Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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

**COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.**

Below Qwest Communications International Inc. ("Qwest") responds to the Section III.B. issues outlined in the June *Notice of Proposed Rulemaking* in this proceeding,[1] particularly as those issues pertain to Voice over Internet Protocol, *i.e.*, VoIP. Qwest also briefly addresses the *Notice*'s Section III.A. issues, dealing with wireless E911 location accuracy, because the *Notice* is framed in such a manner that the wireless location accuracy issues form the predicate for the questions involving VoIP E911 location accuracy in Section III.B. We argue below that any connection between these two location accuracy issues should be severed.

Like any other responsible service provider, Qwest supports accurate 911/E911 information, whether that information is generated from a wireline, wireless or VoIP platform or service provider. Nonetheless, Qwest does not believe that automatic location information ("ALI") accuracy should necessarily be measured at a Public Safety Answering Point ("PSAP") level for either wireless or VoIP providers. Nor do we believe that a Federal Communications

[1] *In the Matter of Wireless E911 Location Accuracy Requirements,* PS Docket No. 07-114, Notice of Proposed Rulemaking, FCC 07-108 (rel. June 1, 2007) ¶¶ 8-19 ("*Notice*").

Commission ("Commission") mandate requiring location accuracy at such level would be aligned with the reasonable allocation of capital or human resources. And it most surely would generate protracted legal challenges.

But whatever the Commission ultimately determines should be the location-accuracy requirements for mobile services, it would be inappropriate to prescribe "the same" E911 location-information accuracy requirements to VoIP, given the developmental stage of VoIP offerings, particularly nomadic ones. VoIP offerings have different architectures, business models, and cost structures than do wireless offerings. The location-accuracy requirements for mobile services should not be imported to VoIP offerings absent a rulemaking that contains the specific proposed requirements and that offers the public an opportunity to comment on the focused proposal.

## I. THE COMMISSION SHOULD NOT EXTEND AS-YET UNDEFINED WIRELESS LOCATION ACCURACY REQUIREMENTS TO VoIP SERVICES.

### A. It would be Premature to Prescribe Location-Accuracy Requirements to VoIP.

Currently there are no E911 location accuracy technical requirements for nomadic VoIP. Unlike wireless E911, where the matter of location accuracy has been the topic of consideration, discussion, and recommendations for years by bodies with substantial expertise,[2] no such foundation has been laid with regard to VoIP and E911 location accuracy.[3] None of this is

[2] *Compare* Federal Communications Commission, OET Bulletin No. 71, *Guidelines for Testing and Verifying the Accuracy of Wireless E911 Location Systems*, at 3 (April 12, 2000); and the FG1A Final Report out of the NRIC VII Focus Group 1A, *Near Term Issues for Emergency/E911 Services, Final Report* (December 2005) ("FG1A Final Report").

[3] *See* Voice on the Net Coalition ("VON") Comments filed July 5, 2007 at 4 ("VoIP providers do not have the same several year-experience with location accuracy testing and reporting as the CMRS industry").

surprising, given the relative recency of VoIP services and the fact that E911 requirements were only extended to them in 2005.[4]

Given the still developmental stage of interconnected VoIP applications and processes, particularly in the nomadic environment, there is no evidence that they can support commercial mobile radio services ("CMRS") accuracy standards even as they currently exist, let alone to the PSAP-level as the *Notice* proposes.[5] Similar to wireless service providers, who provide their services through a variety of networks and architectures, VoIP providers have diverse platforms and networks. There is no evidence that VoIP architectures share sufficient commonality with wireless networks such that a location accuracy standard imposed on wireless service providers would be technically or economically feasible for the VoIP providers, many of whom are small businesses.[6]

Establishing accuracy criteria for VoIP would require predicate research and development, followed by the promulgation of industry standards. As part of that work, technical feasibility would be a key component, highly influenced by economic feasibility. Those components, in turn, would be highly influenced by the particular system design and architecture of the VoIP service provider.

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[4] *See In the Matters of IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245 (2005).

[5] *See* VON at 4 ("the Commission seeks comment in this proceeding on whether accuracy can be improved over a testing and reporting regime that has not been extended to interconnected VoIP and for which data is not available").

[6] *See id.* at 5.

B. The Approach of the *Notice* is Flawed With Regard to a Possible Prescription of VoIP Location Accuracy.

As observed by a variety of entities that commented on the *Notice's* Section III.A. issues, the cart somehow got before the horse with respect to the structure of the *Notice*.[7] Both carriers and public safety organizations rightfully contend that the information the Commission is seeking in this Section III.B. round of comments is necessary to respond to, analyze, or resolve the Section III.A. issues in a full and educated manner.[8]

Beyond that general structural flaw, the *Notice* approaches the issue of whether location accuracy standards should be imposed on VoIP services by compounding "tentative conclusions" about two different technologies. With respect to VoIP service, the *Notice* includes a *tentative conclusion* that where VoIP service "may be used in more than one location, service providers must employ an automatic location technology that meets the same accuracy standards that apply to services provided by circuit-switched . . . (CMRS)."[9] It is impossible to understand how this tentative conclusion could have been reached. Absent the kind of extensive and disciplined factual, technical and economic analysis by subject matter experts that wireless location accuracy has undergone,[10] there are no facts to support the conclusion -- tentative or otherwise. Nor is there a cost-benefit analysis suggesting that the *VoIP tentative conclusion* is in the public interest.

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[7] Sprint Nextel Corporation ("Sprint Nextel") Comments, filed July 5, 2007 at 3; Verizon Wireless Comments filed July 5, 2007 at 2, 12-13; VON at 4.

[8] *See, e.g.*, National Emergency Number Association ("NENA") Comments, filed July 5, 2007 at 3, 5-7 (noting that "sound answers to the two Section III.A questions of accuracy and measurement area . . . necessarily depend on the sharing of responses to the multiple questions posed in Section III.B"); Sprint Nextel at 3 (the *Notice* appears to have "reached a conclusion before answering the many difficult -- and prerequisite -- questions contained in the [*Notice*'s] Section III.B); Verizon Wireless at 11-12 (the *Notice* seeks general information on ALI technologies and functionalities only after tentatively proposing a prescription for specific accuracy requirements on wireless carriers).

[9] *Notice* ¶ 18.

[10] *See* notes 3 and 5, above, and associated text.

Not only does the *VoIP tentative conclusion* lack supporting credible evidence, it also fails to acknowledge that VoIP providers are still implementing prior E911 mandates with respect to their product offerings. A location accuracy mandate would divert capital and human resources from the fundamental E911 provisioning efforts.[11] The *VoIP tentative conclusion* is fatally flawed as a stand-alone proposition.

But even if it were not, the fact that the *VoIP tentative conclusion* is itself supported by another *tentative conclusion* about a different industry -- *i.e.*, that CMRS providers should be held to a location accuracy standard at the PSAP level -- renders the entire foundation of a *VoIP tentative conclusion* illusory. The *CMRS tentative conclusion* must be proven to be in the public interest (*e.g.*, technically and economically feasible for both the industry and the public safety community) before the *VoIP tentative conclusion* could even make progress toward becoming a legitimate tentative conclusion.

Based on the comments previously filed with regard to Section III.A. of the *Notice*, Qwest believes it would be impossible and legally unsustainable for the Commission to adopt its tentative conclusion on CMRS providers and location accuracy requirements at a PSAP level. As discussed below, such a decision would run counter to the analysis and recommendations of the Commission's-chartered advisory committee, NRIC VII (reporting a consensus position that location accuracy should be measured at a state level).[12] It would also ignore substantial record

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[11] *See* VON at 6 (noting that to do accuracy testing at the PSAP, "or even a[n] MSA [Metropolitan Statistical Area] or RSA [Rural Statistical Area], every two weeks, . . . [would require] potentially hiring as many workers as they have customers"). *And compare* Motorola, Inc. and Nokia Inc. ("Motorola/Nokia") Comments filed July 5, 2007 at 7-8; T-Mobile USA, Inc. ("T-Mobile") Comments filed July 5, 2007 at 9-10; United States Cellular Corporation ("USCC") Comments filed July 5, 2007 at 2-5 (expressing a similar concern with respect to mobile accuracy requirements at a PSAP level); Sprint Nextel at 12-14 (noting huge cost burden that would be imposed on PSAPs); Verizon Wireless at 6.

[12] The FG1A Final Report at 21.

evidence that accuracy determinations at a PSAP level are often impossible and that the wireless industry is not technically capable of doing testing at this time or into the foreseeable future.[13]

Without doubt the Commission has an important role in overseeing the deployment of 911/E911 services across the country, including location accuracy requirements. Still the Commission should avoid acting prematurely or preemptively with respect to such requirements for nomadic VoIP. The Commission should not underestimate the legitimate and important role of industry and public safety forums, advisory committees such as NRIC [Network Reliability and Interoperablity Council] and WARN [Warning Alert and Response Network] Act Advisory Group,[14] and standards bodies as it develops the record on both technology and policy considerations regarding location accuracy. Qwest supports the recommendation of the Alliance for Telecommunications Industry Solutions ("ATIS"), filing on behalf of the Emergency Services Interconnection Forum ("ESIF"), and calling for renewed efforts at cooperation, consultation, and analysis.[15]

Before prescribing E911 location accuracy standards for VoIP, the Commission must be reasonably certain that VoIP service providers have the technical ability to achieve such accuracy, and that achieving that objective would not involve more costs than benefits. In order to make this determination, the Commission should institute a rulemaking that reflects a specific proposal (or a variety of proposals), ideally supported by industry expert commentary, and allow interested parties to provide targeted and focused responses. Absent such process, any

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[13] *See* note 16 below.

[14] *See Notice* at Concurring Statement of Commissioner Jonathan S. Adelstein; *and see* note 28 below.

[15] Qwest believes the ATIS/ESIF comments will call for representatives of the wireless industry, public safety community, the Commission and other relevant stakeholders to come together through a consensus-driven process to conduct a comprehensive feasibility study, from which recommendations on the appropriate accuracy standard can be made. *And see* VON at 6 (supports the Commission's working through the ESIF forum "before examining further the technical, operational, and economic impact of imposing testing and reporting obligations" on VoIP). *See also* Polaris Wireless ("Polaris") Comments filed July 5, 2007 at 8-9.

prescription regarding E911 VoIP accuracy standards will be embroiled in prolonged litigation for years to come, diverting resources from the important task of continuing to extend 911/E911 functionalities to the American people.

## II. THE COMMISSION SHOULD RESOLVE CONTENTIONS REGARDING LOCATION ACCURACY REQUIREMENTS FOR CMRS PROVIDERS, A FORMIDABLE TASK, BEFORE PROPOSING LOCATION ACCURACY REQUIREMENTS FOR VoIP PROVIDERS.

While wireless providers share the concern and dedication of public safety organizations to 911/E911 and the public health and safety, the comments filed in the first Phase of this proceeding reflect lines drawn between the carriers and limited representatives of the public safety community with respect to location accuracy at the PSAP level. The carriers, rightly, are concerned that the Commission might once again act to dictate a technical result precipitously, far in advance of the industry's ability to achieve the technical goal.[16] On the other hand, certain public safety advocates believe that location-accuracy testing at the PSAP level is feasible, but has not yet occurred due to carrier inaction or delay.[17] Still other commentors argue that a larger geographic area is better suited to location-accuracy testing (*e.g.*, state level,[18] or MSA/RSAs)[19]

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[16] The Commission's wireless E911 proceedings were rife with contention, particularly at the point at which carriers were required to seek waivers, sometimes multiple times, from the technical requirements imposed by the Commission's Phase I and Phase II mandates. Not only were multiple waivers sought but the Commission took enforcement action against carriers who had been unable to meet the Commission's mandated technical result. Carriers are concerned in this proceeding that the Commission not establish technical requirements that are impossible to achieve, either because of technical or economic infeasibility. *See* AT&T Inc. ("AT&T") Comments filed July 5, 2007 at 6-10, 13; Motorola/Nokia at 12; USCC at 2-4; Sprint Nextel at 2, 3-4, 8-9; T-Mobile at 5-6, 7-8, 11-12. *Compare* vendor comments of Polaris at 1-2 and Qualcomm Incorporated ("Qualcomm") Comments filed July 5, 2007 at 7-8; Verizon Wireless at 7-14.

[17] *See, e.g.,* King County E911 Program Comments filed July 5, 2007 at 6; New York City Police Department Comments filed July 5, 2007 at 3-4; State of Washington Comments filed June 22, 2007 at 3, 6.

[18] *See, e.g.,* Sprint Nextel at 9, citing to the FG1A Final Report.

[19] *See, e.g.,* Cincinnati Bell Wireless LLC Comments filed July 5, 2007 at 3, 5; USCC at 5, 7. *And see* Corr Wireless Communications, LLC Comments filed July 5, 2007 at 3-4 (suggesting that an MTA [major trading area] geography might be achievable).

than is non-standard geography of a PSAP "location."[20] And service providers and public safety advocates alike caution that initiatives to improve location accuracy not retard the continued penetration of wireless E911 or divert resources from achieving that objective.[21]

Qwest sees no reason to detail the various arguments here. But it joins those who criticize the framework of the *Notice* with respect to wireless location accuracy issues as ill-designed to resolve the complex matters it seeks to address.[22] The *Notice* seeks comment on a stale proposal (one made by APCO [the Association of Public-Safety Communications Officials-International, Inc.] over two and a half years ago), failing to note that APCO subsequently modified it.[23] At the same time, it never mentions the work of the Commission-chartered advisory board,[24] tasked with investigating and analyzing the very issues raised in the *Notice* with respect to wireless location accuracy, that came to a conclusion contrary to the *Notice's CMRS tentative conclusion* on which comment is sought. All told, should the Commission adopt the *tentative conclusions* contained therein with respect to location accuracy protracted litigation is a certainty.[25]

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[20] *See, e.g.*, AT&T at 9-10; Polaris at 8; Qualcomm at 5-6; Sprint Nextel at 2, 4-6; *and see* Verizon Wireless at 23-27.

[21] NENA (noting the importance of extending Phase II capabilities to PSAPs); Sprint Nextel at 2-3, 12-14; T-Mobile at 9.

[22] *See* notes 7 and 8, above.

[23] Supplement to APCO Request for Declaratory Ruling, CC Docket 94-102, at 3-4, filed February 4, 2005 (acknowledging the extreme difficulty of measuring location accuracy at a PSAP level and proposing measurements at an MSA/RSA level). For reasons that are impossible to understand, APCO never references this 2005 modification to its 2004 Declaratory Ruling request (asking that testing at the PSAP level be articulated). While it is obvious that APCO has re-converted to the position stated in its original Petition, the failure to even reference its intervening filing is troubling.

[24] Noting this strange absence of reference is Verizon Wireless at 2.

[25] The legal infirmities with the approach and tentative conclusions outlined in the *Notice* are numerous and significant. *See* Verizon Wireless, *passim*.

Without regard to the specifics of any wireless location-accuracy principle, Qwest supports the work effort of NRIC VII organization.[26] We believe that such consensus-driven resolutions of complex issues should be applauded and supported. And we support the continued interest by industry to create fora for public debate and discussion over critical issues associated with wireless E911 deployments or deployments with regard to other technologies (such as VoIP), including the development of industry standards.[27]

To the extent the Commission is not ready, at this time, to adopt the recommendations of NRIC VII, neither should it adopt APCO's 2004 recommendation. If the matter needs updated study and analysis, either NRIC or another group should be convened to undertake such an effort, as urged by parties previously commenting on Section III.A. issues.[28]

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[26] *Accord* Sprint Nextel at 2, 6-8.

[27] Mr. Dale N. Hatfield, charged by the Commission to create a report on wireless E911, stated in that report that "the deployment of wireless E911 in the U.S. is an extremely complex undertaking and that a variety of critical technical and operational choices – including critical decisions relating to network architectures – must be made to ensure the reliable and seamless E911 system contemplated by Congress when it passed the 911 Act. Because of the total number of stakeholders involved, the complexity of the inter-relationships among the stakeholders, and the incentives and constraints on those stakeholders, I conclude that an unusually high degree of coordination and cooperation among public and private entities will be required if that vision is to be realized. . . . [F]or the efficient, timely, and cost effective deployment of wireless E911, there is a need for increased coordination among stakeholder groups in three areas: overall systems engineering, implementation/project management and the development and adoption of standards. *See* A Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services, prepared for the Federal Communications Commission, undated but delivered to the Commission in October 2002 at iii.

[28] Both AT&T and CTIA mention the creation of an Advisory Committee along the lines of that created pursuant to the WARN Act. *See* AT&T at 1-2, 3-6; CTIA – The Wireless Association Comments filed July 5, 2007 at 6-7. *And see Notice*, Concurring Statement of Commissioner Jonathan S. Adelstein, which proposes that: "Much like the WARN Act Advisory Committee, [the FCC] could immediately convene a committee of industry and public safety experts to develop and submit recommendations to the FCC regarding technical standards and protocols for the next generation of automatic location services." *See also* NENA at 5 (calling for some type of E911 Accuracy Forum "to establish a 'technical solutions body'"); Polaris at 8-9; Qualcomm at 3 (urging "the Commission to continue working with all affected stakeholders -- technology

## III. CONCLUSION

Before the Commission can prescribe ALI accuracy requirements, it must be able to reasonably anticipate that the requirements are technically possible and commercially feasible. While this assurance is critical in the area of wireless E911, it is equally as critical when the Commission contemplates extending principles researched and developed in the context of CMRS to other technologies and services, such as interconnected VoIP.

Qwest recommends that the Commission forego the notion that it can technically, or lawfully, implement a single accuracy standard for CMRS providers and VoIP providers. As a predicate to any such determination, the Commission must first determine the technical and commercial feasibility of a location-accuracy standard, and its particular applicability to VoIP. For this reason, Qwest supports the creation of an open forum or committee comprised of interested stakeholders, similar to the WARN Act Advisory Group or the earlier NRIC activity, to conduct a definitional and feasibility assessment. Following this work, a targeted *Notice* can be issued regarding VoIP and E911 location accuracy.

Respectfully submitted,

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vendors, wireless carriers, public safety organizations, and others to improve wireless E911 services"), 7-8; State of Washington at 4.

CERTIFICATE OF SERVICE

I, Richard Grozier, do hereby certify that I have caused the foregoing **COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.** to be: 1) filed via ECFS with the Office of the Secretary of the FCC in PS Docket No. 07-114 and WC Docket No. 05-196; and 2) served via e-mail on the FCC's duplicating contractor Best Copy and Printing, Inc. at fcc@bcpiweb.com.

/s/Richard Grozier

August 20, 2007