialized meaning for purposes of accessibility.¹⁸¹

79. Furthermore, in a Report to Congress that was released subsequent to the *NPRM*,¹⁸² we reiterated the distinction between information services and telecommunications services. Specifically, we found that "Congress intended [that] the categories of 'telecommunications service' and 'information service' to be mutually exclusive, like the definitions of 'basic service' and 'enhanced service' developed in our *Computer II* proceeding, and the definitions of 'telecommunications' and 'information service' developed in the Modification of Final Judgment that divested the Bell Operating Companies from AT&T."¹⁸³ While we decline here to redefine the meaning of telecommunications services, either for purposes of section 255 or more broadly, we do think it is appropriate, as we discuss below, to use our ancillary jurisdiction to extend to certain non-telecommunications services accessibility obligations that mirror those under section 255 in order to effectuate Congress' intent that we make telecommunications services accessible.

a. Provider of Telecommunications Services

80. We adopt our tentative conclusion in the *NPRM* and conclude that all entities offering telecommunications services (*i.e.*, whether by sale or resale), including aggregators, should be subject to section 255. An entity that provides both telecommunications and non-telecommunications services, however, is subject to section 255 only to the extent that it provides a telecommunications service.¹⁸⁴ Commenters from both the disability community and the

³⁰ The Act defines an "information service" as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service." Sec. 47 U.S.C. 153(20). We note that information services consist of all services that the Commission previously considered to be enhanced services under the regulatory structure it had established in the 1980 *Computer II* proceeding. Amendment of Section 64.702 of the Commission's Rules and Regulations (*Computer II*), Docket No. 20828, Final Decision, 77 FCC 2d 384, 435 (1980), *recon.*, 84 FCC 2d 50 (1980), *further recon.*, 88 FCC 2d 100 (1981), *aff'd sub nom.* Computer and Communications Industry Ass'n v. FCC, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983). Enhanced services are defined in section 64.702(a) of the Commission's rules as "services, offered over common carrier transmission facilities used for interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with the information," and include, among other things, such services as voice mail, electronic mail, facsimile store-and-forward, interactive voice response, protocol processing, gateway, and audiotext information services.

³¹ *NPRM*, 13 FCC Rcd at 20409, 35.

³² In re Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501 (1998) (*Report to Congress*).

³³ *Report to Congress*, 13 FCC Rcd at 11507, 13.

³⁴ *NPRM*, 13 FCC Rcd at 20414-15, 44-45.

industry broadly supported both of these *NPRM* proposals.¹⁸⁵ We find that, with respect to section 255, Congress intended to use the term "provider" broadly, to include all entities that make telecommunications services available. Our interpretation of "provider of telecommunications service" is grounded in the Act's own definitions. For example, section 3(44) states that a "telecommunications carrier" means any "provider of telecommunications services" with the exception of aggregators, thus indicating that a "provider of telecommunications services" would otherwise include aggregators.¹⁸⁶ Furthermore, our limitation on the scope of section 255 to cover an entity only to the extent that it provides telecommunications service comports with an analogous limitation in section 3(44), which expressly provides that a telecommunications carrier "shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services."¹⁸⁷

b. Telecommunications Equipment and Customer Premises Equipment

81. The Act defines "telecommunications equipment" as "equipment, other than customer premises equipment, used by a carrier to provide telecommunications services, and includes software integral to such equipment (including upgrades)."¹⁸⁸ It defines "customer premises equipment" (CPE) as "equipment employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications."¹⁸⁹

82. In accordance with the proposal made in the *NPRM*,¹⁹⁰ the express statutory language, and the views of commenters, we find that telecommunications equipment includes software integral to telecommunications equipment.¹⁹¹ Operation of today's technologically sophisticated telecommunications networks would be impossible without software, and we believe that Congress' decision to expressly clarify that software and upgrades to software are to be considered "equipment" acknowledges the important role played by software products. Further, by referencing "upgrades" to software as equipment, the definition expressly contemplates that stand-alone software should be considered equipment. For these reasons, we conclude that all software integral to telecommunications equipment is covered by the definition, whether such software is sold with a piece of telecommunications equipment hardware or is sold separately.

83. The statutory definition of CPE under section 3(14) of the Act encompasses all "equipment employed on the premises of a person (other than a carrier) to originate, route, or

³⁵ See e.g., NAD comments at 17; UCPA comments at 5-6; Ameritech comments at 7-8; SBC comments at 5.

³⁶ 47 U.S.C. 153(44).

³⁷ *Id.*

³⁸ 47 U.S.C. 153(45).

³⁹ 47 U.S.C. 153(14).

⁴⁰ *NPRM*, 13 FCC Rcd at 20419, 55.

⁴¹ See, e.g., AFB comments at 15; AIM comments at 1; Mulvaney comments at 6; NAD comments at 18.

terminate telecommunications."¹⁹² Although section 3(14) does not specifically reference software integral to CPE, we find, nonetheless, that CPE includes software integral to the operation of the telecommunications functions of the equipment, whether sold separately or not. We note that this conclusion is contrary to our tentative conclusion in the *NPRM* that software sold separately from CPE would not fall within the definition of CPE.¹⁹³ After review of the record, however, we are persuaded that stand-alone software that originates, terminates and routes telecommunications should be deemed "equipment" under the CPE definition.

84. Some commenters argue that the absence of a reference to software in section 3(14), when contrasted with its inclusion in section 3(45) defining "telecommunications equipment," means that Congress intended to make a distinction in its treatment and classification of software depending upon whether it was integral to the operation of CPE or of telecommunications equipment.¹⁹⁴ Other commenters argue that in interpreting this provision, we should focus instead, as the Access Board did, on the functions performed by the equipment in question, rather than whether it is hardware or software.¹⁹⁵ These parties argue that if a product originates, routes, or terminates telecommunications, then it should be considered to be CPE. Many commenters supported this functional definition of CPE and chose to de-emphasize whether the software was sold together with hardware or separately.¹⁹⁶ Trace notes that increasingly we will see telecommunications products becoming software in nature. That is, individuals will have devices that will be used for computing, for information, and for telecommunications services; often the devices will become telecommunications devices when a piece of software is plugged into them. Trace argues that in the future, we may not be buying telephones, but we simply may be buying telephone functions or software modules that we will use on our multi-purpose devices. Unless software is considered to be equipment and treated as CPE, Trace argues that these types of telephones would not be covered under Section 255.¹⁹⁷ Trace argues that it is not clear why

¹⁹² 47 U.S.C. 153(14).

¹⁹³ *NPRM*, 13 FCC Rcd at 20419, 56.

¹⁹⁴ ITI comments at 12; Microsoft reply comments at 7.

¹⁹⁵ AccLiv comments at 3; ACB comments at 3-4; ILDEAF comments at 3; LDA comments at 2; CILNM comments at 2-3; CPB/WC comments at 5; IDHS comments at 3; Lake County comments at 2; Lighthouse comments at 3; NAD comments at 11; NCD comments at 15; PD comments at 9-10; SHHH comments at 8; SIL comments at 3; TDI comments at 11; TRACE comments at 11; UCPA comments at 6-7; WI-TAN comments at 6; WID comments at 3-4.

¹⁹⁶ See NCD comments at 13-14 (arguing that if the functionality of telecommunications equipment or CPE is the issue in determining a device's eligibility, then distinctions among hardware, firmware and software are pointless, and that it hardly matters to the CPE user whether software was sold with the CPE, or was purchased later from a different source at the election of the user for use with the CPE); SHHH comments at 8 (arguing that software is a component of the CPE that is required in order to use the device for a telecommunications function, and it is not logical to exclude software that is not initially bundled with the CPE because it can and will be used with the CPE later); IDHS at 3 (arguing that all software should be included and made accessible if it is used as a telecommunications device); USA comments at 5 (arguing that from a consumer's point of view, the difference in whether a telecommunications function is accomplished through hardware, software, or a combination thereof). See also comments at 15; CPB/WGBH comments at 5; NAD comments at 18; TDI comments at 11; Trace comments at 5; WI-TAN comments at 3; WID comments at 3-4; TDI comments reply at 6.

¹⁹⁷ See Trace reply comments at 12.

these software based telecommunications products should not be covered when their hardware counterparts are, and projects that this would leave us with an unlevel playing field that would only get worse over time.¹⁹⁸

85. While we agree that the definition in section 3(14) does focus primarily on the functions performed by the product, we believe we still must resolve the more narrow question of whether software integral to the operation of the telecommunications functions of CPE, but sold separately from the CPE hardware, should be considered to be "equipment" within the meaning of this provision. The statutory definition therefore requires our interpretation. While this provision of the Act is susceptible to varying meanings, we conclude that the better interpretation of this definition is that this type of software is "equipment" and thus would be CPE if it is integral to the origination, routing, or termination telecommunications. The structure of the Act's definitions support this interpretation. Rather than viewing the language in paragraph (45) of section 3 as a limitation on the definition of CPE, as some commenters have urged,¹⁹⁹ we find instead that such language illuminates what Congress considers as falling within the scope of "equipment." As noted above, Congress clarifies in section 3(45) that the term "equipment" includes that software which is integral to a product, including upgrades. Congress recognized that software, which plays a vital role in telecommunications products, is often marketed and sold separately, affording purchasers or users the opportunity to upgrade or customize their equipment. Because Congress determined that software is "equipment" in paragraph (45), we find that the better interpretation of CPE is to similarly construe "equipment" as including software integral to the product, whether sold separately or not. Such an interpretation harmonizes the term "equipment" as it is used in the definitions of both "CPE" and "telecommunications equipment," and gives recognition to the fact that software products are often sold separately from the hardware.

86. This interpretation is consistent with the Access Board's Guidelines.²⁰⁰ It also furthers the purposes of section 255 by ensuring that software that is integral to the operation of CPE is not beyond the scope of section 255. If such software were not covered as CPE, then CPE manufactured in compliance with section 255 could readily be converted into a product that was inaccessible to those with disabilities, resulting in a significant gap in the Act's coverage.

87. In connection with multipurpose equipment, we adopt our tentative conclusion that customer premises equipment is covered by section 255 only to the extent that it provides a telecommunications function. Specifically, equipment that generates or receives an electrical, optical or radio signal used to originate, route or terminate telecommunications is covered, even if the equipment is capable of providing non-telecommunications functions. In so concluding, we reject the recommendations of commenters which argued we should apply section 255 to all functions of equipment whenever the equipment is capable of any telecommunications function.²⁰¹

We believe that our narrowed interpretation ensures consistency between the obligations of

¹⁹⁸ See Trace reply comments at 12.

¹⁹⁹ See ITI comments at 12; BSA comments at 9.

¹ *Access Board Order*, 63 Fed. Reg. at 5612.

²⁰¹ AFB comments at 13; AIM comments at 1; AFB reply comments at 11-12.

manufacturers to ensure that telecommunications equipment and CPE is designed, developed and fabricated to be accessible, and the obligations of service providers to ensure that the service is accessible. This consistency is important as both equipment and services must be accessible for effective access to be available to consumers. Although section 255(b) does not specifically address this question, we conclude that this is the most reasonable interpretation of the statute. Moreover, the Access Board supports such an interpretation.²⁰²

88. Furthermore, as supported by the record, we conclude that manufacturers will be liable under section 255 for all telecommunications equipment and CPE to the extent that such equipment provides a telecommunications function.²⁰³ In those instances, where a piece of equipment undergoes substantial modifications after its sale, however, we agree with those commenters who argue that it would be unfair to hold the manufacturer liable under section 255.²⁰⁴ In those instances, which we expect to be infrequent, manufacturers shall bear the burden of proving, by a preponderance of the evidence, that a piece of equipment has undergone substantial modifications after its sale.

2. Manufacturer

89. The Act does not define "manufacturer of telecommunications or customer premises equipment."²⁰⁵ The Access Board guidelines define a "manufacturer" as an entity "that sells to the public or to vendors that sell to the public; a final assembler."²⁰⁶ This approach, according to the Access Board, would generally cover "the final assembler of separate subcomponents; that is, the entity whose brand name appears on the product."²⁰⁷ In the *NPRM*, the Commission proposed to adopt a definition of "manufacturer" based upon the Access Board guidelines.

90. In light of our enforcement obligations and based on the record, we now believe that we need a more precise definition of manufacturer than that adopted by the Access Board. In our rules, therefore, we define manufacturer as an entity that makes or produces a product. This definition puts responsibility on those who have direct control over the products produced, and provides a ready point of contact for consumers and the Commission in getting answers to accessibility questions and resolving complaints. We decline to adopt the Access Board's definition because we find that it is so broad that it could include retailers, who simply sell

²² *Access Board Order*, 63 Fed. Reg. at 5612.

²³ NAD comments at 18; SHHH comments at 8 (arguing that we would be encouraging evasion of section 255 obligations if we were to determine manufacturer's compliance based upon its subjective intent about how the product should be used).

²⁴ CEMA comments at 8; TIA comments at 57-59; CEMA reply comments at 9; Lucent reply comments at 3-4; Motorola reply comments at 49.

²⁵ *NPRM*, 13 FCC Rcd at 20420, 57.

²⁶ 36 C.F.R. 1193.3.

²⁷ *Access Board Order*, 63 Fed. Reg. at 5613.

products and may not control any aspect of their actual manufacture. We conclude that our adopted definition more clearly distinguishes between sellers of a product and manufacturers, who control the design, development and fabrication of a product. In appropriate circumstances, however, where an entity is otherwise extensively involved in the manufacturing process -- for example, by providing product specifications -- we may, as the individual circumstances warrant, deem such an entity to be a co-manufacturer of the product involved. This could result in some branders being considered manufacturers, contrary to the position of several commenters.²⁰⁸

91. We believe this is an appropriate interpretation of the statute and is consistent with the Access Board's intent.²⁰⁹ We do not intend this definition to include those who simply sell or distribute a product manufactured by another entity.²¹⁰ Nor do we extend the concept of manufacturer to anyone who might modify the equipment before sale to the public.²¹¹ We do not believe as a general matter that retailers, wholesalers, and other post-manufacturing distribution entities can be considered manufacturers who have accessibility obligations under the Act.

92. As supported by the record, we adopt our tentative conclusion to construe section 255 to apply to all manufacturers offering equipment for use in the United States, regardless of their location or national affiliation.²¹² In the NOI record, there was broad agreement that all equipment marketed in the United States, regardless of national origin, should have uniform accessibility requirements.²¹³ Further, the Access Board guidelines do not distinguish between foreign and domestic manufacturers.²¹⁴ Exempting foreign manufacturers would disadvantage American manufacturers, and would deny the American public the full protection section 255 offers.

3. Voicemail and Interactive Menus

93. The record has convinced us that in order for us to carry out meaningfully the accessibility requirements of section 255, requirements comparable to those under section 255 should apply to two information services that are critical to making telecommunications accessible and usable by

²⁰⁸ BellSouth comments at 6; Sprint comments at 5-6; Tandy reply comments at 5-7.

²⁰⁹ *Access Board Order*, 63 Fed. Reg. at 5613.

²¹⁰ Bell Atlantic comments at 5.

²¹¹ *See* ITI comments at 13-14.

²¹² NAD comments at 19 (stating that such action is consistent with prior Commission rulings requiring accessible features on imported mobile phones (*i.e.*, hearing aid compatibility), and imported televisions (*i.e.* decoder circuitry for closed captioning)); SHHH comments at 9 (noting that in the large percentage of telecommunications equipment that is produced outside the U.S., section 255 would be severely limited if it were applied universally to foreign as well as domestic markets). We decline, however, to adopt ITI's suggestion that we extend the reach of section 255 to importers. *See* ITI comments at 12-13. As already stated, post-manufacturing entities such as importers, are not covered by section 255.

²¹³ *NPRM*, 13 FCC Rcd at 20420, ¶ 58.

²¹⁴ *See* 36 C.F.R. 1193.3.

people with disabilities. We assert ancillary jurisdiction to extend these accessibility requirements to the providers of voicemail and interactive menu service and to the manufacturers of the equipment that perform those functions. By enacting section 255, Congress has charged the Commission with ensuring that telecommunications services and equipment are accessible to, and usable by, persons with disabilities. We cannot fully achieve that objective without this limited use of our ancillary jurisdiction.

94. The Commission's assertion of ancillary jurisdiction over information services was upheld by the Court of Appeals for the District of Columbia over fifteen years ago in litigation challenging our rules in *Computer II*, where the Commission deregulated the provision of both information services (then called "enhanced services")²¹⁵ and CPE.²¹⁶ Although the Commission found there that the provision of information services and CPE were not common carrier activities within the scope of Title II regulation, the Commission simultaneously asserted ancillary jurisdiction over information services, including voicemail and interactive menus, by imposing upon AT&T (and its local exchange affiliates) structural separation safeguards that required them to offer these services only through a separate subsidiary. The Commission also asserted ancillary jurisdiction over CPE, deregulating CPE at the federal level and preempting state CPE tariffing. The Court of Appeals upheld the Commission's ancillary jurisdiction, finding that the Commission's authority to assert ancillary jurisdiction over matters not within the reach of Title II regulation was "well settled."²¹⁷ It concluded that the "Commission acted reasonably in defining its jurisdiction over enhanced services and CPE," and that its jurisdiction satisfied the *Southwestern Cable* standard.²¹⁸ The court adopted a deferential standard of review, holding that "[b]ecause the Commission's judgment on 'how the public interest is best served is entitled to substantial judicial deference,' the Commission's choice of regulatory tools in *Computer II* must be upheld unless arbitrary or capricious."²¹⁹ This precedent guides us in our action today.

¹⁵ Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended, CC Docket 49, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905, 21955, 102 (1996) ("all of the services that the Commission has previously considered to be 'enhanced services' are 'information services'"), Order on Reconsideration, 12 FCC Rcd 2297 (1997) (*inter recon. pending*, Second Report and Order, 12 FCC Rcd 15756 (1997), *aff'd sub nom. Bell Atlantic Telephone Companies, et al v. FCC, et al*, 3 F.3d 1044 (D.C. Cir. 1997)).

¹⁶ *Computer and Communications Industry Association v. FCC*, 693 F.2d 198, 213 (D.C. Cir. 1982), *cert. denied*, *Louisiana Public Service Commission v. FCC*, 461 U.S. 938 (1983). Pending before the court were several FCC orders, known broadly as *Computer II*, in which the Commission asserted ancillary jurisdiction over information service. The court designated the following orders as comprising the *Computer II* decision: "Final Decision, In re Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 F.C.C. (1980) (*Computer II Final Decision*); Memorandum Opinion and Order, Amendment of Section 64.702 of the Commission's Rules and Regulations (*Second Computer Inquiry*), 84 F.C.C. 2d 50 (1980) (*Computer II Reconsideration Decision*); Memorandum Opinion and Order on Further Reconsideration, Amendment of Section 64.702 of the Commission's Rules and Regulations (*Second Computer Inquiry*), 88 FCC 2d 1 (1981) (*Computer II Further Reconsideration Decision*)." *Id.* at n.1

¹⁷ *Computer and Communications Industry Association*, 693 F.2d at 213.

¹⁸ *Id.* at 213, referring to *United States v. Southwestern Cable Co.*, 392 U.S. 157, 88 S.Ct. 1994, 2005 (1968) (Commission has jurisdiction which is "reasonably ancillary to the effective performance of the Commission's various responsibilities").

¹⁹ *Id.*

95. Ancillary jurisdiction may be employed, in the Commission's discretion, where the Commission has subject matter jurisdiction over the communications at issue and the assertion of jurisdiction is reasonably required to perform an express statutory obligation.²²⁰ Both predicates for jurisdiction are satisfied here. The Court of Appeals' conclusion in *Computer II* that the Commission has subject matter jurisdiction over information services is particularly appropriate for voicemail and interactive menus, two services over which the Commission has asserted ancillary jurisdiction for more than a decade through its comparably efficient interconnection (CEI) plan requirements.²²¹ Given our continuous assertion of jurisdiction over these two information services, we reject any suggestion by commenters that we have not previously concluded that we have subject matter jurisdiction over these services.²²²

96. Our subject matter jurisdiction flows from at least three distinct provisions of Title I of the Act. Section 1 of the Communications Act established the Commission "[f]or the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States ... adequate facilities at reasonable charges"²²³ Similarly, Section 2 gives us jurisdiction over "all interstate and foreign communication by wire or radio" and "all persons engaged within the United States in such communication...."²²⁴ Section 3 defines "communication by wire" and "communication by radio" as including "the transmission ...of writing, signs, signals, pictures and sounds of all kinds ... including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission." (emphasis added).²²⁵ We believe that these three provisions serve as the foundation for subject matter

²⁰ See generally *United States v. Southwestern Cable Co.*, 392 U.S. 157, 88 S.Ct. 1994 (1968); see also *Second Computer Inquiry*, 77 FCC 2126.

²¹ In *Computer III*, the Commission adopted a new regulatory regime that substituted "nonstructural" safeguards for *Computer II*'s requirements that information services be offered only through a separate subsidiary. The Commission determined that information services could be offered on an integrated basis, provided that those previously subject to separation requirements file a plan for "comparably efficient interconnection." See Amendment of Section 64.702 of the Commission's Rules and Regulations (*Computer III*), CC Docket No. 85-229, Phase I, 104 FCC 118-21 (1986) (*Phase I Order*), recon., 2 FCC Rcd 3035 (1987) (*Phase I Recon. Order*), further recon., 3 FCC Rcd 1135 (1988) (*Phase I Further Order*), *Phase I Order* and *Phase I Recon. Order vacated*, *California v. FCC*, 905 F.2d 1217 (9th Cir. 1990); Phase II, 2 FCC Rcd 1135 (1987) (*Phase II Order*), recon., 3 FCC Rcd 1150 (1988) (*Phase II Recon. Order*), *Phase II Order vacated*, *California v. FCC*, 905 F.2d 1217 (1990); *Computer III Remand Proceedings*, 5 FCC Rcd 7719 (1990) (*ONA Remand Order*), recon., 7 FCC Rcd 909 (1992), *pets. for review denied*, *California v. FCC*, 4 F.3d 1505 (9th Cir. 1993); *Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards*, 6 FCC Rcd 7571 (1991) (*BOC Safeguards Order*); *BOC Safeguards Order vacated in part and remanded*, *California v. FCC*, 4 F.3d 919 (9th Cir. 1994) (*California III*). Since that requirement took effect, carriers have filed numerous CEI plans covering both voice mail and interactive menus, among other services. See, e.g., Bell Operating Companies Joint Petition for Waiver of Computer II Rules, 10 FCC Rcd 1370-13774, App. A (Com.Car.Bur. 1995) (*BOC CEI Plan Approval Order*).

²² See Attachment to Letter from Brian F. Fontes, CTIA, to Chairman William E. Kennard, dated July 7, 1999 (*ex parte* submission in CC Docket No. 96-198).

²³ 47 U.S.C. 151.

²⁴ 47 U.S.C. 152.

²⁵ 47 U.S.C. 153(33), 153(51).

jurisdiction today, just as they did when *Computer II* was decided.

97. Both voicemail and interactive menu services, and the related equipment that perform these functions, are at the very least "incidental" to the "receipt, forwarding and delivery of communications." Indeed, the evidence here persuades us that these two information services are not only incidental to communications, but essential to the ability of persons to effectively use telecommunications.²²⁶ In reaching this conclusion, we are not breaking new ground, but are simply continuing our longstanding practice of asserting jurisdiction over voicemail and interactive menus.²²⁷

98. We note, however, that in the *Computer II Reconsideration Decision* we expressly reserved judgment on whether or not non-carrier-provided CPE would be subject to our Title I jurisdiction.²²⁸ Similarly, we did not reach the question of whether the Commission had jurisdiction over information services provided by non-carriers. We resolve these questions here in the affirmative. These services and their related equipment are not less "incidental" to the "receipt, forwarding, and delivery of communications" because the services may be provided by non-carriers in some instances. Indeed, sections 1 through 3 of Title I of the Act are broadly worded and not limited in scope to communications by carriers. Consistent with the statutory language, therefore, we find that our Title I subject matter jurisdiction over voicemail and interactive menu services, and related equipment, extends to that which is provided by carriers and non-carriers alike.

99. The second step in our analysis requires us to evaluate whether, in this specific context, there is a statutory nexus supporting assertion of ancillary jurisdiction over voicemail and interactive menu service and manufacturers of equipment that performs those functions. Framed somewhat differently, the test, as articulated by the Court of Appeals for the District of Columbia, is whether jurisdiction is "reasonably ancillary."²²⁹ We find that the requisite statutory nexus exists, and employ ancillary jurisdiction to require that voicemail and interactive menu service and equipment must comply with requirements comparable to those under section 255. We find, as described below, that these two discrete information services are both so integral to the use of telecommunications services today that, if inaccessible and unusable, the underlying telecommunications services that sections 255 and 251(a)(2) have sought to make available will

²⁶ See, e.g., AccLiv. comments at 2-3; NAD comments at 16-17; NCOD comments at 1-2; Kear comments at 2; Mulvany comments at 3; Ne comments at 3; Vickery comments at 2-3; MiATC comments at 2; Illinois Deaf and Hard of Hearing Commission comments at 3-4; DDTP comments at 5; CPB/WGBH National Center for Accessible Media comments at 6, LaPointe comments at 2-3, Janes comments at 3; ACB comments at 4-5; Lake County Center for Independent Living comments at 3-4; Dietrich comments at 1; Ireland comments at 2; The Light comments at 2; UCPA comments at 3-4; AFB comments at 6-8; Oklahoma Department of Rehabilitation Services comments at 2-3.

²⁷ See, e.g., Petition for Emergency Relief and Declaratory Ruling Filed by the BellSouth Corp., 7 FCC Rcd. 1619 (1992) (ruling that the Generic Service Commission was preempted from interfering with BellSouth's provision and marketing of voicemail service under the terms of its FCC-approved CEI plan).

²⁸ See Amendment of Section 64.702 of the Commission's Rules and Regulations (*Second Computer Inquiry*), Memorandum Opinion and Order, 144, (1980).

²⁹ *Computer and Communications Industry Association*, 693 F.2d at 213.

not be accessible to persons with disabilities in a meaningful way. In short, inaccessible voicemail and interactive menus could defeat the effective implementation of sections 255 and 251(a)(2).

100. Many commenters raised compelling examples of the importance of access to voicemail and interactive menus. Both professional organizations and individual consumers reported how people with disabilities are hampered daily by lack of access to services others take for granted -- leaving a message for a colleague, reaching the desired person at a business, or simply receiving a phone call.²³⁰ The Council of Organizational Representatives on National Issues Concerning People who are Deaf or Hard of Hearing (COR) concluded that "without access to certain enhanced services, such as automated voice response systems and voice mail services, individuals who are deaf or hard of hearing will continue to be barred from enjoying even basic access to the telecommunications network."²³¹ Others explained that because of the prevalence of voicemail and interactive menus, unless these services are made accessible, the isolation of people with disabilities will be exacerbated,²³² decreasing employment opportunities and reducing the participation of persons with disabilities in today's society.²³³ UCPA summarized the concern with the observation that "voice mail, interactive telephone prompt systems, and Internet telephony are becoming available as mainstream services and are becoming critical to successful participation and competition in our society."²³⁴

101. The access barriers created by inaccessible and/or unusable voicemail and interactive menus has made it extremely difficult for people with hearing, vision, or physical disabilities either to reach the party to whom they have placed the call or to obtain the information they seek in their phone call.²³⁵ One commenter explains:

³⁰ See, e.g., Blackseth comments at 1; Dietrich comments at 1; Garretson comments at 3; Hoshauer comments at 1; Ireland comments at 2; J comments at 3; Kear comments at 2; LaPointe comments at 2-3; MiATC comments at 1; Nelson comments at 2; PCEPD comments at 2-4; C comments at 1-2; OKDRS comments at 1; NCOD comments at 1-2; SHHH comments at 6; TDI comments at 8; LICIL comments at 3; AIM comm SHHH reply comments at 16-17; TDI reply comments at 5; Kailes comments at 3; CCDI comments at 2-3; Mulvaney comments at 3; Vic comments at 3; AIM comments at 1; AFB comments at 9; Born comments at 2; Witkin comments at 1; DeVilbiss comments at 2; AccLiv commen loGCD comments at 3; ACB comments at; CPB/WBGH comments at 6; ILDEAF comments at 3-4; IDHS comments at 3; LDA comments a NM comments at 3-4; Lake County comments at 1; SIL comments at 3-4; NAD comments at 15-16; NCD comments at 10; WI-TAN commen ID comments at 4; UCPA comments at 11.

³¹ COR reply comments at i.

³² APT reply comments at 4.

³³ BUTLER comments at 2; CFILC comments at 2; CDR comments at 2; CCDI comments at 1 (noting statute affects 54 million Americans ilities); Eleoff comments at 1; Huber comments at 1; Mitchell comments at 1; NC -ATP comments at 1; Radke comments at 1 (fully empl on with quadriplegia who has relied on advanced telecommunications for opportunities to learn, work and participate in the community um comments at 2 ("You might as well call all nourishment except bread and water 'enhancement.'"); CNMI comments at 1-2; Andi ments at 2.

³⁴ UCPA comments at 11.

³⁵ Dietrich comments at 1; Ireland comments at 2; Janes comments at 3; Kear comments at 2; LaPointe comments at 2-3; MiATC commen K-DRS comments at 1; NCOD comments at 1-2; SHHH comments at 6; TDI comments at 8; LICIL comments at 3; AIM comments at 1; SF / comments at 16-17; TDI reply comments at 5; Lapointe reply comments at 1; Kailes comments at 3; Mulvaney comments at 3; Vic ments at 3; AIM comments at 1; AFB comments at 9; Born comments at 2; Witkin comments at 1; DeVilbiss comments at 2; AccLiv commen

People with disabilities have been terribly affected by such lack of access; many menus offer no option to connect with a human operator and they remain cut off from communication. They thus remain in the dark about how to fix their products and how to access other important information from private enterprises.²³⁶

102. Often all that is available at the other end of the line is an automated voicemail or menu system which is not accessible to or usable by people with disabilities. For example, the voicemail or menu may not allow adequate time for a caller using the Telecommunications Relay Service to have the information from the automated device relayed to the caller's TTY and a response from the caller relayed back to the device through the Communications Assistant; or the sounds may be so quick that a person who is hard of hearing cannot process them quickly enough.²³⁷ The speed of the menu choices can also create an access barrier for someone with a learning disability who cannot process the information fast enough. The time allowed for a person to input the necessary numbers to retrieve voicemail messages, select an option from a list of choices or control the other functions may be too short for people with motor disabilities, or people who are blind.²³⁸ In these instances, although the phone call may be completed in the technical sense of terminating the call, the call is not accessible to the person. Despite the creation of a transmission path, if there is no means for a person to communicate with the mechanism at the other end, the telephone call is ineffective.²³⁹

103. This record persuades us that failure to ensure accessibility of voicemail and interactive menu services, and the related equipment that performs these functions, would seriously undermine the accessibility and usability of telecommunications services required by sections 255 and 251(a)(2). In *Southwestern Cable*, the Supreme Court found that Commission had authority to regulate CATV using its ancillary jurisdiction to avoid disruptive effect on network broadcasting.²⁴⁰ Here, too, we seek to avoid the disruptive effects caused by inaccessible

ACB comments at 4; CPB/WBGH comments at 6; ILDEAF comments at 3-4; LDA comments at 2; CILNM comments at 3-4; Lake Co comments at 1; SIL comments at 3-4; NAD comments at 15-16; NCD comments at 10; WI-TAN comments at 4; WID comments at 4.

³⁶ Mulvaney comments at 3

³⁷ See, e.g., Ireland comments at 2 ("Voice mail and automated voice response systems, so common today, are impossible for many hearing people to understand. Ears affected by hearing loss, even when properly fitted with hearing aids, cannot process sound as quickly as normal; by the time the first word or two are deciphered, the speaker is already on to the next sentence.")

³⁸ CILMN comments at 3-4.

³⁹ A number of carriers have made a similar point in comments submitted in other proceedings where they have argued that various messages are "integral" to the telecommunications services provided by the carrier, and that services such as voicemail therefore should be treated differently than other information services. (Petition of Bell Atlantic at 7-8, Petition of NTCA at 6-7, Petition of Primeco at 6-7, Petition of SBC of Texas at 6, filed in Telecommunication Carriers' Use of Customer Proprietary Network Information and Other Customer Information, (Case No. 96-115 (CPNI Proceeding)).

⁴⁰ *Southwestern Cable*, 392 US at 175-77.

voicemail and interactive menus so as to ensure that the implementation of section 255 is not thwarted. Further, the statutory nexus for asserting jurisdiction is even stronger here than in *Computer II*, which broadly sanctioned ancillary jurisdiction over information services. In *Computer II* the Commission asserted ancillary jurisdiction to ensure just and reasonable rates for regulated services *that consumers were already receiving*. Our concern here is even more fundamental: ensuring and facilitating accessibility and usability of telecommunications services and equipment by those persons not receiving full access and use of these services.

104. Under these circumstances, we disagree with those who contend that the Act's use of defined terms precludes us from extending accessibility requirements to anything other than telecommunications services.²⁴¹ The *expressio unius maxim* "has little force in the administrative setting".²⁴² Indeed, the Court of Appeals for the D.C. Circuit has expressly rejected this argument in upholding the Commission's interpretation of recent amendments to the Communications Act. In *Mobile Communications*, the Commission required MTEL, the holder of a pioneer's preference, to pay for its license for a narrowband personal communications service (PCS) despite the fact that in amending the payment provisions of the Act in 1996, Congress did not require payments for such licenses but did require payment for other types of licenses. In the provision at issue, Congress required the three broadband PCS pioneers and all future pioneers to pay for their licenses according to a statutorily defined formula. However, by its terms, the payment requirement did not extend to MTEL, whose license was confirmed in July 1993, because the statute specified that the payment requirements did "not apply to applications that have been accepted for filing on or before September 1, 1994."²⁴³

105. The court did not agree that where the statutory scheme "limits a thing to be done in a particular mode, it includes the negative of any other mode."²⁴⁴ Its rationale is particularly instructive here. Not only did it dismiss *expressio unius* as a maxim of construction in the administrative setting, but it also noted that a "congressional prohibition of particular conduct may actually support the view that the administrative entity can exercise its authority to eliminate a similar danger."²⁴⁵ Analyzing the Commission's jurisdiction to require license payments not specified in the statute, the Court rejected a reading of congressional intent that would have forbidden the Commission from setting reasonable charges for a license "even where doing so would enable the Commission to reap many of the benefits of Congress's own new policy -- including obtaining reimbursement for the transfer of a valuable entitlement. We think such a

²⁴¹ BSA reply comments at 3-4; CEMA comments at 9; CTIA reply comments at 10; GTE comments at 3; ITI comments at 9; Microsoft reply comments at 7-8; PCIA reply comments at 4-5; SBC reply comments at 2,4; SBC comments at 3; Sprint reply comments at 3-4; TIA reply comments at 3; USA comments at 4.

²⁴² *Mobile Communications Corp. of America v. FCC*, 77 F.3d 1399, 1404-05 (D.C. Cir. 1996 (citations omitted)), *cert. denied* *Mobile Communication Technologies Corp. v. FCC*, 519 U.S. 823 (1996).

²⁴³ 47 U.S.C. 309(j)(13)(D)(iv).

²⁴⁴ *Mobile Communications Corp. of America*, 77 F.3d at 1404 (citation omitted).

²⁴⁵ *Id* at 1405 (citation omitted).

reading untenable."²⁴⁶

106. The suggestion that we lack ancillary jurisdiction here suffers from the same infirmity.²⁴⁷ We simply cannot credit the argument that Congress intended that we be barred from effectively implementing sections 255 and 251(a)(2). To the contrary, we believe that Congress enacted these new provisions to ensure that telecommunications services are made accessible to persons with disabilities, and expected that we implement these provisions in the most efficacious manner possible. We will not ignore a record that demonstrates that our failure to apply accessibility requirements to voicemail and interactive menus will substantially undermine implementation of these significant provisions. Where, as here, we have subject matter jurisdiction over the services and equipment involved, and the record demonstrates that implementation of the statute will be thwarted absent use of our ancillary jurisdiction, our assertion of jurisdiction is warranted. Our authority should be evaluated against the backdrop of an expressed congressional policy favoring accessibility for persons with disabilities. This backdrop serves to buttress the actions taken today, not limit it.

107. On this same basis, however, we decline to extend accessibility obligations to any other information services. While some commenters have argued that there is an overwhelming need for all information services to be accessible to people with disabilities, we assess the record differently, and use our discretion to reach only those services we find essential to making telecommunications services accessible. Unlike voicemail and interactive menus, other information services discussed by commenters do not have the potential to render telecommunications services themselves inaccessible. Therefore, we decline to exercise our ancillary jurisdiction over those additional services. Many of these other services are alternatives to telecommunications services, but not essential to their effective use. For example, e-mail, electronic information services, and web pages are alternative ways to receive information which can also be received over the phone using telecommunications services. In contrast, inaccessible and unusable voicemail and interactive menus operate in a manner that can render the telecommunications service itself inaccessible and unusable.

108. Our assertion of ancillary jurisdiction is thus discrete and limited. Consequently, we dismiss the contention that including even a single information service under our accessibility and usability rules could lead to the full-scale regulation of entities providing information services, such as Internet Service Providers.²⁴⁸ Nor can we credit the argument that extension of these

¹⁶ *Id.*

¹⁷ In *United Video, Inc. v. FCC*, 890 F.2d 1173, 1183 (D.C. Cir. 1989), the court also sustained our ancillary jurisdiction in the face of a claim akin to expressio unius. At issue was the FCC's syndicated exclusivity rule, which was predicated upon our section 303(r) powers and ancillary jurisdiction. Petitioners had suggested that any such authority was constrained by the enactment of the 1984 Cable Act. Because the Act did not affirmatively authorize the syndex rules, petitioners argued that they were impermissible. The court disagreed: "[the syndex rules] fall within the Act's general authority, the regulation of interstate and foreign communication by wire or radio... [and] were reasonably adopted in furtherance of a valid communications policy goal. Hence, they fall under the Commission's section 303(r) powers unless they are 'inconsistent with the public interest, convenience, or necessity.'" *Id.* Thus, even where Congress has enacted legislation addressing a subject, that does not bar the Commission from using its ancillary jurisdiction where reasonably required to further a valid statutory goal - - in this case, the effective implementation of sections 255 and 251(a)(2).

¹⁸ BSA reply comments at 4-5.

provisions through ancillary jurisdiction will chill innovation, resulting in less accessibility not more.²⁴⁹ We do emphasize, however, that our decision to apply these accessibility obligations to two discrete information services does not alter the regulatory classification afforded these services. Nor is it our intent by this action to apply any additional provisions of the Act to providers and manufacturers of voicemail and interactive menu services and equipment. Thus, as a general matter, we are not altering our past or current treatment of information services.

E. ENFORCEMENT OF SECTION 255

1. Overview

109. Prompt and efficient enforcement of section 255 and the rules adopted in this Order is a crucial component of successful implementation of the accessibility requirements described in this Order. We noted in the NPRM that our complaint mechanisms would be the principal vehicle for ensuring compliance with section 255 and that consumers, manufacturers and service providers alike will benefit from swift resolution of complaints. Moreover, unlike section 207 of the Act, which authorizes the filing of complaints against common carriers either before the Commission or in federal district court, section 255(f) confers exclusive jurisdiction over complaints on the Commission and bars private rights of action. As the only recourse for consumers concerned about the accessibility, usability or compatibility of a product or service, our complaint processes must be accessible and fair.

110. We also recognized in the NPRM that a complaint process that imposes substantial burdens on parties could discourage otherwise legitimate complaints, require manufacturers and service providers to expend substantial resources responding to complaints rather than enhancing accessibility of their offerings, and restrict the commission's ability to cope with complaints in a timely manner. As discussed below, the rules we adopt in this Order, which are modeled after our section 208 complaint rules, permit the commission to ensure that consumers' complaints are resolved expeditiously. In addition, we describe below the scope of the Commission's authority when initiating an action on its on motion against service providers or manufacturers.

2. Enforcing the Rules

a. Damages; Other Remedies and Sanctions

111. *Damages.* In the *NPRM*, we tentatively concluded that damage awards against common carriers/service providers pursuant to section 207 of the Act are available to complainants as a remedy for violations of section 255 and our implementing rules. We sought comment on this tentative conclusion and on whether there is any statutory basis for awarding damages against entities other than common carrier. A majority of the industry commenters argued that the plain language of section 207 precludes the Commission from awarding damages against entities other than common carriers because the section is expressly limited to common carriers.²⁵⁰ These

⁴⁹ ITI reply comments at 11-12; Microsoft reply comments at 4-5; Sprint reply comments at 4.

⁵⁰ *See, e.g.*, BSA comments at 14-15; CEMA comments at 24-26; TIA comments at 97-98.

commenters contended that had Congress intended to provide the Commission with authority to award damages against entities other than common carriers, it would have clearly stated so when it enacted section 255.²⁵¹ Still other industry commenters argued section 255 bars not only damages complaints against non-common carriers but also against carriers.²⁵² According to these commenters, the explicit bar on private rights of action in section 255 applies equally to the Commission and the courts. They argued that the Commission's conclusion in the *NPRM* that the statute permits administrative complaints for damages but bars actions in court for damages misconstrues the meanings of the two distinct sentences in section 255(f) regarding the Commission's exclusive jurisdiction over complaints and the prohibition of private rights of action respectively.²⁵³ They maintained that the question of what is a private right of action depends solely upon who brings the action, not the forum.²⁵⁴

112. Commenters representing the disability community,²⁵⁵ however, contended that the Commission has the same range of remedies for violations of section 255 that are available to it for violations of other provisions of the Act, including damages awards under section 207 of the Act.²⁵⁶ Several industry commenters, on the other hand, contended that the Conference Report refers solely to remedies against service providers who are common carriers, not to manufacturers.²⁵⁷

113. We adopt our tentative conclusion in the *NPRM* that damages are available for violations of section 255 or our implementing rules against common carriers. In so holding, we reject the claim that 255(f)'s preclusion of private rights of action deprives the Commission of any authority to entertain requests for damages by or on behalf of individual complainants. As we noted in the *NPRM*, the preclusion of private actions compels complainants to seek redress exclusively from the Commission but in no way limits the remedies available to such complainants at the Commission.²⁵⁸ The right created in section 255(f) to complain to the Commission about the accessibility practices of common carriers does not supersede the rights available against common carriers under sections 206-208 of the Act, nor does it alter the scope of the remedies the Commission may apply. Indeed, by specifically referencing sections 207 among the list of remedies available for violations of section 255, we believe that Congress intended to make clear that common carriers could be subject to damages awards for violations of section 255 to the

⁵¹ See, e.g., BSA comments at 15; CEMA comments at 24-26; TIA comments at 97-98.

⁵² See, e.g., Ameritech comments at 10-11.

⁵³ See, e.g., Ameritech comments at 10-11.

⁵⁴ See, e.g., Ameritech comments at 10-11.

⁵⁵ See, e.g., NAD comments at 39-40; NCD comments at 35; AIM comments at 3; Oklahoma DRS comments at 2.

⁵⁶ 47 U.S.C. 207.

⁵⁷ See, e.g., BSA comments at 15; CEMA comments at 24-26; SBC comments at 27.

⁵⁸ *NPRM*, 13 FCC Rcd at 20408, 32-33.

same extent as they could for other Title II violations. We find no support in the Act or its legislative history for the restrictive reading on our damages authority urged by the industry.

114. Nor are we persuaded by the claims of commenters representing the disability community that the right to complain to the Commission under section 255 includes the right to pursue damages against manufacturers for violations of the section. Sections 206 through 209 of the Act, on their face, apply solely to common carriers, a term specifically defined in section 3(10) of the Act.²⁵⁹ No plausible reading of the Act would extend the damages remedy prescribed under these sections to manufacturers or other non-common carriers. The commenters' reliance on statements regarding section 207 in the Conference Report accompanying the 1996 Act is unavailing.²⁶⁰ Judicial precedent clearly establishes that the starting point for interpreting a statute is the plain language of a statute itself.²⁶¹ Where the language of statute is unambiguous, we must "give effect to the unambiguously expressed intent of Congress."²⁶² The reference in the Conference Report to a section 207 damages remedy for section 255 violations is not inconsistent with our interpretation.²⁶³ The language in the report cited by the commenters does not mention manufacturers, nor does the report elsewhere state unequivocally that damages may be sought against manufacturers or other non-common carriers pursuant to 207 of the Act. We agree with Uniden, TIA and other industry commenters that a more reasonable reading of the reference in the Conference Report to section 207 as a possible remedy for violations of section 255 is that Congress was referring to remedies against providers who are common carriers within the meaning of the Act.²⁶⁴

115. *Other Sanctions and Remedies.* We affirm our conclusion in the *NPRM* that we should employ the full range of sanctions and remedies available to us under the Act in enforcing section 255. Most commenters addressing this issue maintained that the Commission should assess the same penalties against manufacturers and service providers, with the most onerous penalties such as forfeitures, license revocations, and cease and desist orders reserved for intentional and repeated violations.²⁶⁵ We conclude that we need not delineate in this Order the various sanctions and remedies available to us under the Act to address violations of section 255 and our

⁵⁹ See 47 U.S.C. 153(10) (term "common carrier" or "carrier" means any person engaged as a common carrier for hire, in interstate or for communications by wire or radio or in interstate or foreign communication by wire or radio).

⁶⁰ Commenters argued that the Conference Report accompanying Section 255 specifically references the availability of damages awards pursuant to section 207 to remedy violations of Section 255 and makes no distinction between manufacturers and service providers, demonstrating Congress clearly intended for manufacturers and service providers to be treated uniformly for all purposes under Section 255. See, e.g., Comments at 39-40.

⁶¹ *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843, 104 S.Ct. 2778, 2781 (1984).

⁶² *Id.*

⁶³ See *Bell Atlantic Tel. Cos. v. FCC*, 131 F.3d 1044 (D.C. Cir. 1997).

⁶⁴ See, e.g., Uniden comments at 8-9, TIA reply comments at 64-67.

⁶⁵ See, e.g., Business Software Alliance comments at 15; CEMA comments at 24-26; TIA comments at 97-98; SBC comments at 27.

rules. We recognize that sanctionable behavior may involve a wide range of conduct by manufacturers and service providers and we will use our considerable discretion to tailor sanctions or remedies to the individual circumstances of a particular violation. We note that the commenters opposing retrofitting as a possible remedy for non-compliance do not challenge our authority to require such action, but instead question its appropriateness given the fast-pace of technological advances and the fact that the costs of retrofitting will likely exceed any reasonable monetary penalty that could be imposed under law.²⁶⁶ While we will view retrofitting as an extreme remedy to be used in egregious cases of willful misconduct, we nevertheless believe that the prospect of such action will serve as a major deterrent to willful and repeated violations of the Act and our rules.

116. A number of commenters have requested that we establish enforcement guidelines and procedures that would ensure regulatory parity in the treatment of manufacturers and service providers under section 255.²⁶⁷ We again note that our enforcement authority with respect to manufacturers and service providers is constrained by explicit requirements under the Act. For example, section 503(b)(5) of the Act pertaining to forfeiture penalties²⁶⁸ provides that

No forfeiture liability shall be determined under this subsection against any person, if such person does not hold a license, certificate or other authorization issued by the Commission, and if such person is not an applicant for a license, permit, certificate, or other authorization issued by the Commission, unless, prior to the notice required by paragraph (3) of this subsection or the notice of liability required by paragraph (4) of this subsection, such person (A) is sent a citation of the violation charged; (B) is given a reasonable opportunity for a personal interview with an official of the Commission, ...; and (C) subsequently engages in conduct of the type described in such citation.

47 U.S.C. 503(b)(5).²⁶⁹

Thus, a manufacturer covered by section 255 who does not hold any authorization from the Commission and is not otherwise engaged in activity for which such authorization is required is in a markedly different position than a common carrier against whom the Commission may assess a

²⁶⁶ See, e.g., SBC comments at 27.

²⁶⁷ See, e.g., USTA reply comments at 19; PCIA reply comments at 8-9.

²⁶⁸ 47 U.S.C. 503 (containing the general forfeiture provisions under the Act). The Act also contains specific forfeiture provisions relating to activities or omissions by common carriers. See, e.g., 47 U.S.C. 202(c), 203(e), 205(b). Under the general forfeiture provisions contained in section 503(b)(1)(B), any person who willfully or repeatedly fails to comply with any of the provisions of the Communications Act or any regulation, or order issued by the Commission under the Act, may be liable to the United States for a forfeiture penalty. Section 503(b)(2) authorizes the Commission to assess forfeitures against common carriers of up to one hundred thousand dollars for each violation, or each day of continuing violation, up to a statutory maximum of one million dollars for a single act or failure to act. In exercising such authority, the Commission is required to take into account "the nature, circumstances, extent, and gravity of the violation and, with respect to the violator, the degree of culpability, any history of prior offenses, ability to pay, and such other matters as justice may require" 47 U.S.C. 503(b)(1)(B), (b)(2)(B).

²⁶⁹ See 47 U.S.C. 503(b)(5). The section further provides, however, that the restriction "shall not" apply if, among other things, the person involved is engaging in activities for which a license, permit, certificate, or other authorization is required. *Id.*

forfeiture for section 255 violations without first issuing a citation and providing an opportunity for corrective action.²⁷⁰ Given these explicit statutory requirements, with no indication that Congress intended to alter the scope of the sanctions and remedies available to the Commission to enforce section 255, we find no compelling reason to attempt to fashion parity in the regulatory treatment of manufacturers and service providers under section 255.²⁷¹ Indeed, in light of the constraints resulting from generally applicable penalties and enforcement provisions of the Act, we doubt such parity could be fashioned in any event. We are persuaded that the substantive rules and policies we adopt today provide the appropriate incentives for both manufacturers and service providers to take seriously their obligations under section 255 and our rules.

3. Procedures to be Followed When Complaints Are Filed Pursuant to Section 255

117. In the *NPRM*, we identified two principal objectives underlying our fast-track dispute resolution proposal: responsiveness to consumers and the efficient allocation of resources by affected manufacturers and service providers.²⁷² We proposed a number of specific procedures surrounding the mandatory fast track process, including, *inter alia*, requirements pertaining to a consumer's initial contact with the Commission and the manufacturer or service provider concerned, the allowable time period for resolving a fast track complaint, the defendant manufacturers or service provider's reporting requirements, the manner in which Commission staff would evaluate the defendant's fast-track response, and post-fast-track proceedings at the Commission.²⁷³

118. We do not address parties' comments regarding these proposals in the context of fast-track because of our conclusion that our enforcement goals can be accomplished using traditional complaint mechanism modeled after our existing common carrier complaint procedures. The parties' comments, however, are addressed where appropriate in our discussion of our traditional informal and formal complaint rules.

a. Initial Contact With the Commission

119. We adopt our tentative conclusion in the *NPRM* that we should, as recommended by the *TAAC Report*, "encourage consumers to express informally their concerns or grievances about a product to the manufacturer or supplier who brought the product to market before complaining to

⁷⁰ In addition, section 503(b)(2)(B) authorizes the Commission to assess forfeiture penalties against common carriers up to \$100,000 for each violation or each day of a continuing violation, up to a maximum of \$1,000,000 for any single act or failure to act as described in section 503(b)(2)(B). Conversely, an equipment manufacturer or other non-common carrier subject to section 255 which does not hold a license issued by the commission, may only be assessed forfeiture penalties (pursuant to the procedures set forth in section 503(b)(5)) of up to \$100,000 for each violation or each day of a continuing violation up to a maximum of \$100,000 for any single act or failure to act as described in section 503(b)(1). 47 U.S.C. 503(b)(2)(C).

⁷¹ *See., e.g.*, SBC comments at 27.

⁷² *NPRM*, 13 FCC Rcd at 20448-49, 124.

⁷³ *NPRM*, 13 FCC Rcd at 20448-53.

the Commission."²⁷⁴ We believe that this policy should apply with equal force to grievances or concerns relating to service providers. We fully expect that many accessibility-related disputes will be satisfactorily resolved through such communications without the need to file complaints. We decline, however, to adopt a rule that would require consumers to contact the manufacturer or service provider about an accessibility barrier before a complaint could be filed with the Commission.²⁷⁵ Under our section 208 rules, consumers are encouraged but not required to contact the carrier in advance of filing an informal complaint. Because the informal complaint process itself is geared toward cooperative efforts, it is not useful to require a complainant to contact the carrier before using the Commission's informal complaint processes.²⁷⁶

120. On the other hand, our rules governing formal section 208 complaints require both the complainant and defendant to certify, as part of the complaint and answer respectively, that they discussed, or attempted in good faith to discuss, the possibility of settlement with the opposing party prior to filing of the complaint.²⁷⁷ We conclude that this model is also appropriate for section 255 formal complaints. A consumer-friendly complaint process will ensure that consumers have an absolute right to have their accessibility concerns promptly addressed by the manufacturer or service provider concerned with reasonable expectation that the manufacturer or service provider will respond within the time and in the manner specified by the Commission. At the same time, consumers contemplating formal adjudication of a dispute with a manufacturer or service provider will have the appropriate incentives to explore settlement options before initiating costly and time consuming formal adjudicatory proceedings.

b. Form and Content of Informal Complaints; Standing to File

121. *Form.* We adopt our proposal to allow informal complaints all to be transmitted to the Commission by any reasonable means such as by letter, facsimile transmission, voice telephone (voice and TTY), Internet e-mail, audio-cassette recording, and braille. Most commenters supported this proposal as the most practical and beneficial way to ensure that complainants with disabilities have full access to our complaint mechanisms.²⁷⁸ Our rules therefore specify the various means through which complaints may be filed with the Commission.

⁷⁴ *TAAC Report*, 6.7.4.1 and 6.7.4.2, at 32.

⁷⁵ *See, e.g.*, AT&T reply comments at 7-8; BSA reply comments at 7; PCIA reply comments at 9-10; TIA reply comments at 63. The NAD's, on the other hand, are opposed to any rule that would require consumers to first notify manufacturers and service providers before filing a complaint with the Commission; NAD reply comments at 6; COR comments at 4-5.

⁷⁶ *See* 47 C.F.R. 1.716 - 1.718. In administering the informal complaint rules, Commission staff works cooperatively with consumers to ensure meaningful solutions to problems raised by consumers and to address any underlying compliance concerns. In many informal complaints are satisfactorily resolved by carriers with little direct involvement by Commission staff. We note further that Commission staff routinely meets with carrier representatives and consumer groups to discuss the informal complaint process and identify improvements that will better meet the needs of consumers and the industry.

⁷⁷ *See* 47 C.F.R. 1.720; 47 U.S.C. 208.

⁷⁸ *See, e.g.*, NAD comments at 25-30; BellSouth comments at 16-17.

122. *Content.* Our objective is to make it easy for consumers with disabilities to file accessibility complaints and for manufacturers and service providers to move promptly to satisfy any meritorious complaints. A rule outlining the minimum information that must be provided by consumers to trigger the informal complaint mechanism should strike a balance between the rights and duties of consumers and affected manufacturers and service providers. Almost all commenters support such a rule.²⁷⁹ We believe it necessary and appropriate for potential complainants to have a clear basis for believing that a violation has taken place and not simply allege that particular equipment or service is not accessible. We recognize, however, that it would not be realistic or feasible for complainants to document, in the first instance, all the factors necessary to establish that the access needed is readily achievable within the meaning of our rules.

123. Therefore, we adopt a rule providing that any section 255 complaint filed with the Commission include: (1) the name and address of the complainant; (2) the name and address of the manufacturer or service provider against whom the complaint is made; (3) details about the equipment or service about which the complaint is made; (4) the date or dates on which the complainant or person on whose behalf the complaint is being filed either purchased, acquired, used or attempted to purchase or use the equipment or service about which the complaint is being made; (5) a statement of facts supporting the complainant's allegation that the equipment or service is not accessible to a person or persons with a disability; (6) the specific relief or satisfaction sought by the complainant; and (7) the complainant's preferred method of response to the complaint (e.g., letter, facsimile transmission, telephone (voice or TTY), Internet e-mail, audio-cassette, braille, or another method that will provide effective communication with the complainant. Although these content requirements will entail diligence on the part of consumers in preparing and submitting complaints, we believe that any burden on consumers is far outweighed by the benefits of prompt and decisive action by Commission staff and defendant manufacturers and service providers resulting from such complaints. Commission staff will be available to assist consumers in filing complaints and may relax or modify our content requirements where needed to accommodate a consumer whose disability may prevent him from providing the information required under our rules.²⁸⁰

124. *Standing to File.* We conclude that our minimum form and content requirements will alleviate concerns raised by a number of commenters regarding the need for a standing requirement for filing section 255 complaints. These commenters urged that we reverse our tentative conclusion in the *NPRM* and adopt a strict standing requirement under which only customers of a manufacturer or service provider would have standing to file a section 255 complaint with the Commission.²⁸¹ A standing requirement is needed, these commenters contend,

⁷⁹ ATSI comments at 8; BellSouth comments at 9; CBT comments at 7; CompTel comments at 5; GST comments at 5; KMC comments at 5.

³⁰ As required by the Rehabilitation Act of 1973, as amended, the Commission has a responsibility to prohibit discrimination on the basis of disability in its programs and activities. See 47 C.F.R. 1.1801 - 1.1870.

³¹ See e.g., AirTouch comments at 7; Bell Atlantic comments at 9; Brightpoint comments at 5-6; BSA comments at 12; CEMA comments at 12 and reply comments at 11-12; CTIA comments at 15-17; Motorola comments at 50-52; PCIA comments at 15-16; Phillips comments at 12 and reply comments at 20-22; USTA comments at 14-15; Lucent reply comments at 1; TIA comments at 77; Nextel comments at 8-9; Nokia comments at 4-7; Redcom reply comments at 4-5; MTA reply comments at 11.

to ensure that manufacturers and service providers are not inundated with disputes among competitors and otherwise frivolous or vindictive complaints that will waste the resources of the Commission and the defendant companies.²⁸²

125. Commenters have made no persuasive argument why we should adopt a different standard for standing for these rules than for other complaints. As we noted in the *NPRM*, section 255 itself does not impose a standing requirement. Nor is there a standing requirement under section 208 of the Act and our common carrier complaint rules, which generally authorize the filing of a complaint by "any person"²⁸³ claiming that a carrier has violated a provision of the Act or the Commission's rules.²⁸⁴ The concerns raised by the commenters about possible frivolous complaints are too speculative to warrant a standing requirement where none otherwise exists under our common carrier complaint rules. There is no evidence that frivolous complaints have been a problem under our common carrier rules; nor is there any basis in the record to reasonably conclude that such will be the case for section 255 complaints. In any event, we believe that the minimum content requirements for section 255 complaints will effectively deter the filing of frivolous complaints. We are persuaded that these requirements will ensure that the focus of any complaint filed pursuant to these rules remains, as it should, on promoting accessibility.

c. Service; Designation of Agents

126. *Service.* We adopt a rule requiring the staff to promptly forward complaints that satisfy our content rules to the manufacturer or service provider involved, along with specific instruction to the defendant company to investigate and attempt to satisfy the complaint within a specified period, generally thirty days. The rule further provides that Commission staff may, in its discretion, request from the defendant company whatever additional information it deems useful to its consideration of the complaint. These requirements are similar to the service requirements contained in our rules governing section 208 informal complaints.

127. *Designation of Contacts/Agents.* We proposed in the *NPRM* to require manufacturers and service providers to establish points of contact for section 255 complaints and inquiries. We tentatively concluded that such a requirement would facilitate the ability of consumers to contact manufacturers and service providers directly about accessibility issues or concerns and to ensure prompt and effective service of complaints on defendant manufacturers and service providers by Commission staff.²⁸⁵ There was universal support among the commenters for this proposal. We therefore adopt a rule requiring affected manufacturers and service providers to designate an agent or contact whose principal function will be to ensure the manufacturer's or service

³² *Id.*

³³ See 47 U.S.C. 153(33) (the term person includes "an individual, partnership, association, joint-stock company, trust, or corporation").

³⁴ 47 U.S.C. 208. This section, applicable to complaints against common carriers, specifically states that "no complaint shall at any time be filed because of the absence of direct damage to the complainant."

³⁵ *NPRM*, 13 FCC Rcd at 20426, 71.

provider's prompt receipt and handling of accessibility concerns raised by consumers or Commission staff. The contact information must, at a minimum, include the name of the person or office, telephone number (voice and TTY), fax number and both mailing and e-mail addresses.²⁸⁶ The representative or agent should have the means available to convert materials distributed and received into accessible formats.

128. We recognize that we need to ensure that consumers can readily obtain information identifying the points of contact for manufacturers and service providers covered by these rules. Accordingly, the Commission will provide access to a listing of the contact representatives or agents designated by manufacturers and service providers. In order to establish this listing, we will require covered manufacturers and service providers to file the required contact information with the Secretary of the Commission within thirty days after the effective date of the rules adopted herein.²⁸⁷ Commission staff will prepare a Public Notice advising consumers and other interested parties how to obtain access to the contact information once it has been compiled. We anticipate that the information will promptly be made available through the Commission's website. We also strongly encourage manufacturers and service providers to employ their own measures to inform consumers about how to contact the appropriate offices within their companies regarding accessibility barriers or concerns.

129. As a related matter, we note that certain commenters urged that we adopt a requirement that defendant manufacturers and service providers make reasonable, good faith efforts to contact the complainant within five business days of receipt of a complaint to acknowledge such receipt and discuss how the company intends to proceed with its handling of the complaint.²⁸⁸ We agree with these commenters that this measure is consistent with our point of contact requirement and will not unduly burden affected companies, and adopt this requirement. We anticipate that this exchange of information by complainants and defendant companies will lead to prompt and effective accessibility solutions in many instances.

130. We decline, however, to adopt related proposals by certain commenters that would require manufacturers and service providers to establish specific internal systems and recordkeeping practices for purposes of responding to section 255 complaints and inquiries.²⁸⁹ Nor do we adopt proposals by other commenters that would require manufacturers to maintain public files recording their compliance with section 255 and our rules. We agree with USA that companies will have different and often unique methods and systems for handling complaints and

³⁶ We note that common carriers are required under section 413 of the Act, 47 U.S.C. 413, to designate agents within the District of Columbia whom service of all notices and processes and all orders, decisions, and requirements of the Commission may be made and to file notification with the secretary of the Commission. We emphasize that the contact designation required in this Order is in addition to the obligation under section 413.

³⁷ See Appendix B, rules 6.18, 7.18. We encourage industry trade associations, such as CEMA, CompTel, TIA, CTIA, TRA, and USTA, to provide information on behalf of their members if they so desire. The Commission would consider such group submissions to be in full compliance with the requirement and would appreciate receiving such submissions both in hard copy and on a computer disk.

³⁸ See, e.g., TIA comments at 68.

³⁹ See, e.g., AFB comments at 33, reply comments at 13-14.

inquiries.²⁹⁰ We see no need to burden manufacturers and service providers with detailed processing and reporting requirements which could hinder rather than hasten the resolution of accessibility disputes. We fully expect, however, that good business and customer service practices will require that companies establish and maintain effective internal procedures and maintain adequate records in order to ensure compliance with our rules, as well as to respond promptly to their actual or prospective customers. We emphasize, however, that we may revisit this decision if our experience processing section 255 complaints indicate that such requirements are needed to effectively enforce section 255.²⁹¹

d. Responses to Informal Complaints

131. *Content.* We do not adopt a rule urged by certain commenters prescribing the information that manufacturers and service providers would be required to provide in their responses to informal section 255 complaints.²⁹² As we stated above, our section 255 informal complaint process emphasizes informal and cooperative efforts between consumers and defendant manufacturers and service providers to resolve accessibility concerns without extensive involvement by the Commission. Our goal here is to avoid imposing cumbersome filing and reporting requirements that would deprive consumers and companies of non-adversarial opportunities to resolve disputes. Just as it is important to ensure that consumers have a simple, easy to understand process for raising their accessibility concerns with the Commission, it is equally important that manufacturers and service providers are able to respond quickly and effectively to those concerns. We do not believe it feasible to speculate about specific types of information that may be required by the staff. The level and nature of the information required to respond to accessibility complaints may vary widely depending upon the specific allegations raised, and it appears impractical to fashion a rule to anticipate these varying circumstances.

132. Moreover, our rules require defendant manufacturers and service providers to prepare their responses in the format requested by the complainant, except where the defendant service provider or equipment manufacturer is incapable of doing so. In cases in which the defendant is incapable of preparing a response using the format requested by the complainant, Commission staff will take actions necessary to ensure that the response is accessible to the complainant.

133. *Time to Respond.* The commenters are generally supportive of a thirty day period in which to respond to informal complaints, although certain commenters argue that the response should be shortened to 15 days²⁹³ while others favor a longer period of 60-90 days.²⁹⁴ We believe that a thirty day response period, which mirrors the response time afforded under our common

³⁰ See USTA comments at 13.

³¹ See 24-36, *supra*.

³² See, e.g., AFB comments at 33.

³³ See, e.g., AFB comments at 7; NAD comments at 16-17.

³⁴ See e.g., TIA reply comments at 58.

carrier complaint rules, strikes a reasonable balance between our goals of promoting the prompt resolution of accessibility disputes and ensuring that manufacturers and service providers have sufficient time in which to evaluate the complaint and provide meaningful solutions or explanations to consumers. We recognize that the issues raised in some section 255 complaints will be resolved promptly by the defendant company while others will be complex and not susceptible to expeditious resolution. Commission staff will manage the informal complaint process to reflect these case specific differences. For example, the staff will have authority to require a response to a complaint in less than thirty days if warranted under the circumstances. In a similar vein, the staff may grant a defendant additional time in which to attempt to informally resolve a complainant's accessibility problem, particularly in cases that raise extraordinarily complex issues or facts.

e. Review and Disposition of Informal Complaints by the Commission

134. Although we anticipate that the vast majority of complaints can be resolved by the informal complaint process, we recognize that not all informal complaints will be susceptible to resolution. A number of commenters expressed concern that our *NPRM* failed to describe our complaint mechanisms in sufficient detail to enable consumers and potential defendants to understand the mechanics and possible outcomes of the proceedings.²⁹⁵ To address these concerns, we describe in this section the staff review process and possible dispositions of informal section 255 complaints. Generally, the dispositions described are similar to those provided for under our common carrier complaint rules.

135. We emphasize that, with regard to informal complaints that are resolved by the manufacturer or service provider to the satisfaction of the individual complainant, our commitment to promoting such resolution efforts should not be construed by companies as a license to implement "quick-fix" or "patch-work" accessibility solutions for individual customers that fail to address underlying compliance issues or concerns. Commission staff will be charged with carefully monitoring the section 255 complaint process. If the nature and/or number of complaints against a particular manufacturer or service provider indicates non-compliance with the Act or our rules, we fully expect the staff to initiate, or recommend to the Commission if appropriate, prompt and decisive enforcement actions.

136. *Complaints Satisfactorily Resolved by the Manufacturer or Provider.* As a general matter, if it appears from a response to an informal complaint that the accessibility problem has been resolved, the staff shall close-out the complaint. In cases, where there has been no resolution, the staff shall inform parties of the review and disposition of an informal complaint as described below.

137. *Unresolved Complaints.* There are three basic outcomes that may result from the staff's review of unresolved informal section 255 complaints. First, in the event that the staff determines, based on its review of the complaint, defendant's response, and any supporting documentation, that no further action by the Commission is warranted with regard to the matters alleged in the complaint, our rules require the staff to inform the parties of its decision to close-out the

²⁹⁵ See, e.g., NAD comments at 4-5; TDI comments at 6; Advocacy Center comments at 4.

complaint and further advise them of the complainant's right to file a formal complaint pursuant to sections 1.720 -1.736 of the our rules if the complainant desires to pursue formal adjudication of its claims.

138. Second, if the staff determines that there is an unresolved question of compliance by the defendant manufacturer or service, the staff will be authorized to conduct a further investigation or initiate such further proceedings as are necessary to resolve compliance questions and determine what, if any sanctions against the defendant are appropriate. In this regard, we note that Act gives the Commission, and its staff pursuant to delegated authority, broad authority to inquire into or investigate practices by parties subject to the Act s requirements.²⁹⁶

139. Third, in cases in which Commission staff determines that the defendant is not in compliance with section 255 , the rules specify that the staff may order or prescribe (or recommend to the Commission) such sanctions or remedies as deemed appropriate under the facts and circumstances.

f. Formal Complaints

140. *Applicability of Sections 1.720-1.736 of the Rules.* As indicated above, we conclude that our rules governing complaints filed against manufacturers and service providers under section 255 of the Act should provide aggrieved parties an unqualified option of pursuing an accessibility claim against a manufacturer or service provider informally or through our more formal adjudicative procedures. We agree with a number of the commenters that certain accessibility disputes, by their nature or complexity, may not be able to be resolved by the disputing parties. Therefore, we adopt a rule providing that any person seeking formal adjudication of a problem or dispute with a manufacturer or service provider may do so pursuant to the procedures specified under sections 1.720-1.736 of our rules. We note that in November 1997, the Commission adopted comprehensive changes to these rules which are intended to improve the speed and effectiveness of the formal complaint process.²⁹⁷ Under the revised rules, both complainants and defendant carriers are required to (1) certify in their respective complaints and answers that they attempted in good faith to settle the dispute before the complaint was filed with the Commission; (2) and submit detailed, factual and legal support, accompanied by affidavits and documentation for their respective positions in the initial complaint and answer.²⁹⁸ In addition, the rules place strict limits on the availability of discovery and subsequent pleading opportunities to present and defend against claims of misconduct.²⁹⁹ The rules contain a number of additional procedural and pleading requirements designed to expedite rather than delay the

²⁹⁶ See e.g., sections 4(i) and 403 of the Act, 47 U.S.C. 154(i), 403.

²⁹⁷ Amendment of Rules to be Followed When Formal Complaints are filed Against Common Carriers, First Report and Order, CC Docket No 12 FCC Rcd 22497 (1997) (*Formal Complaints Order*), *pets. for recon. pending*.

²⁹⁸ *Formal Complaints Order*, 12 FCC Rcd at 22514-22517, 39-42.

²⁹⁹ *Formal Complaints Order*, 12 FCC Rcd at 22541-22554, 102-132.

resolution of formal complaints.³⁰⁰

141. We do not adopt our proposal in the *NPRM* to require parties to obtain Commission approval in order to file a formal complaint; nor do we adopt the suggestion by certain commenters that we require parties to invoke our informal complaint processes as a prerequisite to filing a formal complaint.³⁰¹ No such requirements exist under our common carrier complaint rules and we find no basis in the record to conclude that such requirements are needed for section 255 complaints. Moreover, given the relative ease of the informal complaint process, parties typically do not file formal complaints that would more appropriately be filed as informal complaints in the first instance.³⁰²

142. We note that our *Formal Complaints Order* specifically authorizes the staff to waive or grant exceptions to formal procedural and pleading requirements in particular cases based on showings of financial hardship and other public interest factors.³⁰³ We expect the staff to give due consideration to the circumstances of individual persons with disabilities, and the disability community at large, in administering our formal complaint mechanisms. We emphasize, however, that the staff may not exercise this waiver authority in a manner which relieves a section 255 formal complainant from its obligations to allege sufficient facts, supported by affidavits or other documentation, which, if true, would constitute a violation of section 255 or the FCC's implementing rules.

g. Accelerated Dispute Resolution

143. We anticipate that some formal complaints may be filed which raise broad, industry-wide concerns of immediate and paramount importance to the disability community. We recognize that even minor delays or barriers to access that is readily achievable could pose serious and damaging consequences for consumers with disabilities. We also believe that in many situations, manufacturers and service providers will have an interest in obtaining the prompt resolution of formal complaints filed against them in order to quickly establish the validity of their accessibility practices.

144. In July 1998, we amended our formal complaint rules to establish specialized procedures for resolving on an expedited basis certain categories of disputes arising between parties competing in the telecommunications market.³⁰⁴ These procedures, *inter alia*, require disputing

³⁰⁰ *Formal Complaints Order*, 12 FCC Rcd at 22587-22608, 214-274.

³⁰¹ See, e.g., CEMA comments at 21.

³⁰² Historically, for reasons primarily of cost, expedition, and simplicity, consumers have found the filing of informal complaints rather than formal complaints to be generally preferable. For example, during 1997, Commission staff processed over 44,000 written complaints and inquiries concerning various common carrier practices; the vast majority of these were filed by individual consumers. During this same period, the Commission received fewer than 100 formal complaints against common carriers, only 2 of which were filed by or on behalf of individual consumers.

³⁰³ See *Formal Complaints Order*, 12 FCC Rcd at 25538-25539, 93-95.

³⁰⁴ *Amendment of Rules Governing Procedure to be Followed When Formal Complaints are filed Against Common Carriers*, Second Report and Order, CC Docket No. 96-238, 13 FCC Rcd 17018 (1998) (*Accelerated Dockets Order*).

parties to engage in Commission supervised settlement negotiations prior to the filing of the complaint and, once the complaint is filed, proceed under abbreviated discovery and pleading schedules. The accelerated process is designed to produce a decision by the staff on the merits of the parties' dispute within 60 days from the time the matter is accepted for inclusion in the accelerated docket.³⁰⁵ We concluded that the specialized procedures will serve the critical function of simulating the growth of competition for telecommunications services by ensuring the prompt resolution of disputes that may arise between market participants.³⁰⁶ We conclude that such specialized procedures for section 255 disputes could play a similar role in promoting the accessibility goals underlying section 255 and, therefore, we provide in this *Order* that such procedures may be used by the staff for purposes of section 255 formal complaints. Such accelerated procedures will minimize the opportunity for manufacturers and service providers to continue to delay otherwise readily achievable accessibility solutions because the lawfulness of such practices will be subject to expedited review.³⁰⁷

145. *Eligibility Requirements.* Not all accessibility disputes raised in the context of formal complaints will be appropriate for handling under these accelerated procedures. Therefore, we adopt the following requirements that a complainant must satisfy in requesting accelerated resolution of its complaint:

First, a complainant desiring accelerated dispute resolution must allege in good faith that a person with a disability is not able to access/use particular equipment or services is due to a product's lack of accessibility, and that such lack of access is having or will have an immediate adverse impact on consumers' ability to use the services and equipment covered by our rules.

Second, the complainant must demonstrate that he or she has contacted or attempted in good faith to contact the manufacturer or service provider against whom the allegations are made and gave or attempted to give the manufacturer or service provider a reasonable period of time (not less than 30 days) to address the problem;

Third, the complainant must have given prior advance notice to the manufacturer or service provider of its intention to file a formal complaint; and

Fourth, the complainant must agree to participate in any settlement negotiations scheduled and supervised by Commission staff with respect to the matters alleged in the complaint.

146. *Accelerated Dispute Resolution Procedures.* Any person with a disability or entity acting on behalf of any such person who satisfies the above-listed conditions may submit its formal complaint, along with a request for accelerated dispute resolution, to the Common Carrier

³⁵ *Accelerated Dockets Order*, 13 FCC Rcd at 17024, 10.

³⁶ *Accelerated Dockets Order*, 13 FCC Rcd at 17024-17025, 10-11.

³⁷ *Cf. Accelerated Dockets Order*, 13 FCC Rcd at 17024, 10.

Bureau's Enforcement Division.³⁰⁸ Where practicable, such complaint and request may be submitted to the Commission by any reasonable means. The filing must include at a minimum: (1) the information described in sections 1.721-1.724 of our rules and (2) a representation by the complainant that the conditions specified in subsection 1.730 have been met. Complaints accepted for accelerated dispute resolution will be promptly forwarded by the Commission to the named manufacturer or service provider, which shall be called on to answer the complaint in 15 days or such shorter time as the staff may prescribe. Commission staff may, in its discretion, require the complainant and defendant to appear before it, via telephone conference or in person, to bring and give evidence bearing on accessibility, usability or compatibility. In appropriate cases, the staff may schedule and supervise settlement negotiations between the parties.

147. *Factors to be Considered by the Staff.* To further guide parties contemplating formal complaint actions to enforce the requirements of section 255 and our rule, we believe it useful to delineate certain factors which the staff may consider in evaluating requests for accelerated dispute resolution under our specialized procedures. These non-exclusive factors include:

- (1) Whether the complainant alleges facts indicating a continuing violation of section 255 or the rules;
- (2) Whether it appears that the complainant has exhausted reasonable opportunities for settlement with the defendant;
- (3) Whether expedited resolution of the particular dispute appears likely to advance the objectives of section 255;
- (4) Whether the issues raised by the complainant appear suited for accelerated resolution (this factor may entail, among other things, an examination of the number of distinct issues and the complexity of the information required to resolve them);
- (5) Whether the accelerated schedule may be unfair to one party because of disparity in resources.

148. *Decisions Issued in Accelerated Proceedings.* We noted above that our accelerated dispute resolution procedures contemplate decisions by the staff on the merits of a complaint within 60 days from the time the complaint is accepted onto the accelerated docket. We similarly adopt a 60-day timetable for issuing a decision in section 255 complaint proceedings under our accelerated procedures. At the same time, we recognize that some disputes that are likely to arise

³⁰⁸ In our *Accelerated Dockets Order*, we stated that while section 208 complaints are handled by both the Common Carrier Bureau and Wireless Telecommunications Bureau, we would initially exercise our discretion to apply the accelerated docket rules to formal complaints handled by the Common Carrier Bureau. *Accelerated Dockets Order*, 13 FCC Rcd at 17022, ¶ 6, n.9. We added, however, that after gaining experience with implementation of the rules by the Common Carrier Bureau, we may, in our discretion, make the accelerated docket procedures available for adjudication of complaints against commercial mobile radio service (CMRS) providers and other wireless carriers. *Id.* We see no reason in principle to delay use of our accelerated docket procedures for section 255 complaints against CMRS providers and equipment manufacturers. Therefore, Commission staff will entertain requests for accelerated resolution of disputes concerning commercial mobile radio service providers and manufacturers and other wireless carriers and manufacturers will be handled by the Wireless Telecommunications Bureau.

over the proper interpretation and application of our rules will be cases of first impression, the resolution of which may not be possible within the 60 day period. Therefore, staff administering the accelerated docket will have the discretion to extend the 60-day period. We emphasize, however, that extensions granted by the staff will be calculated to produce full and fair decisions in the shortest possible time frame.

h. Defenses to Complaints

149. We noted in the *NPRM* that the most common defenses likely to be mounted by manufacturers and service providers in response to either a complaint or an inquiry by the Commission are claims that: (1) the product or service lies beyond the scope of section 255; (2) the product or service is in fact accessible; or (3) accessibility is not readily achievable.³⁰⁹ We noted that while the first two defenses are relatively straightforward, the readily achievable defense is complex.³¹⁰ We therefore proposed to use the Access Board Guidelines applicable to manufacturers as examples of the kinds of compliance measures we would consider in this regard.³¹¹ These include four categories of activities by companies demonstrating: (1) self-assessment of whether accessibility is readily achievable with respect to the product or product line at issue; (2) external outreach efforts to ascertain accessibility needs and solutions; (3) internal management processes to ensure early and continuing consideration of accessibility concerns as product offerings evolve; and (4) the availability of user information and support.³¹²

150. Most of the commenters generally agree that good faith efforts to comply with section 255 should be considered in evaluating complaints and compliance generally. Many support the establishment of specific criteria for measuring good compliance efforts, but contend that the criteria should be explicit and fully explained by the Commission.³¹³ Others maintain that companies who engage in the activities listed by the Commission should be given a rebuttable presumption that they have complied with section 255.³¹⁴ Still others maintain that the Commission should adopt a case-by-case approach to measuring compliance and not exclude the consideration of additional factors.³¹⁵ In addition, one commenter argues that the Commission should clarify that a manufacturer or service provider's failure to provide accessible documentation and customer service support accessible to persons with disabilities should not only be a factor to be considered in measuring good faith compliance efforts, but itself a violation

⁹⁹ *NPRM*, 13 FCC Rcd at 20465, 162.

¹⁰⁰ *Id.*

¹¹¹ *Id.*

¹²² *Id.*

¹³³ *See, e.g.*, PCIA comments at 17.

¹⁴⁴ *See, e.g.*, TIA comments at 95-96.

¹⁵⁵ *See, e.g.*, AT&T comments at 15-16.

of section 255.³¹⁶ Another commenter endorses the Commission's consideration of practices by manufacturers and service providers designed to assist consumers with disabilities in obtaining information about accessible products and services.³¹⁷

151. While we believe some weight should be given to evidence that a respondent made good faith efforts to comply with section 255,³¹⁸ we decline to adopt a rule establishing a presumption of compliance in favor of manufacturers and service providers in section 255 complaint actions. Instead, we will review section 255 complaints on a case-by-case basis, giving due consideration to whether the defendant took actions consistent with the rules and guidance we set forth today, as well as any other compliance measures that the respondent has undertaken, such as those set forth in the Access Board's Advisory Appendix. We do not believe it practical to attempt to delineate specific acts or omissions that would demonstrate compliance with section 255. We emphasize that it will be incumbent upon manufacturers and service providers faced with complaints or compliance inquiries from the Commission to provide information and arguments to support any claim that an accessibility feature is not readily achievable within the meaning of section 255 of the Act.

4. Limitations on Filing Complaints

152. *Time Limit for Filing Complaints.* The commenters are split over our tentative conclusion in the *NPRM* that we should not impose any specific timetable on the filing of complaints under section 255. Industry commenters argued in unison that a time limit on such filings is need to prevent manufacturers and providers from being exposed indefinitely for accessibility assessments made years earlier.³¹⁹ Because of what they describe as the fast-changing nature of the telecommunications industry, some urged the Commission to apply a 6-month to 12-month time limit, starting from the time the complainant acquired or used or attempted to acquire or use a product or service.³²⁰ Others supported a two-year limitations period comparable to the 2-year limit on the filing of damages claims against common carriers under section 415(b) of the Act.³²¹ According to these commenters, without the finality of a limitations period, uncertainty would stifle companies' ability to move forward with other accessibility programs and innovations.³²² Commenters representing the disability community were likewise unanimous in their support of our proposal not to impose any specific time limit.

¹⁶ NCD comments at 34.

¹⁷ TDI comments at 23.

¹⁸ *NPRM*, 13 FCC Rcd at 20465, 162.

¹⁹ *See, e.g.*, Bellsouth comments at 11-12.

²⁰ *See, e.g.*, Business Software Alliance comments at 11-12.

²¹ 47 U.S.C. 415(b). This section provides, in pertinent part that "[a]ll complaints against carriers for the recovery of damages not base charges shall be filed with the Commission within two years from the time the cause of action accrues, and not after...."

²² *See, e.g.*, BellSouth comments at 11-12; Ameritech comments at 9-10; TIA comments at 86-87.

These commenters contended that inaccessibility may not become apparent until equipment or service is used, and even then, it may take a while to realize the inaccessibility or incompatibility of the product.³²³

153. We decline to adopt either the 6-month or 1-year limitations period on the filing of section 255 complaints urged by some commenters. We do not agree that a limitations period more restrictive than the 2-years prescribed in section 415 of the Act pertaining to damages claims against common carriers is necessary or desirable to guard against stale or unmeritorious claims. The Commission has not imposed any shorter time limits under its common carrier complaint rules, and none of the commenters makes persuasive arguments why we should adopt a different approach for the filing of section 255 complaints. Nor does our experience processing informal section 208 complaints indicate to us that more stringent limits are needed to guard against stale or unmeritorious complaints. To the contrary, our records indicate that consumers seldom file complaints against carriers that involve disputes over carrier practices occurring more than a year prior to the filing of a complaint. In fact, it appears that consumers are becoming increasingly prompt in filing complaints with the Commission.³²⁴ We find nothing in the record to suggest that this will not be the case with complaints arising under section 255.

154. We emphasize, however, that our section 255 complaint rules are designed to focus on ensuring practical accessibility solutions for individual consumers while promoting overall compliance with section 255 and our implementing rules. To ensure that this Commission's resources remain properly focused, we adopt a general policy that complaints against manufacturers and service providers determined by the staff to raise issues that are dated or stale due to the passage of time or moot because of industry or product changes (and which do not raise timely damages claims within the meaning of section 415(b)) may, absent indications of an ongoing compliance problem, be subject to summary disposition by the staff.

155. *Alternative Dispute Resolution Procedures.* A number of commenters also proposed that we require parties to engage in formal alternative dispute resolution practices as a prerequisite to filing complaints pursuant to section 255. Others proposed that we adopt a rule requiring the Commission to arbitrate or mediate disputes at the request of the disputing parties as an alternative to complaint actions. We decline to adopt these proposals because their potential problems outweigh potential benefits. We conclude that these proposals could either stifle the parties' ability to develop creative solutions or delay unnecessarily the filing of complaints, or both. For example, we agree with NAD and Council for Organizational Representatives that requiring formal ADR efforts prior to the filing of a complaint could permit defendant manufacturers or service providers to delay the filing of formal complaints to the detriment of customers. We find also that the proposal to require Commission staff to formally mediate or arbitrate accessibility disputes in all cases would unnecessarily tax the Commission's resources when there are many qualified ADR experts outside the Commission. We note that Commission staff will work with industry members and consumers to resolve accessibility disputes and compliance issues informally, both before and after complaints have been filed. We see little

²³ See, e.g., National Assistive Technology Project comments at 2; CCD comments at 1; Center for Disability Rights comments at 2.

²⁴ See *The TELEPHONE COMPLAINT SCORE CARD (Common Carrier Bureau 1998)*.

benefit, however, in requiring the staff to conduct such mediation or arbitration efforts in all cases.

5. Applicability of Statutory Complaint Resolution Deadlines

156. We do not agree with the claim by certain commenters that the five-month complaint resolution deadline imposed on the Commission under section 208(b) of the Act is also applicable to all complaints alleging violations of section 255. In the *Formal Complaints Order*, we specifically addressed the issue of the scope and applicability of the section 208(b) deadline. We held that section 208(b) applies only to formal complaints which involve: (1) investigation[s] into the lawfulness of a charge, classification, regulation or practice contained in tariffs filed with the Commission and (2) any complaint about the lawfulness of matters that would have been included in tariffs but for the Commission's forbearance from tariff regulation.³²⁵

157. Thus, we conclude that section 208(b) would apply to a properly filed section 255 formal complaint only to the extent that the complaint raised issues concerning a matter contained in a service provider's tariff or that would have been included in the service provider's tariff but for our forbearance policies. We emphasize, however, that notwithstanding the absence of a statutory resolution deadline in section 255, our goal will be to resolve all section 255 complaints in the shortest possible time frame in order to give full effect to accessibility requirements of the Act and our rules.

6. Confidential Treatment of Filings

158. We noted in the *NPRM* that our enforcement of these rules may often involve evaluation of information which may be considered proprietary business data.³²⁶ We noted further that sections 0.457(d), 0.457(g), and 0.459 of our rules³²⁷ already provide confidentiality for proprietary information in certain instances and requested comment regarding the need, if any, for additional protective measures.³²⁸ Many of the industry commenters strongly support the adoption of additional requirements to protect proprietary business information. Certain of the commenters argue that the Commission should establish a rebuttable presumption that information submitted in response to a complaint is confidential.³²⁹ Others contend that complainants should be required to sign non-disclosure agreements. Still others argue that where a readily achievable defense is invoked, the Commission should deem any information submitted by the defendant manufacturer or service provider as confidential and impose strict penalties for improper disclosures.³³⁰

²⁵ *Formal Complaints Order* at 36-37.

²⁶ *NPRM*, 13 FCC Rcd at 20465, 162.

²⁷ 47 C.F.R. 0.457, 0.459.

²⁸ *NPRM*, 13 FCC Rcd at 20465, 162.

²⁹ *See., e.g.*, Lucent comments at 23.

³⁰ *See., e.g.*, TIA comments at 89-91; Motorola comments at 54.

159. We agree with the commenters' assessment that our rules should facilitate the submission of relevant information by consumers with disabilities as well as manufacturers and service providers without fear of public dissemination of information that is confidential or proprietary.³³¹

We also agree that consumers and defendant manufacturers and service providers must be assured of protection for their confidential or proprietary information in order to avoid the time consuming process of resolving disputes over the treatment of documents. We conclude, however, that our rules governing confidential materials adequately address the concerns raised by the commenters and, therefore, do not adopt the additional requirements proposed. As an initial matter, we note that we do not anticipate that confidentiality issues will arise frequently in informal section 255 complaint proceedings.³³² Informal complaint actions, which are exempt proceedings under our ex parte rules, are by nature not designed or intended to facilitate the exchange of confidential information between disputing parties. Defendant manufacturers and service providers are not typically required to submit information designated as confidential or proprietary directly to a complainant; nor is the staff required to transmit confidential information provided by a complainant to a defendant company. To the extent that such information is deemed necessary to the staff's evaluation of an informal complaint, the submitting party may invoke the protection afforded under sections 0.457-0.459 of our rules by clearly designating the information as confidential or proprietary at the time it is submitted to the Commission.

160. We recently reexamined our confidentiality rules and adopted certain amendments and clarifications to more specifically describe the information needed to evaluate requests for confidential treatment.³³³ The revised rules clarify that the Commission will carefully consider the competitive implications of disclosure on a case-by-case basis. There is no evidence in the record before us that the type of business information that may be submitted by companies to support a readily achievable defense is so unique as to require additional protective measures.

161. Moreover, we note that in the context of formal complaint actions, in which relevant information or material designated as confidential must be produced to the opposing party, section 1.731 of our rules places very specific requirements and limitations on the use of information or materials. Section 1.731 makes it clear that confidential or proprietary information may not be used for any purpose other than prosecuting or defending the complaint at issue, or disclosed to any employees other than those directly involved in such prosecution or defense. The rule further provides that parties receiving confidential material must sign a sworn statement affirmatively stating that they have reviewed the Commission's confidentiality provisions pertaining to formal complaints actions and understand and accept the limitations period. We believe that these requirements offer adequate protection in the vast majority of cases. In those

³¹ See, e.g., USTA Reply Comments at 17-18; Motorola Comments at 53-55; Uniden Reply Comments at 8; Redcom Reply Comments at 18-19.

³² We note that confidentiality issues do not typically arise in connection with informal complaints filed against common carriers under our 208 complaint rules.

³³ See *Examination of Current Policy Concerning Treatment of Confidential Information Submitted to the Commission*, CC Docket No. 98-100 and Order, 13 FCC Rcd 24816 (1998).

cases in which a party legitimately believes that the protection afforded under these rules is inadequate, the rules afford the opportunity to seek more stringent limitations of the submission or exchange of particularly sensitive materials.

7. *Ex Parte* Treatment of Informal and Formal Complaints

162. We will amend our rules pertaining to *ex parte* communications to provide that informal complaints filed pursuant to section 255 of the Act shall be deemed "exempt" proceedings, as is the case with informal complaints filed pursuant to section 208 of the Act.³³⁴ This exempt designation will allow the Commission and its staff to meet or otherwise communicate with either party, as well as non-parties, on an *ex parte* basis to discuss matters pertaining to the complaint and related compliance issues. This exempt classification has proven to be extremely beneficial to consumers, defendant companies and the Commission in terms of facilitating the identification and exchange of information and ideas needed to resolve section 208 informal complaints and related compliance issues.³³⁵

163. Formal complaints filed against common carriers pursuant to sections 1.720-1.736 of our rules are classified as "restricted" proceedings under our *ex parte* rules.³³⁶ This "restricted" designation, as with other proceedings not designated as exempt or permit-but-disclose, expressly prohibits *ex parte* presentations in these adjudicatory proceedings from any source.³³⁷ Formal section 255 complaints filed against manufacturers or service providers shall be similarly treated as restricted proceedings.

8. Actions by the Commission on its own Motion

164. Our discussion in this section of the *Order* has focused on rules and policies to be applied when complaints are filed against manufacturers and service providers under section 255 of the Act as a means of promoting compliance with the Act's accessibility requirements and those under our rules. As we noted earlier, swift and effective enforcement is crucial to our section 255 implementation plan. We fully expect that most accessibility-related informal complaints filed pursuant to section 255 will be resolved promptly by manufacturers and service providers, without the need for significant Commission involvement. We emphasize, however, that to the extent that compliance issues or problems requiring regulatory intervention are perceived by the staff during the processing of an accessibility-related informal complaint or are otherwise brought

³⁴ See section 1.1204 of the rules, 47 C.F.R. 1.1204.

³⁵ We note that our *ex parte* rules specifically authorize the Commission or its staff to apply different *ex parte* procedures in particular cases if deemed in the public interest. For example, the staff could designate an informal complaint as either "restricted" (which would mean that *ex parte* communications would be strictly prohibited) or non-restricted (*ex parte* communications are permitted but must be fully disclosed to the Commission and other parties to the proceeding) if deemed in the public interest. See 47 C.F.R. 1.1200-1.1208.

³⁶ See 47 U.S.C. 1.1208.

³⁷ *Id.* As we noted above, our *ex parte* rules specifically authorize the Commission or its staff to apply different *ex parte* procedures in particular cases if deemed in the public interest.

to the Commission's attention, the staff will be poised to pursue the matter on its own motion and, when warranted, take or recommend appropriate remedial actions or sanctions from those available to us under the Act and our rules.³³⁸

165. We reject the suggestion by certain commenters that we establish specific guidelines for initiating investigations and other section 255 enforcement actions on our own motion.³³⁹ We see no need to attempt to describe in this *Order* the various factors and circumstances that might warrant exercise of our broad enforcement authority. The procedures to be followed by the staff in taking action on its own motion, unless prescribed under the Act or our rules, shall be those which will best serve the purposes of such enforcement proceedings.³⁴⁰

9. Program Accessibility

166. As we noted earlier, the Commission has a responsibility to prohibit discrimination on the basis of disability in its programs and activities, as required by the Rehabilitation Act of 1973, as amended.³⁴¹ The Commission's rules implementing these responsibilities are set forth at 47 C.F.R.

1.1801 - 1.1870. These requirements apply to the Commission's enforcement provisions and activities.³⁴² If a member of the public believes that the Commission is not providing equal access to its programs and activities, the procedures for filing a program accessibility complaint are set forth in 47 C.F.R. 1.1870. Complaints regarding access to Commission programs and activities should be sent to the Commission's Office of the Managing Director. Commission staff will provide technical assistance to any member of the public wishing to file a complaint pursuant to sections 1.1801 - 1.1870 of the rules; regarding access to Commission programs and activities; and any such complaint will not predispose the Commission negatively against any section 255 complaints.

F. ADDITIONAL IMPLEMENTATION AND ENFORCEMENT MEASURES

167. In the *NPRM*, the Commission sought comment regarding whether existing Commission processes (and associated forms) would be efficient vehicles for any requirements the Commission might develop in this proceeding, such as information collection, or providing notice to firms dealing with the Commission that they may be subject to section 255. The Commission listed the following examples: (1) the Commission's equipment authorization processes under Part 2, Subpart J of the Commission's Rules; (2) equipment import documentation requirements under Part 2, Subpart K of the Rules; (3) licensing proceedings under section 307 of the Act for various

³⁸ See our discussion of sanctions and remedies *supra*, at 108-111.

³⁹ See, e.g., CEMA comments at 24-26; TIA comments at 98-99.

⁴⁰ See generally, 47 U.S.C. 154(j).

⁴¹ 29 U.S.C. 791 *et seq.*

⁴² This includes requirements for access to electronic and information technologies developed, maintained, procured, or used by all Federal agencies, as required by the Workforce Investment Act of 1998, Pub. L. No 105-220, 112 Stat. 936 (1998); 408(b), 508, 112 Stat. at 1203-06.

radio services used by entities subject to section 255 obligations; and (4) various common carrier filing processes.

168. The Commission also expressed the view that there could be other measures the Commission might take, or might encourage others to take, to foster increased accessibility of telecommunications products. The Commission listed the following examples:

- (1) Establishment of a clearinghouse for current information regarding telecommunications disabilities issues, including product accessibility information, and accessibility solutions.
- (2) Publication of information regarding the performance of manufacturers and service providers in providing accessible products, perhaps based on statistics generated through the fast-track and dispute resolution processes.
- (3) Expansion of the information provided on the Internet at the Commission's Disabilities Issues Task Force Web site (<http://www.fcc.gov/df>).
- (4) Efforts by consumer and industry groups to establish on-going informational and educational programs, product and service certification, standards-setting, and other measures aimed at bridging the gap between accessibility needs and telecommunications solutions.
- (5) Development of peer review processes.

169. Commenters who addressed the first group of issues generally endorsed the use of existing Commission procedures and forms as an efficient and effective method of enforcement.³⁴³ Commenters on the second group of issues involving educational efforts were split between members of the disability community who advocated an expansion of existing Commission dissemination of technical assistance accessibility information³⁴⁴ and manufacturers groups who advocated that a good faith effort to comply with section 255 and keep record of this compliance would be sufficient to fulfill their obligations under the Act.³⁴⁵

170. As to the first group of issues, we find that modifying the current equipment certification or other existing Commission processes for purposes of compliance with section 255 is not appropriate. As outlined in the discussion on enforcement and the application of the readily achievable standard, no specific documentation is being required at this time.

171. As to the second group of issues, however, we believe that the dissemination of technical

¹³ See, e.g., AirTouch comments at 8.

¹⁴ See, e.g., Access Living of Metropolitan Chicago comments at 2; Illinois Deaf and Hard of Hearing Commission comments at 2-3; N comments at 34-39.

¹⁵ See, e.g., SBC comments at 26; TIA comments at 95-96; Information Technology Industry Council comments at 42.

assistance, including information on product capabilities and availability, as well as information about manufacturer and service provider compliance with section 255, is vitally important. It will both help ensure that people have access to needed products and serve as an enforcement tool. After we determine the best way to present the relevant data, we intend to publish information regarding entities' compliance with these rules. We also intend to provide technical assistance and conduct outreach efforts to inform customers and companies of their rights and responsibilities under these rules.

172. We note that some companies and associations have already begun efforts to provide information regarding section 255, such as developing a clearinghouse function on accessibility and training employees on the obligations under section 255. We will not, however, require specific efforts at this time, as we believe companies should have flexibility in addressing this issue. Should we determine in the future that the lack of technical assistance or information about products or these rules is preventing people with disabilities from receiving the full benefits of the statute, we will consider measures to address these issues, including amending our rules.

G. NOTICE OF INQUIRY

1. Overview

173. While we believe this Order takes a dramatic step toward bringing people with disabilities into the information age, we recognize that there is much to be done. There is a vast array of communications-related services available today that are not covered by these rules.³⁴⁶ In addition, there are new technologies, which may be outside the scope of these rules, being developed that may further revolutionize the way we communicate. These developments will undoubtedly affect access to communications for people with disabilities. We must ensure that the disability community is not denied access to innovative new technologies, for example Internet and computer-based services, that may become complements to, or even replacements for, today's telecommunications services and equipment.

174. We are cognizant, in general, of the speed with which innovative next generation technologies are changing the way communications services are offered to the public, and the challenges posed to the disability community by these new technologies if they are not accessible. We lack, however, knowledge of the specific characteristics of those changes, and the implications for accessibility for people with disabilities. Given the rapid evolution of communications and the pace of technological innovation, we need to ensure that as new services and networks are developed they are designed to provide access to persons with disabilities.

175. Accordingly, we are issuing this Notice of Inquiry (NOI) to aid our understanding of the access issues presented by communications services and equipment not covered by the rules we adopt in this Order. Our goal is to take full advantage of the promise of new technology, not only

¹⁶ We note that the Commission proposed that Video Relay Interpreting (VRI) be considered "TRS" within the meaning of Title IV of the A Telecommunications Relay Services and Speech-to-Speech Services for Individuals With Hearing and Speech Disabilities, Notice of Prop making, CC Docket No. 98-67 (rel. May 20, 1998). TRS, mandated by Title IV of the ADA (47 U.S.C. 225), requires the Commission to ensure people with hearing or speech disabilities have 'functionally equivalent' access to the telephone network. 47 U.S.C. 225 (a) - (c).

to ensure that advancements do not leave people with disabilities behind, but also to harness the power of innovation to break down the accessibility barriers we face today and prevent their emergence tomorrow. While we are interested in all aspects of communications technology that may present accessibility issues, we specifically request information on two types, Internet telephony and computer-based equipment that replicates telecommunications functionality. First, we ask commenters to address the extent to which Internet telephony has begun, to replace the traditional telecommunications services, including usage patterns by person with disabilities, which Congress clearly intended to be subject to section 255. Second, we ask commenters to advise us on the impact of computer based applications that provide telecommunications functionalities farther into a customer's premise than the point of connection with the public network, such as voicemail capability that resides in a computer connected to a PBX, rather than in a PBX. We ask commenters not to limit their responses to these two areas, however, but rather to raise any issues of innovations in telecommunications that may present accessibility challenges for the disability community.

176. We are also expressly interested in commenters' views on the extent to which government regulation will be necessary to ensure accessibility of communications technology in the future. We note, for example, the commitment of the Voice on the Net (VON) Coalition to voluntarily ensure that Internet telephony services provided by its members are "accessible as readily achievable", and to take into account disability access needs when developing new products and services.³⁴⁷ Because of our strong interest in ensuring that the disability community is not denied access to any communications technologies, we ask commenters to tell us what we can do to guarantee that access.

2. Discussion

a. Internet Telephony

177. Internet Protocol telephony ("Internet" or "IP" telephony) services enable real-time voice transmission using the Internet Protocol (IP), a packet-switched communications protocol. The services can be provided in two basic ways: computer-to-computer IP telephony conducted through special software and hardware at an end user's premises; or phone-to-phone IP telephony conducted through "gateways" that enable applications originating and/or terminating on the public switched network. Phone-to-phone IP telephony is provided through computer gateways that allow end users to make and receive calls using their traditional telephones. Gateways translate the circuit-switched voice signal into IP packets, and vice versa, and perform associated signalling, control, and address translation functions. The voice communications can then be transmitted along with other data on the "public" Internet, or can be routed through intranets or other private data networks for improved performance.

178. Many commenters urged that we apply the requirements of Section 255 to Internet telephony ("IP telephony") in general or phone-to-phone IP telephony, specifically.³⁴⁸ They

¹⁷ Letter from Bruce D. Jacobs, Counsel to the VON Coalition, to Magalie R. Salas, dated July 7, 1999.

¹⁸ NAD *Ex Parte* Statement, filed Feb. 5 1999, on behalf of Alexander Graham Bell Association, ACB, AFB, American Society for the Deaf, American Speech-Language-Hearing Assoc., Gallaudet University, League for the Hard of Hearing, NAD, SHHH, TDI, UCPA, WID

pointed out that, given the evolutions in communications and the rapid pace of technological innovation, we need to ensure that as new services and networks are developed they are designed to provide access to persons with disabilities. They noted that it is during the development stage that accessibility can be most effectively included. We are concerned that consumers who are simply attempting to place or receive a call using standard CPE not have their accessibility disappear or diminished because the call is being transmitted using a new, developing technology. In addition, commenters stated that if persons with disabilities cannot participate in communications over these newly developing networks, they risk becoming further marginalized from society.³⁴⁹

179. We ask commenters to provide any further information as to the extent to which phone-to-phone IP telephony services might impact the disability community, and the steps, we should take to address any adverse impacts in order to fulfill the goals of section 255, or otherwise promote the accessibility of this technology. Commenting parties should offer specific suggestions as to the appropriate role for the Commission in guaranteeing access and the statutory basis for that role. For example, commenters should address ways in which phone to phone IP telephony may be interpreted as falling within the purview of section 255. Commenters should provide specific definitions of the services or equipment to which the statute might apply, and the appropriate means of limiting its application to only those services and equipment. Commenters should address the ways, if any, in which industry bodies can ensure access without regulatory action. Commenters should also describe the specific access issues or experiences that might arise with IP telephony. For example, will TTY tones be adequately transmitted in a packet-switched environment? Will persons with speech disabilities whose speech patterns and voice outputs from alternative and augmentative communications devices may fall outside of traditional voice patterns, face additional communications barriers with packetized voice services?

180. We further ask commenters to address what efforts manufacturers of equipment that performs phone-to-phone IP telephony functions and providers of phone-to-phone IP telephony services are currently making to ensure that such equipment and services are accessible. What improvements in accessibility may be possible through the use of phone-to-phone IP telephony? Are there natural opportunities for incorporating accessibility into IP telephony? Can greater accessibility be achieved if requirements are adopted early in the development of IP Telephony? Is it possible that greater levels of accessibility will be readily achievable with IP telephony than conventional telephony? How will compatibility with assistive technology affect the use of IP telephony?

181. Commenters should also address the extent to which IP telephony is now, or soon will be, an effective substitute for conventional circuit-switched telephony. As Internet usage grows, phone-to-phone voice IP telephony may be used with increasing frequency as an alternative to

Liv Comments at 3; ACB at 4; CPB/WBGH Comments at 6; ILDEAF Comments at 3-4; LDA Comments at 2; CILNM Comments at 3-4; I
nty at 1; SIL at 3-4; NAD at 15; DDTP at 4-5.

¹⁹ UCPA Comments at 3; AccLiv Comments at 3; ACB Comments at 4; CPB/WBGH Comments at 6; ILDEAF Comments at 3-4; I
ments at 2; CILNM Comments at 3-4; Lake County Comments at 1; SIL Comments at 3-4; NAD Comments at 15-16; WI-TAN Comments
) Comments at 4.

more traditional telephone service. How extensive is Internet telephony usage today? What is the projected usage of Internet telephony in the near future? What is the projected use of various kinds of IP telephony by persons with disabilities?

182. Commenters are asked to describe differences in characteristics between computer-based and phone-based IP telephony, and whether such differences merit different treatment by the Commission. Given the rapid pace of technological change in the telecommunications marketplace, we also ask commenters to apprise us of any new technologies that may impact the availability of accessible services and equipment.

b. Computer Based Equipment

183. We also seek comment on another aspect of the network of the future -- the movement of telecommunications and information service functions from the network, or the terminal equipment which connects directly to the network, into computer equipment which does not connect to the network directly. This computer hardware and software is not typically regarded as CPE, but may, in fact, deliver the same functions we seek to make accessible. For instance, voicemail, interactive menus, or phone-to-phone IP telephony in current network topologies can reside in equipment located on the service provider's premises, but such functionalities are also available in several forms to end users on their own premises. For example, voicemail can be purchased from a carrier, can be provided via software and a private branch exchange (PBX), or can be provided through a computer that connects with the PBX, but is not generally regarded as part of the PBX. It is this latter application as to which we seek comment.

184. These software applications shift the potential for accessibility solutions from the core of the network to the end user's premises. We therefore ask commenters to address whether equipment that provides these capabilities, but which does not connect directly into the public network (or otherwise directly receive the transmission of the telecommunications), should be considered to be CPE subject to the requirements of section 255. We note, for example, that this Order does not currently reach a software telephone or the personal computer on which it resides, even though it performs the same functions as the traditional telephone.

185. We ask commenters to address the need to include this computer-based equipment as CPE or otherwise apply the provisions of these rules to that equipment in order to ensure access. We also ask commenters to address whether failure to bring such equipment within the scope of section 255 would create a serious gap in coverage that would interfere with our ability to effectively implement its provisions. Commenters should offer suggestions as to the appropriate role for the Commission in ensuring access for this kind of equipment and the statutory basis for that role. We also ask about the potential for this kind of equipment for improving accessibility and its compatibility with assistive technology. Is it possible that greater levels of accessibility will be readily achievable if this kind of equipment has accessibility requirements?

H. PROCEDURAL MATTERS

1. Comment Filing Procedures

186. Pursuant to sections 1.415 and 1.419 of the Commission's rules, interested parties may file comments as follows: comments are due on November 14, 1999 and reply comments are due on December 14, 1999. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.

187. Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/e-file/ecfs.html>. Generally, only one copy of an electronic submission must be filed. If multiple docket or rulemaking numbers appear in the caption of this proceeding, however, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic copy by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message: "get form <your email address>." A sample form and directions will be sent in reply.

188. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number. All paper filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 Twelfth Street S.W., Room TW-A325, Washington, DC 20554.

189. Parties who choose to file by paper should also submit their comments on diskette to Al McCloud, Network Services Division, Common Carrier Bureau, Federal Communications Commission, 445 Twelfth Street SW, Room 6-A423, Washington, DC 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM-compatible format using WordPerfect 5.1 for Windows or a compatible software. The diskette should be accompanied by a cover letter and should be submitted in read-only mode. The diskette should be clearly labeled with the commenter's name, proceeding, including the lead docket number in the proceeding (CC Docket No. 96-198), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase (Disk Copy - Not an Original.) Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters should send diskette copies to the Commission's copy contractor, International Transcription Service, Inc., 1231 20th St. NW, Washington DC 20037.

2. Regulatory Flexibility Act

190. As required by section 203 of the Regulatory Flexibility Act,⁵⁰ the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) of the expected impact on small entities of the policies and rules adopted herein. The FRFA analysis is set forth in Appendix D.

⁵⁰ 5 U.S.C. 603.

3. Paperwork Reduction Act Analysis

191. The decision herein has been analyzed with respect to the Paperwork Reduction Act of 1995, Pub. L. 104-13, and the Office of Management and Budget ("OMB") has approved some of its information collection requirements in OMB No. 3060-0833, dated August 4, 1998. Some of the proposals in the *NPRM*, however, have been modified or added. Therefore, some of the information collection requirements in this Report and Order are contingent upon approval by OMB.

I. ORDERING CLAUSES

192. Accordingly, IT IS ORDERED that pursuant to the authority contained in Sections 1, 2, 4, 201(b), 208, 251(a)(2), 255, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154, 201(b), 208, 251(a)(2), 255, 303(r), this Order IS ADOPTED and COMMENTS ARE REQUESTED as described above.

193. IT IS FURTHER ORDERED that 47 C.F.R. Parts 0 and 1, ARE AMENDED as set forth in Appendix A, effective seventy (70) days after publication of the text thereof in the Federal Register.

194. IT IS FURTHER ORDERED that 47 C.F.R. Parts 6 and 7 ARE ADOPTED as set forth in Appendix B, effective seventy (70) days after publication of the text thereof in the Federal Register.

195. IT IS FURTHER ORDERED that the Commission's Office of Public affairs SHALL SEND a copy of this *Report and Order*, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with paragraph 603(a) of the Regulatory Flexibility Act, Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. 601, *et seq.* (1981).

196. The *Report and Order* IS ADOPTED, and the requirements contained herein will become effective 70 days after publication of a summary in the Federal Register. The collection of information contained within is contingent upon approval by OMB. Notice of that approval will be published in the Federal Register.

197. Alternative formats (computer diskette, large print, audio cassette and Braille) are available to persons with disabilities by contacting Martha Contee at (202) 418-0260, TTY (202) 418-2555, or at mcontee@fcc.gov. The *Report and Order* and the rules can also be downloaded in Wordperfect 5.1 and in ASCII formats at: <http://www.fcc.gov/df>.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

APPENDIX A

TEXT OF SECTION 251(a) AND SECTION 255
OF THE COMMUNICATIONS ACT

Section 251. Interconnection.

(a) GENERAL DUTY OF TELECOMMUNICATIONS CARRIERS. Each telecommunications carrier has the duty

* * * * *

(2) not to install network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to section 255 or 256.

Section 255. Access by Persons with Disabilities.

(a) DEFINITIONS. As used in this section

(1) DISABILITY. The term disability has the meaning given to it by section 3(2)(A) of the Americans with Disabilities Act of 1990 (42 U.S.C. 12102(2)(A)).

(2) READILY ACHIEVABLE. The term readily achievable has the meaning given to it by section 301(9) of that Act (42 U.S.C. 12181(9)).

(b) MANUFACTURING. A manufacturer of telecommunications equipment or customer premises equipment shall ensure that the equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities, if readily achievable.

(c) TELECOMMUNICATIONS SERVICES. A provider of telecommunications service shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable.

(d) COMPATIBILITY. Whenever the requirements of subsections (b) and (c) are not readily achievable, such a manufacturer or provider shall ensure that the equipment or service is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, if readily achievable.

(e) GUIDELINES. Within 18 months after the date of enactment of the Telecommunications Act of 1996, the Architectural and Transportation Barriers Compliance Board shall develop guidelines for accessibility of telecommunications equipment and customer premises equipment in conjunction with the Commission. The Board shall review and update the guidelines periodically.

(f) NO ADDITIONAL PRIVATE RIGHTS AUTHORIZED. Nothing in this section shall be construed to authorize any private right of action to enforce any requirement of this section or any regulation thereunder. The Commission shall have exclusive jurisdiction with respect to any complaint

under this section.

APPENDIX B**Amendment to the Code of Federal Regulations**

1) Title 47 of the Code of Federal Regulations (C.F.R.) is amended by adding the following new Parts 6 and 7:

Subpart A -- Scope - Who must comply with these rules?

6.1 Who must comply with these rules?

Subpart B -- Definitions

6.3 Definitions

Subpart C -- Obligations - What must covered entities do?

6.5 General Obligations of Manufacturers

6.7 General Obligations Service Providers

6.9 Product Design , Development and Evaluation

6.11 Information Pass through

6.13 Information, Documentation and Training

Subpart D -- Enforcement

6.15 Generally

6.16 Informal or formal complaints

6.17 Informal complaints; form and content

6.18 Procedure; designation of agents for service

6.19 Answers to informal complaints

6.20 Review and disposition of informal complaints

6.21 Formal Complaints, applicability of Sections 1.720 - 1.736 of the rules

6.22 Formal complaints based on unsatisfied informal complaints

6.23 Actions by the Commission on its on motion

Authority: 47 U.S.C. 154(i), 154(j) 208, 255

Subpart A -- Scope - Who must comply with these rules?

6.1 The rules in this part apply to:

(a) any provider of telecommunications service;

(b) any manufacturer of telecommunications equipment or customer premises equipment; and

(c) any telecommunications carrier.

Subpart B -- Definitions.

6.3 Definitions

(a) The term *accessible* shall mean that:

(1) Input, control, and mechanical functions shall be locatable, identifiable, and operable in accordance with each of the following, assessed independently:

(i) Operable without vision. Provide at least one mode that does not require user vision.

(ii) Operable with low vision and limited or no hearing. Provide at least one mode that permits operation by users with visual acuity between 20/70 and 20/200, without relying on audio output.

(iii) Operable with little or no color perception. Provide at least one mode that does not require user color perception.

(iv) Operable without hearing. Provide at least one mode that does not require user auditory perception.

(v) Operable with limited manual dexterity. Provide at least one mode that does not require user fine motor control or simultaneous actions.

(vi) Operable with limited reach and strength. Provide at least one mode that is operable with user limited reach and strength.

(vii) Operable with a Prosthetic Device. Controls shall be operable without requiring body contact or close body proximity.

(viii) Operable without time-dependent controls. Provide at least one mode that does not require a response time or allows response time to be by-passed or adjusted by the user over a wide range.

(ix) Operable without speech. Provide at least one mode that does not require user speech.

(x) Operable with limited cognitive skills. Provide at least one mode that minimizes the cognitive, memory, language, and learning skills required of the user.

(2) All information necessary to operate and use the product, including but not limited to, text, static or dynamic images, icons, labels, sounds, or incidental operating cues, comply with each of the following, assessed independently:

(i) Availability of visual information. Provide visual information through at least one mode in auditory form.

(ii) Availability of visual information for low vision users. Provide visual information through at least one mode to users with visual acuity between 20/70 and 20/200 without relying on audio.

-
- (iii) Access to moving text. Provide moving text in at least one static presentation mode at the option of the user.
- (iv) Availability of auditory information. Provide auditory information through at least one mode in visual form and, where appropriate, in tactile form.
- (v) Availability of auditory information for people who are hard of hearing. Provide audio or acoustic information, including any auditory feedback tones that are important for the use of the product, through at least one mode in enhanced auditory fashion (i.e., increased amplification, increased signal-to-noise ratio, or combination).
- (vi) Prevention of visually-induced seizures. Visual displays and indicators shall minimize visual flicker that might induce seizures in people with photosensitive epilepsy.
- (vii) Availability of audio cutoff. Where a product delivers audio output through an external speaker, provide an industry standard connector for headphones or personal listening devices (e.g., phone-like handset or earcup) which cuts off the speaker(s) when used.
- (viii) Non-interference with hearing technologies. Reduce interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) to the lowest possible level that allows a user to utilize the product.
- (ix) Hearing aid coupling. Where a product delivers output by an audio transducer which is normally held up to the ear, provide a means for effective wireless coupling to hearing aids.
- (b) The term *compatibility* shall mean compatible with peripheral devices and specialized customer premises equipment commonly used by individuals with disabilities to achieve accessibility to telecommunications services, and in compliance with the following provisions, as applicable:
- (1) External electronic access to all information and control mechanisms. Information needed for the operation of products (including output, alerts, icons, on-line help, and documentation) shall be available in a standard electronic text format on a cross-industry standard port and all input to and control of a product shall allow for real time operation by electronic text input into a cross-industry standard external port and in cross-industry standard format. The cross-industry standard port shall not require manipulation of a connector by the user.
 - (2) Connection point for external audio processing devices. Products providing auditory output shall provide the auditory signal at a standard signal level through an industry standard connector.
 - (3) TTY connectability. Products which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic connection point for TTYs. It shall also be possible for the user to easily turn any microphone on and off to allow the user to intermix speech with TTY use.
 - (4) TTY signal compatibility. Products, including those providing voice communication

functionality, shall support use of all cross-manufacturer non-proprietary standard signals used by TTYs.

(c) The term *customer premises equipment* shall mean equipment employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications.

(d) The term *disability* shall mean a physical or mental impairment that substantially limits one or more of the major life activities of an individual; a record of such an impairment; or being regarded as having such an impairment.

(e) The term *manufacturer* shall mean an entity that makes or produces a product.

(f) The term *peripheral devices* shall mean devices employed in connection with equipment covered by this part to translate, enhance, or otherwise transform telecommunications into a form accessible to individuals with disabilities.

(g) The term *readily achievable* shall mean, in general, easily accomplishable and able to be carried out without much difficulty or expense. In determining whether an action is readily achievable, factors to be considered include:

- (1) the nature and cost of the action needed;
- (2) the overall financial resources of the manufacturer or service provider involved in the action (the covered entity); the number of persons employed by such manufacturer or service provider; the effect on expenses and resources, or the impact otherwise of such action upon the operations of the manufacturer or service provider;
- (3) If applicable, the overall financial resources of the parent of the entity; the overall size of the business of the parent entity with respect to the number of its employees; the number, type, and location of its facilities; and
- (4) If applicable, the type of operation or operations of the covered entity, including the composition, structure and functions of the workforce of such entity; and the geographic separateness, administrative or fiscal relationship of the covered entity in question to the parent entity.

(h) The term *specialized customer premises equipment* shall mean customer premise equipment which is commonly used by individuals with disabilities to achieve access.

(i) The term *telecommunications equipment* shall mean equipment, other than customer premises equipment, used by a carrier to provide telecommunications services, and includes software integral to such equipment (including upgrades).

(j) The term *telecommunications service* shall mean the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public,

regardless of the facilities used.

(k) The term *usable* shall mean that individuals with disabilities have access to the full functionality and documentation for the product, including instructions, product information (including accessible feature information), documentation, bills and technical support which is provided to individuals without disabilities.

Subpart C -- Obligations - What must covered entities do?

6.5 General Obligations

(a) Obligation of Manufacturers

(1) A manufacturer of telecommunications equipment or customer premises equipment shall ensure that the equipment is designed, developed and fabricated so that the telecommunications functions of the equipment are accessible to and usable by individuals with disabilities, if readily achievable.

(2) Whenever the requirements of paragraph (1) are not readily achievable, the manufacturer shall ensure that the equipment is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, if readily achievable.

(b) Obligation of Service Providers

(1) A provider of a telecommunications service shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable.

(2) Whenever the requirements of paragraph (1) are not readily achievable, the service provider shall ensure that the service is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, if readily achievable.

(c) Obligation of Telecommunications Carriers. Each telecommunications carrier must not install network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to this Part or Part 7.

6.7 Product design, development, and evaluation.

(a) Manufacturers and service providers shall evaluate the accessibility, usability, and compatibility of equipment and services covered by this part and shall incorporate such evaluation throughout product design, development, and fabrication, as early and consistently as possible. Manufacturers and service providers shall identify barriers to accessibility and usability as part of such a product design and development process.

(b) In developing such a process, manufacturers and service providers shall consider the following factors, as the manufacturer deems appropriate:

(1) Where market research is undertaken, including individuals with disabilities in target populations of such research;

(2) Where product design, testing, pilot demonstrations, and product trials are conducted, including individuals with disabilities in such activities;

(3) Working cooperatively with appropriate disability-related organizations; and

(4) Making reasonable efforts to validate any unproven access solutions through testing with individuals with disabilities or with appropriate disability-related organizations that have established expertise with individuals with disabilities.

6.9 Information pass through.

Telecommunications equipment and customer premises equipment shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide telecommunications in an accessible format, if readily achievable. In particular, signal compression technologies shall not remove information needed for access or shall restore it upon decompression.

6.11 Information, documentation, and training.

(a) Manufacturers and service providers shall ensure access to information and documentation it provides to its customers, if readily achievable. Such information and documentation includes user guides, bills, installation guides for end-user installable devices, and product support communications, regarding both the product in general and the accessibility features of the product. Manufacturers shall take such other readily achievable steps as necessary including:

(1) Providing a description of the accessibility and compatibility features of the product upon request, including, as needed, in alternate formats or alternate modes at no additional charge;

(2) Providing end-user product documentation in alternate formats or alternate modes upon request at no additional charge; and

(3) Ensuring usable customer support and technical support in the call centers and service centers which support their products at no additional charge.

(b) Manufacturers and service providers shall include in general product information the contact method for obtaining the information required by paragraph (a) of this section.

(c) In developing, or incorporating existing training programs, manufacturers and service providers, shall consider the following topics:

- (1) Accessibility requirements of individuals with disabilities;
- (2) Means of communicating with individuals with disabilities;
- (3) Commonly used adaptive technology used with the manufacturer's products;
- (4) Designing for accessibility; and
- (5) Solutions for accessibility and compatibility.

Subpart D -- Enforcement

6.15 Generally

(a) All manufacturers of telecommunications equipment or customer premise equipment (CPE) and all providers of telecommunications services, as defined under this subpart, are subject to the enforcement provisions specified in the Act and the Commission's rules.

(b) For purposes of sections 6.15 - 6.23 of this subpart, the term "manufacturers" shall denote manufacturers of telecommunications equipment or CPE and the term "providers" shall denote providers of telecommunications services.

6.16 Informal or formal complaints

Complaints against manufacturers or providers, as defined under this subpart, for alleged violations of this subpart may be either informal or formal.

6.17 Informal complaints; form and content

(a) An informal complaint alleging a violation of section 255 of the Act or this subpart may be transmitted to the Commission by any reasonable means, e.g., letter, facsimile transmission, telephone (voice/TRS/TTY), Internet e-mail, ASCII text, audio-cassette recording, and braille.

(b) An informal complaint shall include:

- (1) The name and address of the complainant;
- (2) The name and address of the manufacturer or provider against whom the complaint is made;
- (3) A full description of the telecommunications equipment or CPE and/or the telecommunications service about which the complaint is made;
- (4) The date or dates on which the complainant either purchased, acquired or used, or attempted to purchase, acquire or use the telecommunications equipment, CPE or telecommunications service about which the complaint is being made;
- (5) A complete statement of the facts, including documentation where available, supporting

the complainant's allegation that: such telecommunications service, or such telecommunications equipment or CPE, is not accessible to, or usable by, a person with a particular disability or persons with disabilities within the meaning of this subpart and section 255 of the Act; or that the defendant has otherwise failed to comply with the requirements of this subpart;

(6) The specific relief or satisfaction sought by the complainant, and

(7) The complainant's preferred format or method of response to the complaint by the Commission and defendant (e.g., letter, facsimile transmission, telephone (voice/TRS/TTY), Internet e-mail, ASCII text, audio-cassette recording, braille; or some other method that will best accommodate the complainant's disability)

6.18 Procedure; designation of agents for service

(a) The Commission shall promptly forward any informal complaint meeting the requirements of subsection 6.17 of this subpart to each manufacturer and provider named in or determined by the staff to be implicated by the complaint. Such manufacturer(s) or provider(s) shall be called on to satisfy or answer the complaint within the time specified by the Commission.

(b) To ensure prompt and effective service of informal and formal complaints filed under this subpart, every manufacturer and provider subject to the requirements of section 255 of the Act and this subpart, shall designate an agent, and may designate additional agents if it so chooses, upon whom service may be made of all notices, inquiries, orders, decisions, and other pronouncements of the Commission in any matter before the Commission. Such designation shall include, for both the manufacturer or the provider, a name or department designation, business address, telephone number, and, if available TTY number, facsimile number, and Internet e-mail address.

6.19 Answers to informal complaints.

Any manufacturer or provider to whom an informal complaint is directed by the Commission under this subpart shall file an answer within the time specified by the Commission. The answer shall:

(1) be prepared or formatted in the manner requested by the complainant pursuant to section 6.17 of this subpart, unless otherwise permitted by the Commission for good cause shown;

(2) describe any actions that the defendant has taken or proposes to take to satisfy the complaint;

(3) advise the complainant and the Commission of the nature of the defense(s) claimed by the defendant;

(4) respond specifically to all material allegations of the complaint; and

(5) provide any other information or materials specified by the Commission as relevant to its consideration of the complaint.

6.20 Review and disposition of informal complaints

(a) Where it appears from the defendant's answer, or from other communications with the parties, that an informal complaint has been satisfied, the Commission may, in its discretion, consider the informal complaint closed, without response to the complainant or defendant. In all other cases,

the Commission shall inform the parties of its review and disposition of a complaint filed under this subpart. Where practicable, this information (the nature of which is specified in subsections (b) - (d) of this section, shall be transmitted to the complainant and defendant in the manner requested by the complainant, (e.g., letter, facsimile transmission, telephone (voice/TRS/TTY), Internet e-mail, ASCII text, audio-cassette recording, or braille).

(b) In the event the Commission determines, based on a review of the information provided in the informal complaint and the defendant's answer thereto, that no further action is required by the Commission with respect to the allegations contained in the informal complaint, the informal complaint shall be closed and the complainant and defendant shall be duly informed of the reasons therefor. A complainant unsatisfied with the defendant's response to the informal complaint and the staff decision to terminate action on the informal complaint may file a formal complaint with the Commission, as specified in section 6.22 of this subpart.

(c) In the event the Commission determines, based on a review of the information presented in the informal complaint and the defendant's answer thereto, that a material and substantial question remains as to the defendant's compliance with the requirements of this subpart, the Commission may conduct such further investigation or such further proceedings as may be necessary to determine the defendant's compliance with the requirements of this subpart and to determine what, if any, remedial actions and/or sanctions are warranted.

(d) In the event that the Commission determines, based on a review of the information presented in the informal complaint and the defendant's answer thereto, that the defendant has failed to comply with or is presently not in compliance with the requirements of this subpart, the Commission may order or prescribe such remedial actions and/or sanctions as are authorized under the Act and the Commission's rules and which are deemed by the Commission to be appropriate under the facts and circumstances of the case.

6.21 Formal Complaints, applicability of Sections 1.720 - 1.736 of the Rules

Formal complaints against a manufacturer or provider, as defined under this subpart, may be filed in the form and in the manner prescribed under Sections 1.720 - 1.736 of the Commission's rules. Commission staff may grant waivers of, or exceptions to, particular requirements under Sections 1.720 - 1.736 for good cause shown; provided, however, that such waiver authority may not be exercised in a manner that relieves, or has the effect of relieving, a complainant of the obligation under sections 1.720 and 1.728 of the rules to allege facts which, if true, are sufficient to constitute a violation or violations of section 255 of the Act or this subpart.

6.22 Formal complaints based on unsatisfied informal complaints

A formal complaint filing based on an unsatisfied informal complaint filed pursuant to subsection 4.16 of this subpart shall be deemed to relate back to the filing date of the informal complaint if it is: (1) filed within ninety days from the date that the Commission notifies the

complainant of its disposition of the informal complaint and (2) based on the same operative facts as those alleged in the informal complaint.

6.23 Actions by the Commission on its on motion

The Commission may on its own motion conduct such inquiries and hold such proceedings as it may deem necessary to enforce the requirements of this subpart and Section 255 of the Communications Act. The procedures to be followed by the Commission shall, unless specifically prescribed in the Act and the Commission's rules, be such as in the opinion of the Commission will best serve the purposes of such inquiries and proceedings.

Authority: 47 U.S.C. 154(i), 154(j) 208, 255

47 C.F.R. Part 7**Subpart A -- Scope - Who must comply with these rules?**

7.1 Who must comply with these rules?

Subpart B -- Definitions

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7.19 Answers to informal complaints

7.20 Review and disposition of informal complaints

7.21 Formal Complaints, applicability of Sections 1.720 - 1.736 of the rules

7.22 Formal complaints based on unsatisfied informal complaints

7.23 Actions by the Commission on its on motion

Authority: 47 U.S.C. Section 1, 154(i), 154(j) 208, 255

Subpart A -- Scope - Who must comply with these rules?

7.1 The rules in this part apply to:

- (a) any provider of voicemail or interactive menu service;
- (b) any manufacturer of telecommunications equipment or customer premises equipment which performs a voicemail or interactive menu function.

Subpart B -- Definitions.

7.3 Definitions

(a) The term *accessible* shall mean that:

(1) Input, control, and mechanical functions shall be locatable, identifiable, and operable in accordance with each of the following, assessed independently:

- (i) Operable without vision. Provide at least one mode that does not require user vision.
- (ii) Operable with low vision and limited or no hearing. Provide at least one mode that permits operation by users with visual acuity between 20/70 and 20/200, without relying on audio output.
- (iii) Operable with little or no color perception. Provide at least one mode that does not require user color perception.
- (iv) Operable without hearing. Provide at least one mode that does not require user auditory perception.
- (v) Operable with limited manual dexterity. Provide at least one mode that does not require user fine motor control or simultaneous actions.
- (vi) Operable with limited reach and strength. Provide at least one mode that is operable with user limited reach and strength.
- (vii) Operable with a Prosthetic Device. Controls shall be operable without requiring body contact or close body proximity.
- (viii) Operable without time-dependent controls. Provide at least one mode that does not require a response time or allows a response to be by-passed or adjusted by the user over a wide range.
- (ix) Operable without speech. Provide at least one mode that does not require user speech.
- (x) Operable with limited cognitive skills. Provide at least one mode that minimizes the cognitive, memory, language, and learning skills required of the user.

(2) All information necessary to operate and use the product, including but not limited to, text, static or dynamic images, icons, labels, sounds, or incidental operating cues, comply with each of the following, assessed independently:

- (i) Availability of visual information. Provide visual information through at least one mode in auditory form.
- (ii) Availability of visual information for low vision users. Provide visual information through at least one mode to users with visual acuity between 20/70 and 20/200 without relying on

audio.

(iii) Access to moving text. Provide moving text in at least one static presentation mode at the option of the user.

(iv) Availability of auditory information. Provide auditory information through at least one mode in visual form and, where appropriate, in tactile form.

(v) Availability of auditory information for people who are hard of hearing. Provide audio or acoustic information, including any auditory feedback tones that are important for the use of the product, through at least one mode in enhanced auditory fashion (i.e., increased amplification, increased signal-to-noise ratio, or combination).

(vi) Prevention of visually-induced seizures. Visual displays and indicators shall minimize visual flicker that might induce seizures in people with photosensitive epilepsy.

(vii) Availability of audio cutoff. Where a product delivers audio output through an external speaker, provide an industry standard connector for headphones or personal listening devices (e.g., phone-like handset or earcup) which cuts off the speaker(s) when used.

(viii) Non-interference with hearing technologies. Reduce interference to hearing technologies (including hearing aids, cochlear implants, and assistive listening devices) to the lowest possible level that allows a user to utilize the product.

(ix) Hearing aid coupling. Where a product delivers output by an audio transducer which is normally held up to the ear, provide a means for effective wireless coupling to hearing aids.

(b) The term *compatibility* shall mean compatible with peripheral devices and specialized customer premises equipment commonly used by individuals with disabilities to achieve accessibility to voicemail and interactive menus, and in compliance with the following provisions, as applicable:

(1) External electronic access to all information and control mechanisms. Information needed for the operation of products (including output, alerts, icons, on-line help, and documentation) shall be available in a standard electronic text format on a cross-industry standard port and all input to and control of a product shall allow for real time operation by electronic text input into a cross-industry standard external port and in cross-industry standard format. The cross-industry standard port shall not require manipulation of a connector by the user.

(2) Connection point for external audio processing devices. Products providing auditory output shall provide the auditory signal at a standard signal level through an industry standard connector.

(3) TTY connectability. Products which provide a function allowing voice communication and which do not themselves provide a TTY functionality shall provide a standard non-acoustic

connection point for TTYs. It shall also be possible for the user to easily turn any microphone on and off to allow the user to intermix speech with TTY use.

(4) TTY signal compatibility. Products, including those providing voice communication functionality, shall support use of all cross-manufacturer non-proprietary standard signals used by TTYs.

(c) The term *customer premises equipment* shall mean equipment employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications.

(d) The term *disability* shall mean a physical or mental impairment that substantially limits one or more of the major life activities of an individual; a record of such an impairment; or being regarded as having such an impairment.

(e) The term *interactive menu* shall mean a feature that allows a service provider or operator of CPE to transmit information to a caller in visual and/or audible format for the purpose of management, control, or operations of a telecommunications system or service; and/or to request information from the caller in visual and/or audible format for the purpose of management, control, or operations of a telecommunications system or service; and/or to receive information from the caller in visual and/or audible format in response to a request, for the purpose of management, control, or operations of a telecommunications system or service. This feature, however, does not include the capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications for any purpose other than management, control, or operations of a telecommunications system or service.

(f) The term *manufacturer* shall mean an entity that makes or produces a product..

(g) The term *peripheral devices* shall mean devices employed in connection with equipment covered by this part to translate, enhance, or otherwise transform telecommunications into a form accessible to individuals with disabilities.

(h) The term *phone to phone internet protocol telephony* shall mean real time voice telecommunications established between two units of customer premises equipment (CPE) attached to the Public Switched Telephone Network (PSTN), in which only part of the connection between the two units of CPE is routed through the PSTN, and part through a public or private internet protocol network carrying digitally encoded voice within internet protocol packets.

(i) The term *readily achievable* shall mean, in general, easily accomplishable and able to be carried out without much difficulty or expense. In determining whether an action is readily achievable, factors to be considered include:

- (1) the nature and cost of the action needed;
- (2) the overall financial resources of the manufacturer or service provider involved in the

action (the covered entity); the number of persons employed by such manufacturer or service provider; the effect on expenses and resources, or the impact otherwise of such action upon the operations of the manufacturer or service provider;

- (3) If applicable, the overall financial resources of the parent of the covered entity; the overall size of the business of the parent of the covered entity with respect to the number of its employees; the number, type, and location of its facilities; and
- (4) If applicable, the type of operation or operations of the covered entity, including the composition, structure and functions of the workforce of such entity; and the geographic separateness, administrative or fiscal relationship of covered entity in question to the parent entity.

(j) The term *specialized customer premises equipment* shall mean customer premise equipment which is commonly used by individuals with disabilities to achieve access.

(k) The term *telecommunications equipment* shall mean equipment, other than customer premises equipment, used by a carrier to provide telecommunications services, and includes software integral to such equipment (including upgrades).

(l) The term *telecommunications service* shall mean the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

(m) The term *usable* shall mean that individuals with disabilities have access to the full functionality and documentation for the product, including instructions, product information (including accessible feature information), documentation, bills and technical support which is provided to individuals without disabilities.

(n) The term *Voice mail* shall mean the capability of answering calls and recording incoming messages when a line is busy or does not answer within a pre-specified amount of time or number of rings; receiving those messages at a later time; and may also include the ability to determine the sender and time of transmission without hearing the entire message; the ability to forward the message to another voice messaging customer, with and/or without an appended new message; the ability for the sender to confirm receipt of a message; the ability to send, receive, and/or store facsimile messages; and possibly other features.

Subpart C -- Obligations - What must covered entities do?

7.5 General Obligations

- (a) Obligation of Manufacturers

(1) A manufacturer of telecommunications equipment or customer premises equipment covered by this part shall ensure that the equipment is designed, developed and fabricated so that the voicemail and interactive menu functions are accessible to and usable by individuals with disabilities, if readily achievable.

(2) Whenever the requirements of paragraph (1) are not readily achievable, the manufacturer shall ensure that the equipment or software is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, if readily achievable.

(b) Obligation of Service Providers

(1) A provider of voicemail or interactive menu shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable.

(2) Whenever the requirements of paragraph (1) are not readily achievable, the service provider shall ensure that the service is compatible with existing peripheral devices or specialized customer premises equipment commonly used by individuals with disabilities to achieve access, if readily achievable.

7.7 Product design, development, and evaluation.

(a) Manufacturers and service providers shall evaluate the accessibility, usability, and compatibility of equipment and services covered by this part and shall incorporate such evaluation throughout product design, development, and fabrication, as early and consistently as possible. Manufacturers and service providers shall identify barriers to accessibility and usability as part of such a product design and development process.

(b) In developing such a process, manufacturers and service providers shall consider the following factors, as the manufacturer deems appropriate:

(1) Where market research is undertaken, including individuals with disabilities in target populations of such research;

(2) Where product design, testing, pilot demonstrations, and product trials are conducted, including individuals with disabilities in such activities;

(3) Working cooperatively with appropriate disability-related organizations; and

(4) Making reasonable efforts to validate any unproven access solutions through testing with individuals with disabilities or with appropriate disability-related organizations that have established expertise with individuals with disabilities.

7.9 Information pass through.

Telecommunications equipment and customer premises equipment shall pass through cross-manufacturer, non-proprietary, industry-standard codes, translation protocols, formats or other information necessary to provide telecommunications in an accessible format, if readily achievable. In particular, signal compression technologies shall not remove information needed for access or shall restore it upon decompression.

7.11 Information, documentation, and training.

(a) Manufacturers and service providers shall ensure access to information and documentation it provides to its customers, if readily achievable.

Such information and documentation includes user guides, bills, installation guides for end-user installable devices, and product support communications, regarding both the product in general and the accessibility features of the product. Manufacturers shall take such other readily achievable steps as necessary including:

(1) Providing a description of the accessibility and compatibility features of the product upon request, including, as needed, in alternate formats or alternate modes at no additional charge;

(2) Providing end-user product documentation in alternate formats or alternate modes upon request at no additional charge; and

(3) Ensuring usable customer support and technical support in the call centers and service centers which support their products at no additional charge.

(b) Manufacturers and service providers shall include in general product information the contact method for obtaining the information required by paragraph (a) of this section.

(c) In developing, or incorporating existing training programs, manufacturers and service providers shall consider the following topics:

(1) Accessibility requirements of individuals with disabilities;

(2) Means of communicating with individuals with disabilities;

(3) Commonly used adaptive technology used with the manufacturer's products;

(4) Designing for accessibility; and

(5) Solutions for accessibility and compatibility.

Subpart D -- Enforcement

7.15 Generally

(a) For purposes of sections 7.15 - 7.23 of this subpart, the term "manufacturers" shall denote any manufacturer of telecommunications equipment or customer premises equipment which performs a voicemail or interactive menu function.

(b) All manufacturers of telecommunications equipment or customer premise equipment (CPE) and all providers of voicemail and interactive menu services, as defined under this subpart, are subject to the enforcement provisions specified in the Act and the Commission's rules.

(c) The term "providers" shall denote any provider of voicemail or interactive menu service.

7.16 Informal or formal complaints

Complaints against manufacturers or providers, as defined under this subpart, for alleged violations of this subpart may be either informal or formal.

7.17 Informal complaints; form and content

(a) An informal complaint alleging a violation of section 255 of the Act or this subpart may be transmitted to the Commission by any reasonable means, e.g., letter, facsimile transmission, telephone (voice/TRS/TTY), Internet e-mail, ASCII text, Internet e-mail, audio-cassette recording, and braille.

(b) An informal complaint shall include:

- (1) The name and address of the complainant;
- (2) The name and address of the manufacturer or provider against whom the complaint is made;
- (3) A full description of the telecommunications equipment or CPE and/or the telecommunications service about which the complaint is made;
- (4) The date or dates on which the complainant either purchased, acquired or used, or attempted to purchase, acquire or use the telecommunications equipment, CPE or telecommunications service about which the complaint is being made;
- (5) A complete statement of the facts, including documentation where available, supporting the complainant's allegation that: such telecommunications service, or such telecommunications equipment or CPE, is not accessible to, or usable by, a person with a particular disability or persons with disabilities within the meaning of this subpart and section 255 of the Act; or that the defendant has otherwise failed to comply with the requirements of this subpart.
- (6) The specific relief or satisfaction sought by the complainant, and
- (7) The complainant's preferred format or method of response to the complaint by the Commission and defendant (e.g., letter, facsimile transmission, telephone (voice/TRS/TTY), Internet e-mail, ASCII text, audio-cassette recording, braille; or some other method that will best accommodate the complainant's disability)

7.18 Procedure; designation of agents for service

(a) The Commission shall promptly forward any informal complaint meeting the requirements of subsection 4.17 of this subpart to each manufacturer and provider named in or determined by the staff to be implicated by the complaint. Such manufacturer(s) or provider(s) shall be called on to satisfy or answer the complaint within the time specified by the Commission.

(b) To ensure prompt and effective service of informal and formal complaints filed under this subpart, every manufacturer and provider subject to the requirements of section 255 of the Act and this subpart, shall designate an agent, and may designate additional agents if it so chooses, upon whom service may be made of all notices, inquiries, orders, decisions, and other pronouncements of the Commission in any matter before the Commission. Such designation shall include, for both the manufacturer or the provider, a name or department designation, business address, telephone number, and, if available TTY number, facsimile number, and Internet e-mail address.

7.19 Answers to informal complaints.

Any manufacturer or provider to whom an informal complaint is directed by the Commission under this subpart shall file an answer within the time specified by the Commission. The answer shall:

(1) be prepared or formatted in the manner requested by the complainant pursuant to section 7.17 of this subpart, unless otherwise permitted by the Commission for good cause shown;

(2) describe any actions that the defendant has taken or proposes to take to satisfy the complaint;

(3) advise the complainant and the Commission of the nature of the defense(s) claimed by the defendant;

(4) respond specifically to all material allegations of the complaint; and

(5) provide any other information or materials specified by the Commission as relevant to its consideration of the complaint.

7.20 Review and disposition of informal complaints

(a) Where it appears from the defendant's answer, or from other communications with the parties, that an informal complaint has been satisfied, the Commission may, in its discretion, consider the informal complaint closed, without response to the complainant or defendant. In all other cases, the Commission shall inform the parties of its review and disposition of a complaint filed under this subpart. Where practicable, this information (the nature of which is specified in subsections (b) - (d) of this section, shall be transmitted to the complainant and defendant in the manner requested by the complainant, (e.g., letter, facsimile transmission, telephone (voice/TRS/TTY), Internet e-mail, ASCII text, audio-cassette recording, or braille).

(b) In the event the Commission determines, based on a review of the information provided in the informal complaint and the defendant's answer thereto, that no further action is required by the Commission with respect to the allegations contained in the informal complaint, the informal complaint shall be closed and the complainant and defendant shall be duly informed of the reasons therefor. A complainant unsatisfied with the defendant's response to the informal complaint and the staff decision to terminate action on the informal complaint may file a formal complaint with the Commission, as

specified in section 7.22 of this subpart.

(c) In the event the Commission determines, based on a review of the information presented in the informal complaint and the defendant's answer thereto, that a material and substantial question remains as to the defendant's compliance with the requirements of this subpart, the Commission may conduct such further investigation or such further proceedings as may be necessary to determine the defendant's compliance with the requirements of this subpart and to determine what, if any, remedial actions and/or sanctions are warranted.

(d) In the event that the Commission determines, based on a review of the information presented in the informal complaint and the defendant's answer thereto, that the defendant has failed to comply with or is presently not in compliance with the requirements of this subpart, the Commission may order or prescribe such remedial actions and/or sanctions as are authorized under the Act and the Commission's rules and which are deemed by the Commission to be appropriate under the facts and circumstances of the case.

7.21 Formal Complaints, applicability of Sections 1.720 - 1.736 of the Rules

Formal complaints against a manufacturer or provider, as defined under this subpart, may be filed in the form and in the manner prescribed under Sections 1.720 - 1.736 of the Commission's rules. Commission staff may grant waivers of, or exceptions to, particular requirements under Sections 1.720 - 1.736 for good cause shown; provided, however, that such waiver authority may not be exercised in a manner that relieves, or has the effect of relieving, a complainant of the obligation under sections 1.720 and 1.728 of the rules to allege facts which, if true, are sufficient to constitute a violation or violations of section 255 of the Act or this subpart.

7.22 Formal complaints based on unsatisfied informal complaints

A formal complaint filing based on an unsatisfied informal complaint filed pursuant to subsection 4.16 of this subpart shall be deemed to relate back to the filing date of the informal complaint if it is: (1) filed within ninety days from the date that the Commission notifies the complainant of its disposition of the informal complaint and (2) based on the same operative facts as those alleged in the informal complaint.

7.23 Actions by the Commission on its on motion

The Commission may on its own motion conduct such inquiries and hold such proceedings as it may deem necessary to enforce the requirements of this subpart and Section 255 of the Communications Act. The procedures to be followed by the Commission shall, unless specifically prescribed in the Act and the Commission's rules, be such as in the opinion of the Commission will best serve the purposes of such inquiries and proceedings.

(2) 1.1202(d)(2) of Title 47 of the Code of Federal Regulations (C.F.R.) is amended to read as follows:

(2) Any person who files a complaint which shows that the complainant has served it on the subject of the complaint or which is a formal complaint under 47 U.S.C. 208 and 1.721 or 47 U.S.C. 255 and either 6.17 or 7.17, and the person who is the subject of such a complaint that shows service or is a formal complaint under 47 U.S.C. 208 and 1.721 or 47 U.S.C. 255 and either 6.17 and 7.17.

(3) 1.1204(b)(5) of Part 1 of Title 47 of the Code of Federal Regulations (C.F.R.) is amended to read as follows:

(5) An informal complaint proceeding under 47 U.S.C. 208 and 1.717 or 47 U.S.C. 255 and either 6.17 or 7.17; and Authority: 47 U.S.C. Section 1, 154(i), 154(j) 208, 255

APPENDIX C

LIST OF COMMENTERS

Comments

Abols, Bonnie (Warwick RI) (Ocean State Center for Independent Living)
Access Living of Metropolitan Chicago
Access to Independence and Mobility [AIM]
AirTouch Communications, Inc. [AirTouch]
American Council of the Blind [ACB]
American Public Communications Council [APCC]
Ameritech
Andrews, Joan (Punta Gorda FL)
Architectural and Transportation Barriers Compliance Board [Access Board]
Association of Access Engineering Specialists [AAES]
AT&T Corp. [AT&T]
Bechtel, Gene A. (Washington DC)
Bell Atlantic
BellSouth Corporation [BellSouth]
Blackseth, Kim
Born, Deanne (Farmington CT)
Brightpoint, Inc. [Brightpoint]
Business Software Alliance [BSA]
Butler, Mary M. (Lorain OH) (Center for Independent Living)
California Foundation for Independent Living Centers [CFILC]
Carpenter, Patricia
Cellular Phone Taskforce [Taskforce]
Cellular Telecommunications Industry Association [CTIA]
Center for Disability Rights [CDC]
Coalition of Citizens with Disabilities in Illinois [CCDI]
Computer and Communications Industry Association [CCIA]
Consumer Electronics Manufacturers Association [CEMA]
CONXUS Communications, Inc. [CONXUS]
Coombs, Elizabeth J. (Banning CA)
CPB/WGBH National Center for Accessible Media
DC-SHHH Group
DeVilbiss, George (Falls Church VA)
Dietrich, Nancy A. (Columbia IL)
Eleoff, Susan (Ocean State Center for Independent Living, Warwick RI)
Ericsson Inc. [Ericsson]
Figler, Kevin
Garretson, Mervin D. (Bethany Beach DE) (Delaware Association of the Deaf)
Geeslin, David
Governor's Council on Disability, Missouri Dept of Labor and Ind Rel [MoGCD]
Griffith, Robert E. (Springfield IL) (SHHH, Central Illinois Chapter)
GTE

Hernandez, Carmen
Hoffman, Lisa
Hoshauer, Lillian (Deaf-Hearing Communication Centre, Inc., Holmes PA)
Huber, Theodore G. (South Jacksonville IL)
Illinois Deaf and Hard of Hearing Commission
Illinois Department of Human Services [IDHS]
Information Technology Industry Council [ITI]
Ireland, Joan P. (San Diego CA)
Ismail, Massa Jr.
Janes, Malisa W. (Houston TX)
Justice for All
Kailes, June Isaacson (Los Angeles CA)
Kear, Gail B. (Bloomington IL) (Living Independence for Everyone)
LaPointe, Leo A. (Worthington OH)
Learning Disabilities Association of America [LDA]
Lucent Technologies [Lucent]
Maroney, Donald E. (Loveland CO)
Mechem, Kirke (San Francisco CA)
Missouri Assistive Technology Council and Project
Mitchell, Laura Remson (CA)
Motorola, Inc. [Motorola]
Multimedia Telecommunications Association [MMTA]
Mulvany, Dana (Campbell CA)
National Association of the Deaf [NAD]
National Council on Disability [NCD]
NC Assistive Technology Project
Nelson, David J. (Washington DC)
Nextel Communications, Inc. [Nextel]
Northern Telecom Inc. [Nortel]
Oklahoma Department of Rehabilitation Services [OKDRS]
Perrin, Shelly
Personal Communications Industry Association [PCIA]
Philips Consumer Communications LP [Philips]
Polotto, John
Powell, Michael
President's Committee on Employment of People with Disabilities [PCEPD]
Radtke, Richard
Rank, Arvilla (Landover Hills MD) (National Catholic Office for the Deaf)
Rochester Institute of Technology; National Technical Institute for the Deaf [RIT]
SBC Communications Inc. [SBC]
Self Help for Hard of Hearing People, Inc. [SHHH]
Sergeant, Randy (Scottsdale AZ)
Shell, Reginald D. (Brooklyn NY) (Community Options, Inc.)
Siemens Business Communication Systems, Inc.

Sosenka, Lana (Austin TX) (Texas State Independent Living Council)
Storm, Maia Justine (Lansing MI) (Michigan Protection and Advocacy Service)
Telecommunications for the Deaf, Inc. [TDI]
Telecommunications Industry Association [TIA]
The Advocacy Center (New Orleans LA)
The Lighthouse Inc. (New York NY) [Lighthouse]
The Long Island Center for Independent Living, Inc. (Lavation NY) [LICIL]
Uniden America Corporation [Uniden]
United Cerebral Palsy Associations [UCPA]
United States Telephone Association [USTA]
Universal Service Alliance [USA]
Valentine, Patrick
Vickery, Ronald H. (Rome GA)
Vickery, Ronald H. (erratum)
Wilson, Sara Blair (Pearl River NY)
Wisconsin Ass'n of the Deaf Telecommunications Advocacy Network [WI-TAN]
World Institute on Disability (Oakland CA) [WID]

**NOTE: Center for Disability Rights comments contain separate comments of Patricia Carpenter, Kevin Figler, Carmen Hernandez, Lisa Hoffman, Ismael Massa Jr. & Shelly Perrin.

Late-Filed Comments:

American Foundation for the Blind [AFB]
California Public Utilities Commission
Campaign for Telecommunications Access
Center for Independent Living of Northeastern Minnesota [CILNM]
Commonwealth of the Northern Mariana Islands [CNMI]
Lake County Center for Independent Living (Mundelein IL)
LaPointe, Leo A. (Worthington OH)
Office of Management and Budget [OMB]
Oklahoma Assistive Technology Project [Ok-ATP]
Schmittroth, Nicholas R. III
Services for Independent Living (Columbia MO) [SIL]
Trace Research & Development Center, University of Wisconsin-Madison [Trace]
Tucker, Barbara J. (Banning CA)
Welter, Carrie (Augusta GA)
Witkin, Martin J. (Evanston IL)
sushom@toad.net

Replies

Alliance for Public Technology [APT]
American Foundation for the Blind [AFB]
Ameritech
Arch Communications Group, Inc. [Arch]
AT&T
Blackburn, Kathy
Business Software Alliance [BSA]
Cellular Telecommunications Industry Association [CTIA]
Consumer Electronics Manufacturers Association [CEMA]
Council of Organizational Representatives ... Deaf [COR]
GTE
Information Technology Industry Council [ITI]
Institute on Disabilities
League for the Hard of Hearing
Lucent Technologies Inc. [Lucent]
Microsoft Corporation [Microsoft]
Motorola, Inc. [Motorola]
Multimedia Telecommunications Association [MTA]
National Association of the Deaf / Consumer Action Network [NAD/CAN]
National Council of State Agencies for the Blind... [NCSAB]
National Council on Disability [NCD]
Nextel Communications, Inc. [Nextel]
Nokia Inc. [Nokia]
Personal Communications Industry Association [PCIA]
Redcom Laboratories Incorporated [Redcom]
SBC Communications Inc. [SBC]
Self Help for Hard of Hearing People, Inc. + Bechtel [SHHH/Bechtel]
Sprint Corporation [Sprint]
Tandy Corporation [Tandy]
Telecommunications for the Deaf, Inc. [TDI]
Telecommunications Industry Association [TIA]
Uniden America Corporation [Uniden]
United States Telephone Association [USTA]
World Institute on Disability [WID]

Late-Filed Replies:

LaPointe, Leo A.
Campaign for Telecommunications Access
Trace R&D Center [Trace]

APPENDIX D

Final Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act (RFA),³⁵¹ an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the Notice of Proposed Rulemaking (*Notice*) issued in this proceeding.³⁵² The Commission sought written public comments on the proposals included in the *Notice*, including comment on the IRFA, which set forth the possible significant economic impact on small entities of the policies and rules proposed in the *Notice*. This Final Regulatory Flexibility Analysis (FRFA) accompanies the present *Report and Order* and conforms to the RFA.³⁵³

A. Need for, and Objectives of, the *Report and Order* and Rules Adopted Therein

This rulemaking proceeding was initiated to propose means of implementing and enforcing section 255 of the Communications Act, as added by the Telecommunications Act of 1996.³⁵⁴ section 255 is intended to ensure that telecommunications equipment and services will be accessible to persons with disabilities, if such accessibility is readily achievable. If accessibility is not readily achievable, then the telecommunications equipment and services are to be made compatible with specialized customer premises equipment (CPE) or peripheral devices to the extent that so doing is readily achievable.

³⁵¹ See 5 U.S.C. 603. The RFA, *see* 5 U.S.C. 601 *et seq.*, has been amended by the Contract with America Advancement Act of 1996, Pub. L. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (REFEA).

³⁵² *Implementation of Section 255 of the Telecommunications Act of 1996; Access to Telecommunications Service, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities*, Notice of Proposed Rulemaking, 13 FCC Rcd 20391 (1998) (NPI Appendix E (IRFA)).

³⁵³ *See* 5 U.S.C. 604.

³⁵⁴ Pub. L. 104-104, 110 Stat. 56 (1996) (1996 Act).

Given the fundamental role that telecommunications has come to play in today's world, we believe that the provisions of section 255 represent the most significant governmental action for people with disabilities since the passage of the Americans with Disabilities Act of 1990 (ADA).³⁵⁵ Inability to use telecommunications equipment and services can be life-threatening in emergency situations, can severely limit educational and employment opportunities, and can otherwise interfere with full participation in business, family, social, and other activities. We must do all we can to ensure that people with disabilities are not left behind in the telecommunications revolution and consequently isolated from contemporary life.

In the *Notice*, we set forth proposals to implement and enforce the requirement in section 255 that telecommunications offerings be accessible to the extent readily achievable. We proposed a "fast-track" process for resolving accessibility complaints informally and quickly and more conventional remedial processes for cases where fast-track solutions are not possible, or where there appears to be an underlying noncompliance with section 255. We noted that, in either case, we would look favorably upon demonstrations by companies that they had considered accessibility throughout the development of telecommunications products when assessing whether service providers and equipment manufacturers have met their accessibility obligations under section 255. In the accompanying *Report and Order* we have made the following decisions.

- (1) We have incorporated most of the Access Board guidelines into our rules with two minor exceptions and have applied them to the services covered;
- (2) We have asserted our ancillary jurisdiction to extend Section 255's coverage to voicemail and interactive menu services and service providers and equipment used to provide these services.
- (3) We have clarified that Section 255 applies to each piece of equipment and all service offerings, but have noted that the industry has the discretion to determine which accessibility features should be incorporated in all products and which ones can be less than universally deployed, so long as all that is readily achievable is done; and
- (4) We have adopted enforcement rules patterned after our long-standing rules governing complaints filed against common carriers under Section 208 of the Act, with certain modifications we have concluded are necessary to fulfill the goals of Section 255.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

³⁵⁵ Pub. L. 101-336, 104 Stat. 327 (1990) (codified at 42 U.S.C. 12102(2)(A), 12181(9)).

We noted in the IRFA that the resources of the regulated entity are taken into account in the determination of whether accessibility of a given product or service is readily achievable and that there is thus an inherent consideration of the financial burden on the entity in its obligation to provide accessibility: if not readily achievable, the obligation is removed.³⁵⁶ Nevertheless, we acknowledged that all regulated entities would be required to assess whether providing accessibility is readily achievable and that an important issue for RFA purposes is thus not the absolute cost of providing accessibility, but, rather, the extent to which the cost of performing an assessment as to whether an accessibility feature is readily achievable is unduly burdensome on small entities.

We received four comments specifically captioned as being in response to the IRFA. In its comments to the IRFA, CEMA states that "the Commission must take all steps necessary to ensure that any Section 255 implementation rules are not unduly burdensome to small manufacturers; it should also adopt those rules that serve to minimize the economic impact of this rulemaking on small entities."³⁵⁷ These steps are detailed in Section E of this IRFA, *infra*. Lucent's comments question the apparent conflict between Section 1193.43 of the Access Board's Guidelines and Section 68.317 of the Commission's rules dealing with telephone volume control standards, especially in view of the Commission's tentative conclusion in the *Notice* that the Access Board's Guidelines do not overlap, duplicate or conflict with existing Commission Rules.³⁵⁸ Motorola comments that the Fast Track process imposes a substantial information collection requirement on manufacturers at each decisional point in the product design, development and fabrication process.³⁵⁹ Both Motorola³⁶⁰ and TIA³⁶¹ contend that the cost of this information collection requirement should be considered as part of the readily achievable analysis. As discussed, *infra*, we believe that the information collection requirement on manufacturers has been minimized by the implementation of informal complaint procedures.³⁶²

C. Description and Estimate of the Number of Small Entities to Which the Rules Adopted in the *Report and Order* Will Apply

The RFA directs agencies to provide a description and, where feasible, an estimate of the number of small entities that may be affected by the rules adopted in the accompanying *Report*

³⁶ IRFA at E-2,-3.

³⁷ CEMA Comments at 3.

³⁸ Lucent Comments at 13. This apparent discrepancy is resolved in note 47 of the *Report and Order*.

³⁹ Motorola Comments at 20, n. 22.

⁴⁰ *Id.*

⁴¹ TIA Comments at 16, n. 17.

⁴² IRFA at 25-26. *see also* pp. D-25-27, *infra*.

and Order. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."³⁶³ In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.³⁶⁴ A small business concern is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).³⁶⁵ A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."³⁶⁶ Nationwide, as of 1992, there were approximately 275,801 small organizations.³⁶⁷

The rules adopted in the *Report and Order* will apply to manufacturers of telecommunications equipment and CPE to the extent it provides telecommunications, voicemail and interactive menu functions. In addition, telecommunications service providers of many types will be affected, including wireline common carriers and commercial mobile radio service (CMRS) providers.³⁶⁸ To the extent that software performs a telecommunication function, software developers or manufacturers may also be affected.³⁶⁹ Below, we describe and estimate the number of small entity licensees and other covered entities that may be affected by the rules adopted in the *Report and Order*.³⁷⁰

³³ CWAAA., 601(6).

³⁴ 5 U.S.C. 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. 632). Pursuant to the RFA, "the statutory definition of a small business applies unless an agency, after consultation with the Office of Advocacy of the Small Business Administration, after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register." 5 U.S.C. 601(3).

³⁵ Small Business Act, 15 U.S.C. 632 (1996).

³⁶ 5 U.S.C. 601(4).

³⁷ Department of Commerce, U.S. Bureau of the Census, 1992 Economic Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration).

³⁸ See *Report and Order* at para. 80.

³⁹ See *id.* at paras. 80-88.

⁷⁰ We received no response to our request in the IRFA that commenters provide us with information regarding how many entities overall, and how many small entities, might be affected by the rules proposed in the *Notice*.

1. Equipment Manufacturers

The following chart contains estimated numbers of domestic entities that may be affected by the rules promulgated in this proceeding. It is based, in part, on firm counts that reflect product lines not involved in telecommunications, as defined by the 1996 Act, and reflects overlapping firm counts and firm counts that have been deliberately commingled to avoid disclosing the value of individual firms' equipment shipments for the reporting period.³⁷¹

PRODUCT CLASS/CODE	PRODUCT DESCRIPTION	ESTIMATED FIRM COUNT
3571 ³⁷²	Personal computer, terminals and workstations	546
3661 ³⁷³	Telephone and telegraph equipment	540
3663 ³⁷⁴	Communications systems and equipment	938
3577 ³⁷⁵	Computer peripheral equipment, not elsewhere classified	259
3577 ³⁷⁶	Parts and subassemblies for computer peripherals and input/output equipment	72

2. Software Manufacturers

⁷¹ See generally, U.S. Small Business Administration, Table of Size Standards, March 1, 1996; Standard Industrial Classification Manual.

⁷² SBA size standard for this classification is 1,000 employees or less.

⁷³ SBA size standard for the 3661 classification is 1,000 employees or less.

⁷⁴ The SBA size standard for the 3663 category is 750 employees or less.

⁷⁵ The SBA size standard for the 3577 code is 1,000 employees or less.

Id.

Due to the convergence between telecommunications equipment, telecommunications services and the software used to control and regulate each, software developers and producers may be viewed as regulated entities under section 255. This is particularly true of software that is used to make traditional telecommunications devices operate with CPE designed for specific disabilities.³⁷⁷ We sought comment in the IRFA on the impact of our proposed rules on the small businesses within this industrial category. No comments on this issue were forthcoming. The SBA has two small business size standard to be used for software publishers: (1) entities that design, develop or produce prepackaged software have a size standard of \$18 million in average annual revenues;³⁷⁸ and, (2) entities that sell existing, off-the-shelf prepackaged software as a finished product have a size standard of 500 employees or less.^{379 380} According to the Software Information Industry Association (SIIA), there are approximately 8,000 publishers of packaged software. Of these 8,000, we estimate that only about 500 are involved in the production of software specific to telecommunications. We do not have information on the number of these publishers that are not independently owned and operated, or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of software publishers that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are equal to or fewer than 500 telecommunications software publishers that will be affected by Section 255.

3. Telecommunications Service Entities

a. Introduction

The United States Bureau of the Census reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services for at least one year.³⁸¹ This number contains a variety of different categories of carriers, including LECs, IXCs, CAPs, cellular carriers, other mobile service carriers, operator service providers, pay telephone providers, personal communications services (PCS) providers, covered specialized mobile radio (SMR) providers, and resellers. In the IRFA, we noted that some of those 3,497 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated." As an example, we cited a PCS provider that is affiliated with an IXC having more than 1,500 employees and tentatively concluded that fewer than 3,497 telephone service firms are small entity telephone service firms or small incumbent LECs.

See Report and Order at paras. 37-42.

⁷⁸ 13 C.F.R. S 121.201, Standard Industrial Code (SIC) Code 7372.

⁷⁹ 13 C.F.R. S 121.201, Standard Industrial Code (SIC) Code 5045 (Computers and Computer Peripheral Equipment).

⁸⁰ *See* SBA Procedural Notice, SIC Designation of Prepackaged Software, Control No. 6000-654, effective November 29, 1995.

⁸¹ U.S. Department of commerce, Bureau of the Census, 1992 Census of Transportation, Communications, and Utilities: Establishment and 1 (1995) (1992 Census).

According to the Telecommunications Industry Revenue: Telecommunications Relay Service Fund Worksheet Data (*TRS Worksheet*), there are 3,604 interstate carriers.³⁸² These carriers include, *inter alia*, LECs, wireline carriers and service providers, IXCs, CAPs, operator service providers, pay telephone providers, providers of telephone toll service, providers of telephone exchange service, and resellers. In the IRFA we sought information regarding how many providers of telecommunications services, existing and potential, are considered small businesses. We did not receive comment on this issue, so we conclude that this data is acceptable to the industry. We noted that the SBA has defined a small business for Radiotelephone Communications (SIC 4812) and Telephone Communications, Except Radiotelephone (SIC 4813), as a small entities having no more than 1,500 employees, and sought comment as to whether this definition is appropriate for our purposes here. Additionally, we requested that each commenter identify whether it is a small business under this definition and, if a subsidiary of another entity, provide this information for both itself and its parent corporation or entity.

b. Wireline Carriers and Service Providers

The Census Bureau reports that there were 2,321 such telephone companies in operation for at least one year at the end of 1992.³⁸³ According to the SBA definition, a small business telephone company other than a radiotelephone company is one employing no more than 1,500 persons. All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees.

Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs. We noted in the IRFA that we did not have information regarding which of these carriers are not independently owned and operated, and thus were unable to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under the SBA definition. Consequently, we estimated that there are fewer than 2,295 small telephone communications companies other than radiotelephone companies.

(1) Incumbent Local Exchange Carriers

Neither the Commission nor the SBA has developed a definition for small providers of local exchange services. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.³⁸⁴ The most reliable source of information of which we are aware regarding the number of LECs nationwide appears

³² FCC, Carrier Locator: Interstate, p.2, indicating number of carriers paying into the TRS fund by type of carrier (Jan., 1999) (*Carrier Locator*)

³³ 1992 Census at Firm Size 1-123.

³⁴ 13 C.F.R. 121.201 (SIC 4813).

to be the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 1,410 companies reported that they were engaged in the provision of local exchange services.³⁸⁵ Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are equal to or fewer than 1,410 small incumbent LECs. Because the small incumbent LECs subject to these rules are either dominant in their field of operations or are not independently owned and operated, they would be excluded from the definition of "small entity" and "small business concern," consistent with our prior practice.³⁸⁶

(2) Interexchange Carriers

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of interexchange services. The closest applicable definition under the SBA rules is for telephone communications companies except radiotelephone (wireless) companies. The most reliable source of information regarding the number of IXCs nationwide is the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 151 companies reported that they were engaged in the provision of interexchange services.³⁸⁷ We do not have information on the number of these carriers that are not independently owned and operated, or have more than 1,500 employees, and thus we are unable at this time to estimate with greater precision the number of IXCs that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are equal to or fewer than 151 small entity IXCs.

(3) Competitive Access Providers and Competitive Local Exchange Carriers

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of competitive access services (CAPs) and competitive local exchange carriers (CLECs). The closest applicable definition under the SBA rules is for telephone communications companies except radiotelephone (wireless) companies. The most reliable source of information regarding the number of CAPs and CLECs nationwide is the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 129

³⁵ *Carrier Locator*.

³⁶ See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd 1516 (1996); Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Order, 11 FCC Rcd 11754, 16144-45, 16148-49, 1328-1330, 1342), (1996); *Iowa Utilities Board v. F.C.C.*, 109 F3d 418, (8th Cir. 1996), *amended on reh'g on other grounds*, 120 F3d 753 (1997), *petition for cert. filed*, 135 F3d 535 (U.S. Mar. 13, 1998)(No. 97-1519). Accordingly, our use of the terms "small entities" and "businesses" would not encompass small incumbent LECs. See *id.* at 16150 (para. 1342). However, out of an abundance of caution, we have considered incumbent LECs within our regulatory flexibility analysis and have used the term "small incumbent LECs" to refer to any incumbent LEC that might be defined by SBA as a "small business concern."

³⁷ *Carrier Locator*.

companies reported that they were engaged in the provision of competitive access services.³⁸⁸ We do not have information on the number of these carriers that are not independently owned and operated, or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of CAPs and CLECs that would qualify as small business concerns under the SBA definition. Consequently, we estimate that there are equal to or fewer than 129 small CAPs and CLECs.

(4) Operator Service Providers

Carriers engaged in providing interstate operator services from aggregator locations (OSPs) currently are required under section 226(b)(1)(D) of the Communications Act of 1934, as amended, 47 U.S.C. S 226, to ensure that each aggregator for which such provider is the presubscribed OSP is in compliance with the posting required of such aggregator. OSPs also are required under section 226 to file and maintain informational tariffs at the Commission. The number of such tariffs on file appears to be the most reliable source of information of which we are aware regarding the number of OSPs nationwide, including small business concerns, that will be affected by decisions and rules adopted in this Second Report and Order. As of July 12, 1999, approximately 760 carriers had informational tariffs on file at the Commission. The SBA has developed a definition of small entities for telecommunications companies other than radiotelephone (wireless) companies (Telephone Communications, Except Radiotelephone). According to the SBA's definition, a small business telephone company other than a radiotelephone company is one employing no more than 1,500 persons.³⁸⁹ Although it seems certain that some of these entities are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of OSPs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 760 small entity OSPs that may be affected by the decisions and rules adopted in this *Report and Order*.³⁹⁰

(5) Pay Telephone Providers

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to pay telephone providers. The closest applicable definition under SBA rules is for telephone communications companies except radiotelephone (wireless) companies. The most reliable source of information regarding the number of pay telephone providers nationwide is the data that we collect annually in connection with the *TRS Worksheet*. According to our most recent data, 509 companies reported that they were engaged in the provision of pay telephone

³⁸ *Id.*

³⁹ 13 C.F.R. S 121.201 (SIC 4813).

⁴⁰ In the Matter of Amendment of Policies and Rules Concerning Operator Service Providers and Call Aggregators, CC Docket No. 94-158, 1 99-171, Appendix C, para. 6, released July 19, 1999.

services.³⁹¹ We do not have information on the number of these carriers that are not independently owned and operated, or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of pay telephone providers that would qualify as small business concerns under SBA definition. Consequently, we estimate that there are equal to or fewer than 509 small pay telephone providers.

(6) Resellers (Including Debit Card Providers)

Neither the Commission nor SBA has developed a definition of small entities specifically applicable to resellers. The closest applicable SBA definition for a reseller is a telephone communications company except radiotelephone (wireless) companies. The most reliable source of information regarding the number of resellers nationwide is the data that the Commission collects annually in connection with the *TRS Worksheet*. According to our most recent data, 369 companies report that they are engaged in the resale of telephone service.³⁹² We do not have information on the number of these carriers that are not independently owned and operated, or have more than 1,500 employees, and thus we are unable at this time to estimate with greater precision the number of resellers that would qualify as small entities or small incumbent LEC concerns under the SBA definition. Consequently, we estimate that there are equal to or fewer than 369 small entity resellers.

(7) 800 and 800-Like Service Subscribers.³⁹³

Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to 800 and 800-like service ("toll free") subscribers. The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, and 877 numbers in use.³⁹⁴ According to our most recent data, at the end of January 1999, the number of 800 numbers assigned was 7,692,955; the number of 888 numbers that had been assigned was 7,706,393; and the number of 877 numbers assigned was 1,946,538. We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 7,692,955 small entity 800 subscribers, fewer than 7,706,393 small entity 888 subscribers, and fewer than 1,946,538 small entity 877 subscribers.

c. International Service Providers

³¹ *Id.*

³² *Id.* Eleven of these have identified themselves as "local resellers."

³³ We include all toll-free number subscribers in this category, including 888 numbers.

³⁴ FCC, CCB Industry Analysis Division, *FCC Releases, Study on Telephone Trends*, Tbls. 21.2, 21.3 and 21.4 (February 19, 1999).

The Commission has not developed a definition of small entities applicable to licensees in the international services. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to Communications Services, Not Elsewhere Classified (NEC).³⁹⁵ This definition provides that a small entity is one with \$11.0 million or less in average annual receipts. According to the Census Bureau, there were a total of 848 communications services, NEC, in operation in 1992, and a total of 775 had annual receipts of less than \$9.999 million.³⁹⁶ The Census report does not provide more precise data. Many of these services do not have specified uses and it is uncertain, at this point in time, whether they will ultimately provide telecommunications services.

(1) International Public Fixed Radio (Public and Control Stations)

Commission records show there are 3 licensees in this service.³⁹⁷ We do not request or collect annual revenue information, and thus are unable to estimate the number of international public fixed radio licensees that would constitute a small business under the SBA definition. Consequently, we estimate that there are equal to or fewer than 3 small entities that are international public fixed radio licensees.

(2) Fixed Satellite Transmit/Receive Earth Stations and Fixed Satellite Small Transmit/Receive Earth Stations

Based on actual payments, there are approximately 3,100 earth station authorizations, a portion of which are Fixed Satellite Transmit/Receive Earth Stations³⁹⁸ and a portion of which are Fixed Satellite Small Transmit/Receive Earth Stations.³⁹⁹ We do not request or collect annual revenue information, and thus are unable to estimate the number of the earth stations of either category that would be owned by a small business under the SBA definition. Consequently, we estimate that there are equal to or fewer than 3,100 small entities that hold such authorizations.

(3) Fixed Satellite Very Small Aperture Terminal (VSAT) Systems

³⁵ 13 C.F.R. 120.21 (SIC 4899). *See also*, FCC News Release, "Broadcast Station Totals as of December 31, 1997."

³⁶ Economic Census Industry and Enterprise Receipts Size Report, Table 2D, SIC 4899 (U.S. Bureau of the Census data under contract to Office of Advocacy of the U.S. Small Business Administration). The amount of \$10 million was used to estimate the number of small business establishments because there was no Census category closer to \$11 million. Thus, the number is as accurate as it is possible to calculate with available information.

³⁷ *See* Initial Regulatory Flexibility Analysis for *In the Matter of Assessment and Collection of Regulatory Fees for Fiscal Year 1997*, MD Docket 96-200, Report and Order, released June 18, 1999.

³⁸ *Id.*

³⁹ *Id.*

These stations operate on a primary basis, and frequency coordination with terrestrial microwave systems is not required. Thus, a single blanket application may be filed for a specified number of small antennas and one or more hub stations. The Commission has processed 377 applications.⁴⁰⁰ We do not request or collect annual revenue information, and thus are unable to estimate the number of VSAT systems that would be owned by a small business under the SBA definition. Consequently, we estimate that there are equal to or fewer than 377 small entities that hold such authorizations.

(4) Mobile Satellite Earth Stations

There are 11 licensees.⁴⁰¹ We do not request or collect annual revenue information, and thus are unable to estimate whether either of these licensees would constitute a small business under the SBA definition. Consequently, we estimate that there are 11 or less small entities that hold such licenses.

(5) Space Stations (Geostationary)

There are 43 space station licensees.⁴⁰² We do not request or collect annual revenue information, and thus are unable to estimate the number of geostationary space stations that would be owned by a small business under the SBA definition. Consequently, we estimate that there are equal to or fewer than 43 small entities that hold such licenses.

(6) Space Stations (Non-Geostationary)

There are twelve Non-Geostationary Space Station licensees, of which only two systems are operational.⁴⁰³ We do not request or collect annual revenue information, and thus are unable to estimate the number of non-geostationary space stations that would be owned by a small business under the SBA definition. Consequently, we estimate that there are twelve or less small entities that hold such licenses.

(7) Mobile Satellite Services (MSS)

Mobile Satellite Services or Mobile Satellite Earth Stations are intended to be used while in motion or during halts at unspecified points. These stations operate as part of a network that includes a fixed hub or stations. The stations that are capable of transmitting while a platform is

⁴⁰⁰ *Id.*

⁴⁰¹ *Id.*

⁴⁰² *Id.*

⁴⁰³ *Id.*

moving are included under Section 20.7(c) of the Commission's rules⁴⁰⁴ as mobile services within the meaning of sections 3(27) and 332 of the Communications Act.⁴⁰⁵ Those MSS services are treated as CMRS if they connect to the Public Switched Network (PSN) and also satisfy other criteria in Section 332. Facilities provided through a transportable platform that cannot move when the communications service is offered are excluded from Section 20.7(c) of the rules.⁴⁰⁶

The MSS networks may provide a variety of land, maritime and aeronautical voice and data services. There are eight mobile satellite licensees.⁴⁰⁷ At this time, we are unable to make a precise estimate of the number of small businesses that are mobile satellite earth station licensees and could be considered CMRS providers of telecommunications service. Consequently, we estimate that there eight or less small entities that hold such licenses.

d. Wireless Telecommunications Service Providers

198. The Commission has not yet developed a definition of small entities with respect to the provision of CMRS services. Therefore, for CMRS providers not falling within any other established SBA category (*i.e.*, Radiotelephone Communications or Telephone Communications, Except Radiotelephone), the applicable definition of a small entity would be the SBA definition applicable to the Communications Services, Not Elsewhere Classified. This definition provides that a small entity is one with \$11.0 million or less in average annual receipts.⁴⁰⁸ The Census Bureau estimates indicate that of the 848 firms in the Communications Services, Not Elsewhere Classified category, 775 are small businesses. It is not possible to predict which of these would be small entities (in absolute terms or by percentage) or to classify the number of small entities by particular forms of service.

(1) Cellular Radio Telephone Service

The Commission has not developed a definition of small entities specifically applicable to cellular licensees. Therefore, the applicable definition of a small entity is the SBA definition applicable to radiotelephone companies, which provides that a small entity is a radiotelephone company employing no more than 1,500 persons.⁴⁰⁹ The size data provided by SBA do not enable us to make a meaningful estimate of the number of cellular providers that are small entities

⁴⁴ 47 C.F.R. 20.7(c).

⁴⁵ 47 U.S.C. 153(27), 332.

⁴⁶ 47 C.F.R. 20.7(c).

⁴⁷ *Carrier Locator*.

13 C.F.R. 120.21 (SIC Code 4899).

⁴⁹ 13 C.F.R. 121.201 (SIC Code 4812).

because it combines all radiotelephone companies with 500 or more employees.⁴¹⁰ We therefore have used the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, which is the most recent information available. That census shows that only 12 radiotelephone firms out of a total of 1,178 such firms operating during 1992 had 1,000 or more employees.⁴¹¹ Therefore, even if all 12 of these large firms were cellular telephone companies, all of the remainder would be small businesses under the SBA definition.

There are presently 1,758 cellular licenses. However, the number of cellular licensees is not known, since a single cellular licensee may own several licenses. In addition, we note that there are 1,758 cellular licenses; however, a cellular licensee may own several licenses. In addition, according to the most recent *Telecommunications Industry Revenue* data, 732 carriers reported that they were engaged in the provision of either cellular service or Personal Communications Service (PCS) services, which are placed together in the data.⁴¹² We do not have data specifying the number of these carriers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of cellular service carriers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are 732 or fewer small cellular service carriers that may be affected by the rules, herein adopted.

(2) Broadband Personal Communications Service

The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined "small entity" for Blocks C and F as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.⁴¹³ For Block F, an additional classification for "very small business" was added and is defined as an entity that, together with their affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.⁴¹⁴ These regulations defining "small entity" in the context of broadband PCS auctions have been approved by the SBA.⁴¹⁵ No

¹⁰ U.S. Small Business Administration 1992 Economic Census Employment Report, Bureau of the Census, U.S. Department of Commerce, p. 4812 (radiotelephone communications industry data adopted by the SBA Office of Advocacy).

¹¹ U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Schedules, Establishment and Firm Size, Table 5, Employment Size of Firms: 1992, SIC Code 4812 (issued May 1995).

¹² *Trends in Telephone Service*, Table 19.3 (February 19, 1999).

¹³ See *Amendment of Parts 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Spectrum Cap, Report and Order*, FCC 96-278, WT Docket No. 96-59, paras. 57- 60 (released Jun. 24, 1996), 61 FR 33859 (Jul. 1, 1996) and 47 CFR 24.720(b).

¹⁴ See *Amendment of Parts 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Spectrum Cap, Report and Order*, FCC 96-278, WT Docket No. 96-59, para. 60 (1996), 61 FR 33859 (Jul. 1, 1996).

¹⁵ See, e.g., *Implementation of Section 309(j) of the Communications Act -- Competitive Bidding*, PP Docket No. 93-253, *Fifth Report and Order*, 11 FCC Rcd 5532, 5581-84 (1994).

small businesses within the SBA-approved definition bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40% of the 1,479 licenses for Blocks D, E, and F.⁴¹⁶ Based on this information, we conclude that the number of small broadband PCS licensees will include the 90 winning C Block bidders and the 93 qualifying bidders in the D, E, and F blocks, for a total of 183 small entity PCS providers as defined by the SBA and the Commission's auction rules.

(3) Narrowband PCS.

The Commission has auctioned nationwide and regional licenses for narrowband PCS. There are 11 nationwide and 30 regional licensees for narrowband PCS. The Commission does not have sufficient information to determine whether any of these licensees are small businesses within the SBA-approved definition for radiotelephone companies. At present, there have been no auctions held for the major trading area (MTA) and basic trading area (BTA) narrowband PCS licenses. The Commission anticipates a total of 561 MTA licenses and 2,958 BTA licenses will be awarded by auction. Such auctions have not yet been scheduled, however. Given that nearly all radiotelephone companies have no more than 1,500 employees and that no reliable estimate of the number of prospective MTA and BTA narrowband licensees can be made, we assume, for purposes of this IRFA, that all of the licenses will be awarded to small entities, as that term is defined by the SBA.⁴¹⁷

(4) Specialized Mobile Radio

Pursuant to Section 90.814(b)(1) of the Commission's Rules,⁴¹⁸ the Commission has defined small entity for geographic area 800 MHz and 900 MHz SMR licenses as a firm that had average gross revenues of less than \$15 million in the three previous calendar years. This regulation defining small entity in the context of 800 MHz and 900 MHz SMR has been approved by SBA.⁴¹⁹

The rules promulgated in the *Report and Order* may apply to SMR providers in the 800 MHz

¹⁶ FCC News, *Broadband PCS, D, E and F Block Auction Closes*, No. 71744 (released Jan. 14, 1997).

¹⁷ 13 C.F.R. s 121.201 (SIC 4812).

¹⁸ 47 C.F.R. 90.814(b)(1).

¹⁹ See *Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in 901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool*, PR Docket No. 89-553, *Second Order on Reconsideration of Seventh Report and Order*, 11 FCC Rcd 2639, 2693-2702 (1995); *Amendment of Part 90 of the Commission's Rules to Facilitate Further Development of SMR Systems in the 800 MHz Frequency Band*, PR Docket No. 93-144, *Implementation of Sections 3(n) and 322 of the Communications Act - Regulatory Treatment of Mobile Services*, GN Docket No. 93-252, *Implementation of Section 309(j) of the Communications Act - Competitive Bidding*, PP Docket No. 93-253, *First Report and Order, Eighth Report and Order, and Second Further Notice of Proprietary Making*, 11 FCC Rcd 1463 (1995).

and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service, or how many of these providers have average annual gross revenues of less than \$15 million.

The Commission recently held auctions for geographic area licenses in the 900 MHz SMR band. There were 60 winning bidders who qualified as small entities under the Commission's definition in the 900 MHz auction. Based on this information, we conclude that the number of geographic area SMR licensees affected by the rules promulgated in the *Report and Order* includes these 60 small entities.

Based on the auctions held for 800 MHz geographic area SMR licenses, there are 10 small entities currently holding 38 of the 524 licenses for the upper 200 channels of this service. However, the Commission has not yet determined how many licenses will be awarded for the lower 230 channels in the 800 MHz geographic area SMR auction. There is no basis to estimate, moreover, how many small entities within the SBA definition will win these licenses. Given the facts that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective 800 MHz SMR licensees can be made, we assume, for purposes of our evaluations and conclusions in this FRFA, that all of the licenses will be awarded to small entities, as that term is defined by SBA.

(5) 220 MHz Radio Service -- Phase I Licensees.

The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a definition of small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the definition under the SBA rules applicable to Radiotelephone Communications companies. This definition provides that a small entity is a radiotelephone company employing no more than 1,500 persons.⁴²⁰ According to the Bureau of the Census, only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees.⁴²¹ Therefore, if this general ratio continues in 1999 in the context of Phase I 220 MHz licensees, we estimate that nearly all such licensees are small businesses under the SBA's definition.

(6) 220 MHz Radio Service -- Phase II Licensees.

The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the *220 MHz Third Report and Order*, we adopted criteria for defining small businesses and very small businesses for purposes of determining their eligibility for special provisions such as bidding

⁴²⁰ 13 C.F.R. 121.201, Standard Industrial Classification (SIC) code 4812.

⁴²¹ U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, Tables, Establishment and Firm Size, Table 5, Employment Size of Firms; 1992, SIC code 4812 (issued May 1995).

credits and installment payments.⁴²² We have defined a small business as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years. Additionally, a very small business is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.⁴²³ The SBA has approved these definitions.⁴²⁴ An auction of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.⁴²⁵ Nine hundred and eight (908) licenses were auctioned in 3 different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Companies claiming small business status won: one of the Nationwide licenses, 67% of the Regional licenses, and 54% of the EA licenses. As of January 22, 1999, the Commission announced that it was prepared to grant 654 of the Phase II licenses won at auction.⁴²⁶ A re-auction of the remaining, unsold licenses was completed on June 30, 1999, wherein 222 of the remaining licenses were sold,⁴²⁷ but have yet to be licensed.

(7) Paging

²² 220 MHz Third Report and Order, 12 FCC Rcd 10943, 11068-70, at paras. 291- 295 (1997).

²³ 220 MHz Third Report and Order, 12 FCC Rcd at 11068-69, para. 291.

²⁴ See Letter from A. Alvarez, Administrator, SBA, to D. Phythyon, Chief, Wireless Telecommunications Bureau, FCC (Jan. 6, 1998).

²⁵ See generally Public Notice, "220 MHz Service Auction Closes," Report No. WT 98-36 (Wireless Telecom. Bur. Oct. 23, 1998).

²⁶ Public Notice, "FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made," Report No. AUC-1 No. 99-229 (Wireless Telecom. Bur. Jan. 22, 1999).

²⁷ WT Report No. 99-19, June 30, 1999.

To ensure the more meaningful participation of small business entities in the auctions, the Commission adopted a two-tiered definition of small businesses in the *Paging Second Report and Order*, stating that: (1) an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$3 million; or (2) an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than \$15 million.⁴²⁸ In December 1998, the Small Business Association approved the two-tiered size standards for paging services set forth in the *Second Report and Order*.⁴²⁹

MEA and EA Licenses

In the Final Regulatory Flexibility Analysis incorporated in Appendix C of the *Second Report and Order*, the Commission anticipated that approximately 16,630 non-nationwide geographic area licenses will be auctioned. While we are unable to predict accurately how many paging licensees meeting one of the above definitions will participate in or be successful at auction, our *Third CMRS Competition Report* estimated that, as of January 1998, there were more than 600 paging companies in the United States.⁴³⁰ The *Third CMRS Competition Report* also indicates that at least ten of the top twelve publicly held paging companies had average gross revenues in excess of \$15 million for the three years preceding 1998.⁴³¹ The Commission expects that these ten companies will participate in the paging auction and may employ the partitioning or disaggregation rules. The Commission also expects, for purposes of the evaluations and conclusions in this Final Regulatory Flexibility Analysis, that a number of paging licenses will be awarded to small businesses, and at least some of those small business licensees will likely also take advantage of the partitioning and disaggregation rules. We are unable to predict accurately the number of small businesses that may choose to acquire partitioned or disaggregated MEA or EA licenses. The Commission expects, however, that entities meeting one of the above definitions will use partitioning and disaggregation as a means to obtain a paging license from an MEA or EA licensee at a cost lower than the cost of the license for the entire MEA or EA.

Nationwide Geographic Area Licenses

The partitioning and disaggregation rules pertaining to nationwide geographic area licenses adopted in the *Third Report and Order* will affect the 26 licensees holding

²⁸ *Future Development of Paging Systems, Second Report and Order and Further Notice of Proposed Rulemaking*, 12 FCC Rcd 2732,2811, 1 (1997)(*Second Report and Order and Further Notice*).

²⁹ Letter from Aida Alvarez, Administrator, Small Business Administration, to Amy J. Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau of 12/2/98.

³⁰ *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Conditions With Respect to Commercial Mobile Services, Third Report*, FCC 98-9, at 40 (June 11, 1998) (*Third CMRS Competition Report*).

³¹ See *Third CMRS Competition Report*, App. C at 5.

nationwide geographic area licenses to the extent they choose to partition or disaggregate, as well as any entity that enters into a partitioning or disaggregation agreement with a nationwide geographic area licensee. No parties, however, commented on the number of small business nationwide geographic area licensees that might elect to partition or disaggregate their licenses and no reasonable estimate can be made. While we are unable to state accurately how many nationwide geographic area licensees meet one of the above small business definitions, our Third CMRS Competition Report indicates that at least eight of the top twelve publicly held paging companies hold nationwide geographic area licenses and had average gross revenues in excess of \$15 million for the three years preceding 1998.⁴³² The Commission expects at least some of these eight companies to employ the partitioning or disaggregation rules, and also expects, for the purposes of evaluations and conclusions in this Final Regulatory Flexibility Analysis, that nationwide geographic area licensees meeting one of the above definitions may use the partitioning or disaggregation rules. While we are unable to predict accurately the number of small businesses that may choose to acquire partitioned or disaggregated licenses from nationwide geographic area licensees, the Commission expects, for purposes of the evaluations and conclusions in the Final Regulatory Flexibility Analysis, that entities meeting one of the above small business definitions will use partitioning and disaggregation as a means to obtain a paging license from a nationwide geographic area licensee.

(8) Air-Ground Radiotelephone Service

The Commission has not adopted a definition of small business specific to the Air-Ground Radiotelephone Service, which is defined in Section 22.99 of the Commission's rules.⁴³³ Accordingly, we will use the SBA definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500 persons.⁴³⁴ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA definition.

(9) Local Multipoint Distribution Service (LMDS)

LMDS licensees may use spectrum for any number of services. We anticipate that the greatest intensity of use will be for either radio telephone or pay television services. SBA has developed definitions applicable to each of these services; however, because pay television is not a telecommunications service subject to section 255, that definition is not relevant to this FRFA.

The Commission has adopted a definition of small entities applicable to LMDS licensees,

³² *Id.*

³³ See Section 22.99 of the Commission's Rules, 47 C.F.R. 22.99.

³⁴ 13 C.F.R. 121.201, SIC 4812.

which is a new service.⁴³⁵ In the *LMDS Order* we adopted criteria for defining small businesses for determining bidding credits in the auction, but we believe these criteria are applicable for evaluating the burdens imposed by Section 255. We defined a small business as an entity that, together with affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the three preceding years.⁴³⁶ Additionally, small entities are those which together with their affiliates and controlling principals, have average gross revenues for the three preceding years of more than \$40 million but not more than \$75 million.⁴³⁷ This definition has been approved by the SBA.⁴³⁸

Upon completion of the LMDS auction, 93 of the 104 bidders qualified as small entities, smaller businesses, or very small businesses. These 93 bidders won 664 of the 864 licenses. We estimate that all of these 93 bidders would qualify as small under the SBA definitions, but cannot yet determine what percentage would be offering telecommunications services subject to the requirements of section 255.

(10) Rural Radiotelephone Service

The Commission has not adopted a definition of a small entity specific to the Rural Radiotelephone Service. A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio Systems (BETRS).⁴³⁹ Thus, we will use the SBA's definition applicable to radiotelephone companies, *i.e.*, an entity employing no more than 1,500 persons.⁴⁴⁰ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and we estimate that almost all of them qualify as small entities under the SBA's definition.

(11) Wireless Communications Services

This service can be used for fixed, mobile, radiolocation and digital audio broadcasting satellite uses. The Commission defined small business for the wireless communications services (WCS)

³⁵ In the Matter of Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Bands and to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services. Petitions for Reconsideration of the Denial of Applications for Waiver of the Commission's Common Carrier Point-to-Point Microwave Radio Service Rules. CC Docket No. 92-297, *Suite 12 G. Motion for Pioneer Preference*, PP-22. Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 15 (1997).

³⁶ See *LMDS Order*, 12 FCC Rcd at 12688,12690 (paras. 345,348).

³⁷ See *id.* at 12690-91, 12694 (paras. 349, 358).

³⁸ Letter from Aida Alvarez, Administrator, Small Business Administration, to Daniel Phythyon, Chief, Wireless Telecommunications Bureau, 12/18/98.

³⁹ BETRS is defined in Sections 22.757 and 22.759 of the Commission's Rules, 47 C.F.R. 22.757, 22.759.

⁴⁰ 13 C.F.R. 121.201, SIC 4812.

auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a very small business as an entity with average gross revenues of \$15 million for each of the three preceding years.⁴⁴¹ The Commission auctioned geographic area licenses in the WCS service. In the auction, there were seven winning bidders that qualified as very small business entities, and one that qualified as a small business entity. We conclude that the number of geographic area WCS licensees affected includes these eight entities.

(12) 39 GHz Band

In the *39 GHz Band NPRM and Order*,⁴⁴² we proposed to define a small business as an entity that, together with its affiliates and attributable investors, has average gross revenues for the three preceding years of less than \$40 million. We have not yet received approval by the SBA for this definition. Therefore, the applicable definition of a small entity is the SBA definition applicable to radiotelephone companies, which is a radiotelephone company employing no more than 1,500 persons.⁴⁴³

As noted previously, the 1992 Census of Transportation, Communications, and Utilities, conducted by the Bureau of the Census, shows that only 12 radiotelephone firms out of a total of 1,178 such firms which operated during 1992 had 1,000 or more employees.⁴⁴⁴ Therefore, a majority of 39 GHz entities providing radiotelephone services could be small businesses under the SBA definition, and we assume, for purposes of our evaluation here, that nearly all of the 39 GHz licensees will be small entities, as that term is defined by the SBA.⁴⁴⁵

⁴¹ This standard has not yet been approved by the SBA. For a discussion of this issue, see F.C.C Public Notice, "Comment Sought On Small Business Size Standards," PR Docket No. 93-61, GN Docket No. 96-228, 14 FCC Rcd. 1330 (1999).

⁴² *Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, *Notice of Proposed Rulemaking and Order*, 11 FCC Rcd 4930, 4971-72 (paras. 87-88) (1996) (*39 GHz Band NPRM and Order*).

⁴³ We note that the NPRM and associated IRFA preceded SBREFA. See generally note 1 of this FRFA, *supra*.

⁴⁴ U.S. Bureau of the Census, U.S. Department of Commerce, 1992 Census of Transportation, Communications, and Utilities, UC92-S-1, *Small Business, Establishment and Firm Size*, Table 5, *Employment Size of Firms: 1992, SIC Code 4812* (issued May 1995).

⁴⁵ *Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, *Report and Order and Notice of Proposed Rulemaking*, (1997) Appen. B, RFA at 18677-79.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

As we have noted, the objective of section 255 is to give persons with disabilities increased access to telecommunications. Both equipment manufacturers and telecommunications service providers are obligated to provide accessibility for persons with any one or more different disabilities to the extent that it is readily achievable for them to do so. In the broadest sense, compliance consists of an on-going, disciplined, and systematic effort to provide the greatest level of accessibility.

The accompanying *Report and Order* identifies behaviors that would demonstrate such an effort and that would be looked upon favorably by the Commission in the event a complaint was filed. However, we have declined to adopt suggestions that we require manufacturers and service providers to establish specific internal systems and recordkeeping practices for purposes of responding to Section 255 complaints and inquiries or require manufacturers to maintain public files recording their compliance with section 255 and our rules. We see no need to burden manufacturers and service providers with detailed processing and reporting requirements which could hinder rather than hasten the resolution of accessibility disputes. The only reporting requirement imposed by the rules is that each covered entity designate an agent or contact whose principal function will be to ensure the manufacturer's or service provider's prompt receipt and handling of accessibility concerns raised by consumers or Commission staff. We proposed this requirement in the *Notice*, and it received universal support among the commenters.

In the *Notice*, the Commission sought comment regarding whether existing Commission processes (and associated forms) would be efficient vehicles for any requirements the Commission might develop in this proceeding, such as information collection, or providing notice to firms dealing with the Commission that they may be subject to section 255. The Commission listed the following examples: (1) the Commission's equipment authorization processes under Part 2, Subpart J of the Commission's Rules; (2) equipment import documentation requirements under Part 2, Subpart K of the Rules; (3) licensing proceedings under section 307 of the Act for various radio services used by entities subject to section 255 obligations; and (4) various common carrier filing processes.

However, we have decided that modifying the current equipment certification or other existing Commission processes for purposes of compliance with section 255 is not necessary.⁴⁴⁶ As we have stated in the *Report and Order* in the discussion on enforcement and the application of the readily achievable standard, no specific documentation is being required at this time. Companies may chose to keep records at their own discretion concerning the way the company has chosen to implement its own disability initiatives.⁴⁴⁷

⁴⁶ See *Report and Order* at para. 163.

⁴⁷ Recognizing that this type of recordkeeping would be self-imposed, we nevertheless sought comment on whether this implicit burden would be recognized, and, if so, whether it would have a disproportionate impact on small businesses. Comments that were received with respect to this issue are available at www.fcc.gov.

E. Steps Taken To Minimize Significant Economic Impact on Small Entities Consistent with Stated Objectives, and Significant Alternatives Considered

We noted in the IRFA that the resources of the regulated entity are taken into account in the determination of whether accessibility of a given product or service is readily achievable and that there is thus an inherent consideration of the financial burden on the entity in its obligation to provide accessibility: if not readily achievable, that obligation is removed. Nevertheless, we acknowledged that all regulated entities would be required to assess whether providing accessibility is readily achievable and that an important issue for RFA purposes is thus not the absolute cost of providing accessibility, but, rather, the extent to which the cost of performing an assessment as to whether an accessibility feature is readily achievable is unduly burdensome on small entities.

As early as the *Notice of Inquiry*, we sought comment on three possible approaches for implementing and enforcing the provisions of section 255: (1) case-by-case determinations; (2) guidelines or a policy statement; or (3) rules setting forth procedural or performance requirements intended to promote accessibility.⁴⁴⁸ The *Notice* focused principally on procedural requirements as a practical, common sense means to ensure that consumers with disabilities would have access to telecommunications services and equipment. In the *Notice* we considered using case-by-case determinations exclusively, in lieu of any rules, but tentatively discarded this approach because we believed that in a rapidly changing market with unpredictable technological breakthroughs, the slow development of case law would be insufficient to guide covered entities and to provide an understanding of their accessibility obligations.

We also considered issuing guidelines or a policy statement, but tentatively discarded this approach, as well, because of our view that a greater degree of regulatory and administrative certainty would best serve the interests of both consumers and businesses that must comply with section 255. Although we acknowledged that a policy statement might serve the purpose of informing case-by-case determinations in complaint proceedings and lend some predictability to the process, we tentatively decided that, in order for accessibility to be addressed in a pro-active manner, equipment manufacturers and service providers should have clear expressions of the demands that section 255 places on their operations before the beginning of the design process. Therefore, we tentatively concluded that the potential drawbacks of exclusive reliance on case-by-case determinations as a means of implementing Section 255 would not be sufficiently diminished by the adoption of guidelines or a policy statement.

nquiry are addressed in Section B. of this FRFA, *supra*.

⁴⁸ *Implementation of Section 255 of the Telecommunications Act of 1996: Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities*, WT Docket No. 96-198, Notice of Inquiry, 11 FCC Rcd 19152, 15 a. 7) (1996) (*Notice of Inquiry*).

We also considered and tentatively rejected the option of promulgating specific performance requirements. Such an approach, under which the Commission would attempt to establish an array of specific parameters for features and functions across a broad range of telecommunications services and equipment, was viewed as potentially burdensome to covered entities. We also considered it to be fraught with other potential problems, such as rapid changes in technology, that would require frequent revision of the performance requirements and could cause confusion in the telecommunications marketplace. We tentatively decided that the promulgation of specific rules governing the design process would also impose burdens on covered entities whose resources would be better spent in achieving and improving accessibility.

As a result of our tentative decision to rely primarily on procedural rules, we took several steps in the *Notice* to minimize the burdens on all regulated entities. First, we sought to provide incentives to industry for early and on-going consideration of accessibility issues by indicating that we would look favorably upon efforts to implement the Access Board's guidelines by such means as formalizing self-assessment, external outreach, internal management, and user information and support to address accessibility issues. Second, we attempted to unravel the statutory terminology to give guidance on the interpretation of key language within the telecommunications context.⁴⁴⁹ Third, we proposed a two-phase process for dealing with section 255 consumer complaints.⁴⁵⁰ In the first phase, which we referred to as the "fast-track," we proposed that Commission staff be required to refer any complaint or inquiry to the manufacturer or service provider concerned, who would have a period of five business days to address the problem.⁴⁵¹ Where fast-track efforts failed to produce a satisfactory solution, we proposed to apply complaint processes similar to those used in Section 208 complaint proceedings.⁴⁵²

Although we initially viewed the "fast-track" process as an efficient, consumer-friendly means of dealing with problems associated with accessibility compliance, parties representing both consumer and industry interests criticized the proposed mandatory "fast-track" mechanism as burdensome and confusing and agreed that our section 208 processes provide an appropriate model for Section 255 enforcement. Hence, in the *Report and Order*, we decided to abandon the 5-day "fast track" proposal and to adopt rules modeled after our Section 208 complaint rules, thus reducing the implicit burden placed on both consumers and industry alike.

Under the procedures adopted by the *Report and Order*, consumer complaints filed pursuant to Section 255 will be handled through an informal complaint process where the staff refers complaints to the manufacturers or service providers involved. The focus at this stage will be on

⁴⁹ For example, the term "readily achievable" was discussed in great depth in an effort to explicate feasibility, expense, and practicality elements.

⁵⁰ *Notice* at para. 126.

⁵¹ *Notice* at para. 125.

⁵² *Notice* at para. 126; *see* 47 C.F.R. 1.711 - 1.736.

addressing the accessibility needs of the complainant. Because the nature or complexity of certain accessibility disputes may not be susceptible to informal resolution by the disputing parties, complainants have the option of seeking the formal adjudication of a problem or dispute with a manufacturer or service provider at any time pursuant to our existing section 208 complaint rules.⁴⁵³

As outlined *supra*, in the *Report and Order* we have declined to promulgate specific rules governing the design process, although certain of the Access Board Guidelines that we have may require manufacturers to include persons with disabilities in any group testing performed during the design process.⁴⁵⁴

We believe we have reduced regulatory burdens wherever possible. For burdens imposed by achieving accessibility, the structure of the statute inherently acknowledges varying degrees of economic impact. The readily achievable standard is proportional, not absolute, and adjusts the burden of providing accessible features commensurate with the resources of the covered entity. For burdens associated with enforcement, we anticipate that the informal complaint process will significantly reduce the number of complaints, thus minimizing the burden on all covered entities of providing a legal defense. Moreover, the range of choices for resolving complaints is designed to reduce costs to the opposing parties. Encouraging the use of streamlined, informal complaints or alternative dispute resolution primarily benefits individual plaintiffs who may be persons with disabilities with limited financial resources, but should also enable covered entities to defend themselves at a lower cost.

Report to Congress: The Commission will forward a copy of the *Report and Order*, including this FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996; *see* 5 U.S.C. 801(a)(1)(A). In addition, the Commission will forward a copy of the *Report and Order*, including this FRFA, to the Chief Counsel for Advocacy for the Small Business Administration. A copy of the *Report and Order* and FRFA (or summaries thereof) will also be published in the Federal Register. *See* 5 U.S.C. 604(b).

⁵³ *See* 47 C.F.R. 1.720 - 1.736.

⁵⁴ *See, e.g.*, Section 1193.31.

**Statement of
Chairman William E. Kennard**

Re: Rules & Policies for the Telecommunications Equipment & Services for People with Disabilities.

Today's action represents the most significant opportunity for people with disabilities since the passage of the Americans with Disabilities Act in 1990. In the Telecommunications Act of 1996, Congress fashioned the ADA of the Information Age. The framework we announce today is an essential step in making a meaningful difference in the lives of people with disabilities. We build upon the work of the Access Board and follow the ADA's precedent. Now, just as persons with disabilities can navigate our public streets because of the ADA's requirements for curb cuts, all our citizens can navigate the information superhighway without confronting barriers that stop them cold. Simple solutions such as big buttons on phones for the blind, phones with volume control for the deaf, talking caller ID for those who cannot see or move quickly, pagers that send TTY messages and phones with headsets for those who cannot hold the receiver, could be made available. In addition, today, we initiate a Notice of Inquiry that looks to the future. In this dynamic industry, as technology changes with the blink of an eye, we need to ensure that the future is accessible as well.

Our rules today are workable and practical and will allow industry to focus on what's really important: making its products and services accessible. Our rules give service providers and manufacturers a great deal of flexibility in determining how to best deploy their resources to carry out the statutory mandate, as long as they do all that is readily achievable and make modest changes to every product where it is easy to do so. We do not require specific documentation or filings. Indeed, we are mandating ends, not means - and we urge industry to step up and innovate to realize the accessibility goal.

We look forward to moving ahead, building from our common vision of what we must accomplish, and building to an accessible world we all can share.

**Separate Statement
of
Commissioner Susan Ness**

Re: *In the Matter of Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as enacted by the Telecommunications Act of 1996; Access to Telecommunications Service, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities*

For the nondisabled, it takes little effort to dial a telephone number on a telephone touchpad; scroll through an automatic voice response system to check your bank account balance; leave a simple voicemail message on a colleague's or friend's answering machine; or even to scan a mobile phone's visual display to ascertain who is calling you or whether you dialed the correct telephone number. Unfortunately, in this day and age, the same cannot be said for people who are disabled.

Accessing telecommunications equipment or services to perform these seemingly routine tasks that most of us take for granted is a frustrating exercise at best and potentially a life-threatening barrier at worst for people who are disabled.

In this respect, as in others, passage of the Telecommunications Act of 1996 marks a new beginning. Section 255 requires telecommunications equipment and services to be made accessible to the disability community, and today we adopt implementing rules to fulfill Congress' intent.

These accessibility rules could not have been adopted at a better time. We are in the midst of a revolution that is reshaping not only telecommunications but our economy and society as well. The timing of this ruling is fortuitous because these accessibility rules will apply to the next generation data networks that are on the drawing boards today. If accessibility can be designed in from the "get-go," it will be easier and more cost effective than trying, later in the process, to make compensating or retrofitting adjustments.

Related to the design of the next generation data networks are the individual telecommunications products and services that will communicate with and provide services using those data networks.

In concept, our action today adopts the universal design or the so-called "product approach," rather than the "product line" approach, to making telecommunications products and services accessible. The goal is to ensure that as many products as possible will be accessible, if readily achievable.

I have been delighted by the cooperation we have seen between the disability community and the manufacturers and service providers to reach a common understanding. The key insight on which widespread agreement has been achieved is that manufacturers and service providers must *consider* accessibility concerns in designing *all* products and services, not just relegate such

considerations to a narrow subset of models or services, even if ultimately a particular accessibility feature cannot practically be incorporated in any given product or service. This fundamental change in the mindset of manufacturers and service providers will open product and service design to new and exciting possibilities.

The benefits to the disability community will be substantial. But just as with curb cuts, closed captioning, and volume controls on pay phones, the nondisabled will benefit too. Indeed, in examining one manufacturer's Section 255 offerings during the CTIA convention, I was struck by the utility of a mobile phone with the microphone suspended around the neck. This "hands-free" unit would be ideal for many of us, disabled or not. And now we can reasonably expect that the future will be brightened by many other similar examples, with products and services competing on the basis of their accessibility features.

Moreover, the nondisabled will benefit in other ways as well. Metcalfe teaches that the value of a network is directly related to the number of users. Making telecommunications accessible will facilitate access by the estimated 54 million people who are disabled, thereby increasing the value of the network for *everyone* -- disabled and nondisabled alike.

I want to thank the Architectural and Transportation Barriers Compliance Board ("the Access Board"), the disability community, the manufacturers, the service providers, and our own staff for all the hard work that has culminated in this order.

**Separate Statement of Commissioner Harold W. Furchtgott-Roth
Concurring in Part and Dissenting in Part**

Re: *In the Matter of Implementation of Sections 255 and 251(a) of the Communications Act of 1934, Enacted by the Telecommunications Act of 1996 - Access to Telecommunications Services, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities, WT Docket No. 96-198, Report and Order*

Today's action brings to a close the first chapter in what I consider to be one of the most important proceedings I have had the privilege to act upon here at the Commission. I want to complement the staff of the FCC for an extraordinary effort in dealing with a host of highly technical issues and doing so in a professional, thorough and dignified manner.

Further, I fully support most of the conclusions reached in today's order. They will redound not only to the benefit of those with disabilities, who have been deprived of full access to basic telecommunications services for far too long, but to all Americans. I am confident that industry will seize this opportunity, as it has in the past, to design and manufacture products that will have widespread appeal and enhance the quality of life for us all.

It is, however, with very great reluctance that I must dissent from two small parts of today's Order. Prior to joining the Commission, I had the great honor and privilege of serving on the House Commerce Committee during the drafting and enactment of the Telecommunications Act of 1996. Several Members of Congress, themselves persons with disabilities or keenly aware of needs of those with disabilities through the experiences of family members, took great interest in the accessibility provisions of the Act. There is absolutely no doubt in my mind that the literal words of Section 255 embody precisely what its authors -- those Members -- intended.

By its terms, Section 255 covers access to telecommunications. Period. No where in any relevant statutory provisions do we find any reference to information services, a term with which the Act's authors were certainly familiar (they even provided a definition for it). Congress chose its words carefully after great deliberation. The Commission should heed them. Yet today this Commission chooses to ignore the words of the statute, extending Section 255 to voicemail and interactive menus (indisputably information services), through an assertion of the Commission's ancillary jurisdiction. To be sure, voicemail and interactive menus are becoming increasingly important to communicate effectively in today's society. Nonetheless, despite how laudable our intentions may be, we run the very serious risk of endangering all that we have accomplished today by disregarding the statute.⁴⁵⁵ When this Commission usurps for itself the role of rewriting

Further, the cases cited in the Order in support of asserting ancillary jurisdiction are quite simply irrelevant when the law provides all the guidance

a statute which is clear on its face, we can no longer credibly claim that we are discharging faithfully our duty "to execute and enforce" the statute.⁴⁵⁶ We substitute our judgment of what the law is for the judgment of those who were elected to make the laws in the first instance.

cy needs.

' Section 1 of the Act, 47 U.S.C. 151.

For very similar reasons, I must also object to the Commission's conclusion that "software" can be read into the definition of customer premises equipment (CPE) by somehow importing its meaning from the definition of telecommunications equipment provided in the statute. The statute again provides all the guidance we need. The definition of telecommunications equipment explicitly excludes CPE from its ambit.⁴⁵⁷ Moreover, if that were not the end of the matter, the statute further clarifies that telecommunications equipment is that used by carriers, while CPE applies to equipment employed by persons other than carriers,⁴⁵⁸ further illuminating that the two definitions are mutually exclusive. Finally, while the definition of telecommunications equipment explicitly refers to software, no such reference exists in the definition of CPE. Unfortunately, the Commission today chooses to ignore once again the plain language of the statute in favor of a so-called "better interpretation" - to read into the definition of CPE software integral to its operation. In my view, however, the language is susceptible of only one interpretation. By straying from the explicit terms of the law, the Commission again casts a shadow on the progress and achievements we have made in the rest of today's Order.

¹ See Section 3 (45) of the Act, 47 U.S.C. 153 (45) ("the term 'telecommunications equipment' means equipment, *other than customer premises...*") (emphasis supplied).

² Compare Section 3 (45) (telecommunications equipment means equipment other than CPE "used by a carrier") with Section 3 (14) of the Act, 47 U.S.C. CPE means equipment used by "persons other than carriers").

SEPARATE STATEMENT OF COMMISSIONER MICHAEL POWELL

Re: Implementation of Section 255 of the Telecommunications Act of 1996 -- Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities, Report and Order and Notice of Inquiry (WT Docket No. 96-198)

I fully support this initiative to implement the mandates of Section 255 of the Communications Act, which was added by Congress as part of the landmark Telecommunication Act of 1996. The 1996 enactment was just the beginning, but this item, in terms of enforcing Section 255, is not just the start. Our action today comes after more than three years of striving toward the accessibility objectives of this important statutory provision by many consumer and industry participants.

I commend those who have participated tirelessly in this effort to reach workable solutions on many of these difficult issues. We are presented today with the fruits of such efforts. Thank you.

Over the past several weeks, I have had the great pleasure of meeting with and hearing from many of the people who are being helped by the inclusion of 255 in the 1996 Act. The many meetings, e-mails and letters have been helpful and informative. I have learned even more about the frustrations that persons with disabilities are still experiencing when trying to place telephone calls. For example, I completely understand the importance of access to voicemail and interactive menus.

People with disabilities can be hampered daily by lack of access to services others take for granted -- leaving a message for a colleague, reaching the desired person at a business, or simply receiving a phone call. As one commenter in the proceeding said so eloquently, "without access to certain enhanced services, such as automated voice response systems and voice mail services, individuals who are deaf or hard of hearing will continue to be barred from enjoying even basic access to the telecommunications network."

This all reminds me about what it was like at one time for me. As I said before when we adopted the notice in this proceeding, I know personally the frustrations of being relegated to the outskirts of "normal" society because of the inability to access the necessary instruments of daily life. Following a serious jeep accident, I recall vividly the feelings of helplessness brought on by the inability to help myself with basic life functions. During my year-long convalescence I found myself preferring the hospital over my home. Home was the real world of difficult stairways to navigate, rather than the ramps of the hospital. It was bathrooms that were a nightmare to get to and use, and it was inhospitable beds and chairs. It was a place where I watched fully functional people move easily in and out of every day, living normal unencumbered lives. But as I reflect and tell some astonished people, it was the best thing that ever happened to me. That experience

has guided me in this proceeding in part because it allowed me to experience first hand how much of a jungle the world can be to someone who is disabled.

I have also been very pleased by the input from the telecommunications industry and the manufacturers. Moreover, I have been extremely impressed by the initiative and leadership of several organizations and companies that, in consultation with consumer groups and disabled persons, have already implemented Section 255's requirements. These law-abiding entities (which I would suggest represent a vast majority of our corporate citizens subject to Section 255) will have no fear of our actions today or enforcement actions of tomorrow.

I understand the industry's remaining concerns as much as I understand the concerns of consumers that would want us to go as far as we can in making all communications services and equipment accessible to all. But, despite our legal wrangling here today, we are duty-bound to consider all of these remaining concerns and we are duty-bound to act within the terms delegated to us by the elected members of Congress.

In this vein, I have grave concerns about the draft item's use of "ancillary jurisdiction" to extend the accessibility requirements of Section 255 to providers of voicemail and interactive menu services, as well as to manufacturers of telecommunications equipment and CPE which perform such functions. I think the draft order before us today has chosen to primarily rely on the least sustainable course for covering such services and may have placed much of the good work embodied in this item at unnecessary risk.

I definitely support the result that we are striving for with regard to voice mail and interactive menus. I agree that we should take all reasonable and aggressive steps to ensure that people with disabilities are unimpeded from using telecommunications due to barriers created by voice mail systems and interactive voice menus. The problem has been identified, it is real, and should be remedied as quickly as possible. However, the draft order's primary approach, in my mind takes a grave step. The draft item seems to concede that voice mail and voice menu services are excluded from section 255, yet is comfortable reaching for ancillary jurisdiction to rewrite the provision more to its liking, admittedly for perhaps the worthiest of causes. I am uncomfortable with this assertion of unbridled, plenary authority to legislate coverage, especially where Congress appears to have by the terms of its Act, excluded certain areas from coverage. I am unconvinced that such an unrestrained application of ancillary jurisdiction has been sanctioned by the courts, nor do I believe it to be consistent with our own precedents. Accordingly, while I support 99.99 percent of this item and everything that it achieves, I must dissent from its assertion of ancillary jurisdiction.

I believe there are a number of theories that potentially would have allowed us to provide these services within the terms of the statute and without usurping the legislative prerogatives of Congress. I accept the Chairman's invitation to continue exploring these alternative approaches. I am sorry that we are not able to rely on these other legal theories without resorting to the use of ancillary jurisdiction. I can only hope that the decision to rely, in whole or part, on ancillary

jurisdiction does not result in litigation that delays the availability of the relief which is sorely needed.

Separate Statement of Commissioner Gloria Tristani

Re: Implementation of Section 255 of the Telecommunications Act of 1996 -- Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities, Report and Order and Notice of Inquiry (WT Docket No. 96-198)

I've spoken before about the importance of access in our information society. Telecommunications is increasingly so much more than how we communicate -- it is how we teach, how we learn, how we work. To be denied access to these activities is to be relegated to the sidelines of our national life. And so I have fought hard to ensure access in other contexts -- E-rate and universal service. So, too, here. The opportunity to make decisions like these -- and to see the meaningful effect in individuals' lives -- is what makes this job worthwhile.

Congress, of course, made the first important decision here: the decision to require that all telecommunications services and equipment be accessible to people with disabilities, if readily achievable. But we have the obligation to bring Congress' intent to life, through our implementation and enforcement. Section 255 is a true corollary to the ADA, which mandates accessibility in employment and public accommodations. Knowing that full participation in our national life means more than eliminating physical barriers, Congress did not stop there. Section 255 builds upon the progress of the ADA by removing barriers to communication and information. The rules we adopt today will have a substantial effect on the quality of life for all Americans with disabilities.

I have approached this rulemaking with these goals in mind. The rules we adopt provide manufacturers and service providers with both certainty about their obligations and flexibility in how they meet them. As manufacturers consider accessibility throughout the design and development of new products and services, I have no doubt that the intelligence and innovation of this industry will prevail in amazing, unforeseen ways. As a lawyer, it's one of the things I appreciate about engineers. We lawyers are trained to create problems. Engineers love to solve them. So I have every confidence that industry will create greater accessibility and greater inclusiveness that will benefit us all.

I am particularly pleased about one aspect of our decision. I firmly believe that we have the jurisdiction, and indeed, the obligation under the Communications Act, to include voicemail and interactive voice menus in our rules. These services are more than commonplace. They are often the only means of completing a simple phone call today. When I call a bank or an airline, a theater or a credit card company, interactive voice menus are the means by which I complete my call. Often a live human is available, if at all, only by navigating that system. Those who are hard of hearing, or who have mobility or cognitive disabilities, simply may not be able to respond as

quickly as the system demands. A TTY-user, working with a communications assistant, may have to spend forty-five minutes, and endless phone calls, to re-enter the system and repeat the prompts just to check an account balance. When these individuals are disconnected, or do not have sufficient time to respond to a prompt, it is a fiction to say that that phone call is accessible because, in the technical sense, it has been terminated at the number dialed. In no purposeful sense is that call accessible to the person placing it. Voicemail and interactive voice menus are so integral to the use of telecommunications services today that their inaccessibility can render telecommunications services themselves inaccessible. By reading the statute with its purpose in mind and covering these vital services, we ensure real and meaningful access.