

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

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

Northern Telecom Inc. ("Nortel") hereby comments on the Commission's Notice of Proposed Rulemaking addressing the new obligations imposed on telecommunications service providers and telecommunications product manufacturers by Section 255 of the Telecommunications Act of 1996.<sup>1</sup> Through that provision, Congress has mandated that manufacturers of telecommunications equipment or customer premises equipment ("CPE") ensure that their products are "designed, developed and fabricated to be accessible to and usable by individuals with disabilities, if readily achievable."<sup>2</sup> As a manufacturer of telecommunications equipment and customer premises equipment, Nortel

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<sup>1</sup> *Implementation of the Section 255 of the Telecommunications Act of 1996*, WT Docket No. 96-198, FCC 98-55, released April 20, 1998 (hereafter cited as "Notice").

<sup>2</sup> 47 U.S.C. § 255(b).

has a strong interest in the requirements imposed on Nortel and its carrier customers that ultimately will emerge from this rulemaking proceeding.

Nortel and its affiliates are the leading global suppliers of digital telecommunications systems. Nortel supplies systems to businesses, universities, local, state and federal governments, the telecommunications industry and other institutions in more than 100 countries. The company employs more than 25,000 people in the United States in manufacturing plants, research and development centers, and in marketing, sales and service offices across the country.

Nortel has been actively involved in these disabilities access issues. For example, in the wireless arena, Nortel has conducted several technical programs concerning wireless systems and their use by the hearing impaired. Nortel believes that wireless terminals have a special value for users with disabilities, because a portable accessible telephone can be used from virtually anywhere. In addition, during the last two decades, human factors experts at Nortel have completed more than thirty studies on product usability for users with hearing impairment or other disabilities. Nortel has also participated in Commission proceedings addressing these issues, including providing input to the Negotiated Rulemaking Committee dealing with hearing aid compatibility.<sup>3</sup> In addition, Nortel was represented on the Telecommunications Access Advisory Committee, which helped develop the guidelines adopted by the Architectural and Transportation Barriers Compliance Board (the "Access Board").<sup>4</sup> Nortel had also previously filed

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<sup>3</sup> Report of the Federal Communications Commission Hearing Aid Compatibility Negotiated Rulemaking Committee, CC Docket No. 87-124, August 1995.

<sup>4</sup> *Telecommunications Act Accessibility Guidelines*, 63 Fed. Reg. 5608 (1998)(*"Guidelines Order"*), codified at 36 C.F.R. Part 1193.

comments in the Notice of Inquiry stage of this docket.<sup>5</sup>

Nortel is concerned by a few of the proposals in the *Notice* that may create unnecessary confusion or prove to be too burdensome, and thus counterproductive in achieving the Commission's goals.

#### Shared Jurisdiction

Section 255 provides some degree of dual jurisdiction, insofar as the Access Board is assigned the task of developing guidelines (in conjunction with the Commission), and the Commission is assigned exclusive jurisdiction with respect to complaints under Section 255.<sup>6</sup> Both the Commission and the Access Board, however, recognize the need for consistency between the Access Board's guidelines and the Commission's regulations.<sup>7</sup> Nortel also believes that such consistency is essential in order to provide clear guidance to manufacturers.

Unfortunately, there may be inconsistencies between the Commission's Rules and the Access Board guidelines. For example, the Commission's Rules set forth a volume control requirement of a minimum gain of 12 dB.<sup>8</sup> In contrast, the Access Board guidelines specify a minimum gain of 20 dB.<sup>9</sup> Nortel believes the Commission has the authority to resolve this apparent inconsistency, because even though there is shared jurisdiction in the development of the guidelines, the Commission was granted sole jurisdiction over enforcement of Section 255. The Commission also has broad authority

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<sup>5</sup> See Comments of Nortel in WT Docket No. 96-198, filed October 28, 1996.

<sup>6</sup> 47 U.S.C. § 255 (e) and (f).

<sup>7</sup> *Notice* at ¶ 30; *Guidelines Order*, 63 Fed. Reg. at 5609.

<sup>8</sup> 47 C.F.R. § 68.317. This capability is to be implemented by January 1, 2000.

<sup>9</sup> 36 C.F.R. § 1193.43(e).

to adopt regulations in connection with Section 255,<sup>10</sup> and as the *Notice* observes, the Commission possesses broad authority to adopt regulations to implement the Communications Act.<sup>11</sup>

With regard to the particular inconsistency in minimum gain levels, Nortel urges the Commission to resolve the conflict by clarifying that the specification of 12 dB in Part 68 establishes the requirement for volume control. The more stringent 20 dB gain set forth in the Access Board guidelines is not readily achievable.<sup>12</sup>

#### New Complaint Procedures

Nortel also has a few comments with respect to the Commission's proposals for a new complaint process for enforcement of Section 255. One element of the proposed new complaint process is a designation of a person or persons at a manufacturer or service provider for the Commission to contact in the event a complaint is

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<sup>10</sup> Moreover, Nortel observes that Congress directed the Access Board (in conjunction with the Commission) to develop *guidelines*, not *regulations*.

<sup>11</sup> *Notice* at ¶ 26.

<sup>12</sup> There are numerous problems with attempting to meet the 20 dB gain suggested by the Access Board guidelines. In order to provide 20 dB gain, most phones would require separate AC power. In the case of cordless phones, battery voltage limitations would make such a gain impossible. In addition, low-cost solutions with a simple adjustable resistor would be precluded because of the need to reset the phone to nominal as a result of exceeding the 18 dB threshold specified in 47 C.F.R. § 68.317(f). A further complication arises because meeting the 20 dB gain will greatly increase distortion, thereby defeating the benefits of the gain (or imposing significant costs in overcoming the increased distortion). Similarly, the current network requirements seek to ensure an acceptable level of quality by balancing the loudness versus the echo. Increasing the loudness will cause the far-end talker to hear significantly greater echo (his or her voice returned). In order to compensate for this increased echo, expensive echo cancelers would need to be added to all telephones and/or echo cancelers would need to be added to the network. Finally, the dynamic range of the voice signal with 20 dB of gain is reduced to a point where it might cause clipping for loud talkers as a result of the continuous sound pressure limits in performance standards (*e.g.*, ANSI/TIA/EIA-470-B-1998 or ANSI/EIA-470-A-1987).

filed. The *Notice* raises the question of whether manufacturers or service providers should provide a single point of contact for each company, or multiple contacts for different product offerings.<sup>13</sup>

Nortel believes that each company should have the option to designate a single point of contact for the Commission's purposes in forwarding or inquiring about complaints regarding Section 255. Manufacturers such as Nortel will have numerous factories, product lines and corporate divisions (both within and outside the United States), so that if manufacturers are required to identify the responsible individual in each business unit or product line, it would be necessary constantly to update the Commission's records as individuals are moved or divisions are reorganized. In addition, particularly given the relatively short deadlines proposed for the "fast track" complaint process, it would be unfair to the companies if there was a delay in the right person(s) getting the complaint as a result of the Commission using an outdated list or not selecting the right division or product line responsible for the equipment that is the subject of the complaint. A single point of contact is administratively easier for the Commission, and places the burden on the company to ensure that the complaint is forwarded to the proper person(s).<sup>14</sup> Presumably the company will designate an individual who will be much better prepared than the Commission to navigate his or her company's organization to ensure that the complaint will be handled by the responsible person(s).

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<sup>13</sup> *Notice* at ¶ 132.

<sup>14</sup> To the extent that the Commission also anticipates that individuals would contact the company prior to formally initiating the complaint process (*Notice* at ¶128), it would also be confusing to consumers if they had to attempt to determine which division, facility or product line was responsible for the product with which they were having an accessibility or compatibility problem.

In a related matter, Nortel believes that the proposed “fast track” response time of five business days is insufficient to allow the company to respond adequately to a complaint. As noted above, a manufacturer like Nortel has facilities throughout the world, and as a practical matter it could take several days simply to contact the proper company officials, much less review the complaint, determine whether the product at issue is covered by Section 255 (and whether Nortel is the responsible party in the case of multiple source equipment), formulate a response, and organize the appropriate documentation in support of that response.<sup>15</sup> Nortel’s current experience with resolving complaints about its customer products has been that it takes approximately twenty-one days to address customer concerns. Nortel’s expects the process to be significantly more complex with respect to any Section 255 complaints, particularly for the first several years before a body of case law concerning Section 255 develops. Nortel thus urges the Commission to extend the period for addressing complaints under the “fast track” process to considerably longer than the five business days set forth in the *Notice*. Providing additional time will better enable companies to respond, while also still facilitating a rapid resolution of any Section 255 complaints under a “fast track” process.

With respect to the proposed new complaint process, Nortel also urges the Commission to adopt procedures to ensure the confidentiality of proprietary information

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<sup>15</sup> In addition, to the extent that a single point of contact is provided to the Commission, it will likely take some time for the company to determine who is the responsible company official(s) to address the particular complaint. The administrative simplicity that the Commission enjoys from a single point of contact does create an additional burden on the company in those instances when a complaint is filed. Nortel believes that extra time will be necessary to meet that burden, but that overall the public interest is better served because those additional resources will be expended only when a complaint is filed, versus the continuous burden that would apply if the company had to update constantly its list of multiple contact persons.

that may be provided in response to the complaint.<sup>16</sup> Nortel anticipates that a Section 255 complaint proceeding likely will involve review of highly sensitive information of the manufacturer, such as research and development procedures, the specific costs of particular products and the manufacturer's design or production processes. Manufacturers could be severely disadvantaged in the highly competitive telecommunications equipment and CPE marketplace if information of this type was revealed to their competitors. Thus, the record in a complaint proceeding under Section 255 should not be publicly available.

#### Defining "Readily Achievable"

One of the more difficult aspects of Section 255 is the "if readily achievable" qualifier that attaches to the obligations of the service providers and manufacturers to ensure accessibility, usability and/or compatibility. As the Commission recognizes, such a determination will depend on the particular facts in each case.<sup>17</sup> The Commission suggests three factors that need to be considered in the analysis: (i) is the feature feasible? (ii) what would be the expense of providing the feature? (iii) given the expense, is the feature practical?<sup>18</sup> Nortel urges the Commission to clarify that this analysis must be undertaken in the specific context of the telecommunications marketplace, where there is substantial interplay between CPE and the telecommunications network. It may be the case that a feature or functionality that has the potential to enhance accessibility could feasibly be incorporated into a new product (either CPE or telecommunications equipment), but that in order for the feature or function to work

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<sup>16</sup> *Cf.*, 47 C.F.R. § 1.731.

<sup>17</sup> *E.g.*, *Notice* at ¶¶ 99, 110, 122 and 164.

<sup>18</sup> *Notice* at ¶ 100.

effectively, it would be necessary to modify the telecommunications network on a widescale basis at potentially significant cost to ensure compatibility. If these broader changes to the network were also factored into the analysis, then it should no longer be deemed feasible to incorporate the potential feature or functionality into the new product. Nortel urges the Commission to make it clear that the analysis of “readily achievable” in the case of both CPE and telecommunications equipment incorporates a review of potential corollary changes to the network.<sup>19</sup>

#### Compatibility with Peripheral Devices and Specialized CPE

Finally, Nortel wants to address the Section 255(d) requirement that where accessibility is not readily achievable, manufacturers and service providers ensure that their offerings are compatible with peripheral devices and specialized CPE, if readily achievable. Nortel concurs with those earlier commenters that recognized that ensuring compatibility requires coordination among manufacturers of peripheral devices and specialized CPE, manufacturers of network equipment and CPE, and service providers.<sup>20</sup> Nortel thus urges the Commission to include manufacturers of peripheral devices and specialized CPE within the ambit of its regulations implementing Section 255, so that it can guarantee that there is sufficient cooperation from those manufacturers and thereby ensure solutions that provide the most reasonable usability and accessibility for the disabled user. Such regulations would clearly be consistent with Section 255, and thus

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<sup>19</sup> In addition, in considering the feasibility and affordability of a feature, the Commission must also take into account the specific sector of the communications equipment market at issue. For example, for some mass-market, low profit margin products, even a slight increase in the price could have adverse effects on the marketability or competitive position of that product, and thus render the feature not “readily achievable.”

<sup>20</sup> *Notice* at ¶ 91.

within the Commission's authority.<sup>21</sup>

Nortel believes that if the Commission modifies its proposals to reflect the comments above, the public interest will best be served. Confusion will be minimized, and the needs and interests of individuals with disabilities will be met, without the imposition of unnecessary costs or delays.

Respectfully Submitted,

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/s/

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<sup>21</sup> *Cf.*, Notice at ¶ 26 (“Section 4(i) of the Communications Act explicitly permits the Commission to ‘perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with [the] Act, as may be necessary in the execution of its functions.’”).