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

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

ORDER

Adopted: June 28, 2002 **Released: June 28, 2002**

By the Chief, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. The Commission's rules require that, by June 30, 2002, all digital wireless service providers must be capable of transmitting 911 calls made using text telephone (TTY) devices.[1] The Wireless Telecommunications Bureau has before it certain requests for waiver or extension of this deadline. In this Order, the Bureau disposes of these petitions by granting some of the requests in their entirety and by granting, in part, certain other of the petitions to afford the petitioners limited additional time within which to satisfy their obligations under the Commission's TTY rule.

II. BACKGROUND

2. Overall, digital wireless service providers are timely implementing TTY capability in their networks, which is necessary to enable TTY users to make emergency 911 calls and enjoy the benefits of digital wireless services. Facilitating this process has been the TTY Forum, an organization comprised of wireless carriers, wireless handset manufacturers, wireless infrastructure manufacturers, TTY manufacturers, emergency and relay service providers, and consumer organizations representing people with hearing disabilities.[2] At the most recent TTY Forum meeting on June 4, 2002, five nationwide wireless service providers reported that they are implementing TTY capability widely in their systems by June 30, 2002, in compliance with the requirements of Section 20.18(c) of the Commission's rules.[3] We understand that Verizon Wireless will also be

[1] *See* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Fourth Report and Order, 15 FCC Rcd 25216, 25218 (2000) (*Fourth Report and Order*). *See also* 47 C.F.R. § 20.18(c) and accompanying note (2001).

[2] The TTY Forum, which was formed in 1997, is sponsored by the Alliance for Telecommunications Industry Solutions (ATIS).

[3] 47 C.F.R. § 20.18(c) and accompanying note. *See also* TTY Forum #22 Meeting Summary Report (ATIS Conference Center, Washington DC, June 4, 2002), available at http://www.atis.org/atis/tty/ttysummaries.htm. The report summarizes oral statements by representatives of the following nationwide carriers indicating that TTY capability will be implemented in their digital systems by June 30, 2002: AT&T Wireless (TDMA network, which serves the vast majority of its customers), Cingular, Nextel, Sprint PCS, and VoiceStream (in areas served by 2 of its 3 vendors). *Id.*

implementing TTY capability throughout its network by June 30, 2002. As a result, this capability will be available in most areas of the country beginning July 1, 2002.

3. Nevertheless, the Commission has received certain requests for waiver or extension of the June 30, 2002, deadline. The specific requests decided, along with the extent of relief granted, are set forth in Appendix A. These requests can be categorized into two groups, which are described below.

A. Limited Waiver Requests Based on Unexpected Vendor Delays

1. Waiver Requests

4. One group of waiver petitioners is comprised of Commercial Mobile Radio Service (CMRS) carriers that have been informed by their vendors of delays associated with the software and/or hardware upgrades necessary for TTY capability in digital wireless systems. These carriers seek limited extensions of the June 30, 2002, deadline to allow them to install and test the upgrades once they are received. As of June 18, 2002, 32 carriers fall into this category.[4] These waiver requests are limited in terms of scope and duration, and they range from three months to one year beyond the June 30, 2002, deadline. In addition, roughly four-fifths of the petitioners are small, rural carriers, many with fewer than 15,000 subscribers.

5. The following 15 small, rural, wireless carriers seek three additional months (until September 30, 2002) to obtain from their vendors the necessary software and hardware upgrades and to install these upgrades: Blanca Telephone Company; Brown County MSA Cellular Limited Partnership; Easterbrooke Cellular Corporation; Guam Cellular and Paging, Inc., Iowa RSA #3 LLC; Iowa RSA #12 LLC; Metro Southwest PCS, LLP; Nsightel Wireless, LLC; Redwood Wireless Minnesota, LLC; Redwood Wireless Wisconsin, LLC; Thumb Cellular Limited Partnership; Wausau Cellular Telephone Company Ltd. Partnership; Wisconsin RSA #3 Limited Partnership; Wisconsin RSA No. 4 Limited Partnership; and Wisconsin RSA-10 Limited Partnership.[5]

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[4] The following carriers seek limited extensions of the deadline to enable them to upgrade their existing networks: AT&T Wireless Services, Inc.; Blanca Telephone Company; Brown County MSA Cellular Limited Partnership; California RSA #3 L.P. d/b/a Golden State Cellular; Cellular Mobile Systems of St. Cloud; Commnet of Florida, LLC; Dobson Cellular Systems, Inc.; Eagle Telephone System, Inc.; Easterbrooke Cellular Corporation; Farmers Mutual Telephone Company; Guam Cellular and Paging, Inc.; Iowa RSA #3 LLC; Iowa RSA #12 LLC; Leaco Rural Telephone Cooperative, Inc.; Metro Southwest PCS, LLP; Missouri RSA #5 Partnership d/b/a Chariton Valley; Nsightel Wireless, LLC; Qwest Wireless, LLC and TW Wireless LLC; Redwood Wireless Minnesota, LLC; Redwood Wireless Wisconsin, LLC; SpectraCom, Inc. d/b/a PYXIS Communications; Thumb Cellular Limited Partnership; TMP Corp. and TMP Jacksonville, LLC; VoiceStream Wireless Corporation; VTel Wireless Inc.; Wausau Cellular Telephone Company Ltd. Partnership; Wireless Communications Venture; Wisconsin RSA #3 Limited Partnership; Wisconsin RSA No. 4 Limited Partnership; and Wisconsin RSA-10 Limited Partnership.

[5] *See e.g.*, Quarterly Report of Blanca Telephone Company Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Brown County MSA Cellular Limited Partnership Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Petition for Waiver filed by Easterbrooke Cellular Corporation, CC Docket No. 94-102 (filed June 17, 2002); Petition for Temporary Waiver of TTY-911 Compatibility Rule filed by Guam Cellular and Paging, Inc., CC Docket No. 94-102 (filed June 14, 2002); Quarterly Report of Iowa RSA #3 LLC Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Iowa RSA #12 LLC Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Metro Southwest PCS, LLP Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Nsightel Wireless, LLC Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Redwood Wireless Minnesota, LLC

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6. Six small, rural, wireless carriers request a six-month temporary waiver (to December 31, 2002) to permit them to obtain and install the necessary upgrades from their vendors. These carriers are: California RSA #3 Limited Partnership d/b/a Golden State Cellular;[6] Eagle Telephone System, Inc.;[7] Farmers Mutual Telephone Company;[8] Leaco Rural Telephone Cooperative, Inc.;[9] Missouri RSA #5 Partnership d/b/a Chariton Valley,[10] and VTel Wireless Inc.[11] Two other petitioners, Cellular Mobile Systems of St. Cloud[12] and Wireless Communications Venture,[13] request extensions of seven months (until January 31, 2003) to obtain and install the necessary software upgrades from their vendors. Four small, rural wireless carriers request one-year extensions of the deadline due to delays in obtaining from vendors the necessary software and hardware. TMP Corp., and TMP Jacksonville, LLC, state that their infrastructure vendor, Airnet, will not have a technical solution for their Global System for Mobile Communications (GSM) networks available until the fourth quarter of 2002, and that, consistent with the six-month time frame the Commission established in the *Fourth Report and* Order for carriers to integrate, test, and deploy the technology in their systems, the carriers assert that they need an additional six months beyond that to implement the TTY solution in their digital networks.[14] The third small carrier, SpectraCom, Inc. d/b/a PYXIS, states that it must upgrade its switch software and perform a complex

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Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Redwood Wireless Wisconsin, LLC Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Thumb Cellular Limited Partnership Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Wausau Cellular Telephone Company Ltd. Partnership Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Wisconsin RSA #3 Limited Partnership Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); Quarterly Report of Wisconsin RSA No. 4 Limited Partnership Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002); and Quarterly Report of Wisconsin RSA-10 Limited Partnership Regarding TTY Access to Digital Wireless Systems and Request for a Brief Extension of the TTY Deadline, CC Docket No. 94-102 (filed April 15, 2002).

[6] California RSA #3 Limited Partnership, A California Limited Partnership, d/b/a Golden State Cellular Petition for Waiver of the June 30, 2002 Deadline Regarding TTY Access to Digital Wireless Systems, CC Docket No. 94-102 (filed June 10, 2002).

[7] Quarterly Report of Eagle Telephone System, Inc. Regarding TTY Access to Digital Wireless Systems, CC Docket No. 94-102 (filed May 31, 2002).

[8] Petition for Limited Waiver of Farmers Mutual Telephone Company Regarding TTY Access to Digital Wireless Systems, CC Docket No. 94-102 (filed May 24, 2002).

[9] Petition for Limited Waiver of Leaco Rural Telephone Cooperative, Inc. Regarding TTY Access to Digital Wireless Systems, CC Docket No. 94-102 (filed May 31, 2002).

[10] Petition for Limited Waiver of Missouri RSA #5 Partnership d/b/a Chariton Valley Regarding TTY Access to Digital Wireless Systems, CC Docket No. 94-102 (filed May 24, 2002).

[11] VTel Wireless Inc. Petition for Waiver of the June 30, 2002 Deadline Regarding TTY Access to Digital Wireless Systems, CC Docket No. 94-102 (filed June 19, 2002) (seeking waiver until December 30, 2002).

[12] Petition for Limited Waiver of Cellular Mobile Systems of St. Cloud Regarding TTY Access to Digital Wireless Systems, CC Docket No. 94-102 (filed June 10, 2002).

[13] Petition for Limited Waiver of Wireless Communications Venture Regarding TTY Access to Digital Wireless Systems, CC Docket No. 94-102 (filed June 10, 2002).

[14] Petition for Waiver filed by TMP Corp. and TMP Jacksonville, LLC, at 3-5, CC Docket No. 94-102 (filed June 4, 2002). *See also Fourth Report and Order*, 15 FCC Rcd at 25218 (providing a six-month period ending on June 30, 2002, for carriers to integrate, test, and deploy a digital-TTY solution in their systems).

modification to its hybrid wireline/wireless switch in order to support the software upgrade.[15] The fourth small carrier, Commnet of Florida (CFL), seeks a 12-month extension within which to achieve the capability to provide 911 service to incoming TDMA-handset roamers using TTY devices.[16] A new CMRS provider providing service to its customers using Code Division Multiple Access (CDMA) and analog technology, CFL has also constructed capacity to serve incoming TDMA-handset roamers, but it requires additional time to resolve a software problem between TDMA-handset phones and its switching facility.[17]

7. Those larger carriers seeking extensions of the June 30, 2002, deadline request extensions only for limited portions of their networks and for relatively short periods of time. AT&T Wireless Services (AWS) anticipates that it will meet the compliance deadline nationwide in its Time Division Multiple Access (TDMA) network, which serves the vast majority of AWS's subscribers. However, in portions of its GSM network served by Nokia switches, AWS seeks an extension for "three months beyond the date on which the vendor delivers a fully functional product for deployment."[18] AWS anticipates that it should be able to deploy the TTY capability in all of its operational GSM markets served by Nokia switches by September 30, 2002. More specifically, the infrastructure in AWS's GSM network, which is partially deployed, is supplied by Ericsson and Nokia. While AWS states that it expects to implement Ericsson's GSM TTY solution before June 30, 2002, serious errors resulted during the First Office Application (FOA) of the Nokia software, which took place April 10, 2002. According to AWS, the TTY compatibility portion of the Nokia software release performed successfully at each stage of testing. However, because the errors associated with other features of the software release could result in disruption to the entire network, AWS requests a limited waiver to enable Nokia to complete its repairs to the software release and to permit AWS to deploy the software with the TTY capability.[19] Because AWS has not marketed TTY-compatible GSM handsets to date, AWS contends that there are no existing AWS GSM customers who could be adversely affected by the delay. AWS states that it is taking steps to educate its sales force about the delay and the affected markets, and that sales representatives will encourage new subscribers seeking immediate, nationwide TTY compatibility during the waiver period to subscribe to the TDMA network.[20]

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[15] Petition for Limited Waiver of SpectraCom, Inc. d/b/a PYXIS Communications Regarding TTY Access to Digital Wireless Systems Rules, CC Docket No. 94-102 at 2-3 (filed May 30, 2002). PYXIS's infrastructure vendor, Nortel, delayed delivery of the solution after informing PYXIS that it will have to "split" its hybrid wireless/wireline switch in order to achieve digital TTY compatibility in the wireless portion of the switch. *Id.* at 3. Because Nortel is concentrating on delivering its TTY solution to its large, nationwide customers before servicing small carriers, PYXIS has been unable to order the switch modification and it estimates that the entire project will take up to nine months from the date the order can finally be placed. *Id.* at 3-4. PYXIS states that it has worked diligently with Nortel and has been in contact with the vendor almost weekly. *Id.* at 2-4.

[16] Commnet of Florida, LLC Petition for Limited Waiver, CC Docket No. 94-102 (filed June 18, 2002).

[17] *Id.* at 3. CFL states that it will comply with the TTY requirement with respect to its CDMA network, which it expects to begin operating commercially in the near future. *Id.* at 2-4. CFL states that, while it incorporated the TDMA roaming capability at the request of AT&T Wireless (AWS), the adjacent MSA licensee, it has no plans to market TDMA handsets. It also notes that AWS has arranged to have all of its TDMA subscribers roam onto the Cingular system in preference to the CFL system. Therefore, there will likely be few if any incoming TDMA roamers attempting to use the CFL system. *Id.* at 3.

[18] AT&T Wireless Services, Inc. Petition for Limited Waiver, CC Docket No. 94-102 at 2 (filed June 7, 2002) (*AWS Petition*).

[19] AWS explored the option of removing the TTY functionality from the software release and developing a "TTY patch" to the previous software release. However, this approach was rejected due to a number of technology and timing risks. *See id.* at 6-7.

[20] *Id.* at 11.

8. VoiceStream Wireless Corporation (VoiceStream) seeks an additional 75 days (until September 15, 2002) to integrate, test and deploy TTY technology in four specific markets in south central Pennsylvania that it acquired on April 1, 2002.[21] Because the systems in the four markets had operated using outdated hardware and GSM 10 software, VoiceStream states that the systems require upgrades to GSM 13 software to support TTY transmissions.[22] Voicestream states that even before the acquisition closed in April, the company's engineers began to work to integrate the new cell sites into VoiceStream's network, promptly placing purchase orders for the necessary software and hardware upgrades.[23] Nevertheless, VoiceStream estimates that the installation, testing, and deployment of the four systems will take eight to ten weeks beyond the June 30, 2002, deadline to complete.[24] VoiceStream states that the markets at issue serve approximately 100,000 subscribers (which is approximately 1.4 percent of VoiceStream's total subscribership).[25]

9. Qwest Wireless, LLC and TW Wireless, LLC (collectively, Qwest) seek a six-month extension to enable deployment of a TTY 911 solution in a small number of markets by December 31, 2002.[26] Qwest states that it will achieve full digital TTY compliance by the deadline in all of its markets served by Lucent equipment, which comprises 81 percent of usage over its network. However, in the remaining markets, Qwest uses a different architecture, known as "Open A," in which it has proven to be more difficult to implement digital TTY capability.[27] Qwest argues that a six-month extension should allow sufficient time for its suppliers to address the interoperability concerns and for Qwest to install and test the upgrades in the portion of its network that utilizes the different architecture, which constitutes approximately 19 percent of its network.[28]

10. Dobson Cellular Systems, Inc. (Dobson) requests a period of four months (until October 31, 2002) to complete the necessary software upgrades in the areas served by Lucent equipment, which comprise five percent of its markets.[29] According to Dobson, Lucent indicated that it would complete installation of the necessary software upgrade in Dobson's markets by the end of August 2002.[30] Dobson argues that a four-month extension of the deadline would permit it to perform the necessary system upgrades in the Lucent markets.[31]

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[21] Request for Waiver filed by VoiceStream, CC Docket No. 94-102 (filed May 30, 2002).

[22] *Id.* at 6-7.

[23] *Id.*

[24] *Id.* at 7

[25] *See* Ex Parte Letter from Cheryl A. Tritt, Counsel for VoiceStream, to Marlene H. Dortch, FCC, CC Docket No. 94-102 (filed June 6, 2002).

[26] Qwest Wireless, LLC and TW Wireless, LLC Petition for Extension of Time or Waiver of Section 20.18 of the Rules, CC Docket No. 94-102 (filed March 18, 2002). Due to timing considerations, none of the other waiver requests of this type were put on Public Notice.

[27] *Id.* at 3. The "Open A" or open wireless architecture allows Qwest to select different vendors for each component, which Qwest asserts increases the quality of service delivered to its customers. *Id.* However, this architecture requires extensive coordination among different vendors to ensure interoperability between the components. *Id.* Qwest states that it is the only carrier in the country with this particular network configuration. *Id.*

[28] *Id.* at 7-8.

[29] Dobson Cellular Systems, Inc. Petition for Temporary Waiver of Section 20.18(c) of the Commission's Rules, CC Docket No. 94-102 (filed May 30, 2002). Dobson states that it utilizes Nortel equipment in the remaining 95 percent of its markets, and installation work in these markets is expected to be completed by mid-June 2002. *Id.* at 3.

[30] *Id.* at 4.

[31] *Id.* at 6-7.

2. Public Notice and Responsive Pleadings

11. On April 5, 2002, the Wireless Telecommunications Bureau released a Public Notice seeking comment on Qwest's petition.[32] Ericsson submitted comments on the petition asserting that it has worked diligently to address Qwest's need for software for its Open A network, and underscoring the complications associated with deploying updated software in such circumstances.[33] Telecommunications for the Deaf, Inc. (TDI), and the National Association of the Deaf (NAD) filed joint comments opposing the Qwest petition, stating that digital wireless carriers have had sufficient time to implement TTY capability in their systems and that Qwest had not shown exceptional circumstances warranting a waiver.[34] TDI and NAD also assert that grant of the waiver request would be contrary to the public interest because, despite long delays, the public still will not have access to 911 services over digital systems using TTY devices.[35] With respect to the other petitions, no comments were received opposing the waiver requests.

B. Waivers Requested by Carriers Migrating Away From TDMA

1. Waiver Requests

12. The other group of petitioners is comprised of small, rural carriers providing CMRS using TDMA. The following 10 carriers, most of which have fewer than 10,000 subscribers, fall into this category: ACS Wireless, Inc. (ACSW); Amarillo License, L.P. (Amarillo);[36] Enterprise Wireless PCS; Highland Cellular, Inc.; High Plains Wireless, L.P. (High Plains); Illinois Valley Cellular RSA 2-I Partnership; Illinois Valley Cellular RSA 2-II Partnership; Illinois Valley Cellular RSA 2-III Partnership (collectively, IVC); Missouri RSA No. 7 (d/b/a Mid-Missouri Cellular); and Public Service Cellular.

13. These petitioners state that the plans of several major wireless carriers (including Cingular, AT&T, and US Cellular) to migrate their TDMA deployments to other, non-compatible digital technology have led all major CMRS infrastructure providers to cease development of new features and functionalities for their TDMA infrastructure equipment.[37] The petitioners indicate that they, too, will need to migrate to an alternative

[32] Public Notice, Wireless Telecommunications Bureau Seeks Comment on Qwest Wireless Petition for Limited Waiver of Date by Which Digital Wireless Carriers Must be Capable of Transmitting 911 Calls from TTY Devices, DA 02-768 (rel. April 5, 2002).

[33] Ericsson's Comments on Qwest Wireless' Petition for Extension of Time or Waiver of TTY Rules, CC Docket No. 94-102 (filed April 25, 2002).

[34] Joint Comments of Telecommunications for the Deaf, Inc. and the National Association of the Deaf, CC Docket No. 94-102 (filed April 25, 2002).

[35] *Id.* at 5-6. TDI and NAD urge the Commission to deny Qwest's petition and specify that if Qwest is not in compliance by June 30, 2002, it will be subject to enforcement action. *Id.* at 8.

[36] Amarillo and High Plains originally filed for limited waivers to upgrade their existing networks, but they subsequently filed reply comments stating their intention to move away from TDMA. They consequently changed their request to a petition for waiver of the June 30, 2002, deadline until after they have replaced their current TDMA systems with either GSM or CDMA equipment. Reply of Amarillo License, L.P. and High Plains Wireless, L.P., CC Docket No. 94-102 (filed May 20, 2002) (Amarillo Reply).

[37] *See,* ACSW Petition for Waiver of 47 C.F.R. § 20.18(c), CC Docket No. 94-102 (filed May 30, 2002); Reply of Amarillo License, L.P. and High Plains Wireless, L.P., CC Docket No. 94-102 (filed May 20, 2002); Petition for Waiver filed by Enterprise Wireless PCS, CC Docket No. 94-102 (filed Dec. 31, 2001); Request for Waiver by Highland Cellular, Inc., CC Docket No. 94-102 (filed May 15, 2002); Joint Petition of Illinois Valley Cellular RSA 2-I Partnership, Illinois Valley Cellular RSA 2-II Partnership, and Illinois Valley Cellular RSA 2-III Partnership for Limited Waiver of Section 20.18(c) of the Commission's Rules and the Deadlines Established in the Fourth Report and Order, CC Docket No. 94-102 (filed Dec. 21, 2002); Petition of Missouri RSA No. 7 Limited Partnership for Waiver of Section 20.18(c) of the Commission's Rules

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air interface, and argue that the costs of deploying TTY-compatible software in both networks simultaneously is prohibitive because of the other regulatory mandates with which they must comply and because of the high costs of providing service to their largely rural customers. Some of the petitioners also express doubt as to whether TDMA TTY-compatible handsets will be made commercially available. The majority of these petitioners seek a delay of the June 30, 2002, deadline until December 31, 2003, to allow them to migrate networks and implement TTY compatibility in the new network. However, most of the petitioners do not specify the date by which they anticipate that all of their TDMA subscribers will be moved to the new network. One petitioner, ACSW, already has launched its CDMA network (which is TTY-capable) and states that it will try to migrate all of its existing TDMA customers to the CDMA system by 2007.[38]

2. Public Notices and Responsive Pleadings

14. The Wireless Telecommunications Bureau released three Public Notices seeking comment on all of the petitions except for that of Highland Cellular, Inc., which was filed later than the others.[39] The Rural Cellular Corporation, Edge Wireless Licenses, and Alaska DigiTel filed comments in support of the petitions, and the Rural Cellular Association filed Reply Comments in support of granting the waivers. These commenters argue that compliance with the June 30, 2002, deadline would be unduly burdensome to small, rural carriers, particularly those that are transitioning to alternative technologies.[40] The Rural Cellular Corporation (RCC) argued in favor of a Commission grant of a blanket extension of the compliance deadline until December 31, 2003, for all carriers in markets where carriers rely exclusively on TDMA digital technology.[41] The Rural Cellular Association filed reply comments supporting the petitions and the blanket relief requested by the RCC for similarly situated small, rural carriers.[42]

15. TDI and NAD filed joint comments opposing the petition of Amarillo License, L.P. and High Plains Wireless, L.P., stating that digital wireless carriers have had sufficient time to implement TTY capability in their systems and that the petitioners had not shown exceptional circumstances warranting a waiver.[43] TDI and NAD also assert that grant of the waiver request would be contrary to the public interest because, despite

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and the Deadlines Established in the Fourth Report and Order, CC Docket No. 94-102 (filed Dec. 21, 2002); and Petition of Public Service Cellular, Inc. for Waiver of Section 20.18(c) of the Commission's Rules and the Deadlines Established in the Fourth Report and Order, CC Docket No. 94-102 (filed Dec. 21, 2002).

[38] ACSW Petition at 5.

[39] Public Notice, Wireless Telecommunications Bureau Seeks Comment on Petitions for Temporary Waiver of Deadline by Which Digital Wireless Carriers Must be Capable of Transmitting 911 Calls from TTY Devices, DA 02-640 (rel. March 19, 2002); Public Notice, Wireless Telecommunications Bureau Seeks Comment on Request for Temporary Waiver of Deadline by Which Digital Wireless Systems Must be Capable of Transmitting 911 Calls from TTY Devices, DA 02-916 (rel. April 19, 2002); Public Notice, Wireless Telecommunications Bureau Seeks Comment on ACS Wireless Petition for Waiver of Deadline by Which Digital Wireless Systems Must be Capable of Transmitting 911 Calls from TTY Devices, DA 02-993 (rel. April 30, 2002).

[40] Comments of Edge Wireless Licenses, LLC in Reponse to Petitions for Temporary Waiver of Deadline by Which Digital Wireless Systems Must be Capable of Transmitting 911 Calls from TTY Devices, CC Docket No. 94-102 at 3 (filed April 8, 2002); Comments of Alaska DigiTel, LLC in Reponse to Petitions for Temporary Waiver of Deadline by Which Digital Wireless Systems Must be Capable of Transmitting 911 Calls from TTY Devices, CC Docket No. 94-102 at 2 (filed April 8, 2002).

[41] Comments in Support of Petitions for Temporary Waiver and Request for Blanket Relief filed by Rural Cellular Corporation, CC Docket No. 94-102 at 5 (filed April 8, 2002).

[42] Reply Comments of Rural Cellular Association, CC Docket No. 94-102, at 3 (filed April 18, 2002).

[43] Joint Comments of Telecommunications for the Deaf, Inc. and the National Association of the Deaf, CC Docket No. 94-102 (filed May 9, 2002).

long delays, the public still will not have access to 911 services over digital systems using TTY devices.[44] Amarillo and High Plains filed reply comments emphasizing the complexities of remaining economically viable small systems in an industry dominated by large nationwide and regional carriers, and asserting that requiring them to implement TTY capability in a digital network that is being phased out would be unduly burdensome.[45]

III. DISCUSSION

16. The Commission's rules provide that the Commission may suspend or waive its rules, in whole or in part, for "good cause shown."[46] In addition, the Commission may waive specific requirements of a rule where, in view of unique or unusual factual circumstances, application of the rule would be inequitable, unduly burdensome or contrary to the public interest, or if the applicant has no reasonable alternative.[47] The courts have found that waiver is appropriate "if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest."[48]

17. We find that the requests for limited waivers based on vendor delays are well-supported by the evidence and are reasonable in scope and duration. The small carrier petitioners seek an extension of only three months to one year beyond the deadline to obtain equipment and software from their vendors and to install and test the solutions in their systems. As the small, rural petitioners assert, equipment vendors typically give priority to the larger, nationwide carriers, making it difficult for smaller carriers to obtain, install, and test the system upgrades that are needed to provide TTY capability.[49] We find that, despite their efforts to obtain the software and hardware they require from vendors well in advance of the deadline, these small carriers have encountered unexpected delays in implementing digital-TTY capability in their systems and that the limited waivers are reasonable under the circumstances.

18. The larger carriers that have petitioned for additional time are doing so for only small portions of their systems and only for periods ranging from three to six months. We find that these petitioners worked with their vendors on a timely basis to implement digital-TTY capability in their systems but that problems cropped up unexpectedly late in the implementation process. Where the carriers have acted diligently in attempting to obtain the necessary upgrades, and where limited delays are attributable to equipment vendors' efforts to make unexpected last minute repairs, we find that limited extensions are justified. Under these circumstances, we agree with these petitioners that requiring compliance by June 30, 2002, would be unduly burdensome and in many instances not feasible, despite the best efforts of the carriers.

19. We do deny AWS's petition for relief to the extent it requests an extension of the compliance deadline for a period of time triggered solely by the timing of a vendor's delivery of a product for deployment.[50] To grant such relief from a regulatory obligation would effectively remove the obligation of carriers to take the steps necessary to satisfy that obligation. Carriers must timely plan and order needed products from their vendors and take other steps to reasonably ensure that their vendors deliver their products on a timely basis.

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[44] *Id.* at 5-6. TDI and NAD urge the Commission to deny the petition and specify that if Amarillo and High Plains are not in compliance by June 30, 2002, they will be subject to enforcement action. *Id.* at 8.

[45] Amarillo Reply at 2.

[46] 47 C.F.R. § 1.3.

[47] 47 C.F.R. § 1.925(b)(3)(ii).

[48] *See Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v.* FCC, 418 F.2d 1153 (D.C. Cir. 1969)).

[49] *See, e.g.*, Cellular Mobile Systems of St. Cloud Petition at 3; Missouri RSA #5 Partnership Petition at 3; Wireless Communications Venture Petition at 3.

[50] *See* AWS Petition at 2.

Instead, we grant AWS until September 30, 2002, to implement digital-TTY capability in the GSM portion of its network that is served by Nokia switches. Based on the estimates provided by AWS in its petition, this period of time should be adequate for AWS to obtain the corrected software from Nokia and to complete testing and deployment in the relevant markets.

20. We recognize that people with disabilities have waited for the industry to implement digital-TTY compatibility and that they will benefit in many ways from the technological improvements that are being made in response to the Commission's TTY requirements. As we have noted, these improvements are being implemented by carriers nationwide on a timely basis and these limited waivers will only affect a small number of service areas for a limited amount of time.[51] Many of the technological problems that the carriers and vendors are encountering have only revealed themselves in the late stages of testing and implementation. Indeed, this group of carriers requires only short periods of time to resolve the problems and maintain the integrity of their wireless networks. For these reasons, we conclude that the requests for limited waivers should be granted as requested.

21. In contrast, the waivers requested by carriers migrating away from TDMA are more expansive, since the petitioners seek complete waivers of the TTY rule for their digital TDMA networks. These petitioners state their intention to migrate to another digital technology, which will enable TTY users to make 911 calls over their new networks. These carriers assert that requiring them to implement TTY compatibility in their TDMA networks would be a waste of resources since infrastructure vendors and handset manufacturers appear to be moving away from TDMA. These petitioners are all small, rural carriers with limited resources. Requiring them to expend a large sum of money on what would essentially be an interim solution does not seem a good allocation of resources. Because of recent developments related to larger carriers moving away from TDMA and the resulting loss of vendor support for these systems, these small carriers are in an unusual position of having to change their underlying technology on the eve of the Commission's regulatory deadline for implementing digital-TTY capability in their systems. These are special circumstances warranting some deviation from the general rule. However, with the exception of ACSW, none of the petitioners in this group provide an estimate of how long they will continue to operate their TDMA networks. Complete waivers for their TDMA networks would allow the carriers deploying a separate digital network to continue to operate the TDMA network indefinitely without providing a TTY solution for their TDMA subscribers. This is inconsistent with the intent of the TTY rule.

22. For these reasons, we grant a conditional extension of time for carriers that are migrating away from TDMA until December 31, 2003. This would give the affected carriers an additional 18 months in which to transition away from TDMA and to move their subscribers over to a new, digital TTY-capable network and to phase out their TDMA network. If, however, at the end of the 18-month period, a carrier still is operating a TDMA network, it will be required to implement a TTY solution in that network.[52] This conditional extension alleviates to a certain extent the burden on the smaller systems to implement TTY capability in a network they are trying to phase out. It provides these carriers some additional time to determine and carry out a plan for changing to a new air interface that will encompass digital-TTY capability. At the same time, this approach recognizes the interests of persons with disabilities who want and deserve the ability to access 911 emergency services over digital wireless systems using their TTY devices at the earliest possible date. Carriers simply will not be excused from their regulatory obligations with respect to their TDMA systems with no firm end date for completing the transition. Although some carriers have expressed doubt as to whether TTY-capable TDMA handsets will be commercially available, we are aware that Panasonic has had a TTY-capable TDMA handset on the market since October 2001, and that other handset manufacturers are reportedly planning to market

[51] *See* para. 2, *supra*. *See also* Appendix A (listing affected service areas).

[52] In other words, the carriers must have either turned off their TDMA networks or implemented TTY capability in the TDMA networks by December 31, 2003.

similar handsets in the near future.[53] According to industry reports to the TTY Forum, we also understand TDMA infrastructure upgrades are available to carriers.[54] Therefore, we are unaware of any overarching technological reasons why a TDMA solution could not be implemented in those systems that are not completely turned off by December 31, 2003. Also, these carriers state that, during the waiver period, TTY users in the affected service areas will continue to have access to wireless service, which will require them to provide analog handsets that are useable with TTYs to subscribers who need them.[55]

23. We note that this Order grants only the waivers specifically pending before us and provides no regulatory relief to other carriers covered by Section 20.18(c) that did not file waiver requests. Other carriers that have not complied with Section 20.18(c) by implementing in their digital wireless networks the capability of transmitting 911 calls made using TTY devices by June 30, 2002, may be subject to enforcement action by the Commission. In addition, to the extent carriers receiving these waivers are able to implement the digital-TTY capability before the expiration of the waiver period, we strongly encourage them to do so in the interest in making this important service available to the public at the earliest possible time.

24. We also will continue the quarterly reporting requirement for carriers who receive additional time herein. In the *Fourth Report and Order*, the Commission required digital service providers to file quarterly reports containing updates on the status of digital-TTY implementation in their networks.[56] The Commission required carriers to submit either individual reports or to submit reports on their individual progress through the TTY Forum 15 days after the end of each quarter and continuing through the implementation deadline of June 30, 2002.[57] These reports have provided the Commission with valuable information concerning the industry's efforts to develop and deploy TTY capability in digital wireless systems. To enable the Commission to continue to monitor the progress of carrier implementation, we clarify that the quarterly reporting requirement continues for those carriers to whom we are granting additional time to implement a digital-TTY solution in their systems in this Order. The reports should contain relevant implementation information specific to each carrier and must be filed quarterly until implementation is complete.

25. We strongly encourage the carriers receiving these temporary waivers to take steps to fully inform their subscribers, possibly through the use of billing inserts, customer letters, or other means, of the limits on their use of the TTY capability on the carriers' networks. Employees of the carriers and persons responsible for customer care at retail outlets and answering customer service telephone inquiries should be trained to explain the delay to potential new customers who use TTY devices and to provide an estimate as to when digital-TTY service will be available in their area. We also strongly encourage carriers to work with the disability community and the Commission's Consumer & Governmental Affairs Bureau to help ensure that the subscribers of the carriers receiving these waivers are informed. We consider such consumer education efforts as critical to avoid TTY users relying upon the presumed availability of 911 service over digital wireless systems before this capability has been implemented in those systems.

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[53] *See, e.g.*, Panasonic web site http://www.panasonic.com/PCSC/PTSC/access_list.htm (describing TTY-capable TDMA handset models); Nokia web site http://www.wapsight.com/info/2001/11/07/125158.html (describing TTY-capable TDMA handset model); TTY Forum #22 Summary Report (containing oral reports from equipment manufacturers, including Sony Ericsson, Motorola, and Nokia, stating that TTY-capable TDMA handsets are -- or soon will be -- available).

[54] *See* TTY Forum #22 Summary Report (summarizing oral reports of Ericsson and Motorola indicating that they are on schedule for TDMA infrastructure deployment).

[55] *See, e.g.*, ACSW Petition at 7-8; Reply of Amarillo and High Plains at 4; Enterprise Wireless PCS Petition at 7; Joint Petition of IVC at 6; Mid-Missouri Cellular Petition at 6; and Public Service Cellular Petition at 6. Counsel for Highland Cellular orally confirmed that the carrier provides analog wireless service in its service area.

[56] *Fourth Report and Order*, 15 FCC Rcd at 25221-22.

[57] *Id.*, 15 FCC Rcd at 25221.

IV. ORDERING CLAUSES

26. Accordingly, IT IS ORDERED that the waiver requests ARE GRANTED to the extent indicated herein and in the attached Appendix.

27. These actions are taken pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 331.

FEDERAL COMMUNICATIONS COMMISSION

Thomas J. Sugrue
Chief, Wireless Telecommunications Bureau

APPENDIX A

Waiver Requests Granted

CARRIER	ADJUSTED IMPLEMENTATION DATE	SERVICE AREA AFFECTED
ACS Wireless, Inc.*	December 31, 2003	Entire Service Area
Amarillo License, L.P.*	December 31, 2003	Entire Service Area
AT&T Wireless Services, Inc	September 30, 2002	Phoenix, Arizona Bakersfield, California Los Angeles, California San Diego, California Santa Barbara, California Ft. Myers, Florida Jacksonville, Florida Miami/Ft. Lauderdale, Florida Orlando, Florida Pensacola, Florida Polk City, Florida Tampa/St. Petersburg, Florida West Palm Beach, Florida Atlanta, Georgia Hawaii Boise, Idaho Chicago, Illinois Detroit, Michigan Grand Rapids/Lansing, Michigan Minneapolis, Minnesota St. Louis, Missouri Omaha, Nebraska Las Vegas, Nevada Alberquerque/El Paso, New Mexico Buffalo, New York New York, New York Portland, Oregon Salt Lake City, Utah Seattle, Washington Spokane, Washington
Blanca Telephone Company	September 30, 2002	Entire Service Area
Brown County MSA Cellular Limited Partnership	September 30, 2002	Entire Service Area

* Indicates carrier migrating away from TDMA

CARRIER	ADJUSTED IMPLEMENTATION DATE	SERVICE AREA AFFECTED
California RSA #3 L.P. d/b/a Golden State Cellular	December 31, 2002	Entire Service Area
Cellular Mobile Systems of St. Cloud	January 31, 2003	Entire Service Area
Commnet of Florida	June 30, 2003	Entire Service Area for TDMA Roamers Only
Dobson Cellular Systems, Inc	October 31, 2002	Mohave County, Arizona Madera County, California Merced County, California San Benito County, California Antrim County, Michigan Charlevoix County, Michigan Emmet County, Michigan Grand Traverse County, Michigan Kalkaska County, Michigan
		The following counties in Texas: Anderson, Austin, Bastrop, Bosque, Brown, Burleson, Caldwell, Coleman, Colorado, Comanche, Eastland, Erath, Falls, Fayette, Freestone, Gonzales, Hamilton, Henderson, Hill, Jackson, Lavaca, Lee, Leon, Limestone, Matagorda, Milam, Mills, Navaro, Robertson, Runnels, Somerville, Van Zandt, Washington, and Wharton
Eagle Telephone System, Inc	December 31, 2002	Entire Service Area
Easterbrooke Cellular Corporation	September 30, 2002	Entire Service Area
Enterprise Wireless PCS*	December 31, 2003	Entire Service Area
Farmers Mutual Telephone Company	December 31, 2002	Entire Service Area
Guam Cellular and Paging, Inc.	September 30, 2002	Entire Service Area
High Plains Wireless, L.P. *	December 31, 2003	Entire Service Area
Highland Cellular, Inc.*	December 31, 2003	Entire Service Area

CARRIER	ADJUSTED IMPLEMENTATION DATE	SERVICE AREA AFFECTED
Illinois Valley Cellular RSA 2-I Partnership*	December 31, 2003	Entire Service Area
Illinois Valley Cellular RSA 2-II Partnership*	December 31, 2003	Entire Service Area
Illinois Valley Cellular RSA 2-III Partnership*	December 31, 2003	Entire Service Area
Iowa RSA #12 LLC	September 30, 2002	Entire Service Area
Iowa RSA #3 LLC	September 30, 2002	Entire Service Area
Leaco Rural Telephone Cooperative, Inc	December 31, 2002	Entire Service Area
Metro Southwest PCS, LLP	September 30, 2002	Entire Service Area
Missouri RSA #5 Partnership d/b/a Chariton Valley	December 31, 2002	Entire Service Area
Missouri RSA No. 7 (d/b/a Mid-Missouri Cellular)*	December 31, 2003	Entire Service Area
Nsightel Wireless, LLC	September 30, 2002	Entire Service Area
Public Service Cellular*	December 31, 2003	Entire Service Area
Qwest Wireless, LLC and TW Wireless LLC	December 31, 2002	Coconino County, Arizona Santa Cruz County, Arizona Yavapai County, Arizona Huerfano County, Colorado Pueblo County, Colorado
		The following counties in Idaho: Ada, Bannock, Bingham, Bonner, Bonneville, Canyon, Elmore, Gooding, Jefferson, Jerome, Kootenai, Lincoln, Nez Perce, Power, and Twin Falls
		Mills County, Iowa Pottawattamie County, Iowa
		The following counties in Minnesota: Clay, Douglas, Grant, Otter Tail, Traverse, Wilkin, and Broadwater
		The following counties in Montana: Carbon, Cascade, Gallatin, Jefferson, Lewis and Clark, Madison, Missoula, Ravalli, Silver Bow, Stillwater, and

		Yellowstone
		The following counties in Nebraska: Cass, Dodge, Douglas, Lancaster, Sarpy, Saunders, and Washington
		The following counties in New Mexico: Bernalillo, Los Alamos, Rio Arriba, Sandoval, Santa Fe, Socorro, Torrance, and Valencia
		Burleigh County, North Dakota Cass County, North Dakota Morton County, North Dakota
		The following counties in Oregon: Benton, Lane, Linn, Marion, Morrow, Polk, and Umatilla
		Meade County, South Dakota Pennington County, South Dakota
		The following counties in Utah: Box Elder, Davis, Morgan, Salt Lake, Summit, Tooele, Utah County, Wasatch, and Weber
		The following counties in Washington: Adams, Asotin, Benton, Franklin, Grant, Island, Kitsap, Kittitas, Klickitat, Lincoln, San Juan, Skagit, Snohomish, Spokane, Stevens, Walla Walla, Whatcom, Whitman, and Yakima
		Converse County, Wyoming Fremont County, Wyoming Laramie County, Wyoming Natrona County, Wyoming
Redwood Wireless Minnesota, LLC	September 30, 2002	Entire Service Area
Redwood Wireless Wisconsin, LLC	September 30, 2002	Entire Service Area
SpectraCom, Inc. d/b/a PYXIS Communications	June 30, 2003	Entire Service Area
Thumb Cellular Limited Partnership	September 30, 2002	Entire Service Area
TMP Corp. and TMP Jacksonville, LLC	January 31, 2003	Entire Service Area

CARRIER	ADJUSTED IMPLEMENTATION DATE	SERVICE AREA AFFECTED
VoiceStream Wireless Corporation	September 15, 2002	Harrisburg, Pennsylvania York-Hanover, Pennsylvania Lancaster, Pennsylvania; Reading, Pennsylvania
VTel Wireless Inc	December 31, 2002	Entire Service Area
Wausau Cellular Telephone Company Ltd. Partnership	September 30, 2002	Entire Service Area
Wireless Communications Venture	January 31, 2003	Entire Service Area
Wisconsin RSA #3 Limited Partnership	September 30, 2002	Entire Service Area
Wisconsin RSA No. 4 Limited Partnership	September 30, 2002	Entire Service Area
Wisconsin RSA-10 Limited Partnership	September 30, 2002	Entire Service Area