

APCO Broadband Summit

NEXT GENERATION 911

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NG911 and Legacy 911

- NG911 will provide existing and new 911 services over IP rather than over the legacy TDM telephone network
- Comparing NG911 to Legacy 911:
 - IP network architecture more flexible and resilient
 - Improved accessibility, particularly for people with disabilities
 - Multimedia capabilities provide first responders with better information
- Over time, NG911 will fully replace the legacy 911 system, but the transition will take time and will not be uniform

Are We There Yet?

- NG911 evolution is work in progress, with technical, operational, financial, and governance challenges still to be addressed
- Communications networks that support public access to 911 are already transitioning to IP; major communications providers ultimately intend to decommission their legacy TDM networks
- Some state and local 911 authorities have taken initial NG911 transition steps, but most PSAPs remain heavily reliant on legacy network elements
- FCC actions recognize both short-term needs (e.g., text-to-911) and long term goals and requirements (e.g., Report to Congress, funding)

Text-to-911

Text-to-911 Deployments by PSAPs

- Three statewide deployments (IA, ME, VT)
- Deployments in 42 counties/cities in 14 other states
- Text-to-911 delivery method:
 - Web Browser: 78%
 - TTY: 17%
 - Direct IP: 5%
- Tools available to assist PSAPs with deployment

Carrier Deployment

- All 4 major carriers have indicated they will meet their May 15, 2014 voluntary commitment to support text-to-911

Text-to-911

Text-to-911 Policy Statement

- Policy objective: All CMRS and interconnected text providers should support text-to-911 capabilities
- FCC encourages text providers not party to the Carrier-NENA-APCO Agreement to undertake voluntary commitments with public safety
- If this occurs, FCC rules would codify agreed-to standards to provide regulatory clarity for all parties, including future entrants

Text-to-911 2d FNPRM

- Proposes all covered text providers support text-to-911 by December 31, 2014
- Seeks comment on mechanisms for delivery of 911 texts by OTT providers
- Longer-term issues: precise location information for 911 texts, text-to-911 while roaming
- Comments filed April 4; Reply comments due May 5

Location Accuracy

Trends Affecting 911 Location Accuracy

- Increasing percentage of 911 calls from wireless phones (75 percent or more in many areas)
- More wireless-only callers (now about 40 percent of American homes)
- More wireless calls from indoor environments

Regulatory “Gap” in FCC Rules

- Existing E911 Phase II rules focus on location of outdoor calls
- Some metrics (e.g., latency) not addressed in current rules

Location Accuracy

Location Accuracy 3rd FNPRM

- Proposed indoor location requirements
 - Horizontal (x-y axis): 50 meters for 67% of calls within 2 years, 80% of calls within 5 years
 - Vertical (z-axis): 3 meters for 67% of calls within 3 years, 80% of calls within 5 years
 - Compliance to be measured using independent test bed
 - PSAPs must implement re-bid procedures to obtain FCC enforcement
- Proposed metrics for latency, standardization of C/U data
- Long-term goal: dispatchable indoor location (building address, room, floor) , leveraging commercial location technologies
- Comments due May 12; Reply comments due June 11

Related CSRIC Activity

CSRIC IV Working Group 1

- Text-to-911 Location: Technical feasibility of providing enhanced location information with 911 texts (June 2014)
- PSAP Requests to Receive Text-to-911: Best practices , including testing and trialing, operational procedures, and security requirements (June 2014)
- Indoor Location Test Bed: Technical requirements for test bed, including administrative processes; criteria for potential test bed administrators; technical requirements; scope and scale of necessary facilities and locations; start-up and ongoing costs (June 2014)
- 911 and VoLTE: E911 location capabilities of VoLTE networks (December 2014)

Other Developments

- FCC Tech Transitions Proceeding
 - January Order: core public safety functions (including 911 and NG911) must be protected in Tech Transition trials; impact on public safety will be key area of trial evaluation
 - PSHSB workshop (April 17-18): addressed impact of IP transition on
 - Everyday incident response
 - Disaster preparedness and response
 - Cyber risks to commercial, public, and governmental networks
- FCC Annual 911 Fee Report – increased spotlight on NG911 funding
- NHTSA Blue Ribbon Panel on 911 Funding – released April 2014

Further Information

- Contact: David Furth, 202-418-0632,
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- Text-to-911 Information:
Links at <http://www.fcc.gov/text-to-911>
- FCC Annual Fee Report and FCC NG911 Report to Congress:
Links at <https://www.fcc.gov/encyclopedia/9-1-1-and-e9-1-1-services> (911 Releases)
- NHTSA/National 911 Office Blue Ribbon Panel Report on 911 Funding:
Link at <http://www.911.gov/911-issues/funding.html>

Q & A



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