Improving 9-1-1 Location Accuracy

Jeff Cohen, Chief Counsel
APCO International

Matt Gerst, Director of Regulatory Affairs
CTIA

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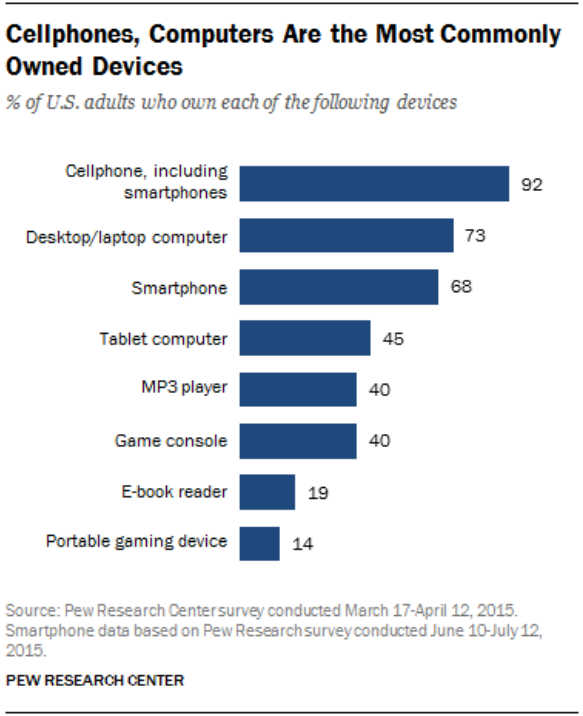
The Problem

- Consumers are replacing traditional landline phones with wireless devices, and more calls are being made while indoors.
  - Even where a wireline telephone is available, the first device reached for to call 9-1-1 is often a cell phone.
- Until recently, **no location accuracy requirements** for wireless 9-1-1 calls made indoors.



A Brief History

- **FCC *Notice of Proposed Rulemaking*** (Feb. 2014)
  - Addressing both outdoor and indoor calls.
  - Built on existing regulatory/technical models (outdoor tech producing estimates in horizontal plane only).
  - Invited public safety/others to develop alternate proposals.
- **APCO, CTIA, NENA & Major Carriers Roadmap for Improving 911 Location Accuracy** (Nov. 2014)
  - Responding to FCC invitation for alternate proposals.
  - Additional assurances in December.
- **FCC *Order*** (Jan. 2015)

APCO Goals

- Meaningful, dispatchable location information for wireless 9-1-1 calls
- Objective testing in realistic environments (Test Bed)
- Verifiable with real world performance monitoring (Actual 9-1-1 call data)
- Take advantage of technology and innovation available in the consumer marketplace (vs. specialized, proprietary)
- Technology-neutral

New Rules

- Flexible, technology-neutral
- Significantly adopted key provisions of the Roadmap
- Elements:
  - Indoor Performance:
    - Test bed (August 3, 2016)
    - Test regions
    - Actual 9-1-1 call data (February 3, 2017)
  - Solutions: DL (NEAD) & Z-Axis
  - Benchmarks (progressive, starting April 3, 2017)
  - Reports and certifications (first progress reports due Feb. 3, 2017)
  - Confidence and uncertainty information