

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

In the Matter of)	
)	
Revision of the Commission's Rules to)	CC Docket No. 94-102
Ensure Compatibility with Enhanced)	
911 Emergency Calling Systems)	
)	
Wireless E911 Phase II Implementation)	
Plan of Nextel Communications, Inc.)	

**NEXTEL COMMUNICATIONS, INC.
PHASE I AND PHASE II E911 QUARTERLY REPORT
August 1, 2003**

**To: Chief, Enforcement Bureau
Chief, Wireless Telecommunications Bureau**

INTRODUCTION

Pursuant to the October 12, 2001 Order of the Federal Communications Commission ("Commission" or "FCC") in CC Docket No. 94-102,¹ Nextel Communications, Inc. ("Nextel") respectfully submits this Enhanced 911 ("E911") Quarterly Report on its implementation of Phase I and Phase II E911. Nextel achieved its first Phase II benchmark, October 1, 2002, when it began selling and activating an Assisted Global Positioning Satellite ("A-GPS") handset. Since that date Nextel has begun selling a second A-GPS handset model and has launched 284 Public Safety Answering Points ("PSAPs") with Phase II service. Herein, Nextel provides an update on all relevant events impacting handset upgrades and network infrastructure necessary to

¹ *In the Matter of Revision of the Commission's Rules To Ensure Compatibility With Enhanced 911 Emergency Calling Systems, Wireless E911 Phase II Implementation Plan of Nextel Communications, Inc.*, Order, CC Docket No. 94-102, FCC 01-295, released October 12, 2001 ("Nextel Waiver Order").

enable Phase II E911 location capabilities as well as a listing of all deployed and pending requests for Phase I and Phase II E911 service and the status of each request.

BACKGROUND

Pursuant to the Nextel Waiver Order, the Commission imposed on Nextel the following Phase II E911 implementation benchmarks:

- October 1, 2002:* Begin selling and activating A-GPS-capable handsets;
- December 31, 2002:* Ensure that at least 10% of all new handsets activated are A-GPS-capable;
- December 1, 2003:* Ensure that at least 50% of all new handsets activated are A-GPS-capable;
- December 1, 2004:* Ensure that 100% of all new digital handsets activated are A-GPS-capable;
- December 31, 2005:* 95% of all subscriber handsets in service are A-GPS-capable.²

As Nextel has detailed in its previous Reports,³ Nextel and Motorola began developing an A-GPS capability for Nextel's integrated digital enhanced network ("iDEN") technology in the Fourth Quarter of 2000, prior to the Commission granting Nextel's waiver request. Launching a complicated technology to first calculate, and then deliver, location information from an iDEN handset to a PSAP, particularly in the compressed timeline demanded by the Nextel Waiver Order, required extraordinary efforts and unprecedented coordination among numerous entities. Such multi-party

² Nextel Waiver Order at ¶37.

³ See, e.g., *Nextel Communications, Inc. Phase I and Phase II E911 Quarterly Report*, CC Docket No. 94-102 (Nov. 1, 2002) ("Nextel's November Report"); *Nextel Communications, Inc. Phase II E911 Quarterly Report*, CC Docket 94-102 (Aug. 1, 2002); *Nextel Communications, Inc. Phase II E911 Quarterly Report*, CC Docket 94-102 (May 1, 2002).

coordination continues as Nextel introduces additional A-GPS capable handsets and deploys individual PSAPs.

DISCUSSION

A. A-GPS Capable Handsets

Following the launch of its first A-GPS capable handset, the i88s, on October 1, 2002 in compliance with its first Phase II implementation benchmark, Nextel introduced its second A-GPS capable handset, the i58sr, on January 1, 2003. Nextel continues to work with its sole handset vendor, Motorola, to develop additional A-GPS capable models, three of which are planned to launch commercially by the end of 2003 commencing at the beginning of the Third Quarter with an aggressive roll out schedule. Nextel, via an independent third-party consultant, completed accuracy testing of its A-GPS handsets prior to its October 1, 2002 benchmark date and met the Commission's accuracy standards. Per Nextel's Waiver Order, the next deployment benchmark period on which Nextel must report ends on November 30, 2003. Nextel will report on that benchmark in its February 2004 Quarterly Report.⁴

B. Network Infrastructure

Nextel remains committed to working cooperatively with PSAPs throughout the country to deploy them as efficiently as possible and, since its May Report, Nextel has made notable progress deploying 163 additional PSAPs. In some cases, however, because of complexities inherent in deployments and the numerous parties involved—and despite rigorous network and component testing by Nextel and Motorola prior to its

⁴ Nextel's Waiver Order states that "Nextel must report, in the Quarterly Report immediately following the benchmark date...for the periods of December 31, 2002 to November 30, 2003..., the percentage of new handsets activated nationwide during the respective periods that were A-GPS capable, as well as the total number of new handsets during those periods that were A-GPS capable." Nextel Waiver Order at ¶ 32.

October 1, 2002 Phase II launch—Nextel continues to discover end-to-end connectivity issues with some deployments that can create delay. Nextel continues to deploy its two Phase II methodologies—Emergency Service Routing Keys (“ESRK”) and Emergency Services Routing Digits (“ESRD”)—and simultaneously has added further functionalities to its service.

In an on-going effort to provide public safety with the best location information possible on its wireless system, Nextel, with the assistance of its third party vendor Intrado, recently implemented changes to its provision of location information that enable it to offer a dynamic “class of service” indicator, allowing PSAPs to readily ascertain whether display information is Phase I or Phase II. Initially this functionality has been provided to PSAPs in territories served by Verizon, Sprint and SBC, and Nextel anticipates completing rollout, where technically possible, of this functionality to PSAPs in areas served by other local exchange carriers (“LECs”) by the end of August 2003.

On June 20, 2003 Nextel showcased its Phase II location technology to FCC Chairman Michael Powell during his visit to the Alexandria, Virginia PSAP. During the presentation a Nextel employee just outside of the PSAP’s offices placed a 911 call to the PSAP and then, while the call was connected, began to walk down a street, away from the PSAP’s offices. The PSAP operator, using mapping software and the latitude and longitude coordinates provided by Nextel’s A-GPS technology, first pinpointed the caller’s location in the PSAP’s parking lot. Then, by re-bidding for updated location information provided by Nextel’s A-GPS technology, the PSAP was able to track the caller’s movement away from the PSAP’s offices in a “bread crumb trail” on the map. To ensure the PSAP could verify the accuracy of the location information provided by

Nextel's Phase II solution, Nextel had provided the PSAP the caller's location prior to starting the demonstration.

C. Phase I Requests

With respect to the Commission's requirement that Nextel provide "information on all pending Phase I and Phase II requests,"⁵ Nextel has attached an Appendix listing all of its 246 pending Phase I requests and their current status.⁶ For each of the on-going Phase I deployment efforts, the Appendix provides all of the required information including the master PSAP registry identification number ("PSAP ID"), PSAP name, PSAP state, PSAP county, request date, whether the request is valid,⁷ a projected deployment date, reasons hindering deployment within the first six months of a PSAP's request and comments.⁸ The proposed deployment dates in the Appendix are *target launch dates, which Nextel and the relevant PSAP are striving to meet*. Nextel is in regular contact with each of these PSAPs and is working to deploy Phase I E911 as soon

⁵ See Nextel Waiver Order at ¶32.

⁶ On June 6, 2003 the Commission released a Public Notice setting forth uniform requirements governing the Appendix format in which carriers submit Phase I and Phase II deployment information with each Quarterly Report. Per these requirements, Nextel has attached an Appendix listing all of its E911 deployments. See Public Notice, *Wireless Telecommunications Bureau Standardizes Carrier Reporting on Wireless E911 Implementation*, CC Docket No. 94-102, rel. June 6, 2003. According to the Public Notice, "[t]he submission of the attached spreadsheet will permit the Commission to track wireless E911 deployment in a more uniform and consistent manner, as well as assist E911 stakeholders in coordinating their deployment efforts."

⁷ Per Nextel's Waiver Order, Nextel is required to report whether it believes each deployment request is (or is not) valid. See Nextel Waiver Order at ¶32. On March 24, 2003 Nextel filed a letter in WT Docket No. 03-76 stating that Nextel has been and continues to be in contact with PSAPs that have requested Phase I or Phase II service and will deploy these PSAPs as soon as possible pursuant to a mutually agreeable implementation schedule. Thus, Nextel is complying herein with the Commission's requirement that it mark as "valid" or "invalid" each PSAP request, although as a practical matter, Nextel's deployment team is working with each PSAP's Phase I and Phase II pending request listed in the Appendix to deploy them as soon as possible pursuant to a mutually agreed-upon time frame.

⁸ In some cases there are delays caused by technology issues. Such delays do not necessarily mean that the PSAP or Nextel is not "ready" for Phase I service. Rather, it often means there are issues involving incompatible technologies between Nextel, the LEC and/or the PSAP.

as possible. Nextel has fully deployed Phase I E911 service with 940 PSAPs, which are listed in the Appendix.

With regard to its Phase I deployment efforts, Nextel reiterates herein that in some cases Phase I E911 deployments, similar to Phase II deployments, continue to be complicated by a number of factors – many of which are outside of Nextel’s control. As Nextel outlined in its May 18, 2001 letter to the Wireless Telecommunications Bureau,⁹ there are essentially five stages of Phase I deployment and issues that arise in any of these areas can cause delay in the deployment effort. The five stages are:

- (1) Data Collection – Nextel collects from the PSAP and LEC information necessary to understand the equipment used by the PSAP and LEC, the capacity of the particular 911 system, and the location of certain equipment (e.g., Selective Routers, dispatch centers), among other things.
- (2) Network Recommendation – Based on the data collected, Nextel determines how it will route calls to the Selective Router(s), e.g., how many trunks will be needed based on the number of Selective Routers, which Mobile Switching Center (“MSC”) will be routed to each Selective Router and the trunking capacity needed for each Selective Router based on load analyses.
- (3) Routing Decisions/Awaiting Trunk Orders – Using the information collected in the first two phases, Nextel places trunk orders with the LEC. Trunk delivery typically requires 30 to 60, and sometimes 90, days. Once delivered, the trunks are tested. If for any reason the trunks fail the testing process, Nextel is typically required by the LEC to start over – adding an additional 30, 60 or 90 days to the trunk deployment process.

During this time, Nextel and the affected PSAP(s) map out the routing of all 911 calls in the area, ensuring that every 911 call from every Nextel cell site or cell sector is transmitted to a predetermined PSAP. Where multiple PSAPs are involved, or in areas on the border of adjacent PSAPs, this process often requires substantial time, cooperation and joint efforts by all parties.

- (4) Automatic Location Identification (“ALI”) Database Load – Nextel assigns each cell site (or cell sector) a pseudo Automatic Number Identification (“P-

⁹ *In the Matter of Revision of the Commission’s Rules To Ensure Compatibility With Enhanced 911 Emergency Calling Systems*, Letter to Kris Monteith, Chief, Policy Division, Wireless Telecommunications Bureau, from Lawrence R. Krevor, Vice President-Government Affairs, May 18, 2001.

ANI”) (a ten-digit telephone number that identifies that particular cell site or sector), and then loads that information into the LEC’s ALI database. This, too, requires input and cooperation from both the LEC and PSAP to ensure the information is loaded correctly to display on the PSAP’s computer terminals in the requested format.

- (5) Carrier Test – This is the final stage of Phase I deployment, ensuring that the 20 digits are transmitted to the correct PSAP and displayed appropriately on the PSAP dispatcher’s screen. Testing must be conducted in coordination with each PSAP to avoid burdening the PSAP during busy times and to preclude inadvertent false calls.

D. Phase II Requests

The Appendix also lists every pending Phase II request and the Commission’s required information including the PSAP ID, PSAP name, PSAP state, PSAP county, request date, whether the request is valid,¹⁰ a projected deployment date, reasons hindering deployment within the first six months of a PSAP’s request and comments. Nextel has received 245 pending Phase II requests and has asked that each of these PSAPs provide the documentation required in the *Richardson Order* for determining the request’s validity.¹¹

Similar to Phase I deployments, the proposed Phase II deployment dates in the Appendix are *target launch dates, which Nextel and the relevant PSAP are striving to meet*. Nextel reiterates that accomplishing such deployments is subject to numerous factors and parties outside of Nextel’s control; thus, Nextel’s deployment schedule establishes a goal toward which Nextel will work. It is possible, however, that complexities may be encountered that could delay some PSAP deployments. Nextel is in

¹⁰ See note 7 herein.

¹¹ See generally, *In the Matter of Revision of the Commission’s Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Petition of City of Richardson*, Order On Reconsideration, CC Docket No. 94-102, FCC 01-293, released November 26, 2002. See also, *Revision of the Commission’s Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, *Order on Reconsideration*, released Nov. 26, 2002.

contact with each of these PSAPs and is working to deploy Phase II E911 as soon as possible within mutually agreed upon time frames. Nextel will continue to dedicate significant resources to maintain its aggressive roll out schedule to PSAPs that are capable of receiving and using location technology.

Since October 1, 2002, its first implementation benchmark, Nextel has deployed Phase II service with 284 PSAPs, which are included in the Appendix. Notably, of these 284 PSAPs, 163 have been deployed since Nextel's May 1, 2003 Quarterly Report. Nextel remains actively engaged with PSAPs at multiple locations and anticipates deploying Phase II service in additional areas in the near future, including New York City; additional areas in the Commonwealth of Virginia; Orange County, Florida; and Suffolk, New York, consistent with mutually agreeable timeframes.

CONCLUSION

As required in the Nextel Waiver Order,¹² Nextel is providing this Quarterly Report to the Executive Directors and counsel of the Association of Public Safety Communications Officials-International, Inc. ("APCO"), the National Emergency Number Association ("NENA") and the National Association of State Nine One One Administrators ("NASNA"). Should any of these organizations or their individual PSAP members have questions or concerns about Nextel's submission, Nextel encourages them to contact Laura Holloway, at the number listed below, as soon as possible to facilitate rapid and efficient deployment of Nextel's Phase I and Phase II E911 services.

¹² Nextel Waiver Order at ¶32.

Respectfully submitted,
Nextel Communications, Inc.

By: 

Robert S. Foosner
Senior Vice President – Government Affairs

Laura L. Holloway
Vice President – Government Affairs

James Paull IV
Senior Manager – Government Affairs

2001 Edmund Halley Drive
Reston, VA 20191
(703) 433-4143

August 1, 2003