

DOCKET FILE COPY ORIGINAL

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

RECEIVED

JUN 30 1998

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

\_\_\_\_\_ )  
 In the Matter of )  
 )  
 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

COMMENTS OF  
THE INFORMATION TECHNOLOGY INDUSTRY COUNCIL

Fiona J. Branton  
Director, Government Relations  
and Regulatory Counsel  
Information Technology Industry  
Council  
1250 Eye Street, N.W., Suite 200  
Washington, D.C. 20005  
202-626-5751

Colleen Boothby  
Janine Goodman  
Levine, Blaszak, Block & Boothby, LLP  
2001 L Street, NW, Suite 900  
Washington, D.C. 20036  
202-857-2550

June 30, 1998

No. of copies rec'd  
List ABCDE

*DM*

## SUMMARY

The IT marketplace differs profoundly from the traditional telephony markets that the FCC has regulated for over six decades: it is driven by robust competition, with all of the technological innovation and aggressive downward pricing pressure that competition brings. And it is a “plug and play” environment in which customers control the features and functions they obtain, choosing from a dizzying array of products to assemble IT systems tailored to their unique needs. No regulatory intervention has been needed to exploit technological advances, expand consumer choice, and satisfy atypical consumer demand with specialized products from expert manufacturers in niche markets.

The Commission’s Section 255 rules should harness, not hamper, this marketplace dynamic. Accordingly, the Commission should incorporate the following refinements in its rules adopting Section 255.

First, the Commission should establish a bright line test for multi-use equipment to identify those telecommunications functions that are subject to Section 255. Equipment used exclusively in the provision of information services and software bundled with customer premises equipment is beyond the scope of Section 255. Second, the Commission’s definition of “manufacturer” should include both importers and modifiers of equipment. Third, the Commission should treat the Access Board’s functionality list as relevant but not determinative of accessibility, and should find manufacturers to be Section 255 compliant where a product family includes accessibility solutions or a solution is

generally available in the marketplace. The rules should explicitly recognize that “compatibility” is the measure of accessibility for IT products.

The Commission properly includes practical economic considerations in its test of “readily achievable” approach and should further refine the standard to (i) accurately identify the resources available to a manufacturing entity; (ii) consider a manufacturer’s ability to recover costs; and (iii) consider the effect of “fundamental alterations” on IT equipment, the availability of equipment on a marketwide basis, and the product cycle for equipment.

ITI supports the Commission’s efforts to establish efficient enforcement mechanisms, which must include a requirement that potential claimants contact manufacturers to resolve accessibility problems, allow manufacturers adequate time to respond to accessibility complaints, provide protection for confidential information, and impose reasonable time limits for the filing of informal complaints. The Commission also should acknowledge that Sections 207 or 208 do not authorize the recovery of damages from non-carriers.

Finally, ITI continues to support the creation of an information depository but such a depository must not be a legally binding obligation for manufacturers. The Commission should abandon its proposals to rate manufacturers according to dispute resolution outcomes and to establish a “seal” of compliance since these would produce inequitable and misleading information. Finally, the Commission need not establish a peer review process since such a process would be duplicative of the standards-setting processes that the IT industry

already has successfully developed and that can accommodate Section 255 issues.

# TABLE OF CONTENTS

	<u>Page</u>
SUMMARY .....	i
INTRODUCTION .....	1
I. THE COMMISSION'S RULES SHOULD PRESERVE THE MARKETPLACE DYNAMIC THAT HAS PRODUCED A RICH ARRAY OF SPECIALIZED EQUIPMENT FOR PEOPLE WITH DISABILITIES .....	4
II. SCOPE OF SECTION 255 .....	8
A. The Commission Should Adopt Its Tentative Conclusion That Section 255 Does Not Apply To Equipment Used Only With Information Services .....	8
1. Section 255 Does Not Apply To Information Services.....	9
2. The Commission Should Establish A "Bright Line" Test For Multi-Use Equipment .....	10
3. The Commission Has No Authority To Extend Section 255 To Software Bundled With CPE .....	11
B. Definition Of "Manufacturer" .....	12
III. STATUTORY REQUIREMENTS .....	14
A. Accessibility .....	14
1. The Access Board's Function List Can Be Relevant But Not Determinative Of Liability Under Section 255 .....	15
2. All Products Available In The Marketplace Are Relevant To An Accessibility Assessment .....	19
B. Compatibility .....	20
1. In The IT Industry, Compatibility Produces Accessibility .....	21
2. Creation Of A List Of "Commonly Used" Equipment Would Inhibit Manufacturer Flexibility And Innovation And Increase costs.. .....	23
3. Hardware Complies With Section 255 If It Is Compatible With Software That Enables Accessibility .....	24
C. The "Readily Achievable" Standard .....	25

1.	Resources Available To The Manufacturing Unit .....	27
2.	“Fundamental Alteration” In Equipment .....	30
3.	Manufacturer Ability To Recover Costs and Affordability For Consumers .....	31
4.	Availability Of Equipment Marketwide.....	33
5.	Product Life Cycle .....	34
6.	“Compatibility” As A Factor In Assessing Ready Achievability.. .....	35
IV.	ENFORCEMENT MECHANISMS .....	36
A.	Direct Contact With The Equipment Manufacturer As A Precondition To An FCC Complaint.. .....	36
B.	Fast Track Response Time of Five Business Days .....	38
C.	Confidentiality Rules Applicable To Section 255 Complaints.. .....	39
D.	Deadline For Formal Dispute Resolution .....	41
E.	Product Families And Marketplace Availability As Complete Defenses To Section 255 Complaints.. .....	41
F.	Damages In Complaints Against Non-Carriers .....	43
G.	Miscellaneous Implementation Issues .....	43
1.	Establishment Of A Clearinghouse .....	44
2.	Information On Manufacturer Performance.. .....	45
3.	Peer Review Processes.....“ .....	46
	CONCLUSION .....	46

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington D.C. 20554

	)	
In the Matter of	)	
Implementation of Section 255 of the	)	
Telecommunications Act of 1996	)	
	)	WT Docket No. 96-198
Access to Telecommunications Services,	)	
Telecommunications Equipment, and	)	
Customer Premises Equipment	)	
By Persons with Disabilities	)	
	)	

**COMMENTS OF  
THE INFORMATION TECHNOLOGY INDUSTRY COUNCIL**

The Information Technology Industry Council ("ITI") files these comments in response to the Commission's Notice of Proposed Rulemaking<sup>1</sup> ("NPRM") in the docket captioned above.

**INTRODUCTION**

ITI is the leading trade association for manufacturers and vendors of computers, computing devices, office equipment and information services, including information technology ("IT") equipment targeted to the needs of individuals with disabilities. ITI's members have continually supported efforts to ensure that all consumers, including those with disabilities, benefit from the

<sup>1</sup> *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 Proposed Rulemaking (rel. April 20, 1998) ("Notice" or "**NPRM**").

technological diversity and innovations that have resulted from robust competition in the IT marketplace.

The IT marketplace differs profoundly from the traditional telephony markets that the FCC has regulated for over six decades. Unlike most telecommunications markets, the IT industry is driven by robust competition, with all of the technological innovation and aggressive downward pricing pressure that competition brings. There may be no other American industry as responsive to consumer demand, innovative in technology, and sensitive to shifts in costs and price. As a result, the IT industry regularly introduces new features and functions and service upgrades into the marketplace at increasingly lower prices.

But the IT marketplace also differs fundamentally from traditional telecommunications markets in another way. Unlike the regimented, highly standardized telephony heritage of telecommunications markets, the IT marketplace is a “plug and play” environment in which customers control the features and functions they obtain, choosing from a dizzying array of products to assemble IT systems tailored to their unique needs. No regulatory intervention has been needed to exploit technological advances, expand consumer choice, and ensure that niche markets develop in response to atypical consumer demand. The essence of the IT marketplace dynamic is product diversity and customer control over system characteristics.

Much of the equipment currently manufactured by ITI members does not constitute “telecommunications equipment” (“TE”) or “customer premises equipment” (“CPE”) within the meaning of Section 255. However, the rapid

technological convergence of information technology products and traditional TE and CPE promises to produce over time a variety of IT products to which Section 255 guidelines may be relevant, at least with respect to some features and functions. Because of this growing convergence, ITI has participated in both the FCC and the Architectural and Transportation Barriers Compliance Board (“Access Board”) proceedings regarding the implementation of Section 255. In both forums, ITI has pressed for the adoption of guidelines and regulations that will encourage, not discourage, the diversity and innovation that currently characterize IT markets.

Congress passed the Telecommunications Act of 1996<sup>2</sup> to “provide for a pro-competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition.”<sup>3</sup> To be consistent with this statutory objective, the Commission’s implementation of Section 255 must recognize the technological diversity of IT equipment and services markets and the wide variety of existing products that enhance the accessibility of information technologies to individuals with disabilities. The Commission’s rules should harness, rather than hamper, the powerful competitive forces and cooperative

---

<sup>2</sup> Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified at 47 U.S.C. §§ 151, *et. seq.*) (“1996 Act”).

<sup>3</sup> Telecommunications Act of 1996, Joint Explanatory Statement of the Committee of the Conference, S. Conf. Rep. No. 230, 104<sup>th</sup> Cong., 2d Sess. 1 (1996).

technical standards in IT markets that are already producing innovative technological solutions and applications for individuals with disabilities.

Because of the pervasive and fundamental differences between traditional telephony products and markets and IT products and markets, certain of the rules proposed in the *NPRM* must be modified to reflect that the regulatory approach for traditional CPE and TE is not appropriate for IT equipment markets. If the Commission's rules ignore the unique nature of IT products and markets, the rules will suppress the very marketplace dynamic that is producing the specialized, innovative products from which people with disabilities benefit most thereby placing the people that Congress intended to serve through Section 255 at a greater disadvantage than ever before

I. THE COMMISSION'S RULES SHOULD PRESERVE THE MARKETPLACE DYNAMIC THAT HAS PRODUCED A RICH ARRAY OF SPECIALIZED EQUIPMENT FOR PEOPLE WITH DISABILITIES

The information technology equipment market has evolved into a "plug and play" environment in which manufacturers produce a variety of modular software and hardware components that users purchase as building blocks to assemble into the configuration that best meets their needs. The "plug and play" approach focuses on the needs of the individual. It maximizes user flexibility to customize equipment configurations to meet preferences or unique needs while simultaneously allowing users to benefit from any scale economies resulting from product standardization. "Plug and play" also facilitates competitive entry by innovative producers of specialized equipment. Open interfaces allow all consumers to customize their systems through the purchase of specialized

incremental additions that will “plug and play” with standard core components. Thus in a “plug and play” world, users have more control (and more options) with respect to their information technology needs and they benefit from more competitive pricing.

Competitive “plug and play” IT markets have resulted in a highly differentiated array of technology choices for any individual system component. Users typically assemble an IT system tailored to meet their needs, choosing among a wide variety of hardware and software components, including modems, monitors, printers and software applications

A “plug and play” approach is particularly well-suited to the needs of people with disabilities because it already assumes that there is no “standard” individual and that every consumer will assemble a customized system of equipment and services. The premise of “plug and play” is that all consumers, regardless of their physical or cognitive differences, are best served when they have the flexibility to design a system that meets their unique needs. The marketplace for accessibility solutions is no less vibrant than the market for products not specifically targeted toward accessibility. The result: options for people with disabilities are as diverse as those available to any purchaser of IT equipment.<sup>4</sup>

---

<sup>4</sup> See a/s/o Comments of ITI on the Notice of *Inquiry* in WT Dkt. No. 96-198, at 3-6 (Oct. 28, 1996). The World Wide Web contains a wealth of information on the types of organizations and technologies that have been established to address the accessibility needs of individuals with disabilities. There are hundreds of relevant web sites that provide information on particular manufacturers, IT products, research, conferences, support groups, and other resources. Representative organizations providing such information and links to other relevant sites include the Alliance for Technology Access ([ataccess.org](http://ataccess.org)) and the Yuri Rubinsky Insight Foundation ([yuri.org](http://yuri.org)).

A decade ago, accessibility solutions were focused primarily on improving keyboard control and modifying monitors to enhance screen readability. Now these solutions are typically provided in every computer, and the hundreds of manufacturers specializing in the production of assistive devices are instead focusing their efforts on developing more sophisticated solutions that will make some of the most advanced information technologies available to those with mobility, hearing, visual, and learning disabilities.

For example, several manufacturers have created alternatives to the traditional keyboard. Devices controlled by tongue or eye movements or a “sip and puff” straw make computer technology accessible to those with spinal cord injuries and other neuromuscular diseases. The foot-operated mouse avoids the limitations associated with certain manual impairments. Voice recognition products and computer control systems have been designed to allow users with mobility impairments to answer a telephone, turn lights on and off or open and close doors and appliances.

People who are vision-impaired may use any number of devices that provide for Braille translation, including items such as Braille word processors, scientific calculators, spell checkers, appointment calendars, and phone directories, as well as a virtual reality mouse which translates icons and menu bars into bumps and ridges. For those cases in which Braille is not the optimal solution or is even a disadvantage (e.g., people with loss of sensitivity in their fingers due to diabetes), manufacturers have developed various screen reader devices that translate printed information into audible speech, including

information from the Internet, books magazines, computer output, World Wide Web output, photocopies, and facsimiles. regardless of formatting or font size.

More importantly. manufacturers of these specialized devices are continually working toward better, simpler solutions. Every computer has standard serial and parallel ports that make it possible for IT systems to work with accessibility products. Each year, various associations and organizations sponsor hundreds of conferences and events that specifically address and demonstrate technology for use by individuals with disabilities.<sup>5</sup> The result has been dramatic improvements in technologies, such as speech recognition and screen reader products. accompanied by an equally dramatic decline in cost.<sup>6</sup> In short, the IT marketplace has been responsive to accessibility concerns while the possibilities for better accessibility solutions have stimulated entry by numerous niche players dedicated to highly specialized areas of expertise. Competition among these providers has resulted in innovation and the accelerated development of marketplace solutions. To fulfill the statutory mandate with respect to individuals with disabilities, the FCC's rules should reinforce, not discourage these marketplace trends.<sup>7</sup>

---

<sup>5</sup> For example, in 1998 there were (or soon will be) conferences sponsored by California State University, the World Wide Web Consortium, the National Education Computing Conference, the National Federation of the Blind, the American Council of the Blind, Closing the Gap (addressing microcomputer technology for people with special needs), and the American Speech-language Hearing Association.

<sup>6</sup> One dictation program dropped to one fifth the price in as little as six months. Center for Accessible Technology, *The Voice Input Update #1 (Winter 1997-98)* (visited on March 26, 1998) <<http://www.el.net/CAT/VI%231.html>>.

<sup>7</sup> The *NPRM* also raises a number of serious questions regarding the United States' obligations under international trade law and its obligations not to impose technical and regulatory barriers to international trade. Domestic design specification requirements for information technology products have a significant impact on market access for global IT

## II. SCOPE OF SECTION 255

### A. The Commission Should Adopt Its Tentative Conclusion That Section 255 Does Not Apply To Equipment Used Only With Information Services

---

Section 255 applies to “telecommunications equipment” or equipment used as “customer premises equipment.” “Telecommunications equipment is defined by the Act as “equipment other than CPE, used by a carrier to provide telecommunications services..”<sup>8</sup> CPE is defined as “equipment employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications”<sup>9</sup> The Act defines “telecommunications” to mean “the transmission. .of information. .without change in the form or content of the information as sent and received.”<sup>10</sup> As discussed in the following paragraphs, this definition excludes information or enhanced services.” Therefore, equipment used solely in connection with information or enhanced services, that is not also used to originate, route or terminate telecommunications within the meaning of the Act, is not subject to guidelines developed pursuant to Section 255.

---

producers. To the extent Section 255 requirements establish specific standards and design specifications, these rules must accommodate international trade commitments undertaken by the U.S., particularly with respect to the World Trade Organization and the multilateral Agreement on Technical Barriers to Trade. Articles 5 through 9 of the Technical Barriers Agreement provide that government mandated standards and the processes for developing these standards must be open and transparent, and not create unnecessary barriers to trade. Therefore, the Commission must assess the trade policy implications of its proposals to ensure that accessibility requirements in rules adopted in this proceeding or as a result of decisions imposed through the complaint process do not establish government-mandated standards inconsistent with applicable trade agreements.

<sup>8</sup> 47 U.S.C. § 153(45).

<sup>9</sup> 47 U.S.C. § 153(14).

<sup>10</sup> 47 U.S.C. § 153(46).

1. Section 255 Does Not Apply To Information Services

The *NPRM* tentatively concludes that information services are beyond the scope of Section 255, but seeks comment on whether the Commission should create an exception for widely-used information services such as voice mail and e-mail.\* The Commission should not give this approach any further consideration, as it would be inconsistent with the statutory interpretations and conclusions that the Commission has already articulated in numerous other dockets.

Most recently in its Report to *Congress*,<sup>13</sup> the Commission affirmed that “telecommunications services” and “information services” are “mutually exclusive,” and that information service providers do not provide telecommunications and therefore are not subject to Title II regulation.<sup>14</sup> The Commission found that presumptively applying Title II constraints to information services and information services providers “could seriously curtail the regulatory freedom that the Commission concluded in *Computer II* was important to the health and competitive development of the enhanced-services industry” and that such a presumption would be “inconsistent with the deregulatory and procompetitive goals of the 1996 Act.”<sup>15</sup> In addition, the Commission voiced concern that “uncertainty about whether [it] would forbear from applying specific

---

<sup>11</sup> 47 C.F.R. § 64.702(a).

<sup>12</sup> *NPRM* at ¶ 42.

<sup>13</sup> *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, FCC 98-67 (rel. April 10, 1998) (“*Report to Congress*”).

<sup>14</sup> *Report to Congress* at ¶ 39, 47.

<sup>15</sup> *Id.* at ¶ 46, 47.

provisions could chill innovation."<sup>16</sup> Applying Section 255 to information services would fly in the face of these conclusions

Moreover, there is no statutory support for doing so. Section 255 refers to telecommunications equipment, customer premises equipment, and telecommunications services. all terms defined in the 1996 Act and all of which clearly exclude information services or equipment used exclusively in conjunction with such services, There is no language in Section 255 or the legislative history for that section which suggests that Congress intended Section 255 to extend to information services Any application of Section 255 to information services or equipment used exclusively in the provision of such services would therefore be a clear violation of the statute.

2. The Commission Should Establish A "Bright Line" Test For Multi-Use Equipment

The FCC proposes that "multi-use" equipment (*i.e.*, equipment used in connection with both telecommunications and information services) is covered by Section 255 *only* to the extent the equipment performs a telecommunications function.<sup>17</sup> ITI strongly supports this conclusion The Commission's proposed approach will not be useful, however. unless the Commission elaborates on its proposed standard. With the convergence of telecommunications and information technologies, more equipment will serve a "multi-use" function. It is therefore crucial that the Commission provide clear and unambiguous standards

---

<sup>16</sup> *Id.* at ¶ 47.

<sup>17</sup> *NPRM* at ¶ 53.

for distinguishing between those aspects of equipment that are subject to Section 255. and those that are not.

In order to establish an enforceable “bright line” between telecommunications and non-telecommunications functions that manufacturers can implement as a practical matter, the FCC should explicitly identify the functions in IT appliances that constitute “*telecommunications*,” as defined by the Act. In this way, manufacturers will know at any given time the set of functions that must comply with Section 255 standards, which is critical to ensuring that the technological innovation and consumer responsiveness of IT markets are not stifled

3. The Commission Has No Authority To Extend Section 255 To Software Bundled With CPE

The *NPRM* tentatively concludes that, where a CPE manufacturer bundles software with products that serve a telecommunications function, and the software “detracts from or otherwise reduces the accessibility of the product.” the manufacturer should be “required to alter the software to cure the accessibility problem, to the extent such alteration is readily achievable.”<sup>18</sup> Software sold with CPE, however, is beyond the reach of the Commission pursuant to the authority conferred by Section 255. The Commission’s proposal to use a joint sale of software and CPE as a justification for asserting FCC jurisdiction exceeds that authority

---

<sup>18</sup> *NPRM* at ¶ 56.

The *NPRM* correctly observes that the statutory definition of CPE, unlike the definition for telecommunications equipment, does not include an explicit reference to software.<sup>19</sup> The fact that Congress specifically included software in its definition of telecommunications equipment, but declined to include software in the definition of CPE, undercuts any statutory basis for the Notice's attempt to extend the Commission's authority to the software sold with CPE.

In addition, the *Notice's* bundling proposal will not achieve its purpose. By proposing to make manufacturers liable for the accessibility features in software, the *Notice* apparently assumes that equipment manufacturers have sufficient control over software features and functions to ensure compliance with Section 255. Manufacturers have no such control. Imposing accessibility requirements on manufacturers would therefore be both inequitable and ineffective. The Commission should therefore abandon the proposal in the Notice to make equipment manufacturers responsible for the accessibility defects in bundled software.

B. Definition Of "Manufacturer"

The *NPRM* proposes to define a manufacturer as the "final assembler" of a product, reasoning that "every assembler has control over the components it uses."<sup>20</sup> In many cases, the "final assembler" of a product will no doubt be the entity in the best position to exert control over the accessibility of the final product, and should therefore qualify as the responsible party. As discussed in

---

<sup>19</sup> Compare 47 U.S.C. §§ 153(45) and 153(14)

<sup>20</sup> *NPRM* at ¶ 60.

the paragraphs that follow, however, this approach will not adequately capture certain other likely scenarios, and in particular could fail to reach foreign manufacturers, many of whom are beyond the reach of the FCC's enforcement powers. To address these situations, ITI urges the Commission to modify its proposed definition to include both importers and equipment modifiers as "manufacturers" for purposes of Section 255

The FCC properly observes that although Section 255 should apply to foreign manufacturers who offer equipment for sale in the United States, some foreign manufacturers may be beyond the reach of the enforcement capabilities of the Commission.\*' By making the importers of such equipment responsible for Section 255 compliance, the Commission can indirectly enforce foreign manufacturers' compliance, because importers will be discouraged from importing non-compliant equipment. The Commission has already taken this approach in similar circumstances, For example, importers are responsible for compliance with certain equipment authorization standards in Part 2, Subpart J of the Commission's Rules.

The Commission should also extend compliance obligations to parties other than the "final assembler," who modify the equipment before sale to the consumer. If such modifications degrade the accessibility of the product, the party performing the modification should be responsible for compliance with

---

<sup>21</sup> *NPRM* at ¶ 58.

Section 255. Under these circumstances, the modifier, rather than the “final assembler,” controls the ultimate accessibility of the equipment.

Finally, in some cases, equipment may be marketed pursuant to a licensing agreement under which the entity whose brand appears on the product is not the final assembler, modifier, or importer of the equipment. In the interests of administrative convenience, the complainant should be permitted to seek contact with the brand owner in the **first** Instance. The ultimate liability of the brand owner, rather than the “final assembler” of the equipment, will be a function of the licensing agreement between the brand owner and the “final assembler.” Absent a countervailing provision in the licensing agreement, the “final assembler” alone should be liable and the brand owner’s obligations should be discharged once it identifies the “final assembler.”

### III. STATUTORY REQUIREMENTS

#### A. Accessibility

Section 255 requires that equipment be “designed, developed, and fabricated to be accessible to and usable by Individuals with disabilities, if readily achievable.”\*\* The Notice proposes to evaluate whether or not a manufacturer meets its “accessibility” obligations by, in part, considering the extent to which the manufacturer meets the Access Board’s list of input and output functions and the Board’s accompanying appendix<sup>23</sup> The Notice also

---

<sup>22</sup> 47 U.S.C. § 255(b).

<sup>23</sup> *NPRM* at ¶¶ 73-75. The FCC identifies this list as including inputs, controls and mechanical functions that allow for operability: (a) without vision; (b) with low vision; (c) with little or no color perception; (d) without hearing; (e) with limited manual dexterity; (f) with limited reach and strength; (g) without time-dependent controls; (h) without speech; (i) with limited cognitive

proposes to take into account the accessibility features of other functionally similar products offered by the manufacturer<sup>24</sup> For the reasons discussed below, the Commission should clarify that while the Access Board's factors may be relevant, they are not determinative of a manufacturer's compliance obligations in an enforcement setting. In addition, the Commission should consider product families and the availability of solutions on a marketwide basis in determining whether a manufacturer has met its accessibility obligations.

1. The Access Board's Function List Can Be Relevant But Not Determinative Of Liability Under Section 255

---

skills (i.e., minimizing memory, language and learning skills needed by a user), as well as output, displays and control functions that allow: (a) visual information in auditory form; (b) visual information for low vision users; (c) the ability to stop moving text; (d) auditory information in a visual (and, if appropriate, tactile) format; (e) auditory information for the hard of hearing; (f) the prevention of visually-induced seizures; (g) non-interference with hearing technologies; (h) hearing aid coupling; and (i) the ability to adjust volume control and amplification. For voice output (i.e., not tones, chords or beeps), products must enable users to adjust volume control and amplification and allow hearing aid "coupling." The Access Board's definition of accessibility also includes the pass-through of codes, protocols, and other information needed to provide telecommunications in an accessible format.

<sup>24</sup> *NPRM* at ¶ 170.

The interests of people with disabilities will be served best by an accessibility approach that encourages manufacturers to produce the widest possible variety of accessible equipment at the lowest possible price. The Commission's rules should therefore encourage continued innovation and experimentation in equipment technologies and the production of less expensive alternatives, and should not limit people with disabilities to a choice of imperfect solutions that require all customers to pay more for functions they would not need or want.

The Access Board's function list is a relevant tool for assessing accessibility. The Commission should make clear, however, that, given the disparate needs of individuals with disabilities and the breadth of technical solutions available, compliance with every item on the Board's list is not required for accessibility. The Board's list specifies functions that may be useful individually but are not necessary as a group in order for a piece of equipment to be accessible to an individual with a particular disability or set of disabilities. But the more detailed the accessibility standard, the more complex equipment must be to comply, whether or not its complexities benefit individual people with particular disabilities. In addition some functions listed by the Board are of mutually exclusive utility, e.g., features that allow for operation without vision *and* output that allows the display of auditory information in a visual format. Simultaneous compliance with every item on the Board's list would therefore require manufacturers to incorporate incompatible solutions which would

introduce undue delay in the release of products; increase manufacturing costs; and ultimately, reduce the resources available for developing technological innovations that would benefit people with disabilities.

A one-size-fits-all approach, even where readily achievable in theory, will also discourage the emergence and growth of niche players who have developed expertise in designing and manufacturing products targeted to particular disabilities and therefore are uniquely equipped, based on their experience, to produce the best technological solutions for a particular disability.<sup>25</sup> If manufacturers can produce only “fully loaded” versions of equipment, there will be little marketplace demand for equipment produced by these specialized manufacturers, even though their equipment may be a better technological alternative for the consumer

The more flexible approach advocated by ITI is consistent with the approach adopted by the Commission in other proceedings. For example, in the hearing aid compatibility (“HAC”) proceeding, the Commission reasoned that overly broad, universal HAC requirements would “restrict the freedom to design innovative telephones.”<sup>26</sup> that there existed inexpensive alternative portable devices to assist those with hearing disabilities, and that it was still unclear whether universal HAC requirements would address problems experienced by certain hearing impaired individuals. For these reasons, the Commission

---

<sup>25</sup> A large number of these niche companies employ individuals with impairments to assist in the design and development process.

<sup>26</sup> *Access to Telecommunications Equipment and Services by the Hearing Impaired and Other Disabled Persons*, Notice of Proposed Rulemaking and Further Notice of Inquiry, 3 **FCC Rcd.** 1982, ¶ 40 (1988)

determined that “it [did] not appear that mandatory universal compatibility would serve the public interest.”<sup>27</sup>

Similarly, in a Notice of Proposed Rulemaking recently released by the Commission on Telecommunications Relay Services, the Commission indicated that it would not mandate Video Relay Interpreting (VRI) at this time on the grounds that VRI would “grow and develop more efficiently if providers are allowed to experiment with various VRI offerings on a trial basis, and to offer these services as a means of differentiating themselves from their competitors, until a cost-effective and practical VRI platform is developed.”<sup>28</sup> The Commission further found that “[m]andating the provision of VRI when it is still at an early stage of development may remove competitive incentives for the development of innovative and quality VRI offerings by TRS providers.”<sup>29</sup>

The Commission’s reasoning in both of these proceedings applies with equal force to accessibility standards for IT equipment. Manufacturers need the flexibility to develop and experiment with new technologies, with a focus on innovation and quality, in order to meet the needs of their customers with disabilities. Accordingly, the Commission should not “lock in” the Access Board’s function list as the measure of IT equipment accessibility.<sup>30</sup>

---

<sup>27</sup> Id. at ¶ 40.

<sup>28</sup> *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Notice of Proposed Rulemaking, CC Docket No. 98-67 (rel. May 20, 1998) (“*TRS Rulemaking*”) at ¶ 32.

<sup>29</sup> *Id.*

<sup>30</sup> The Commission also proposes to evaluate whether “support services” provided by manufacturers are accessible to and usable by individuals with disabilities. *NPRM* at ¶¶ 72, 75. This requirement, however, is beyond the Commission’s authority under Section 255 since the section requires manufacturers to ensure accessibility only when equipment is “designed,

2. All Products Available In The Marketplace Are Relevant To An Accessibility Assessment

The *Notice* observes that, in the context of defenses to an accessibility enforcement proceeding, it is reasonable for “an informed product-development decision” to take into account functionally similar and accessible products in the same product family.<sup>31</sup> The availability of a functionally similar product within a product family should serve not only as a defense available to manufacturers after a formal complaint has been filed, but should also be incorporated into the definition of accessibility used by the Commission to evaluate accessibility at every procedural stage.

In addition, the Commission should broaden its accessibility analysis to include a market-wide survey of available equipment. If the marketplace as a whole is already producing accessible equipment (i.e., accessible equivalent products are available from other manufacturers), then the Commission should find that producers of functionally similar equipment have met their statutory obligations.

This practical, market-wide approach is best illustrated by analogy to the treatment of other products for which accessibility is crucial to people with disabilities. For example, although the technology exists for every car to include manual controls rather than brake or acceleration pedals, every vehicle is not

---

developed, and fabricated.” Many manufacturers already provide specific support services to individuals with disabilities. The Commission’s attempt to standardize support services by regulating them would likely reduce the type and nature of services made available and would constrain a manufacturer’s ability to develop support services that are best suited to a particular customer base or product line.

<sup>31</sup> *NPRM* at ¶ 170