

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

In the Matter of	)	
	)	
Revision of the Commission's Rules To Ensure	)	
Compatibility with Enhanced 911 Emergency	)	CC Docket No. 94-102
Calling Systems	)	
	)	
Request for Waiver by Verizon Wireless	)	
	)	
	)	

**ORDER**

**Adopted: October 2, 2001**

**Released: October 12, 2001**

By the Commission: Chairman Powell issuing a separate statement; Commissioners Abernathy and Martin issuing separate statements; Commissioner Copps dissenting and issuing a statement.

**I. INTRODUCTION**

1. In this Order, we approve, with certain modifications, that portion of the compliance plan proposed by Cellco Partnership d/b/a Verizon Wireless (Verizon) for implementing Phase II of E911 service. Under the compliance plan we approve today, Verizon will deploy a network-assisted Global Positioning System/Advanced Forward Link Trilateration (AGPS/AFLT) handset solution for Enhanced 911 (E911) Phase II, as rapidly as possible, without waiting for a Phase II request from a Public Safety Answering Point (PSAP). In addition, Verizon will be required, on an interim basis, to implement the network-based solution it has proposed for three major metropolitan areas, and to deploy the Enhanced Forward Link Trilateration (EFLT) solution it has proposed in certain markets. With respect to those portions of its system providing only analog service, we require that if Verizon receives a valid PSAP request where more than 50% of the PSAP's coverage area is covered by the Verizon analog-only network, Verizon comply with the Commission's rules by using a network-based solution or by upgrading its network in those areas to a digital network that is Phase II compliant. Further, we require Verizon to file Quarterly Reports concerning its E911 implementation program, including both Phase I and Phase II deployments, to permit effective monitoring and enforcement of its progress and performance in complying with the rules and the terms and conditions of its plan. We find that approval of this compliance plan is justified by the special circumstances Verizon faces in deploying location capability, the lack of viable alternatives demonstrated by its trial of location technologies, and the overall benefits to public safety. We therefore grant a temporary, conditional waiver of the Commission's wireless E911 rules necessary to allow implementation of this plan.

2. With this Order, along with the companion wireless E911 orders adopted today, the Commission clears the way for the start of actual deployment of E911 Phase II. The deployment plans approved in these orders apply to carriers who serve more than 75 percent of all subscribers for wireless phone service in the United States. Under these plans the major national carriers will begin deploying technologies to locate wireless 911 callers within the next several months. They also should achieve complete deployment of Phase II in full compliance with the Commission's accuracy standards, 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 – *i.e.*, no later than December 31, 2005. These carriers must implement

Phase II in accordance with the terms of these approved schedules or they will be subject to enforcement action by the Commission. The Quarterly Reports to be filed by these carriers will allow the Commission to monitor the pace and overall progress of Phase I and Phase II deployment, and to facilitate the prompt enforcement of the milestones and other requirements of the plans approved today.

3. Despite the substantial progress to date, especially given the groundbreaking nature of these technologies, much remains to be done to achieve the FCC's fundamental goal of having wireless E911 Phase II capabilities deployed throughout the country. All necessary participants – carriers, the public safety community, technology vendors, network equipment and handset vendors, local exchange carriers, and this Commission – must continue to work aggressively in the coming months and years to ensure the promise of these new life saving technologies becomes a reality.

## II. BACKGROUND

### A. Phase II Framework

4. Under Phase II of the Commission's wireless E911 rules, wireless carriers are required to provide the location of wireless 911 callers, a capability known as Automatic Location Identification (ALI).<sup>1</sup> In establishing those rules, the Commission sought to be technologically and competitively neutral, allowing any location technology to be used that can comply with specified accuracy, reliability, and deployment schedule requirements. For example, the rules provide that handset-based location solutions must provide the location of wireless 911 calls with an accuracy of 50 meters for 67 percent of calls and 150 meters for 95 percent of calls.<sup>2</sup> Carriers using a handset-based solution also must begin to offer one entry-level model with location capability no later than October 1, 2001 and must ensure that 95 percent of their customers have location capable handsets no later than December 31, 2005.<sup>3</sup>

5. For carriers choosing a network-based solution, the rules provide that the technology must report the location of wireless 911 calls with an accuracy of 100 meters for 67 percent of calls and 300 meters for 95 percent of calls.<sup>4</sup> A carrier using a network-based solution must provide ALI to 50 percent of its coverage area, or 50 percent of its population, beginning on October 1, 2001 or within 6 months of a Public Safety Answering Point (PSAP) request, whichever is later, and to 100 percent of callers within 18 months of that request or by October 1, 2002, whichever is later. Wireless carriers subject to the rules were directed to report their Phase II plans, including the technologies they plan to use, by November 9, 2000.<sup>5</sup>

6. During the course of the E911 proceeding, the Commission recognized that the E911 deployment schedule was aggressive in light of the need for further technological advancement. Nonetheless, the Commission predicted that ALI technologies would generally be available in sufficient

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<sup>1</sup> See *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 18676 (1996). For additional information regarding the Commission's wireless E911 program, see <[www.fcc.gov/e911](http://www.fcc.gov/e911)>.

<sup>2</sup> 47 C.F.R. § 20.18(h)(2).

<sup>3</sup> 47 C.F.R. § 20.18(g).

<sup>4</sup> 47 C.F.R. § 20.18(h)(1).

<sup>5</sup> 47 C.F.R. § 20.18(i). See [www.fcc.gov/e911](http://www.fcc.gov/e911), Wireless E-911 Phase II Automatic Location Identification Implementation, Reports From Wireless Carriers.

time for carriers to comply.<sup>6</sup>

7. The Commission also recognized, however, that requests for waiver may be justified based on specific showings and discussed standards for such requests in the *E911 Fourth Memorandum Opinion and Order*.<sup>7</sup> In the *E911 Fourth Memorandum Opinion and Order*, we explained that we would expect requests for waiver to be specific, focused, and limited in scope, with a clear path to full compliance.<sup>8</sup> We also stated that carriers should undertake concrete steps necessary to come as close as possible to full compliance and should document their efforts, including the solutions they considered and why none could be employed in a way that complies with our Phase II rules. Finally, we stated that carriers should not expect to defer implementing a location solution if one is available and feasible.<sup>9</sup>

## **B. Summary of Verizon's Request**

8. Wireless carriers subject to the E911 rules were directed to report details regarding their Phase II implementation plans, including the technologies they plan to use, by November 9, 2000.<sup>10</sup> On November 9, 2000, Verizon filed an E911 Phase II report in which it stated that it planned to deploy a network-based solution for its CDMA system. At that time, Verizon stated that it would continue to evaluate handset-based solutions as alternative location technologies. In its Updated E911 Phase II Report and Request for Limited Waiver<sup>11</sup> filed on July 25, 2001, Verizon proposes a network-assisted Global Positioning System/Advanced Forward Link Trilateration (AGPS/AFLT)<sup>12</sup> solution for Phase II E911. In its request for relief, Verizon explains that it based its decision on the status of location technology development and on the expected availability of that technology. Although Verizon developed and tested network-based technology, Verizon states that, "based on all available information, it determined that the AGPS/AFLT handset solution would provide the best and most ubiquitous location capability while presenting fewer of the problems that surfaced with the network technology."<sup>13</sup> Thus, Verizon claims that approval of its comprehensive compliance plan for deployment of an AGPS/AFLT solution on its CDMA system will better serve the public interest by more rapidly providing more accurate location information.

9. Specifically, Verizon seeks a limited waiver of the deployment schedule set forth in section 20.18(g)(2) of the Commission's rules. Verizon seeks to deploy AGPS/AFLT on a timeline that is based on scheduled releases from its three network infrastructure vendors, Lucent, Nortel, and

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<sup>6</sup> *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Fourth Memorandum Opinion and Order, 15 FCC Rcd 17442, 17457-58 (2000) (*E911 Fourth Memorandum Opinion and Order*).

<sup>7</sup> *Id.*

<sup>8</sup> *Id.* at 17457, para. 44.

<sup>9</sup> *Id.* at 17457-58, paras. 44-45.

<sup>10</sup> 47 C.F.R. Section 20.18(i). See Wireless Telecommunications Bureau Provides Guidance on Carrier Reports on Implementation of Wireless E911 Phase II Automatic Location Identification, Public Notice, DA 00-2099 (rel. Sept. 14, 2000).

<sup>11</sup> Verizon Wireless Updated Phase II E911 Report and Request for Limited Waiver, filed July 25, 2001 (*Verizon Request*).

<sup>12</sup> AGPS is a handset modification incorporating additional hardware and software that allows the handset to identify signals from GPS satellites for the purpose of generating location information. AFLT is a handset modification incorporating additional software that allows the handset to utilize signals from cell sites to generate location information. *Verizon Request* at 8-9.

<sup>13</sup> *Verizon Request* at 3.

Motorola, and on the availability of compliant handsets. Verizon proposes that it be permitted to adopt the following revised schedule for the deployment of its AGPS/AFLT location technology:<sup>14</sup>

- Begin deploying the network-assisted portion of AGPS/AFLT by October 1, 2001<sup>15</sup> in its switches and cell sites for Lucent markets; January 1, 2002 for Nortel markets and November 1, 2002 for Motorola markets.
- Complete deployment of these network upgrades by April 1, 2002 for Lucent markets; August 1, 2002 for Nortel markets; and March 1, 2003 for Motorola markets.

10. Verizon also requests a limited waiver of the deadlines set forth in section 20.18(g)(1) of the Commission's rules for the activation of handsets. Verizon claims that because of the long process required for commercial development, testing, manufacture, distribution, and sale, and the lead time required for the negotiation of the necessary contracts, the Commission's current handset deployment schedule is unachievable. Verizon therefore proposes that it be permitted to adopt the following alternative handset activation and penetration benchmarks:<sup>16</sup>

- Begin selling AGPS/AFLT Phase II compliant handsets no later than December 31, 2001;
- 25% of new handsets activated are AGPS/AFLT compliant by July 31, 2002;
- 50% of new handsets activated are AGPS/AFLT compliant by March 31, 2003;
- 100% of new handsets activated are AGPS/AFLT compliant by December 31, 2003; and
- 95% of embedded base is AGPS/AFLT compliant December 31, 2005.

11. To bridge the transition to AGPS/AFLT, Verizon indicates that it intends to pursue two interim measures, separate and apart from deploying its AGPS/AFLT solution. Verizon claims that these interim measures for the CDMA portion of its system will provide network-based location information to PSAPs for many customers until AGPS/AFLT is deployed. First, Verizon plans to install an interim network-based technology in three major metropolitan areas beginning December 31, 2001.<sup>17</sup> Second,

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<sup>14</sup> *Id.* at 21.

<sup>15</sup> Based on information provided by Lucent as to its schedule for First Office Application (FOA) testing, Verizon's initial request stated that the Lucent-furnished upgrades were expected to be deployed beginning October 1, 2001. Lucent subsequently advised Verizon that FOA testing is expected to be completed in late October-early November 2001 and that the new target availability date is early November 2001. *See Verizon Reply Comments* at 4; *see also* Lucent Letter, dated August 20, 2001, from Franklin J. Novello, Sales Vice President, Verizon Wireless Consumer Team, to Larry Rybar, Executive Director, Technology and Implementation, Verizon Wireless.

<sup>16</sup> *Verizon Request* at 19-20.

<sup>17</sup> *See* Letter from Kathryn A. Zachem, of Wilkinson, Barker and Knauer, on behalf of Verizon Wireless, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 94-102 (filed Sept. 27, 2001) (*Verizon September 27<sup>th</sup> Ex Parte*). Verizon had originally committed to provide Phase II capability using network-based hardware to 50 percent of St. Clair County, Illinois (St. Louis market) and to 50 percent of Lake County, Indiana (Gary-East Chicago market) by October 1, 2001, and to the remaining 50 percent of St. Clair County, Illinois (St. Louis market) and the remaining 50 percent of Lake County, Indiana (Gary-East Chicago market), as well as 100 percent of five counties, including DuPage County, Illinois (Chicago), Madison County, Illinois (continued....)

Verizon plans to continue testing and, if the testing proves successful, deploy by April 1, 2002 an EFLT Phase II solution in all markets where it uses Lucent switches, followed closely by markets where it uses Nortel switches.<sup>18</sup>

### C. Position of Interested Parties

12. The Verizon request for relief was placed on public notice on July 31, 2001.<sup>19</sup> Comments largely supportive of the request for relief were filed by AT&T Wireless Services, Inc. (AT&T), Motorola, Inc. (Motorola), and the Cellular Telecommunications & Internet Association (CTIA). Joint Comments were also received from 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) (Public Safety Organizations). Verizon and Qualcomm Incorporated filed reply comments in support of Verizon's request for relief.<sup>20</sup> AT&T fully endorses Verizon's request for relief.<sup>21</sup> Motorola supports Verizon's request with some modification and clarification of the timeline for activation of handsets and switch infrastructure implementation. Motorola emphasizes that in order to enable AGPS/AFLT in a network, the Position Determining Entity (PDE) and Mobile Positioning Center (MPC) must be integrated with the entire network infrastructure. With this in mind, Motorola indicates that the timeline presented in Verizon's request is slightly misstated because Motorola's cell site software will be generally available prior to the general availability of the Mobile Switching Center (MSC) switch software.<sup>22</sup> Therefore, Motorola states that it expects to deploy a complete release for Phase II AGPS/AFLT enabled network infrastructure in the Second Quarter of 2002, rather than in early 2002 as Verizon has estimated. Motorola notes, however, that these general availability dates are based upon the use of an AGPS/AFLT solution interfacing with a SignalSoft MPC and SnapTrack PDE, which Verizon has not indicated to Motorola it will use.<sup>23</sup> CTIA contends that granting Verizon's waiver would be consistent with the Commission's policy of technological neutrality for E911.<sup>24</sup>

13. While the Public Safety Organizations acknowledge that Verizon's approach to deployment has merit, they seek verification and clarification of several assertions made by Verizon. Specifically, the Public Safety Organizations raise the following issues and questions: why Verizon is not deploying a mix of technologies (network and handset-based) nationwide;<sup>25</sup> verification of equipment

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(Chicago), Cook County, Illinois (Chicago), St. Louis County, Missouri (St. Louis), and Harris County, Texas (Houston) by April 1, 2002. *See Verizon Request* at 29-30. Verizon subsequently indicated that it could not meet the 50% deployment on October 1, 2001 but accelerated the 100% deployment date from April 1, 2002 to December 31, 2001 for St. Clair County and Lake County, and dropped DuPage County and Madison County based on updated PSAP desires in those counties. *See Verizon September 27<sup>th</sup> Ex Parte*.

<sup>18</sup> *See Verizon Request* at 28. Verizon reports that Motorola's architecture cannot presently support EFLT because a new platform is required. Motorola has further advised Verizon Wireless that it could potentially deliver a new platform in Software Release 17, which is scheduled for FOA in 2003.

<sup>19</sup> WTB Seeks Comment on Wireless E911 Phase II Waiver Request Filed by Verizon Wireless, Public Notice, DA 01-1836 (rel. July 31, 2001).

<sup>20</sup> Comments and Reply Comments filed in response to Verizon's request are listed in Appendix A.

<sup>21</sup> *AT & T Comments* at 1-6.

<sup>22</sup> *Motorola Comments* at 4.

<sup>23</sup> *Id.* at 5.

<sup>24</sup> *CTIA Comments* at 4.

<sup>25</sup> *Public Safety Organizations Comments* at 3.

delivery dates and vendor manufacturing schedules;<sup>26</sup> and clarification as to whether Verizon intends to activate Phase II based on switch upgrades rather than waiting for PSAP requests.<sup>27</sup> In addition, they ask the Commission to scrutinize and compare the deployment schedules of Sprint and Verizon and they find Verizon's EFLT interim solution lacking due to the lack of a firm commitment and a definite schedule.<sup>28</sup> Further, the Public Safety Organizations ask that Verizon document the number of Motorola subscribers served by Motorola switches that will be deprived of a Phase II solution until March 1, 2003.<sup>29</sup> Qualcomm disagrees with the Public Safety Organizations' criticism of Verizon's choice of technology and their request that the Commission seek additional information.<sup>30</sup>

14. In its reply comments, and in supplemental filings, Verizon addressed the comments of record.<sup>31</sup> Verizon argues that the differences in timelines noted by Motorola are attributable to the fact that each carrier employing Motorola's infrastructure will have to perform FOA tests and it states that it may not be the first carrier chosen to perform those tests.<sup>32</sup> Verizon alleges that its deadlines were based on projections of when a FOA is likely to occur.<sup>33</sup> Verizon disagrees with the appropriateness of the Public Safety Organizations' comparison of Verizon's timelines with Sprint's timelines.<sup>34</sup> Verizon asserts that each carrier is faced with factors specific to the individual carrier. For example, Verizon notes that it must sell products with tri-mode capability (digital, analog, and PCS frequencies), whereas Sprint is a PCS carrier requiring only a single mode of capability.<sup>35</sup>

15. Verizon asserts that it has invested substantial resources in adding digital network coverage as an "overlay" to its original cellular technology.<sup>36</sup> Verizon indicates that its network provides digital coverage to approximately 90 percent of the population it serves, and that it expects digital coverage to reach almost 100 percent by the end of 2003. Although the percentage of analog customers "varies widely by market," Verizon indicates that about 35 percent of its customers nationwide have analog-only handsets.<sup>37</sup>

### III. DISCUSSION

16. We conclude that, based on the record, granting Verizon's proposed compliance plan and its request for limited relief subject to the modifications specified below is consistent with the Commission's standards for E911 Phase II relief. We analyze below this request under the standard for Phase II relief set forth in the *E911 Fourth Memorandum Opinion and Order*.

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<sup>26</sup> *Id.* at 4.

<sup>27</sup> *Id.* at 6.

<sup>28</sup> *Id.* at 4 -5.

<sup>29</sup> *Id.* at 5-6.

<sup>30</sup> *Qualcomm Reply Comments* at 1-4.

<sup>31</sup> *See Verizon Reply Comments* at 2-8.

<sup>32</sup> *Id.* at 6-7.

<sup>33</sup> *Id.* at 6.

<sup>34</sup> *Id.* at 8-9.

<sup>35</sup> *Id.* at 8.

<sup>36</sup> *Id.* at 7.

<sup>37</sup> *Id.* at 6-7. Verizon indicates that the number of analog-only customers is "steadily dropping," and that its larger markets have relatively fewer analog customers.

**A. Verizon Has Satisfied the Commission's Standard for E911 Phase II Relief**

17. *Plan That Is Specific, Focused, and Limited in Scope.* Verizon's compliance plan and request for relief, as it relates to the digital portion of its system, is specific, focused, and limited in scope, and is in accordance with Commission guidelines. Verizon alleges that it seeks to reach as many customers as possible, with what it believes to be the most accurate technology, deployed in the shortest time frame.<sup>38</sup> Verizon explains that it had initially pursued a network-based solution but subsequently abandoned that approach because it "has become clear from Verizon's own testing and the record in this proceeding that there will not be a network technology that can meet required deadlines."<sup>39</sup> Verizon states that it selected the AGPS/AFLT Phase II handset-based solution for its CDMA system because AFLT provides accurate location information in urban environments, while AGPS provides accurate location information in rural environments.<sup>40</sup> Verizon emphasizes that it does not seek a waiver of the Commission's Phase II accuracy standards,<sup>41</sup> and argues that a temporary waiver of the Commission's implementation deadlines is justified because, although a network assisted handset-based solution will provide the most accurate level of location information, the AGPS/AFLT solution cannot be deployed within those deadlines.

18. Although Verizon's proposed deadlines delay the roll out of Phase II service beyond the dates established in section 20.18, those deadlines are specific and are keyed to the particular, varied characteristics of its infrastructure and the time required to upgrade specific vendors' switches to accommodate the AGPS/AFLT location technology. Verizon plans to begin selling AGPS/AFLT Phase II compliant handsets no later than December 31, 2001 and to meet the following milestones for new handset activations: 25% of new handsets by July 31, 2002; 50% of new handsets by March 31, 2003; 100% of new handsets by December 31, 2003; and 95% of all handsets by December 31, 2005. Verizon also proposes to begin deploying the network-assisted portion of AGPS/AFLT by early November, 2001 in its switches and cell sites for Lucent markets; January 1, 2002 for Nortel markets; and November 1, 2002 for Motorola markets.<sup>42</sup> Verizon proposes to complete deployment of these network upgrades by April 1, 2002 for Lucent markets; August 1, 2002 for Nortel markets; and March 1, 2003 for Motorola markets. The deadlines are specific, in terms of commencement as well as in terms of completion of roll-out. Verizon indicates, based on its system configuration and respective vendor schedules, that it "expect[s] to have network upgrades completed in markets serving 65% of the population we cover (e.g., in Lucent-switched markets) by April 2002." Thus, within six months, Verizon will perform upgrades to its network that will reach 155 million Verizon customers, and Verizon indicates that this "number will increase from 155 million to 195 million by August 2002 as upgrades are made in Nortel markets and to 235 million by March 2003 as the Motorola-switched markets are upgraded."<sup>43</sup>

19. The proposed deadlines appear to be realistic. Verizon advises that the specific,

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<sup>38</sup> *Verizon Request* at 18.

<sup>39</sup> *Verizon Request* at 3.

<sup>40</sup> *Id.* at 9.

<sup>41</sup> *Id.* at 18; *see also Qualcomm Reply Comments* at 1-2.

<sup>42</sup> Based on information provided by Lucent as to its schedule for FOA testing, Verizon's initial request stated that the Lucent-furnished upgrades were expected to be deployed beginning October 1, 2001. Lucent subsequently advised Verizon that FOA testing is expected to be completed in late October-early November 2001 and that the new target availability date is early November. *See Verizon Reply Comments* at 4; *see also* Lucent Letter, dated August 20, 2001 from Franklin J. Novello, Sales Vice President Verizon Wireless Consumer Team to Larry Rybar, Executive Director, Technology and Implementation, Verizon Wireless.

<sup>43</sup> *See Verizon Reply Comments* at 3-4.

aggressive implementation deadlines it has proposed are based on vendor negotiations, and that it expects to meet those deadlines, barring unforeseen delays in product availability and delivery. We note that Sprint's deployment schedule appears on the surface to be more aggressive than Verizon's because it completes all necessary switch upgrades by August 1, 2002.<sup>44</sup> Verizon's switch upgrades are scheduled to be completed April 1, 2002 for Lucent markets, August 1, 2002 for its Nortel markets, and March 1, 2003 for its Motorola markets. We find Verizon's proposed deadlines for its Lucent and Nortel switches reasonable and largely consistent with those of Sprint. As to its Motorola switches, while the switch upgrades lag behind those of Lucent and Nortel, Verizon has documented the particular problems with those upgrades and committed to what we find to be a reasonable schedule, given the problems.<sup>45</sup>

20. We note that Verizon has committed to July 31, 2002 as the date for reaching the 25% activation benchmark, March 31, 2003 for reaching the 50% benchmark, and December 31, 2003 for reaching the 100% benchmark. Sprint, also a CDMA carrier, proposed a different schedule,<sup>46</sup> that allows Sprint to achieve compliance with our rules by December 31, 2002. By way of explanation, Verizon states that it must sell products that contain tri-mode capability to accommodate its operations, whereas Sprint, as a PCS carrier, is not confronted with the same issue.<sup>47</sup> Verizon also notes that its projections are in line with those proposed by ALLTEL and Qwest and warns against categorical comparisons with other wireless carriers.<sup>48</sup> We are persuaded by Verizon's argument that there are differences between Verizon and Sprint that have reasonably affected their individual deployment schedules. First, we note that Verizon has a much larger subscriber base to which it must deploy ALI-compliant handsets. According to end of the year 2000 statistics, Verizon has a subscriber base of approximately 27,500,000; whereas, Sprint has a subscriber base of approximately 9,543,000. Second, Verizon operates on three different combinations of spectrum and air interfaces (800 MHz analog, 800 MHz digital, and 1900 MHz PCS), and for its national plans, as well as some regional plans, a tri-mode phone must be used, which is available from a more limited number of vendors. Sprint operates solely a PCS network at 1900 MHz and uses digital only phones. Because of these factors, we agree with Verizon that its compliance is more complicated due to the challenges it faces. Nonetheless, although part of its delayed handset deployment schedule may be attributable to these factors, we also note that with the filing of its request only recently, Verizon made a significant change in its plans for complying with the Commission's E911 Phase II rules – from a network-based solution to a handset-based solution. Our rules and orders allow for such a change; nonetheless, had Verizon more timely selected a handset approach, it might have been able to meet a more aggressive handset deployment schedule than that it ultimately proposed. Given the critical public safety concerns underlying our E911 rules, Verizon must meet, if not exceed, its December 31, 2003 deployment deadline.

21. Additionally, we recognize that Verizon may have received a number of valid Phase II PSAP requests that under the Commission's rules must be satisfied within 6 months and that Verizon may continue to receive such requests in the future.<sup>49</sup> Because Verizon commits to upgrade its switches,

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<sup>44</sup> Sprint has committed to completing roll-out of its Lucent switch upgrades by May 30, 2002 and to roll-out of Nortel switch upgrades by August 1, 2002. See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket 94-102, Request for Waiver by Sprint Spectrum L.P. d/b/a Sprint PCS (filed July 30, 2001) (*Sprint Request*).

<sup>45</sup> *Verizon Request* at 23-25.

<sup>46</sup> *Sprint Request* at 5-6; *Sprint Reply Comments* at 12.

<sup>47</sup> *Verizon Reply Comments* at 8.

<sup>48</sup> *Id.*

<sup>49</sup> See Letter from John T. Scott, III, Vice President and Deputy General Counsel Regulatory Law, Verizon Wireless, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket 94-102 (filed Sept.

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regardless of whether it has received PSAP requests in many areas, we believe establishing a schedule for responding to PSAP requests will promote an efficient roll-out of Phase II service. Therefore, on or before December 31, 2002, Verizon must complete all valid PSAP requests received on or before June 30, 2002, except in markets served by Motorola switches. In Motorola markets, on or before March 31, 2003, Verizon must complete all valid PSAP requests received on or before September 30, 2002. In markets served by Lucent and Nortel switches, Verizon must complete valid PSAP requests received on or after July 1, 2002 within six months of the request, as provided in the Commission's rules. In markets served by Motorola switches, Verizon must complete valid PSAP requests received on or after October 1, 2002 within six months of the request, as provided in the Commission's rules

22. We conclude that Verizon's compliance plan and request for relief present a reasonable proposal to deploy the AGPS/AFLT solution. We agree with Qualcomm that Verizon's AGPS/AFLT solution, which combines GPS satellite technology with network components, contains an appropriate "mix of technologies" in accordance with Commission rules.<sup>50</sup> Verizon has specifically described in a very focused manner the technological issues and exceptional circumstances that form the basis of an acceptable request for relief. Applying the standards the Commission used in the *E911 Fourth Memorandum Opinion and Order* in granting the VoiceStream waiver, we find that Verizon's proposal seeks to offer "significant public safety benefits" by immediately providing a level of accuracy and reliability, while also ensuring the rapid initial deployment of Phase II capability.<sup>51</sup> The majority of commenters agree that not only has Verizon presented a request for relief that is specific, limited and focused, but it has also presented a compelling case for a temporary waiver of the Commission's Phase II E911 rules.<sup>52</sup>

23. ***As Close As Possible to Full Compliance.*** Based on the evidence before us, we believe that Verizon has also demonstrated that it has taken concrete steps to come as close as possible to full compliance. Verizon states that it is persuaded that AGPS/AFLT is the best solution available, and commits to deploying this solution as aggressively as possible. Verizon seeks to deploy its AGPS/AFLT technology on a timeline consistent with the scheduled switch and cell software releases from its three network vendors, Lucent, Nortel, and Motorola, and on the availability of compliant handsets. In its vendor negotiations, Verizon has emphasized the Commission's handset activation milestones.<sup>53</sup> Verizon's proposed compliance plan is therefore premised on a realistic assessment of deployment dates.

24. Verizon's deployment of two interim measures is a primary indicator that it has taken and will take concrete steps to come as close as possible to full compliance with the Commission's Phase II rules for the digital portion of its network.<sup>54</sup> As mentioned, EFLT is a network-based technology that has

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11, 2001) (*Verizon Wireless September 11<sup>th</sup> Ex Parte*). As of September 11, 2001, Verizon had received 90 Phase II PSAP requests.

<sup>50</sup> *Qualcomm Reply Comments* at 3-4; *Public Safety Organization Comments* at 3; see also *E911 Fourth Memorandum Opinion and Order*, 15 FCC Rcd at 17461-17464, paras. 57-60.

<sup>51</sup> *Id.* at 17461-17463 (paras. 57-60); see also *AT&T Comments* at 2.

<sup>52</sup> *AT&T Comments* at 2-3; *CTIA Comments* at 4; *Motorola Comments* at 2.

<sup>53</sup> *Verizon Reply Comments* at 4.

<sup>54</sup> *Verizon Request* at 28, n.25. Verizon notes that the PSAP community has recognized the significance of the deployment of an interim technology in assessing carriers' efforts to come as close as possible to meeting the Commission's Phase II rules.

the potential to give PSAPs and Verizon greater location accuracy than exists under Phase I.<sup>55</sup> The advantages of EFLT, as an interim solution, are that it can be deployed without the need to install hardware at each cell site and service can be provided using existing handsets, although it cannot be deployed on the portion of Verizon's network served by Motorola switches.<sup>56</sup> Furthermore, Verizon's commitment to deploy a network-based solution<sup>57</sup> in three major metropolitan areas is a strong indication that Verizon has taken concrete steps toward Phase II compliance. We note that Verizon maintains that this could very well constitute the first Phase II service to PSAPs in the nation.<sup>58</sup> Thus, based on the evidence of record, we conclude that Verizon has taken concrete steps to ensure that it comes as close as possible to full compliance with our Phase II requirements. Therefore, Verizon, as previously indicated, must install a network-based technology in counties with Phase II requests and previously tested network components. Specifically, Verizon must provide Phase II capability to 100% of two counties, St. Clair County, Illinois (St. Louis) and Lake County, Indiana (Gary-East Chicago market) by December 31, 2001. In addition, Verizon must provide Phase II capability to 100% of Cook County, Illinois (Chicago), St. Louis County, Missouri (St. Louis) and Harris County, Texas (Houston) by April 1, 2002.<sup>59</sup> Verizon must also deploy the EFLT solution in its Lucent and Nortel markets by April 1, 2002. The status and availability of EFLT for use in Motorola markets will be a part of Verizon's reporting requirements, as discussed below.

25. ***Clear Path to Full Compliance.*** Finally, Verizon presents a clear path to full Phase II compliance for the digital portions of its network. Verizon remains committed to the Commission's accuracy requirements. After considerable testing of a network-based solution,<sup>60</sup> with what Verizon claims to be disappointing results, Verizon has selected a feasible alternative solution and compliance plan that will enable it to conform to the Commission's rules in what it considers to be the shortest timeframes possible. It is actively pursuing testing of that solution on its Lucent infrastructure at two sites. Verizon is conducting tests with Lucent in New Jersey on its infrastructure and PDE and promises to provide the test results to the Commission "in late September." It expects to complete the FOA at this site by late October 2001. Verizon also advises that an FOA and testing of switch and cell site software, PDE and MPC technology are presently underway in Dallas, Texas. Verizon concludes that, in the absence of delays in the availability of Lucent switches and upgrades,<sup>61</sup> "the April 1, 2002 date for

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<sup>55</sup> We note that the 250 to 350 meter accuracy levels that can be achieved by EFLT are similar to the accuracy levels of the solutions AT&T and Cingular proposed to use for their TDMA networks. We view Verizon's EFLT solution as different, however, because it is a "true" interim solution that Verizon will use as it phases in its AGPS/AFLT solution, whereas AT&T and Cingular proposed to use their TDMA solutions for an extended period of time or with no firm phase-out commitment.

<sup>56</sup> Verizon has a total network coverage of approximately 235 million people. Of that, approximately 40 million Verizon customers are served by Motorola switches. *See Verizon Reply Comments* at 3-4.

<sup>57</sup> In May and June of 2001, Verizon participated in live testing in Houston, Texas with three vendors: Grayson Wireless, which is providing the Position Determining Equipment/Entity (PDE), Lucent, which is providing switches and switch upgrades, and Intrado, which is providing the Service Control Point/Mobile Positioning Center (SCC/MPC) database.

<sup>58</sup> *Verizon Request* at 29.

<sup>59</sup> We recognize that Verizon's obligation to deploy its network-based solution in these counties extends only to those portions of these counties covered by a valid PSAP request.

<sup>60</sup> *Id.* at 32-37. Verizon conducted trials of cell site equipment and technology with TruePosition and Grayson in the year 2000.

<sup>61</sup> *See* Lucent Letter, dated August 20, 2001 from Franklin J. Novello, Sales Vice President, Verizon Wireless Consumer Team, to Larry Rybar, Executive Director, Technology and Implementation, Verizon Wireless. Lucent originally estimated that E911 network features would be generally available in early September. Due to delays in its testing schedule, the new general availability date for E911 Phase II compliance is changed to November 9, 2001.

nationwide deployment [in Lucent markets] remains feasible.”<sup>62</sup> As CTIA argues in its comments, approval of Verizon’s selection of the AGPS/AFLT network-assisted handset-based solution is consistent with the Commission’s goal of technological neutrality.<sup>63</sup> In addition, its deployment of an interim, network-based solution is evidence of its desire to provide Phase II service as early as possible, by any available means.

26. Verizon’s revised compliance plan schedules for handset activation, too, are the result of its efforts to identify realistic availability dates and represent a clear path to full Phase II compliance. Verizon expects widespread availability of new handsets with AGPS/AFLT capability during the second half of 2002, and it plans to meet the 100 percent benchmark in our rules by December, 2003.<sup>64</sup> It chronicles communications with its “core suppliers” to achieve handset availability as quickly as the design, manufacture and distribution process will permit.<sup>65</sup> Given the circumstances, we conclude that Verizon has committed to an aggressive and clear path toward full compliance.<sup>66</sup>

**B. Justification for Partial Grant of Verizon’s Compliance Plan and Request for Relief Regarding the Use of Analog-Only Handsets.**

27. Verizon has provided no compliance plan for those portions of its system providing only analog service; yet analog-only service continues to constitute a significant portion of its customer base. As noted, 10 percent of Verizon’s service areas have no digital service; about 35 percent of Verizon’s customers have analog-only handsets.<sup>67</sup> These numbers represent a substantial portion of Verizon’s customer base that cannot avail itself of the benefits of Phase II service and for which Verizon has made no provision in its compliance plan and request for relief.

28. Verizon argues that its manner of addressing non-ALI capable handsets is as was intended by the Commission.<sup>68</sup> Verizon notes that the Commission has recognized that handset solutions present problems in universal coverage, because those without ALI-capable handsets, such as roamers and those using older handsets, might not receive Phase II ALI. Verizon also argues that the Commission has stated that any concerns associated with non-ALI capable handsets and roamers can be addressed and minimized within a reasonable time. Verizon emphasizes that its analog-only coverage is steadily decreasing and argues that the fact that the 100% new activation benchmark only applies to digital handsets underscores the Commission’s expectation that the embedded base of handsets would be phased out over time. Verizon further argues that in adopting the interim benchmarks and the 2005/95 percent requirement, the Commission directly addressed concerns that handset-based solutions might not adequately account for a carrier’s non-ALI capable handsets.

29. The handset activation rules cited by Verizon have never been the only requirement placed on carriers selecting a handset solution with respect to their analog network and customers. For

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<sup>62</sup> See *Verizon Reply Comments* at 4-5.

<sup>63</sup> *CTIA Comments* at 4.

<sup>64</sup> *Verizon Reply Comments* at 8-9.

<sup>65</sup> *Id.* at 8. Verizon notes that “meeting the prescribed benchmarks [for handsets] entails not only the availability of adequate commercial volumes but also widespread customer demand and acceptance.”

<sup>66</sup> *Verizon Request* at 19, *Verizon Reply Comments* at 8.

<sup>67</sup> *Verizon Reply Comments* at 7.

<sup>68</sup> See Letter from Kathryn A. Zachem, Wilkinson, Barker and Knauer, on behalf of Verizon Wireless, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 94-102 (filed Sept. 20, 2001) (*Verizon September 20<sup>th</sup> Ex Parte*).

instance, the Commission never intended that in areas where there is analog-only access, customers would not receive any Phase II service at all for an indefinite period of time. The Commission requires that carriers take a “best practice” approach to providing ALI to callers who do not have ALI-capable handsets where the PSAP is able to receive and use Phase II ALI service.<sup>69</sup> The Commission further recognized that depending upon the transmission technology the carrier uses and the location technologies available in particular locations, carriers could exercise several options to fulfill this obligation. While the Commission decided that a “best practices” approach did not require that carriers selecting a handset approach deploy a broadscale network approach in order to take care of all roamers and customers with analog-only handsets, we find that it is not sufficient, in all instances, to wait until Verizon has migrated all of its networks and customers, given Verizon’s significant number of analog-only customers and analog-only areas. Thus, we conclude that when Verizon receives a valid PSAP request where more than 50% of the PSAP’s coverage area is covered by the Verizon analog-only network, Verizon must comply with the Commission’s Phase II rules by using a network-based solution or by upgrading its network to a digital network with a Phase II compliant solution in that area.

### C. Additional Conditions of Relief Granted

30. To assist in monitoring and enforcing each of the conditions imposed on Verizon, as set forth in summary form below, we also require that Verizon file Quarterly Reports with the Chief of the Enforcement Bureau and the Chief of the Wireless Telecommunications Bureau. Because mere assertions of compliance with the conditions of this order and with our rules are not sufficient to show compliance, these reports are intended to provide specific, verifiable information to allow us to monitor Verizon’s progress closely and determine whether Verizon is in compliance with each of the benchmarks and conditions of this order and with other applicable provisions of the E911 rules, permitting prompt enforcement action if necessary.<sup>70</sup>

31. Specifically, the Quarterly Reports must include the following information:<sup>71</sup>

- The Report must include information on all pending Phase I and Phase II requests, including the name of the PSAP, the date the request was received by the carrier, whether or not Verizon claims it is valid, and its status. To the extent any request has been pending for more than six months, Verizon must identify the specific reasons underlying the failure to provide the requested service, the steps Verizon has taken to resolve the problems, and the anticipated date of full completion of the work necessary to deliver the requested information to the PSAP in question. If Verizon believes there are questions concerning a PSAP’s compliance with the conditions necessary for a valid Phase I or II request, such as its readiness to receive and utilize Phase I or Phase II information, it should identify specifically the question and the efforts it has undertaken, including the communications it has had with the PSAP, to resolve the question. Further, to help keep PSAPs informed, we direct Verizon to serve this report on APCO, NENA, and NASNA.<sup>72</sup> In addition, the Commission will post this

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<sup>69</sup> See *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Third Report and Order, 14 FCC Rcd 17388, 17414 -17415 at paras. 55-58 (1999).

<sup>70</sup> To the extent Verizon believes any of the required information is proprietary, it may file a request for confidential treatment pursuant to 47 C.F.R. § 0.459.

<sup>71</sup> We delegate authority to the Chiefs of the Wireless Telecommunications Bureau and the Enforcement Bureau to require Verizon to provide additional information in its Quarterly Reports, if necessary to evaluate Verizon’s compliance with the terms and conditions of the relief granted, and its progress in deploying Phase I and Phase II E911 services.

<sup>72</sup> Verizon should serve the Executive Director of each organization as well as its counsel, to extent such counsel has been identified in the record in response to Verizon’s request for relief.

information on its website.<sup>73</sup> Because it is important for each individual PSAP with a pending Phase I or Phase II request to have access to this information, we authorize the Wireless Telecommunications Bureau to require additional steps necessary to ensure PSAP access to this information.

- With respect to its handset deployment, Verizon must report, in the Quarterly Report immediately following the benchmark date:<sup>74</sup> (1) for the December 31, 2001 benchmark, a statement as to whether Verizon has begun selling and activating a single AGPS/AFLT handset model and, if so, on what date; (2) for the periods of July 31, 2002 to March 30, 2003, and March 31, 2003 to December 30, 2003, the percentage of new handsets activated nationwide during the respective periods that were AGPS/AFLT-capable, as well as the total number of new handsets activated nationwide during the respective periods and the total number of new handsets activated during those periods that were AGPS/AFLT-capable; (3) for the December 31, 2003 benchmark, a statement of whether 100 percent of new digital handsets being activated nationwide were AGPS/AFLT-capable; and (4) for the December 31, 2005 benchmark, a statement of the percentage of the total number of Verizon subscriber handsets in service nationwide as of that date that are AGPS/AFLT-capable, as well as the total number of Verizon subscriber handsets in service nationwide as of that date and the total number of those handsets that are AGPS/AFLT capable as of that date.<sup>75</sup>
- The Report must also include information on: current handset models being activated or sold that are A-GPS-capable and important events affecting location-capable handset penetration levels, such as introduction of new handset models.
- The Report must also contain statements regarding whether Verizon has met the deployment benchmarks for upgrading its network. Verizon must report, in the Quarterly Report immediately following the benchmark dates for completion, whether it completed the deployment of network upgrades to Lucent switches by April 1, 2002; upgrades to Nortel switches by August 1, 2002; and to Motorola switches by March 1, 2003. In the event Verizon fails to meet these benchmarks, the Report must also include information on events affecting deployment, such as the status of vendor negotiations.
- The Report also must contain statements regarding whether Verizon has met each deployment benchmark for its interim deployment solutions and, if not, the reasons for its failure to comply. Specifically, Verizon must report, in the Quarterly Report immediately following the benchmark date of December 31, 2001 whether it has provided Phase II capability to 100% of two counties, St. Clair County, Illinois (St. Louis) and Lake County, Indiana (Gary-East Chicago market). In addition, Verizon must report, in the Quarterly Report immediately following the benchmark date of April 1, 2002, whether it has provided Phase II capability to 100% of Cook County, Illinois (Chicago), St.

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<sup>73</sup> See [www.fcc.gov/e911](http://www.fcc.gov/e911).

<sup>74</sup> To the extent Verizon cannot provide the information required under this paragraph in its next Quarterly Report following the respective benchmark, it must file with the Chief, Enforcement Bureau, a request for extension of time to file the required information. Such request must be filed as early as possible before the Quarterly Report filing date, but generally no later than 10 business days prior to the Quarterly Report filing date. The request must specify the specific reasons for the request.

<sup>75</sup> Verizon's Quarterly Reports are due February 1, May 1, August 1 and November 1 of each year, beginning February 1, 2002 and continuing through February 1, 2006. To the extent Verizon cannot provide any of the information required in its final report, it must file with the Chief, Enforcement Bureau, a request for extension of time to file the required information in accordance with the procedures set forth in footnote 74, *supra*.

Louis County, Missouri (St. Louis), and Harris County, Texas (Houston).<sup>76</sup> Verizon must also report, in the Quarterly Report immediately following the benchmark date of April 1, 2002 for deployment of its EFLT interim solution in its Lucent and Nortel markets, whether it has completed deployment of EFLT in its Lucent and Nortel markets. In its Quarterly Reports, Verizon must report on the progress of any FOA testing and the status of availability of the EFLT solution for its Motorola markets.

- Verizon must support each Quarterly Report with an affidavit, from an officer or director of Verizon, attesting to the truth and accuracy of the report.
- To the extent Verizon anticipates that it will fail to satisfy any one of the conditions, it must advise the Commission of the problem. Seeking relief from that condition will not, in and of itself, insulate Verizon from possible enforcement in cases where Verizon has violated a condition of this Order.

32. Verizon's Quarterly Reports to the Commission should be the principal vehicle for providing the Commission with notice of anticipated problems but, to the extent unexpected problems arise affecting Verizon's ability to perform in the period between reports, Verizon should notify the Commission through a supplementary filing. This supplemental filing must include specific details regarding the problems Verizon has encountered affecting its ability to comply.

33. These Quarterly Reports by Verizon will assist the Commission and the PSAPs in monitoring its compliance not only with its Phase II implementation plan, but also with the Phase I deployment requirements of the rules. Information on Phase I deployment will allow us to assess whether this aspect of E911 deployment - itself a critical public safety benefit - is being achieved. The reports on Phase II deployment will assist in monitoring Verizon's compliance with both its implementation plan and the Phase II rules. The reports on handset deployment will assist us in assessing whether Verizon is in compliance with the requirements of its implementation plan.

34. Verizon is required to comply with each individual condition of this Order, including the reporting requirements set forth above. Consistent with the *E911 Fourth Memorandum Opinion and Order*, we note that the conditions imposed herein as part of the grant of Phase II relief have the same force and effect as a Commission rule itself. Each specific benchmark and Quarterly Report is a separate condition of the plan as approved. In addition, Verizon remains subject to all other requirements of the Commission's wireless E911 rules apart from those specifically modified in this Order. To the extent that Verizon fails to satisfy any condition or Commission rule, it will be subject to possible enforcement action, including but not limited to revocation of the relief, a requirement to deploy an alternative ALI technology, letters of admonishment or forfeitures. We will not entertain requests for additional relief that seek changes in the requirements, schedules, and benchmarks imposed herein absent extraordinary circumstances.

35. Moreover, the approval of Verizon's compliance plan does not alter Verizon's ultimate obligation to comply with the Phase II rules and the conditions of this relief. Verizon remains ultimately responsible for providing timely compliant Phase II service. If Verizon does not have compliant Phase II service available on the dates set forth herein, it will be deemed noncompliant and referred to the Commission's Enforcement Bureau for possible action. At that time, an assertion that a vendor, manufacturer, or other entity was unable to supply compliant products will not excuse noncompliance. However, a carrier's "concrete and timely" actions taken with a vendor, manufacturer, or other entity may

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<sup>76</sup> We recognize that Verizon's obligation to deploy its network-based solution in these counties extends only to those portions of these counties covered by a valid PSAP request.

be considered as possible mitigation factors in such an enforcement context.<sup>77</sup> As set forth above, Verizon is required to include in its Quarterly Reports a statement regarding whether it has met each deployment benchmark, activation rate, accuracy milestone, and any other condition as set forth below, and, if not, the reasons for its failure to comply. As noted above, the report must be supported with an affidavit. To the extent that the Commission receives a complaint or otherwise has questions regarding the information in the reports, or more generally Verizon's compliance, Verizon may be required to provide additional documentation to refute the complaint or respond to the Commission's questions. In the event that Verizon's Phase II solution unexpectedly fails to comply with the Phase II accuracy requirements, Verizon shall, as a condition, propose to deploy a solution that does comply with those requirements, as well as the other conditions of this Order and applicable Phase II rules.<sup>78</sup>

#### **D. Summary of Conditional Relief Granted**

36. Verizon's request to deploy AGPS/AFLT technology for its CDMA network is granted, subject to compliance with the specific conditions set forth below.

37. Accordingly, Verizon must comply with the following timeline with respect to its AGPS/AFLT capable handsets:

December 31, 2001:	Verizon must begin selling and activating AGPS/AFLT-capable handsets and ensure that at least one entry-level AGPS/AFLT-capable handset model is available;
July 31, 2002:	25% of all new handsets activated must be A-GPS-capable;
March 31, 2003:	50% of all new handsets activated must be A-GPS-capable;
December 31, 2003:	100% of all new digital handsets activated must be A-GPS-capable;
December 31, 2005:	95% of all customer handsets in service must be A-GPS-capable.

These revised benchmarks apply generally in the same manner as the benchmarks for location-based handset deployment in our rules.<sup>79</sup> In the *E911 Fourth Memorandum Opinion and Order* we recognized that measuring compliance with interim percentage benchmarks, such as the 25 and 50 percent benchmarks in our rules, might be difficult.<sup>80</sup> We emphasized that, in evaluating compliance, we would look at the reasonableness of a carrier's measurement methodology and the circumstances surrounding the measurement.<sup>81</sup> To further clarify the benchmarks and their enforcement, we believe that one reasonable

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<sup>77</sup> *E911 Fourth Memorandum Opinion and Order*, 15 FCC Rcd at 17458.

<sup>78</sup> As stated above, seeking relief will not, in and of itself, insulate Verizon from possible enforcement in cases where Verizon has violated a condition of this Order.

<sup>79</sup> The new handset activation benchmarks under Verizon's plan will be applied in the same manner as the benchmarks in the Phase II rules. For example, the benchmarks apply only to new handsets, not to new activations of older model or refurbished handsets. The benchmarks also apply to all the carrier's areas of operation and services subject to the E911 rules, *i.e.*, nationally in the case of Verizon. See, *E911 Fourth Memorandum Opinion and Order*, 15 FCC Rcd at 17455, n. 62 and 1753-4.

<sup>80</sup> *E911 Fourth Memorandum Opinion and Order*, 15 FCC Rcd at 17455 at n. 65.

<sup>81</sup> *Id.*

methodology to show compliance with the approved plan would be for Verizon to demonstrate that it has complied with the required fractional percentage figures during the period beginning at the date on which that percentage takes effect and ending at the date of the next benchmark.<sup>82</sup> Thus, for the 25 percent benchmark, Verizon would demonstrate that at least 25 percent of the new CDMA handsets it activated during the period between July 31, 2002 and March 30, 2003 were A-GPS-capable. Similarly, it would demonstrate that at least 50 percent of new CDMA handsets it activated during the period between March 31, 2003 and December 30, 2003 were A-GPS-capable. The difficulty in measuring compliance should not arise in the case of the other two handset sales benchmarks, *i.e.*, the benchmark for beginning to sell and activate A-GPS handsets and that for ensuring that 100 percent of all new digital handsets are A-GPS-capable. Under the approved plan, Verizon is required to begin selling and activating at least one model A-GPS handset no later than December 31, 2001; as of December 31, 2003, 100 percent of new digital handsets Verizon activates must be A-GPS-capable.

38. Second, on or before April 1, 2002, Verizon must complete deployment of the network-assisted portion of AGPS/AFLT in its switches and cell sites for Lucent markets.

39. Third, on or before August 1, 2002, Verizon must complete deployment of the network-assisted portion of AGPS/AFLT in its switches and cell sites for Nortel markets.

40. Fourth, on or before March 1, 2003, Verizon must complete deployment of the network-assisted portion of AGPS/AFLT in its switches and cell sites for Motorola markets.

41. Fifth, in areas where Verizon receives a valid PSAP request where more than 50% of the PSAP's coverage area is covered by the Verizon analog-only network, Verizon must comply with the Commission's Phase II rules by using a network-based solution or by upgrading to a digital network with a Phase II compliant solution in those areas.

42. Sixth, on or before December 31, 2002, Verizon must complete all valid PSAP requests received on or before June 30, 2002, except in markets served by Motorola switches. In Motorola markets, on or before March 31, 2003, Verizon must complete all valid PSAP requests received on or before September 30, 2002. In markets served by Lucent and Nortel switches, Verizon must complete valid PSAP requests received on or after July 1, 2002 within six months of the request, as provided in the Commission's rules. In markets served by Motorola switches, Verizon must complete valid PSAP requests received on or after October 1, 2002 within six months of the request, as provided in the Commission's rules.

43. Seventh, Verizon must install a network-based technology in the following counties where there are Phase II requests and previously tested network components, according to the following schedule:

December 31, 2001:	Verizon must provide Phase II capability to 100% of St. Clair County, Illinois (St. Louis) and Lake County, Indiana (Gary-East Chicago market).
April 1, 2002:	Verizon must provide Phase II capability to 100% of Cook County, Illinois (Chicago), St. Louis County, Missouri (St.

<sup>82</sup> If Verizon is found to be in violation of a benchmark using the measurement period described above, the carrier will be deemed to be out of compliance for the entire period over which the benchmark is measured.

Louis) and Harris County, Texas (Houston).<sup>83</sup>

44. Eighth, on or before April 1, 2002, Verizon must deploy the EFLT Phase II solution, with an accuracy on average of within 250 to 350 meters, without the assistance of a modified handset, in all markets served by Lucent and Nortel switches. Verizon must report on the status and availability of the EFLT solution for Motorola switches, as indicated herein.

45. Ninth, Verizon must file Quarterly Reports, on its progress and compliance with the terms and conditions of the implementation plan and the wireless E911 rules, as set forth in paragraphs 30-35, *supra*.

#### **IV. PROCEDURAL MATTERS AND ORDERING CLAUSES**

##### **A. Paperwork Reduction Analysis**

46. This Order does not contain an information collection applicable to ten or more entities.

##### **B. Further Information**

47. For further information, contact Andra Cunningham of the Policy Division, Wireless Telecommunications Bureau, at (202) 418-1310 (voice) or (202) 418-1169 (TTY).

##### **C. Ordering Clauses**

48. Accordingly, IT IS ORDERED that the Verizon implementation plan and request for relief from wireless E911 Phase II rules IS GRANTED, effective October 1, 2001, to the extent indicated and subject to the conditions indicated herein.

49. IT IS FURTHER ORDERED that authority is delegated to the Chief of the Enforcement Bureau and the Chief of the Wireless Telecommunications Bureau to administer, clarify, and, as appropriate, modify the Quarterly Reports specified in this Order, including the filing of additional information.

### **FEDERAL COMMUNICATIONS COMMISSION**

**Magalie Roman Salas**  
**Secretary**

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<sup>83</sup> We recognize that Verizon's obligation to deploy its network-based solution in these counties extends only to those portions of these counties covered by a valid PSAP request.