

WIRELESS

E9-1-1

SYSTEMS CONSULTING

The National Emergency Number Association (NENA) stresses the importance of reducing the time between the first call to 9-1-1 and the dispatch of emergency responders, yet we find ourselves losing precious seconds determining accurate locations for most of the wireless calls received at the Public Safety Answering Point. Of the more than 100 million calls placed to 9-1-1 annually, over half originate from wireless telephones. Nothing is more frustrating to public safety agencies than the unnecessary delays of the emergency response caused by the lack of accurate location information being forwarded to their PSAPs.

Yet something less than half of all PSAPs can say they have fully implemented Wireless E9-1-1 services in their entire jurisdiction. The reason is not for lack of wanting the service. Completing a Wireless E9-1-1 implementation simply is one of the most daunting activities a PSAP manager can undertake. Full implementation requires the public safety agency to go through a complicated and at times arduous process: create a strategic plan for the area served; ascertain and then perform the system and local network upgrades that must first occur before the service can be initiated; plan the deployment and coordinate carrier activities; supervise the roll-out testing; and finally, when the carrier says it is ready, test to assure that the service is being delivered as mandated by the FCC.

RCC Consultants, Inc. fully appreciates the complexity of the task-because we have been helping clients successfully work their way through all the stages, including accuracy verification testing.

With RCC's Wireless E9-1-1 planning and implementation support services, including all stages of the process (or help with the part you are now struggling with), coupled with our post implementation location verification services, public safety agencies and the public they serve can achieve Phase II compliance with greater assurance and with objective proof that Wireless callers are receiving the same high level of service delivered to Wireline carriers.



RCC Consultants

Client-Centered Services

RCC Consultants has the expertise, experience and knowledge to provide a full range of services to support planning, deployment and testing of Wireless E9-1-1 capabilities.

Deployment Planning

Strategic planning for the implementation of Wireless E9-1-1, funding, and progress motivation both locally and statewide.

PSAP Readiness Assessment

Comprehensive assessment of equipment and organizational readiness to accept Wireless location information; organization and facilitation of planning meetings among Wireless stakeholders; determination of traffic levels and trunk requirements; staffing studies; determination of equipment needs; and determination of funding requirements.

Wireless Planning

Requirements analysis for the system regarding: architecture definition and design, deployment management, and acceptance testing.

Carrier Management

PSAP advocate providing coordination with wireless carriers.

Wireless Integration Services

Readiness for Phase 2 ALI delivery includes: integration of mapping with PSAP Map technology; custom software development & support; integration with PSAP operational procedures and requirements.

Equipment Specification & Procurement Support

Development of functional and technical specifications for PSAP customer premise equipment; expert support for all phases of the procurement process including: site visits, technical questions, review of vendor proposals, and contract negotiation support.

End-To-End Wireless Position Verification Testing

Independent review of Wireless location accuracy is the only way to ensure that Wireless callers are receiving the same high quality of service that Wireline users are now receiving. Location accuracy testing provided by RCC gives the PSAP and other public safety managers the essential, objective analysis they need to be confident in their service delivery quality.

RCC's location accuracy testing is based on the Federal Communication Commission's OET-71 Standards and establishes an accurate ground truth reference with a high accuracy differential GPS. The verification system performs tests of randomly selected points across the actual operating environs and conditions of the PSAP and local first responders. The end to end design of the RCC's methodology allows for a comprehensive test from cell phone to PSAP.

The software establishes the position of the test vehicle and directs the test team to each randomly generated test location. Coordinate samples are collected from each test location at a rate of one every three seconds. Time is the reference used to compare the ground truth samples established in the test against the location determination method used by the Wireless carrier.

The software determines the number of statistically significant sample test locations within the test area. To ensure the highest level of accuracy in each test, the software determines the optimal number of samples taken at each test location based on a statistical confidence level of 95%.

Benefits of Industry Certification

- Independent Review and Verification of Location Information
- Greater Public Confidence In 9-1-1 Systems
- Improved Service To Public

Key Features of RCC's Verification Testing

- Equipment and Methodology Developed From the Citizen and PSAP's Perspective
- Complete End-To-End Test From Point of Origination To Call-Taker Acknowledgement
- Based on Recognized Industry Performance Standards and Testing Methodologies
- Wireless Access Technology Independent



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