

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

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
)  
Revision of the Commission's Rules to Ensure ) CC Docket No. 94-102  
Compatibility with Enhanced Emergency )  
Calling Systems )

To: Chief, Wireless Telecommunications Bureau

**REPLY COMMENTS OF QWEST WIRELESS, LLC**

Qwest Wireless, LLC ("Qwest Wireless")<sup>1</sup> hereby submits brief reply comments in support of comments submitted by various carriers in response to the Wireless Telecommunications Bureau's ("Bureau") Public Notice of May 17, 2000, proposing a December 31, 2001 deadline for wireless carriers to implement a digital wireless TTY solution.<sup>2</sup> The comments submitted in this proceeding demonstrate that, while industry has made substantial progress toward the commercial deployment of a digital TTY solution, there is a significant likelihood that carrier compliance by December 31, 2001 is not technically feasible and thus the proposed deadline should not be adopted. Qwest Wireless also agrees with carriers that additional reporting requirements are unnecessary.

<sup>1</sup> Qwest Wireless, LLC (formerly U S WEST Wireless, LLC ), together with TW Wireless, LLC, a joint venture in which Qwest Wireless holds a majority equity and sole controlling ownership interest, provides broadband PCS services in a number of markets.

<sup>2</sup> See Public Notice, *Wireless Telecommunications Bureau Seeks Comment on New Implementation Deadline for TTY Access to Digital Wireless Systems for 911 Calls*, DA 00-1091 (rel. May 17, 2000).

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List A B C D E

**I. DIGITAL TTY COMPLIANCE IS NOT REASONABLY ACHIEVABLE BY DECEMBER 31, 2001**

Qwest Wireless utilizes CDMA technology for its broadband PCS network and, as its predecessor-in-interest U S WEST Wireless has informed the Commission, is dependent on the availability of TTY-compatible products from its vendors.<sup>3</sup> In this regard, and based on recently-reported technical developments and industry press announcements in this area, Qwest Wireless has submitted a formal request for information to its network infrastructure and handset vendors regarding the projected availability of TTY compliant equipment. Qwest Wireless solicited responses from 16 vendors, the majority of which have, to date, either declined to respond or stated that a compliant product is not available at this time.

The apparent lack of TTY-compliant products is of great concern to Qwest Wireless, which utilizes the products of multiple vendors. While Qwest Wireless utilizes Lucent equipment and software in some of its markets, it uses other vendors for such products in others -- none of whom have indicated that a solution is available for their products. Thus, Qwest Wireless may face issues of interoperability and roaming that are less applicable to CDMA carriers who may utilize Lucent products system-wide.<sup>4</sup> Moreover, Lucent provides only the *network* component of a TTY solution, not the handset component. Thus, the availability of TTY-compatible CDMA products from Lucent provides only a partial solution for carriers.

Notwithstanding the limited information Qwest Wireless has received from its vendors, a review of the comments submitted by manufacturers of CDMA products, all of whom -- Ericsson, Motorola and Nokia -- are vendors for Qwest Wireless, demonstrates that

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<sup>3</sup> See U S WEST, Inc., Petition for Waiver in CC Docket No. 94-102, filed Dec. 4, 1997, at 6.

<sup>4</sup> Cf. AT&T Wireless Comments at 5-6.

compliance with a December 31, 2001 deadline is, in all likelihood, infeasible. Ericsson, for one, “estimates that it will have product available for [CDMA] technologies” by 4Q2001 for both mobile terminals and base stations.<sup>5</sup> It adds, however, that “it is imperative that the Commission provide service providers with sufficient time to accomplish the rollout and launch of equipment. . . . a date *subsequent to the tentative December 31, 2001 deadline.*”<sup>6</sup> Motorola also plans to implement the TTY solution developed by Lucent for its CDMA products. For network infrastructure equipment, Motorola states that numerous measures must be undertaken prior to the general release of a software upgrade to carriers, including: completion and verification of the software; evaluation and verification of the software in the overall network software architecture; and testing and integration into the carriers’ core software for the network systems.<sup>7</sup> Handsets available for CDMA handsets, according to Motorola, will be available 3Q2000 “at the earliest.”<sup>8</sup> Like Ericsson, Motorola concludes that the proposed deadline “does not allow adequate time for the carriers to deploy the software upgrades in their networks” and is “too tight” for CDMA wireless systems.<sup>9</sup>

Finally, while Nokia is “committed to supporting carriers by supplying compliant products,” such assurance is contingent upon the Lucent solution “perform[ing] adequately in yet

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<sup>5</sup> Ericsson Inc. Comments at 4.

<sup>6</sup> *Id.* (emphasis added).

<sup>7</sup> Motorola Comments at 3.

<sup>8</sup> *Id.* at 3.

<sup>9</sup> *Id.* at 4.

to be conducted field testing.”<sup>10</sup> In this regard, Nokia plans to have “testing handset software available” in 1Q2001 and “prototype and test units” by June 2001.<sup>11</sup> In conclusion, Nokia concludes that its ability to supply compliant products by the proposed deadline is contingent on “the results of [simulation and laboratory] testing can be replicated in actual field testing without significant modifications to the standard . . . .”<sup>12</sup>

For CDMA technology in particular, it is clear from the record in this proceeding that manufacturers have made significant progress toward the deployment of a commercially available product for carriers. As Sprint PCS notes, “[o]nly two years ago, no solution was in sight.”<sup>13</sup> Industry has expedited the standards process, and necessary network-based software upgrades and handset modifications are under development. Manufacturers also confirm, however, that additional testing is required prior to commercial availability. Manufacturers’ comments directly underscore concerns separately expressed by carriers, including comments filed by CDMA carrier Sprint PCS. Moreover, as Sprint PCS demonstrates, it is also necessary for carriers themselves to undertake significant testing and deployment efforts prior to widespread deployment of a software modification to ensure that the solution is compatible with its network.<sup>14</sup> Carriers using other wireless technologies face similar obstacles.<sup>15</sup>

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<sup>10</sup> Nokia Comments at 2.

<sup>11</sup> *Id.* at 3.

<sup>12</sup> *Id.* at 2-3.

<sup>13</sup> Sprint PCS Comments at 2.

<sup>14</sup> *See id.* at 6-8.

<sup>15</sup> *See, e.g.,* AT&T Wireless Comments at 3-4; BellSouth Corporation Comments at 4-6.

Given the uncertainties in manufacturers' deployment timetables and the resulting limitations on carriers' abilities to test and implement solutions, Qwest Wireless cannot represent that compliance with the proposed December 31, 2001 deadline is feasible. Indeed, CDMA carrier Sprint PCS has indicated that compliance by October 1, 2002 may be infeasible.<sup>16</sup> For these reasons, Qwest Wireless agrees with commenting parties that a rigid deadline of December 31, 2001 is not appropriate. As CTIA recommends, and given the timing of numerous regulatory deadlines involving network and handset modifications, the Commission should defer establishment of new TTY deadline at this time.<sup>17</sup>

## II. ADDITIONAL REPORTING REQUIREMENTS ARE UNNECESSARY

The Bureau seeks comment on means of monitoring carrier progress in deploying a digital TTY solution.<sup>18</sup> Organizations representing the hearing-impaired advocate that the Commission require carriers to submit a detailed implementation plan. A number of carriers demonstrated in their comments that additional detailed reporting requirements for carriers are unnecessary, counterproductive, and serve no public interest purpose.<sup>19</sup> NENA, APCO and NASNA advocate quarterly reporting, as the Commission originally required in 1998.<sup>20</sup>

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<sup>16</sup> See Sprint PCS Comments at 8, 12.

<sup>17</sup> See CTIA Comments at 4-5.

<sup>18</sup> Public Notice at 3-4.

<sup>19</sup> See Rural Cellular Association Comments at 4; Sprint PCS Comments at 10-11; *see also* BellSouth Comments at 8; SBC Wireless Comments at 5 ("Requiring all digital carriers to file an implementation plan would be a waste of carrier and Commission resources").

<sup>20</sup> Comments of NENA, APCO and NASNA at 2; *see also Order*, CC Docket No. 94-102, DA 98-2323, ¶ 11 (rel. Nov. 13, 1998).

Enormous progress has been made in the development and testing of a digital TTY solution since 1998, and the Commission has been adequately informed of such developments *in the absence of the quarterly reporting requirements* it originally required but later suspended.<sup>21</sup> There is every reason to believe that progress will continue in the future in the absence of any such additional reporting. Furthermore, requiring carrier-specific reports of deployment efforts will result in redundant filings specifying the status of digital TTY solutions from vendors. Adopting and enforcing a *reasonable* compliance deadline will spur carriers toward compliance *without* distracting personnel from TTY deployment activities. In this regard, as CTIA discusses in its comments, the TTY Forum is aptly suited to continue to inform the Commission of ongoing industry-wide developments -- a conclusion consistent with the position taken at the TTY Forum meeting of July 11, 2000.<sup>22</sup>

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<sup>21</sup> See Public Notice, *Wireless Telecommunications Bureau Reports on Status of Pending TTY Waiver Petitions*, CC Docket No. 94-102, DA 99-895 (Wireless Telecom. Bur. rel. May 13, 1999).

<sup>22</sup> See CTIA Comments at 5-7; Industry TTY Forum Memorandum to Dale Hatfield, Office of Engineering and Technology, Federal Communications Commission, dated July 12, 2000.

**CONCLUSION**

For the foregoing reasons, commenters have demonstrated that the Commission should not: (1) adopt a rigid December 31, 2001 deadline for carrier implementation of a digital TTY solution at this time; and (2) subject carriers to additional reporting requirements.

Respectfully submitted,

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