

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

In the Matter of	)	
	)	
Revision of the Commission’s Rules	)	CC Docket No. 94-102
To Ensure Compatibility with	)	
Closed 911 Emergency Calling Systems	)	

**COMMENTS OF VERIZON WIRELESS**

Verizon Wireless (“VZW”) hereby submits comments supporting the Petition for Reconsideration of the *Fourth Report and Order* (“*Order*”)<sup>1</sup> filed by the Cellular Telecommunications & Internet Association (“CTIA”) in the above-referenced proceeding.

**SUMMARY**

CTIA’s petition highlighted a fundamental problem with the *Order* in that the FCC appears to contemplate requiring wireless carriers to develop solutions that would modify wireless networks to support proprietary TTY protocols. Specifically, though the Commission enacts no rule at this time, the Commission did direct the industry, through the TTY Forum, to investigate and work towards technological solutions.<sup>2</sup> While the Commission’s policy of promoting access by persons with disabilities who use TTY technologies is laudable, intervening in a process that the FCC itself agrees has worked,

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<sup>1</sup> *In the Matter of Revisions of the Commission’s Rules To Ensure Compatibility with Closed 911 Emergency Calling Systems*, CC Docket No. 94-102, *Fourth Report and Order*, released December 14, 2000.

<sup>2</sup> *Fourth Report and Order* at ¶¶ 21-22.

forcing the process to change direction, and – worse – encouraging closed, proprietary technologies, will only undermine that policy.

The *Fourth Report and Order* “commends” the industry and other parties “who have worked diligently” to modify wireless networks to pass Baudot tones.<sup>3</sup> Despite that finding, it later directs the industry and other parties to the TTY Forum to investigate and develop solutions for closed, proprietary standards. This could be interpreted, absent clarification, as direction to the wireless industry and its vendors to develop solutions that will further burden or require adaptation of wireless networks to accommodate the patented technologies. The *Order* does not appear, however, to contemplate a similar direction to TTY manufacturers and developers of the enhanced protocols to create open standards and/or develop enhanced TTY devices that are backward compatible with Baudot, the current open industry standard. Given the substantial efforts wireless carriers and their vendors have already made to accommodate the agreed-upon, open Baudot standard, the FCC is approaching the issue from the wrong direction.<sup>4</sup> If the FCC intervenes at all, instead of suggesting that wireless carriers should work to try and accommodate multiple, closed, proprietary protocols, it should be directing TTY manufacturers to create open standards or engineer TTYs to default to Baudot in order to complete emergency calls. Reliance on open standards is not only the right legal policy, but is also the one that will best advance the Commission’s TTY goals.

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<sup>3</sup> *Fourth Report and Order* at ¶7.

<sup>4</sup> Agreement was reached by TTY Forum stakeholders beginning in 1997. *See* Forum Minutes memorializing TTY agreements from TTY Forum 16, November 9, 2000, at page 10 (comment by Al Lucas of Motorola) and at page 18 (agreements reached at TTY Forum 1).

**I. THE FCC SHOULD NOT DIRECT THE TTY FORUM TO DEVELOP SOLUTIONS FOR MULTIPLE CLOSED PROPRIETARY STANDARDS**

**A. Compatibility With Open Industry Standards Will Enable Carriers and Manufacturers to Provide The Best Service To The Public**

In developing rules and policies for ensuring access by persons with disabilities to telecommunications products and services, the FCC has recognized that non-proprietary, industry-standard codes and translation protocols should be used.<sup>5</sup> As will be discussed later herein, in other contexts, the Commission has supported the need for open standards and has declined to mandate adherence to closed standards. The advantages of open standards cannot be overstated. Open standards are created through an industry consensus process, thereby ensuring universal compatibility among wireless service providers who have different operating standards. Open standards meet the needs of all service providers and do not cater to any one product or company. In this manner, open standards enhance interoperability among product lines within a company and across service providers. The selection of Baudot was based on these considerations and was chosen because it met the needs of all legacy wireless products within the United States.

The public interest is not served by closed standards, which will be limited to certain products, services and companies. The public interest is best served by universal availability of accessible products through the development of open standards that all wireless carriers can accommodate. This is why the *Fourth Report and Order's* discussion of enhanced protocols is so troubling: it appears to contemplate pushing the

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<sup>5</sup> *In re Implementation of Section 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996*, WT Docket No. 96-198, *Report and Order and Further Notice of Inquiry*, released December 14, 1999, at ¶ 22 (citing the Access Board Guidelines, 36 C.F.R. § 1193.3) (“*Section 255 Order*”).

industry toward closed, proprietary protocols that will skew market forces and disrupt the substantial progress that the Commission itself agrees has occurred.

**B. Compatibility With Open Standards Is Currently Required By The Accessibility Guidelines And The FCC's Rules**

Section 255(e) required the Architectural and Transportation Barriers Compliance Board (“Access Board”), in conjunction with the Commission, to develop guidelines for accessibility of telecommunications equipment and customer premises equipment.<sup>6</sup> The Telecommunications Act Accessibility Guidelines (“Accessibility Guidelines”) published by the Access Board and the FCC’s rules incorporating many of the same concepts, define the responsibilities of wireless carriers and manufacturers in promoting accessibility to telecommunications products and services. Sections 6.9 and 7.9 of the FCC’s rules and Section 1193.37 of the Accessibility Guidelines state that telecommunications equipment and customer premises equipment (“CPE”) shall pass through cross-manufacturer, *non-proprietary*, industry-standard codes, translation protocols, formats or other information necessary to provide telecommunications in an accessible format.<sup>7</sup> Similarly, the FCC’s definitional section of its rules states that TTY signal compatibility means products shall support use of all cross-manufacturer *non-proprietary* standard signals used by TTYs.<sup>8</sup>

Other sections of the FCC’s rules and the Accessibility Guidelines provide requirements for compatibility with peripheral devices and specialized CPE. Section

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<sup>6</sup> 47 U.S.C. § 255(e).

<sup>7</sup> 47 C.F.R. §§ 6.9 and 7.9; 36 C.F.R § 1193.37.

<sup>8</sup> 47 C.F.R. § 7.3(b)(4) (emphasis added).

1193.51(e) of the guidelines states, with respect to TTY signal compatibility, that products, including those providing voice communication functionality, shall support use of all cross-manufacturer *non-proprietary* standard signals used by TTYs.<sup>9</sup> This guideline is incorporated into FCC rule sections 6.3(b)(4) and 7.3 (b)(4).<sup>10</sup> Thus, to the extent that wireless networks are capable of passing the open standard, Baudot, a material aspect of the FCC’s compatibility rules (and the Accessibility Guidelines) is satisfied.<sup>11</sup>

Nothing in the rules suggests that wireless networks should accommodate multiple (and possibly conflicting) proprietary protocols. To the contrary, the rules specifically contemplate that telecommunications entities subject to Section 255 should only be required to achieve compatibility with non-proprietary standards to comply with the law’s requirements for accessibility and usability. To the extent the *Fourth Report and Order* indicates that industry should accommodate proprietary technologies, it is flatly inconsistent with existing rules.

### **C. The FCC Has Declined To Dictate Technology Choices, Including Adherence To Proprietary Standards, In Other Circumstances**

In other contexts, the FCC has recognized the impropriety of dictating technological standards for wireless services. For example, in the establishment of personal communications services (“PCS”), the FCC allowed the market to determine

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<sup>9</sup> 36 C.F.R. § 1193.51(e).

<sup>10</sup> 47 C.F.R. §§ 6.3(b)(4) and 7.3(b)(4).

<sup>11</sup> The appendix to the Accessibility Guidelines provide advisory guidance which states that the de facto standard of domestic TTYs is Baudot.

PCS technology choices and standards.<sup>12</sup> Although the FCC has, through its regulations, required that certain goals be achieved through technological improvement and enhancement, the FCC has rightly resisted setting technological standards.<sup>13</sup> Most recently, Former Chairman Kennard joined the Secretary of State, the U.S. Trade Representative, and the Secretary of Commerce in a letter to the European Commission expressing concern over developments in Europe that appeared to promote a particular European-developed 3G standard to the exclusion of other technologies.<sup>14</sup> Those same concerns as to proprietary technologies apply to TTY. The *Fourth Report and Order*, however, could be read to promote multiple proprietary TTY technologies that wireless carriers and vendors would be required to accommodate and continuously re-engineer their networks.

Again, in the E911 debate over the Strongest Signal technology advanced by the Ad Hoc Alliance – which was based on a patent held by Robert Zicker – the FCC was asked to require wireless carriers and vendors to implement a proprietary technology in

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<sup>12</sup> See, *Amendment of the Commission's Rules to Establish New Personal Communications Services*, GN Docket No. 90-314, *Second Report and Order*, 8 FCC Rcd 7700, at ¶¶ 137-138 (1993).

<sup>13</sup> See *Amendment of Subpart C of Part 100 of the Commission's Rules and Regulations Regarding Technical Standards for the Direct Broadcast Satellite Service*, MM Docket No. 85-32, *Report and Order*, 60 Rad. Reg. 2d (P&F) 1539, at ¶¶ 7-12 (1986); See also *Private Operational-Fixed Microwave Service, Multipoint Distribution Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service, and Cable Television Relay Service*, GN Docket Nos. 90-54, 80-113, *Report and Order*, 5 FCC Rcd 6410, at ¶ 47 (1990).

<sup>14</sup> See Letter from Secretary of State Madeleine Albright, United States Trade Representative Charlene Barshefsky, Secretary of Commerce William Daley, and Federal Communications Commission Chairman William Kennard to EC Commissioner Martin Bangemann, dated December 22, 1998.

order to better complete emergency calls. The FCC, however, instead approved a performance – based requirement that did not select any one solution.<sup>15</sup>

If the FCC wants to act on this issue, it should do precisely the opposite of what the *Order* suggests, and direct TTY patent holders to develop open standards or ensure that their TTY devices are backward compatible with wireless networks capable of passing Baudot TTY tones.

The FCC’s rules define CPE and Specialized CPE: (1) CPE is equipment employed on the premises of a person (other than a carrier) to originate, route, or terminate telecommunications;<sup>16</sup> (2) Specialized CPE is CPE which is commonly used by individuals with disabilities to achieve access.<sup>17</sup> In the *Section 255 Order*, the FCC defined manufacturers as entities that make or produce a product.<sup>18</sup> Importantly, the *Section 255 Order* concludes, “consistent with the Access Board guidelines and the statutory definition of CPE, that specialized CPE, such as direct-connect TTYs, are considered a subset of CPE.”<sup>19</sup>

As such, the FCC has jurisdiction over the manufacturers of TTY devices pursuant to Section 255. The FCC should promote accessibility for persons with disabilities by requiring the creation of open standards for TTY protocols and by ensuring

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<sup>15</sup> *Revision of the Commission’s Rules to Ensure Compatibility with Closed 911 Emergency Calling Systems*, CC Docket No. 94-102, *Second Report and Order*, released June 9, 1999, at ¶ 67-68.

<sup>16</sup> 47 U.S.C. § 153(14); 47 C.F.R. § 6.3(c) & 7.3(c).

<sup>17</sup> 47 C.F.R. § 6.3(h) & 7.3(j).

<sup>18</sup> *Section 255 Order* at ¶ 90; *See also* 47 C.F.R. § 7.3(f).

<sup>19</sup> *Section 255 Order* at ¶ 30.

that, at a minimum, TTYs are backward compatible to Baudot, the open TTY standard that wireless networks are required to pass by June 30, 2002.

### **CONCLUSION**

For the foregoing reasons, the FCC should clarify the scope of its directive concerning digital networks' capability to support proprietary TTY protocols in emergency communications. If the FCC wants to act on this issue, the Commission should require TTY manufacturers and developers of patented TTY standards, pursuant to Section 255, to create open standards or, at a minimum, engineer TTYs to default to the current open industry standard of Baudot.

Respectfully submitted,

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March 8, 2001