

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

In the Matter of)	
)	
Wireless E911 Location Accuracy)	PS Docket No. 07-114
Requirements)	
)	CC Docket No. 94-102
Revision of the Commission’s Rules to Ensure)	
Compatibility with Enhanced 911 Emergency)	
Calling Systems)	
)	
Association of Public-Safety Communications)	
Officials-International, Inc. Request for)	
Declaratory Ruling)	
)	WC Docket No. 05-196
911 Requirements for IP-Enabled Service)	
Providers)	

COMMENTS OF MOTOROLA, INC. AND NOKIA INC.

Motorola, Inc. (“Motorola”) and Nokia Inc. (“Nokia”) hereby submit these reply comments in response to the comments filed in the above-captioned proceedings regarding changes to the Commission’s requirements for enhanced 911 (“E911”) location accuracy.¹ The record in this proceeding clearly demonstrates that measuring and achieving accuracy at a PSAP level is extremely complex. Indeed, there is unanimous consent that PSAP level accuracy measurement and compliance will take time. Accordingly, Motorola and Nokia support commenters’ proposals to convene an FCC-industry-public safety forum through which E911 issues can be addressed, including location accuracy.

¹ *Wireless E911 Location Accuracy Requirements, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Association of Public-Safety Communications Officials-International, Inc. Request for Declaratory Ruling, 911 Requirements for IP-Enabled Service Providers, Notice of Proposed Rulemaking, 22 FCC Rcd 10609 (2007) (“Notice”).*

In our initial comments, Motorola and Nokia demonstrated the complexity of measuring and achieving accuracy at a PSAP level.² The record fully supports this showing. As multiple commenters acknowledge, including the State of Montana, “currently available location technologies cannot meet...PSAP level testing” or accuracy.³ Indeed, if the Commission enforced such a requirement today, “every wireless carrier in the United States will most likely be non-compliant in some part of their network.”⁴

As a result, new technologies must be developed, tested, and deployed to meet a PSAP-level accuracy requirement.⁵ The development of such technologies will not be easy. As NENA aptly states, carriers “face challenges in different areas of the country in meeting these standards and that doing so currently may not be technically feasible in some areas.”⁶ These challenges include a wide range of topography,⁷ varying size PSAPs,⁸ cell site coverage,⁹ geographic and

² Motorola/Nokia Comments at 2.

³ State of Montana Comments at 1.

⁴ Rural Cellular Association at 7.

⁵ *See, e.g.*, Suncom Wireless Comments at 3 (“no amount of investment in presently available technologies would ensure compliance”). Motorola strongly opposes the State of Washington Enhanced 911 Program’s proposal to require elevation measurements. Washington E911 Program Comments at 5. Technologies do not currently exist that provide elevation location. Significant research and development must occur before these technologies will become available. Accordingly, adoption of such a requirement at this time is premature.

⁶ NENA Comments at 1. *See also, e.g.*, Polaris Wireless Comments at 4; Qualcomm Comments at 3; Rural Cellular Association at 6; SunCom Wireless Comments at 3.

⁷ *See, e.g.*, Intrado Comments at 2.

⁸ *See, e.g.*, Sprint Nextel Comments at 4 (“The use of PSAP geographical coverage areas as a part of technological standard ignores the fact that size, shape and topology of existing PSAP’s varies widely today”).

⁹ SunCom Wireless Comments at 3 (“Factors such as local topography and existing cell site coverage in a particular area dramatically impact the accuracy and reliability of Automatic

zoning restrictions on tower siting,¹⁰ and fiscal considerations,¹¹ among other things. Additional infrastructure may need to be deployed.¹² New or hybrid technologies may need to be installed in networks.¹³ Handsets may need to be replaced.¹⁴ None of these tasks will be accomplished easily.

PSAP-level testing will also be extremely complex. As Verizon Wireless notes, PSAP-level testing could require PSAPs to coordinate millions of test calls depending on the PSAP's geographic area and how the PSAP operates.¹⁵ Many PSAPs contract with other PSAPs to handle high traffic, further complicating testing. As a result, this testing will place a significant financial burden on PSAPs, as well as carriers.¹⁶

PSAP-level accuracy and testing requirements, if adopted prematurely, could result in significant, harmful consequences. It is highly probable that if the Commission requires PSAP-level accuracy and testing before the technologies have been developed, 911 service could be

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Location Information”).

¹⁰ See T-Mobile Comments at 5-6 (noting that it cannot build more cell sites to improve location accuracy because of geographic and zoning constraints on tower siting).

¹¹ See, e.g., State of Montana Comments at 1 (“If the Commission adopts Phase II accuracy testing requirements that currently available location technologies cannot meet (such as a requirement for PSAP level testing), states like Montana with carrier cost recovery will be responsible for the cost of new technologies that have not yet been developed to meet those requirements”).

¹² See, e.g., Technocom Comments at 3.

¹³ See, e.g., Qualcomm Comments at 6-7.

¹⁴ See, e.g., T-Mobile Comments at 4.

¹⁵ Verizon Wireless Comments at 6.

¹⁶ See, e.g., State of Montana Comments at 1; Sprint Nextel Comments at 13 (estimating that testing at a PSAP-level will cost PSAPs over \$700 million).

severely diminished, particularly in rural areas. As the State of Montana noted, “New requirements imposed by the Commission could have the unintended [sic] consequence of causing Phase II delivery of service to halt in Montana because of financial constraints.”¹⁷ Carriers may also be required to decrease their coverage areas, making it so rural customers may not be able to even place a 911 call.¹⁸ Still other carriers’ financial viability may be threatened if required to comply with such a stringent requirement that necessitates excessive investment in additional and unwarranted network infrastructure.¹⁹ All of these complications and scenarios require detailed analysis before location accuracy requirements are adopted so as to ensure that reasonable, attainable rules are established.

As a result of these complexities, full compliance with the Commission’s proposal will require time. Indeed, there is unanimous agreement among commenters that PSAP level accuracy measurement and compliance cannot occur over night.²⁰ The wireless industry and the public safety community will need time to develop and implement appropriate solutions, prepare interoperable standards, test and validate various approaches, as well as develop and deploy network and/or handset products in an effort to resolve all of the concerns identified above.²¹ Indeed, the implementation of the Commission’s Phase II E911 location accuracy requirements has been a long process.²² Even today, approximately 25 percent of PSAPs in approximately 50

¹⁷ State of Montana Comments at 1.

¹⁸ *See, e.g.*, T-Mobile Comments at 6; Cincinnati Bell Comments at 4-5.

¹⁹ *See* Rural Cellular Association Comments at 6.

²⁰ *See, e.g.*, NENA Comments at 1-2; Wichita Falls Comments at 2; Texas 9-1-1 Alliance Comments at 3; Polaris Comments at 3; Suncom Wireless Comments at 5.

²¹ *See, e.g.*, CTIA Comments at 5.

²² Polaris Comments at 4 (E911 advancements “have come after dedicated and exhaustive

percent of U.S. counties still are not capable of receiving Phase II wireless E911 data.²³ The Commission should expect a similar situation at best if it adopts PSAP-level accuracy and testing requirements.

For these reasons, Motorola and Nokia strongly support several commenters' proposals to convene a forum on E911 issues.²⁴ Such a forum will enable the Commission to obtain detailed information on currently available and future location technologies, thereby allowing it to make the most informed decision possible.²⁵ This forum also will facilitate continued collaboration between public safety and the wireless industry, encouraging the development of a consensus proposal, a result that both public safety and the industry find to be in the public interest.²⁶ Tight deadlines will ensure that the process of improving 911 location accuracy continues to progress expeditiously.²⁷

For these reasons, Motorola and Nokia urge the Commission to delay requiring PSAP-level accuracy and testing until such time that the wireless industry and public safety have

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research, development, and testing efforts”).

²³ See, e.g., NENA Comments at 6.

²⁴ See, e.g., NENA Comments at 4; CTIA Comments at 6; AT&T Comments at 3-6; Texas 9-1-1 Alliance Comments at 8; Washington Enhanced 911 Program Comments at 13; TruePosition Comments at 7.

²⁵ CTIA Comments at 6. As the Rural Cellular Association and CTIA recommends, this forum should be primarily staffed by engineers and technical subject matter experts, not policy advocates. *Id.*; Rural Cellular Association Comments at 9.

²⁶ Texas 9-1-1 Alliance Comments at 8 (“building a cooperative consensus on location accuracy enhancements between the wireless industry and public safety would be beneficial”); Qualcomm Comments at 7 (requesting that the Commission engage all affected stakeholders in a consensual process); Suncom Wireless Comments at 7 (encouraging the Commission to facilitate continued collaboration between the wireless industry and public safety stakeholders).

²⁷ Qualcomm Comments at 7-8; CTIA Comments at 6-7; AT&T Comments at 3-6.

completed their review of location accuracy and developed attainable solutions.

Respectfully submitted,

/s/ Mary E. Brooner

Mary E. Brooner
Director, Telecommunications
and Regulation
Motorola, Inc.
1455 Pennsylvania Avenue, NW
Suite 900
Washington, DC 20004
(202) 371-6899

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/s/ Leo R. Fitzsimon

Leo R. Fitzsimon
Vice President, Government and Strategy
Industry Affairs
Nokia Inc.
1401 K Street, NW
Suite 450
Washington, DC 20005
(202) 887-0570