# MATP Center

## Massachusetts Assistive Technology Partnership Center

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**Affiliated Programs and Services:**

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*Funded by a grant from the U.S. Department of Education, through the Mass. Commission for the Deaf and Hard of Hearing*

Re: 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

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Comments of the Massachusetts Assistive Technology Partnership
Submitted October 28, 1996

Dear Commissioners:

The Massachusetts Assistive Technology Partnership (MATP) thanks the Federal Communications Commission (FCC) for this opportunity to provide comment in the matter of accessibility of telecommunications services, telecommunications equipment, and customer premises equipment.

The MATP is a consumer-responsive systems change project under Title I of the Technology-Related Assistance for Individuals with Disabilities Act (Tech Act) as amended in 1994. Our mission is to increase access to assistive technology for people with disabilities in order that people with disabilities can participate more fully in employment, education, and community activities, and be more independent in daily living. Towards that end, we also seek to reduce barriers to telecommunications so that people with disabilities will be able to enjoy the benefits of commonly available telecommunications without having to rely unnecessarily on specialized and expensive work-arounds to mainstream technologies.

As a member of the Telecommunications Access Advisory Committee (TAAC) under the Architectural and Transportation Barriers Compliance Board (Access Board), the MATP is participating in the dialog between industry and the disability community regarding mutual needs and solutions in developing accessibility guidelines under Section 255. We are in general agreement with the evolving compliance model currently under discussion in the TAAC, and support an approach which fosters extensive collaboration and feedback between industry and the disability community towards the goal of increasing accessibility in design and development of equipment.

We offer responses to the following questions which the Commissioners have asked in the Notice of Inquiry (NOI).

[Paragraph 10] ISSUES CONCERNING THE SCOPE OF CPE AND OTHER EQUIPMENT USED IN CONJUNCTION WITH TELECOMMUNICATIONS SERVICES

The NOI asks "We seek comment on these and any other issues concerning the scope of CPE and other equipment used in conjunction with telecommunications services, and the corresponding accessibility obligations of manufacturers of such equipment."

The FCC should construe the meaning of CPE broadly in order to ensure that the full intent of the accessibility provisions under Section 255 is carried out. It is of little benefit to require that the manufacturer of a modem, for example, provide for

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accessibility of modem features if the operating system and the applications with which the modem is used are not accessible. A consumer may soon choose among a growing variety of information appliance options (telephone, cell phone, computer, PC-TV, TV, etc.) to accomplish a converging set of tasks (voice calls, video calls, message retrieval, information searches, news updates, etc.) For the available telecommunications functions to be usable, where an information appliance has the potential to be used for telecommunications in addition to its other functions, even where the primary purpose of the device is not telecommunications, all the functions related to telecommunications use should be accessible to the extent readily achievable.

[Paragraph 11] MANUFACTURER'S OBLIGATIONS IN THE CONTEXT OF AN INTERNATIONAL MARKETPLACE

The NOI asks "We note that all equipment marketed or sold in the United States must meet all applicable technical and operational requirements, but we question whether the same approach should be adopted for accessibility standards, especially in light of different accommodations that may be necessary for specific disabilities," and "When considering what accessibility measures are readily achievable, should the Commission give weight to the different standards confronted by a manufacturer with markets in other nations?"

Foreign manufacturers should be subject to the same requirements regarding accessibility as domestic manufacturers; otherwise the disability community and domestic industry would both stand to lose -- the disability community because of the lower standard of access potentially represented by foreign products if subject to a lesser standard, and domestic manufacturers because of the advantage to foreign manufacturers if subject to a lesser standard. Applying the same requirements to both domestic and foreign manufacturers removes this problem.

At the same time, domestic manufacturers should be subject to no lesser requirements regarding domestic sales when they are also engaged in production for an international marketplace. The United States has a history of preceding other nations in many matters of social policy for people with disabilities. It would be incongruous to dilute this leadership by reducing the requirements for domestic manufacturers who also pursue an international market, which would be the effect if the FCC were to allow differing national equipment accessibility standards to factor into an interpretation of readily achievable access for the domestic marketplace.

We support elements of the compliance model currently under discussion in the TAAC which seek to alleviate this latter issue by establishing a mechanism to promote international harmonization of access requirements in the manufacture of telecommunications equipment and CPE.

[Paragraphs 12] APPORTIONMENT OF RESPONSIBILITY AMONG COMPONENTS MANUFACTURERS

The NOI asks "If several companies are involved in the design and manufacture of a single piece of equipment, how should responsibility be apportioned? To the extent that some manufacturers design, develop, and fabricate equipment but then license their equipment design to other manufacturers for production, how should Section 255 apply to the secondary manufacturers or resellers?"

Proceeding from an understanding that the intent of Section 255 is to provide access to telecommunications equipment and customer premises equipment where readily achievable, any outsourcing or external licensing should be transparent to the consumer with regard to the resulting performance of a product. In this area as much as in any other area under this NOI, it is the result that counts most. The end result of any design, development and manufacturing process for telecommunications equipment or CPE should be accessibility where readily achievable, regardless of where or how the components were manufactured. We recommend use of a Declaration of Conformity with requirements under Section 255 at all stages between secondary manufacturers and resellers, with the primary manufacturer ultimately responsible for ensuring the successful integration of the accessibility features of all components.

[Paragraphs 17 through 20] COSTS AND FINANCIAL RESOURCES

The NOI asks questions regarding the costs of extending accessibility in product offerings; cost savings when accessibility is achieved at the design stage; how to consider the financial resources of firms of widely varying characteristics; whether to consider the financial resources of the parent or the subsidiary; and how to consider the resources of firms which design and develop for the foreign as well as the domestic market.

The MATP believes that several important questions regarding costs and financial resources remain unasked among these questions: (1) What additional revenue do companies stand to realize due to (a) an increased market once more of their products are usable by and therefore purchased by people with disabilities; and to (b) an increased market due to serendipitous utility of access features to customers without disabilities, such as a cell phone which does not require a visual interface and is therefore safer to use while driving? We hope that projections in these areas will be forthcoming during the reply comment period. Also, we suggest that an important question is also (2) what are the financial benefits of providing access? While at first glance these benefits may appear to be social costs which impact solely on the public sector, we suggest that some benefits from increased access impact directly on the industries in question.

Lack of access is expensive, though the costs are often hidden. The availability of universally designed telecommunications products reduces the cost of accommodation for employees with disabilities, and increases these employees' access to a public flow of information and on-going education and training opportunities which enhance their value to a company. The ability of employees to stay in touch with disabled family member or aging parents through accessible telecommunications helps reduce burdens which can distract employees with family responsibilities, and it thereby enhances productivity. People no longer confronted with barriers to participating in the information society are more likely to find appropriate employment allowing them to contribute their talents, and their taxes, back to the community.

[Paragraph 21] ACCESSIBLE TO AND USABLE BY

The NOI asks for comment regarding the terms "accessible to" and "usable by" in the context of access to equipment.

The obligation to provide access in equipment design and manufacture should extend to how that equipment is deployed to ensure that the accessibility features are in fact able to be used.

A telephone that is designed with a full range of accessibility features, including a TTY shelf, yet is mounted at a standing height provides no access for an individual in a wheelchair. Such an installation assumes that there are no deaf individuals who use wheelchairs, or are short-statured; and likewise assumes that no hearing wheelchair-user or short statured person would have reason to use a TTY to call an individual who is deaf. Both are fallacies, yet this is unfortunately a typical installation of TTY-equipped public phones. The solution would be for the telephone manufacturer to require installation in such a manner that the access features could be utilized.

Another example is that of a cell phone manufacturer who, in order to provide access features for different functional limitations where it is not yet readily achievable to provide those in a combined manner, instead provides various access features via different models in a given product category. In this case, if a service provider re-selling those cell phones chooses not to offer certain models which uniquely provide for certain access needs, the outcome for customers would be a lack of access. The solution would be for the cell phone manufacturer to require that the service provider offer, at comparable rates for people with disabilities, each of the models within a category that are needed to provide the full complement of access features readily achievable through that product category at that time.

[Paragraph 22] ALTERNATIVE OR MODULAR-DESIGN APPROACHES

The NOI asks for comment on "whether a manufacturer or service provider must ensure that each of its telecommunications equipment, CPE, or service offerings is accessible to persons with various types of disabilities" and "how should such alternative or modular-design approaches be regarded under the 'readily achievable' standard..."

We believe that the desired standard is to offer accessibility features in a combined form. If that is not readily achievable at a given time, due to technical considerations or cost, then offering access features via different models in a given product category should be an acceptable solution. If it is technically feasible to offer these features in a combined form but at a substantially higher cost, then we recommend use of incentive programs to ensure that an adequate supply of these combined-access products are available for those who require access for multiple functional limitations. At the point that it becomes readily achievable, both on a technical and cost basis, to offer access features in a combined form, that should be the company's obligation.

[Paragraphs 29 through 34] RESOLUTION OF COMPLAINTS

The NOI seeks comment on resolution of complaints: what are the advantages or disadvantages of various approaches, among options including a complaint-by-complaint process, an FCC-issued guideline or policy statement, or FCC-promulgated rules; how should service complaints be addressed; what showings should the Commission view favorably (including process assessment and/or performance assessment); and should the FCC adopt requirements such as outreach procedures or accessibility assessments.

The MATP urges the FCC to adopt rules governing resolution of complaints under Section 255. We believe this brings advantages to all parties, through the greater public airing inherent in the rule-making process; the increased clarity and predictability of the resulting rules; the greater opportunity inherent in the rule-making process to ensure coordination with implementation of related sections of this act and other laws; and the broader dissemination both among industry and the public of rules, as opposed to guidelines or policy statements, thereby leading to enhanced awareness in industry and among the public of expectations under these new provisions of the law. With regard to resolution of complaints, rules provide an opportunity to specify clear processes and reasonable timelines. We also believe that in the context of the many competing priorities of an intensely competitive marketplace, regulations provide greater assurance that accessibility provisions will receive the attention intended in this Act. We do not find rule-making inconsistent with the compliance model currently under discussion in the TAAC, but rather an essential formalization of it.

Service complaints regarding accessibility should also be addressed through rules. As the Commission notes, there are instances where "the accessibility of the service is inextricably linked to the accessibility of the equipment (and vice-versa)." In these cases, to regulate the equipment without regulating the service would be to give an advantage to a service provider who could conceivably be held to a lower standard of accessibility than an equipment manufacturer. It would also deprive people with disabilities of the access intended under this Act by failing to adequately address a prominent aspect of the current evolution of telecommunications technology.

On the issue of process assessment versus performance assessment, both are needed. While people with disabilities are necessarily most interested in the performance outcome of accessible design and development, industry must have assurance that a well-planned and well-implemented development process affords some protection from measures associated with complaints around inaccessible product performance. A balance must be struck between process and performance assessment.

We see that process assessment serves two roles: first, to provide guidance to industry on how best to attain accessible design; and second, to provide relief to industry in areas where standards used in performance assessment are less specific than optimal and correspondingly could result in a performance outcome which does not provide as much accessibility as is readily achievable at a given time. Elements of an effective balance between process and performance assessment should include a provision that process assessment cannot supersede the role of performance assessment; in other words, that inaccessible performance cannot be disregarded on the basis of an apparently satisfactory process plan and implementation. For instance, a company which released an inaccessible product, where access was in fact readily achievable, and which had carried out a full internal process plan for accessibility including such steps as assessment of accessibility options and seeking input from people with disabilities, should not be subject to punitive fines, but should still be required to address the access barrier created.

A necessary element of an effective balance between process and performance assessment is objectivity and replicability in verification of performance. One of the common criteria agreed upon by TAAC Compliance Subcommittee members was the need for certified, objective, replicable internal or external testing. The compliance model currently under discussion in the TAAC includes the concept of a certified access engineer who would oversee development and implementation of process and performance plans for each telecommunications product. There is still some discussion as to the best method for verification of product performance. Given the

frequent examples of well-intentioned design gone awry in the built environment -- the proudly displayed new ramp with the step at the bottom, the restroom renovated to ADA code on the second floor of a building with no elevators -- we recommend a process that brings as much objectivity as possible into the testing of accessible performance. One solution would be to require certified testing processes, to be conducted internally where the resources of the company were sufficient to ensure independence of the testing process from the product design and development effort, or to be conducted externally where internal resources were insufficient. An alternate solution would be to recommend testing processes for internal or external use, and for the FCC to conduct random testing among representative categories of products.

[Paragraph 35] DEVELOPING EQUIPMENT AND CPE GUIDELINES IN CONJUNCTION WITH THE ACCESS BOARD

The NOI asks "how the Commission should work in conjunction with the Access Board to develop equipment and CPE guidelines....Should we adopt the Board's guidelines, either as adopted by the Board or with revisions, as Commission rules after the appropriate Commission proceedings?.... Should we adopt such guidance or rules before, after, or in conjunction with the Access Board's guidelines?...."

The FCC's involvement in the TAAC process has been valuable and clarifying and we urge the FCC to continue this level of observation and participation through the remainder of the TAAC process.

To the extent that an industry and disability community consensus regarding a compliance model and accompanying process and performance guidelines emerges from the completed TAAC process, and is adopted by the Access Board as guidelines, we urge the FCC to adopt these guidelines as rules after the appropriate public processes.

To date there has been a creative and cooperative process among industry and disability community representatives on the TAAC with regard to development of a compliance model, increasing the likelihood that the Access Board recommendations will go far beyond a lowest-common denominator compromise. We support the compliance model currently under discussion in the TAAC and believe a collaborative process between industry and the disability community is most productive to increasing future accessibility available through telecommunications.

Again, we do not find the prospect of FCC rule-making based on the Access Board's guidelines to be inconsistent with the compliance model currently under discussion, but rather a crucial formalization of it. As discussed in our response above to paragraphs 29 through 34, rule-making offers a number of advantages in ensuring that the recommended guidelines are fully understood and implemented consistently.

Key elements of the emerging compliance model include the following. Beyond its role in rule-making, we urge the FCC's encouragement and involvement in these activities where appropriate.
- guidelines issued by the Access Board and refreshed periodically with input from industry and the disability community;
- consensus standards developed with the participation of industry and the disability community, and refreshed periodically;
- a coordination point such as an engineering society which would serve as a place to exchange access solutions; to train access engineers and representatives from the disability community and to support the development of a certification process for

access engineers; which would contribute to standards development; participate in inquiry reviews if requested by the FCC, and review an annual access report;
- access engineers, trained and certified in access engineering, to oversee accessibility during product development;
- product development including process and performance accessibility plans and implementation;
- verification of accessible performance by a certified, replicable testing process;
- a Declaration of Conformity issued by the company;
- an FCC-based complaint process, with the possibility of an industry-disability review panel to assist in reviewing difficult areas;
- an annual access report by the FCC or Access Board;
- linkage with an established standard-setting body to promote internationalization harmonization of access requirements.

Respectfully submitted,

Judy Brewer
Project Director
Massachusetts Assistive Technology Partnership

Attachment A

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