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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20544

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)	
)	
Revision of the Commission's Rules)	
To Ensure Compatibility with)	CC Docket No. 94-102
Enhanced 911 Emergency)	RM-8143
Calling Systems)	

**PETITION FOR WAIVER
OF CENTURYTEL WIRELESS, INC.**

CenturyTel Wireless, Inc. ("CenturyTel")¹ hereby respectfully submits its petition for waiver pursuant to the Commission's *Order* in the above-captioned proceeding.² In its *Order*, the Commission stated that a CMRS provider utilizing a digital wireless system may petition the Commission for a waiver of Section 20.18(c)³ of its rules if the carrier's digital network does not support the use of text telephone devices ("TTY"). Despite CenturyTel's best efforts to date, the digital portions of its cellular and PCS networks do not currently support TTY devices due to the

¹ CenturyTel Wireless, Inc., formerly Century Cellunet, Inc., is one of the country's largest wireless telecommunications companies. CenturyTel and its affiliates provide a variety of cellular and PCS services in several states in the mid-west, mid-south and Alaska.

² *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket 94-102, Order, DA 98-2323, rel. Nov. 13, 1998 ("*Order*").

³ See 47 C.F.R. § 20.18(c) ("*TTY Access to 911 Services*). Licensees subject to this section must be capable of transmitting 911 calls from individuals with speech or hearing disabilities through means other than mobile radio handsets, e.g., through the use of Text Telephone Devices (TTY)").

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unavailability of the necessary network equipment. Because this petition meets the criteria for waiver described in the *Order*, and the unavailability of the necessary equipment comprises “good cause” within the meaning of Section 1.3 of the Commission’s rules,⁴ CenturyTel respectfully requests that the Commission grant its petition for waiver.

CenturyTel understands the importance of wireless E911 access to Americans who are deaf or suffer from hearing impairments. Therefore, CenturyTel has made, and continues to make, diligent efforts to ensure that its digital wireless network complies with the Commission’s rules, and can be accessed by users of TTYs. Unfortunately, as a carrier, CenturyTel has no control over when equipment manufacturers produce digital network equipment that is TTY compatible.

In order to provide users of TTY devices with the capability to operate these devices in conjunction with its digital wireless network, CenturyTel has been in frequent contact with the manufacturer of its network equipment—Nortel Networks. As indicated in the attached letter, Nortel Networks, like other network equipment manufacturers, has not yet been able to bring to market digital network equipment that is capable of accurately carrying TTY tones.⁵ In particular, Nortel Network’s letter indicates that its developmental efforts have been stymied by the lack of industry standards to support TTY operation in digital mode. In order to remedy this

⁴ See 47 C.F.R. § 1.3 (“The provisions of this chapter may be suspended, revoked, amended, or waived for good cause shown. . .”).

⁵ See Attachment A.

situation, however, Nortel Networks has assured CenturyTel that it is working with other equipment manufacturers and carriers to define the required design standards needed to develop this service.⁶

Because its equipment manufacturer cannot provide CenturyTel with a deployment timetable for TTY-compatible digital network equipment, CenturyTel cannot give the Commission “well-documented timetables and milestones . . . regarding the implementation of this capability.”⁷ CenturyTel can, however, assure the Commission that it will begin implementing digital wireless TTY compatibility as soon as is reasonably possible after its equipment manufacturer provides CenturyTel with the necessary hardware.

Finally, CenturyTel is unable to provide the Commission with a schedule of steps CenturyTel is taking to address the consumer concerns referenced in the *September 30 Order*⁸ because CenturyTel’s network equipment manufacturer has not provided CenturyTel with sufficient technical information about the systems it intends to offer to CenturyTel. Once CenturyTel has access to these technical details, it will provide the Commission with as much information as possible regarding these consumer concerns.

In sum, CenturyTel, due to circumstances beyond its control, is unable to meet the December 31, 1998 compliance deadline for digital wireless TTY capability. CenturyTel and its

⁶ CenturyTel is also exploring with its handset manufacturers the possibility of a solution to the digital network/TTY problem through the development of modified handset or connector equipment. Century understands, however, that initial tests have suggested that a handset/connector solution may not be feasible as it would still not address the fact that current digital network equipment is not able to carry TTY tones accurately.

⁷ *Order*, ¶ 11.

⁸ *Id.* (citing *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket 94-102, Order, DA 98-1982, rel. Sept. 30, 1998 (“*September 30 Order*”)).

equipment manufacturer, however, have been, and will continue to, work diligently towards providing such capability. In this regard, CenturyTel, consistent with the Commission's *Order*, will provide the Commission with quarterly updates indicating progress it is making in its implementation efforts. Under such circumstances, CenturyTel respectfully requests that its waiver request be granted.

Respectfully submitted,

CENTURYTEL WIRELESS, INC.

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Dear CenturyTel,

This letter is in response to your request for Nortel Networks to provide support information for CenturyTel to file a waiver request with the FCC regarding the E911/TTY rules. This response is intended to give you insight into our direction on this issue. It is based on the best technical information we have available and upon what may be required by the FCC rule.

With regard to analog calls through the Nortel Networks equipment supplied to CenturyTel, to the best of our knowledge, our equipment is capable of transmitting 911 calls from people with speech or hearing disabilities through means other than the mobile handset, as an example through use of Text Telephone Devices (TTY). However, as noted below, most TTY's (a/k/a TTD's) in use today have not been designed to connect with wireless handsets, and the 911 text message may be corrupted by the consumers' equipment. Further, Nortel Networks believes that without extensive testing of text messages over analog systems, it is premature to assume all 911 calls will be received by the 911 call center essentially error free.

With regard to digital calls through Nortel Networks equipment using the IS-95 CDMA air interface, the equipment, in the short term, is likely to not be capable of transmitting the 911 call with sufficient error free text to elicit proper 911 response.

With regard to digital calls through Nortel Networks equipment using the IS-136 TDMA air interface, the equipment, in the short term, may be capable of transmitting the 911 calls with sufficient error free text to elicit proper 911 response, depending upon the type of vocoder used in the system, the type of text message equipment used, and the type of handset used.

Industry standards to support TTY operation in digital mode are not currently defined. Nortel Networks is working with other equipment manufacturers and carriers to define the required design standards needed to develop this service. History tells us that it typically takes twelve to eighteen months from the adoption of standards to the commercial availability of product. However, in this instance, if the TTY is to be a part of the phone path to send text messages for people with hearing or speech disabilities, then TTY manufacturers must work sincerely and cooperatively with wireless manufacturers to develop a workable standard. As technical TTY considerations must be considered for a good standard, the wireless industry cannot develop a good standard without technical assistance from TTY manufacturers. Nortel Networks consequently cannot project when a design standard will be in place. In the interim, consumers may wish to test placing text calls over the digital path, or set their handsets to transmit only in analogue mode for text message calls.

If the 911 call content is corrupted by the TTY consumer, Nortel Networks system equipment will not be able to correct the errors. Nortel Networks is aware that the vast majority of TTY's are not

designed to connect to wireless handsets, and such lack of good connection frequently corrupts messages before they reach the system networks. There are some TTY equipment models that have connections that facilitate properly connecting handsets and the TTY, but we believe few are in use. As you are aware, Nortel Networks does not currently manufacture wireless handsets, and is unable to resolve this connectivity problem. In addition, Nortel Networks is not aware of any TTY that has been designed for its tones to be carried error free over digital vocoders designed for human speech. Therefore, the digital audio path is more prone to create text errors more frequently than text messages over analog audio paths.

Complicating the task of providing text-messaging capability for those with hearing and speech disabilities, is the lack of standards in the TTY industry. The TTY has been the most used text message system for the hearing and speech disabled users covered by the FCC's 911 rule, but there does not appear to be a single solution that would work for all TTY devices in use. In addition to the TTY, consumers are using the Internet for sending and receiving text messages. Nortel Networks is aware that people with hearing and speech disabilities, increasingly use the Internet for communication, and the Internet may become a method for placing 911 calls into the future.

The wireless industry has been working with consumer representatives and TTY manufacturers in the TTY Forum for almost two years. Nortel Networks is hopeful that information sharing from this group and comprehensive testing will identify practical solutions that manufacturers can incorporate into system solutions. However at this time Nortel Networks believes that a person with hearing or speech disabilities may find it difficult to place a wireless 911 call with the TTY equipment that they use for wireline calls, and a solution for all TTY users is not achievable by 12-31-98.

I would appreciate the opportunity to further discuss this issue with you at your convenience.

Sincerely,



Justin L. Phillips
Account Manager Nortel Networks