

# FCC's proposed Indoor Location Requirements

November 7, 2014

# Overview



- FCC Indoor Location NPRM
- Horizontal Accuracy
- Vertical Accuracy
- Latency (Time to First Fix)
- Confidence and Uncertainty Data

- The Third Further Notice of Proposed Rulemaking issued by the FCC on February 21, 2014.
- <http://www.fcc.gov/document/proposes-new-indoor-requirements-and-revisions-existing-e911-rules>
- Rules are not final yet. The FCC is reviewing comments before issuing a “Report and Order” which will contain the final rules
- The “requirements” in this contribution are based on the proposed rules in the NPRM

# Horizontal and Vertical Accuracy



- Horizontal accuracy within 50 meters by longitude and latitude for 67% of the calls no later than two years from the effective date of the adoption of the rules
- Vertical accuracy within 3 meters (vertical height) for 67 percent of the calls no later than 3 years from the effective date of the adoption of the rules
- Horizontal accuracy of 50 meters and vertical accuracy within 3 meters for 80 % of the calls within 5 years of the adoption of the rules.
- CMRS providers shall satisfy these indoor location accuracy standards on a PSAP-level or county-level basis, and may demonstrate compliance by either:
  - Participating in an independently administered test bed program that includes a sampling of different environments that is representative of real-life indoor call scenarios, employs the same technology or technologies actually employed in their networks, and relies on tests of how the technology or technologies will actually be so employed; or
  - Using alternative testing methods, provided that CMRS providers demonstrate that their methodology and testing procedures are at least equivalent to the testing methodology and procedure standards used in the independently administered indoor location accuracy test bed under paragraph (i)(1) of this section.

# Latency (Time to First Fix)



- For purposes of measuring compliance with the outdoor location accuracy standards of paragraph (h) and the indoor location accuracy standard of paragraph (i), a call will be deemed to satisfy the standard only if it provides the specified degree of location accuracy within a maximum period of 30 seconds (“Time to First Fix”), as measured at the location information center of the E911 network. For such purposes, CMRS providers may exclude 911 calls of a duration of 10 seconds or less.

# Confidence and Uncertainty Data



- CMRS providers subject to this section shall provide for all wireless 911 calls, whether from outdoor or indoor locations, x- and y-axis (latitude, longitude) confidence and uncertainty information (C/U data) on a per-call basis upon the request of a PSAP. Such C/U data shall specify (1) the caller's location within a specified confidence level, and (2) the radius in meters from the reported position at that same confidence level. All entities responsible for transporting confidence and uncertainty between wireless carriers and PSAPs, including LECs, CLECs, owners of E911 networks, and emergency service providers, must enable the transmission of confidence and uncertainty data provided by wireless carriers to the requesting PSAP.