

**TESTIMONY**

**of**

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**Hearing**

**on**

**Wireless E911**

**Before the**

**Subcommittee on Communications**

**Committee on Commerce, Science, and Transportation**

**United States Senate**

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## **I. Introduction**

Good morning, Mr. Chairman and Members of the Subcommittee. Since it was first designated as "9-1-1 Emergency Number Day" in 1987, September 11th has come to symbolize our national reliance on the 911 infrastructure as a lifeline for help in emergencies. That symbol is now more meaningful than ever. The tragic events of September 11, 2001 may have delayed this hearing. But they also forcefully reminded us of the importance of this nation's emergency response system, and of the men and women of our police, fire and medical teams who go into emergencies to bring the rest of us out.

The Commission's wireless Enhanced 911 program ("E911") is one effort to help public safety and other emergency response personnel do their jobs faster and more effectively. I thank you for this opportunity to report to you on the Commission's policies and rules aimed at improving wireless E911 services throughout the Nation and, in particular, at implementing wireless E911. Let me emphasize for the record that the Commission is serious about ensuring the deployment of wireless E911. We recognize all too well that every second delayed in responding to an emergency call is a second lost in critical life-saving efforts. For that reason, the Commission has issued orders with very specific benchmarks and milestones, and we will be keeping a close and watchful eye on compliance with these requirements. We have put the carriers on notice that if they fail to adhere to the orders, they certainly will be subject to our enforcement authority.

## **II. Importance of Wireless Enhanced 911 Service**

Five years ago, the FCC set October 1, 2001 as the date for wireless carriers to begin the process of deploying a new and vital technology -- the technology to accurately report the location of wireless 911 calls. That process was based on a Consensus Agreement reached in 1996 between the wireless carrier community and the public safety community. The five-year development period, the specified accuracy standards, and the October 1, 2001 start date represented the parties' best estimate of an appropriate timetable and performance standards for development and initial deployment of Enhanced 911. In this regard, I think it is important to note that it was never contemplated that deployment would be a flash-cut process. Under the Commission's rules, it will take four or so years for Phase II to be ubiquitously deployed. For example, with handset-based technologies, the rules require carriers to hit progressively higher penetration levels for location capable handsets, until they achieve 95 percent penetration by the end of 2005. Similarly, with network-based solutions, a carrier is not required to deploy its network-based solution in a particular area until six months after it receives a valid request from the PSAP serving that area, or to complete that deployment until 18 months after such a request. Since the pace of PSAP requests and readiness for Phase II will vary substantially in different communities across the country, deployment on a nationwide basis will be on a graduated, incremental basis.

Since the original schedule was set, both Congress and the Commission have continued to focus on wireless 911 issues and, in my view, taken important steps towards the goal of a nationwide, ubiquitous, reliable E911 system. One of the cornerstones of this progress was the passage in October 1999 of S. 800, the Wireless Communications

and Public Safety Act of 1999. That Act mandated 911 as the universal number for emergency calling and cleared the way for full implementation of wireless E911 by, for example, addressing carrier liability protection and privacy issues. It also directed the Commission to work with all of the stakeholders in their efforts to make wireless 911 a reality.

On the FCC side, we have been actively engaged on E911 matters, particularly in encouraging new location technologies, addressing questions that have arisen in the course of deployment, and removing obstacles to implementation of E911. Among other things, we have:

- Increased the range of options available to carriers by permitting the use of new handset-based technologies, such as network-assisted GPS; and a “so-called” hybrid technology – one that combines elements of both handset- and network-based approaches.
- Adjusted and clarified our rules concerning certain operational issues affecting E911 implementation, for example, by eliminating a requirement that public safety agencies must pay wireless carriers for their costs of complying with the E911 mandate, and instead requiring that each party – carrier and PSAP – pay its own costs for implementation.
- Convened several multi-party meetings – including wireless carriers, technology vendors, equipment manufacturers, and members of the public safety community – to review the state of wireless location technology development.

- Performed extensive outreach, speaking at dozens of conferences and other events aimed at informing and educating interested parties, including state and local public safety agencies and carriers on our E911 rules and policies.

Today, there are more than 120 million wireless subscribers, and most PSAPs now receive about 30 to 50 percent of their 911 calls from wireless phones. This situation places increasing burdens on call takers at 911 call centers, particularly since accurate location information is not now provided for those calls. E911 Phase II is needed more than ever to help police, fire and emergency medical teams locate emergencies more quickly and do their life-saving work more effectively and efficiently.

### **III. Current Status of Wireless E911**

With the deployment of Phase II E911 now beginning, it is appropriate to ask how far have we come – and how far we have to go?

Frankly, we are disappointed that the process of making wireless E911 a reality is not further along. It goes without saying that there is a new sense of urgency around using mobile phones as important safety devices. There are always challenges involved in deploying any major new technology on a mass market basis for the first time, and wireless location technologies are no different, but we must push forward aggressively with a renewed commitment. To make the promise of wireless E911 a reality, much work remains to be done by PSAPs, equipment vendors, carriers, and government to meet the challenges involved in deploying these lifesaving technologies.

While we at the Commission are dissatisfied with the progress we have made thus far, we should recognize that some progress has been made. On the technology and

manufacturing front, location technologies have been developed and, while none is perfect, a number are now available or on the way that will locate wireless 911 calls accurately and reliably, consistent with the goals of the Commission's E911 rules. Under Phase II, the location of 911 calls will be reported in most instances with an accuracy of 100 meters or less. Network equipment and handsets with location capability are now being manufactured and sold to meet and exceed this benchmark. Although the development and delivery of some of this equipment lags behind what we originally contemplated, the equipment is now in production. We expect near-term delays in E911 equipment and technology needed by wireless carriers to be resolved soon in most cases.

On the public safety front, this community also has made substantial strides toward being able to receive and use wireless E911 location information. Many states have adopted legislation to provide funds to upgrade 911 dispatcher work stations with new technology, such as mapping software. Although relatively few 911 PSAPs apparently are currently ready to receive Phase II data, or have requested Phase II from carriers, they serve communities that would benefit from E911. In addition, many PSAPs and other public safety organizations have been active in developing and testing upgraded systems needed for Phase II. APCO's Project Locate is one example of the public safety community's efforts to solve the problems of integrating Phase II with existing E911 systems.

And on the carrier front, substantial progress in deploying Phase II has been made, though, again, efforts to reach full compliance must be redoubled. In short, carriers have made strides but not quickly enough. On October 5, the Commission announced decisions addressing requests from national wireless carriers and one public

safety agency regarding the deployment of Phase II. The Commission accepted, with conditions and certain modifications, the revised implementation plans of five major national wireless carriers – Nextel, Sprint, Verizon and the GSM portion of the AT&T Wireless and Cingular networks. Each of those carriers, in addition to the sixth national wireless carrier, VoiceStream, the subject of a Commission order last year, will be subject to clear, detailed, and enforceable plans to phase-in location capability. Taken together, these carriers serve more than 75 percent of wireless subscribers in the United States.

It bears emphasizing that these plans permit only limited, temporary departures from the Phase II rules. All carriers are required to achieve full compliance with the accuracy and reliability requirements in the rules. The compliance plans involve only modifications of the deployment schedule or temporary delays in meeting the accuracy standard, rather than any kind of a wholesale lifting of the rules. Under the plans, with limited exceptions, these major carriers will be required to be providing Phase II information to public safety answering points next year and to honor all valid PSAP requests by the end of the year. Under the plans, these carriers will achieve complete deployment of Phase II, in full compliance with the Commission's accuracy standards. This will occur in all areas across the nation where 911 call centers are ready and able to use this information, by the end dates in the existing Commission rules, that is, no later than December 31, 2005.

While accepting the plans means carriers will not be required to meet our previous October 1, 2001 benchmark, the Commission believes that these plans are the best way to move rapidly to full implementation of accurate and reliable location

capability for E911 calling. We examined each carrier request carefully, with the continuing objective of implementing Phase II as soon as possible and granting relief only when justified and necessary, and only to the extent the carrier presented a specific, focused, limited plan leading to full compliance.

Specifically, the Commission has taken the following actions, approving plans to implement E911 Phase II for five nationwide wireless carriers:

- With respect to three companies (Nextel, Sprint, and Verizon) that had met FCC requirements to provide a clear, detailed and enforceable plan to phase-in its ALI capabilities, the Commission agreed to take into account the companies' showings about equipment availability, and allow them to implement Phase II E911 according to a modified schedule for some of the initial 2001 and 2002 deployment milestones. It said it would strictly adhere to enforcement of these modified plans for meeting these alternative intermediate milestones and for completing E911 deployment by 2005.
- With respect to two companies, (AT&T and Cingular) that submitted E911 compliance plans for the GSM portion of their wireless networks, the Commission provided similar relief, also conditioned on strict FCC enforcement of their new schedules.
- The Commission noted that while AT&T and Cingular had submitted compliance plans for the TDMA portion of their networks, the timing of those submissions did not permit Commission consideration. Accordingly, discussions have been initiated between these carriers and FCC Enforcement



Bureau staff concerning possible consent decrees with the Commission to resolve this compliance issue.

The Commission stated that it expects wireless carriers to make E911 a corporate priority and to work aggressively to implement Phase II and to achieve full compliance as soon as possible. To monitor and enforce the compliance plans, the Commission required that each carrier file Quarterly Reports on its E911 deployment beginning February 1, 2002 through February 1, 2006, including reporting whether the carrier has met the terms of its compliance plan. The Commission indicated that any carrier failing to comply with its plan, or applicable provisions of the E911 rules, will be referred to the Commission's Enforcement Bureau.

We know that smaller and rural carriers may face special challenges in deploying Phase II location technology. We have received many waiver requests from smaller wireless carriers, and it is likely that others of the 1000 or so local and regional carriers face similar questions and difficulties. However, it is also clear that wireless E911 has great potential to save lives in rural areas and simply giving smaller or rural carriers a "pass" or indefinite extension for deploying these technologies would not serve the public interest. For these reasons, the Commission established a brief additional period, until November 30, for those smaller carriers to file requests for relief, if they have not already done so. The FCC will evaluate these filings to decide how best to address E911 implementation by these carriers as soon as possible. During this extended filing and evaluation period, the Commission will not initiate enforcement action under the Phase II rules against these carriers.

We at the FCC recognize the importance of Phase II deployment to public safety. I want to assure the Subcommittee that we are committed to taking whatever steps are necessary to ensure that Phase II proceeds to full compliance as soon as possible. To that end, the Commission took other steps to help clear the way for Phase II deployment:

- In response to a request by the City of Richardson, Texas, the Commission amended its rules to clarify the steps that 911 call centers should take to make a valid request for E911 service; and
- The Commission indicated it would conduct an ongoing inquiry on E911 technical issues, including technology standards issues, development of hardware and software, and supply conditions.

What, then is the bottom line for wireless E911? In important ways, Phase II will be deployed largely according to the schedule we had planned. Sprint announced on October 1 the offering of handsets with Assisted-GPS location technology. Other wireless carriers will also begin providing location-capable handsets and network equipment soon, and I expect customers, in many areas where PSAPs are ready to use this location information, will begin to shop for carriers and handsets that include this important safety feature. Under the approved plans, all the nationwide carriers will have completed implementation of Phase II by the end of the year 2005, as our rules provide. By that time, I also expect that public safety organizations will have made substantial progress in actually using wireless E911 location information to find people in emergencies in communities across America.

Because of the localized nature of 911 service, the number of different transmission standards in the U.S., and the number of parties who must all do their part,

this implementation process will be complex. It will, for example, involve several location technologies that are deployed on schedules that vary for different carriers and different communities. Small, rural carriers may face circumstances that warrant special consideration. Successful deployment will certainly require continued FCC oversight to ensure that carriers live up to their responsibilities and achieve full compliance with the Phase II requirements.

I am reassured by factual information indicating that wireless location technology is available, is being deployed in networks and handsets, and is capable of accurately locating 911 callers. As deployment proceeds, I expect that technology and system-wide performance will improve. I also expect that, as customers increasingly understand how location capability makes their lives safer, they will insist on having it available. They will come to rely on automatic wireless location in the same way that they rely on air bags and seatbelts in their cars. I am confident that the future of this technology is strong, once it is actually deployed and this "virtuous cycle" begins to kick in. But to get to that future, all of us involved in this process will have to redouble our efforts to see that the promise of this life-saving technology is fulfilled.

#### **IV. Conclusion**

To sum up, the beginning of E911 Phase II deployment is now underway. Working with the public safety community, the carriers, their suppliers, Congress and other governmental agencies, the FCC will continue its efforts to ensure that the E911 rollout process continues as rapidly as possible, so that by "9-1-1 Day" in the year 2005

we will be able to report that full deployment, as required by the Phase II rules, has been achieved on the scale envisioned by the Commission and by the Congress.

I would like to thank the Subcommittee for this opportunity to provide information on the Commission's wireless E911 program. I look forward to updating this information as wireless E911 advances and to answering any of your questions.