

FCC Smartphone Apps Workshop May 8, 2015

- 9-1-1 Overview -

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AIRBUS DS COMMUNICATIONS /

Over four decades of service to the public safety communications community



NG9-1-1

Approximately **60%** of 9-1-1 calls in the United States are received by our mission-critical solutions



LMR

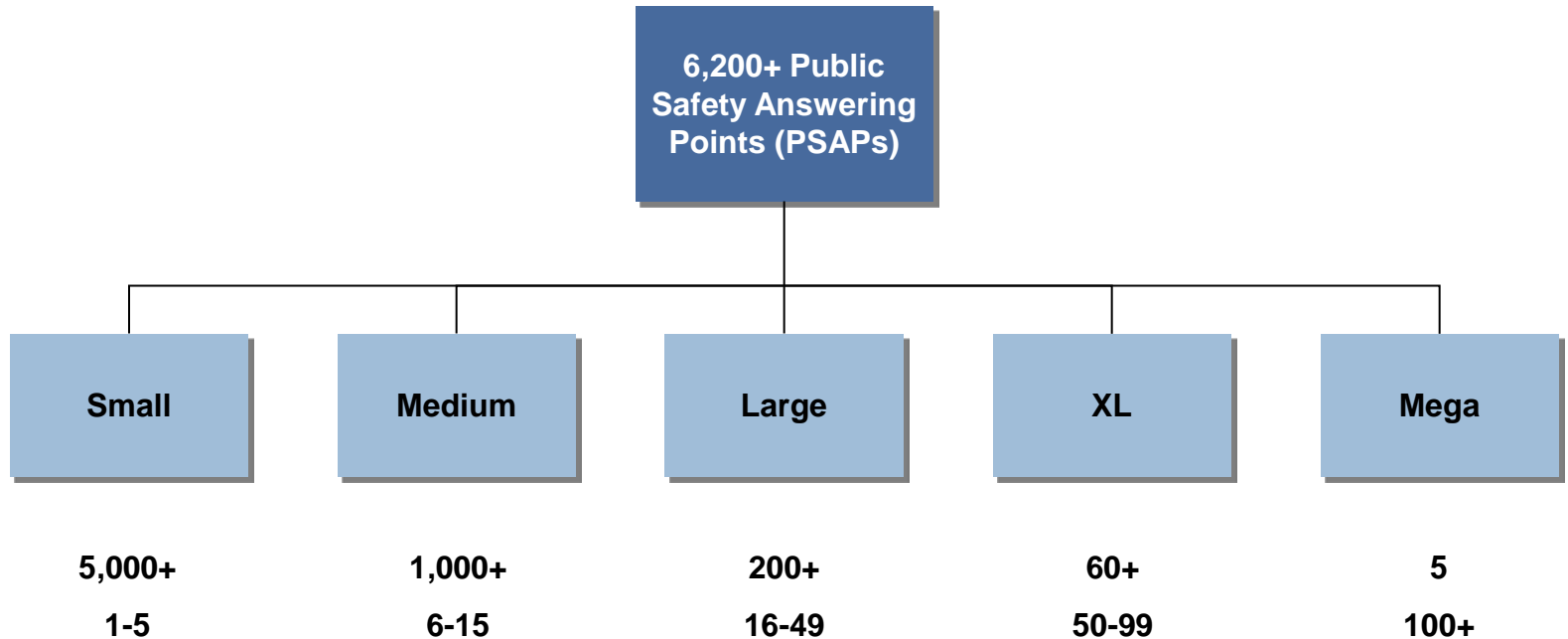
Digital trunked radio systems deployed in: over **280** public safety networks in **74** countries



NOTIFICATION

Alerting **millions** of people each year; serving public safety, federal (civil and defense), private sector (20+ industries)

PSAP MARKET SEGMENTATION /



MARKET TRANSFORMATION /

- Rapid, unprecedented change in the way people communicate



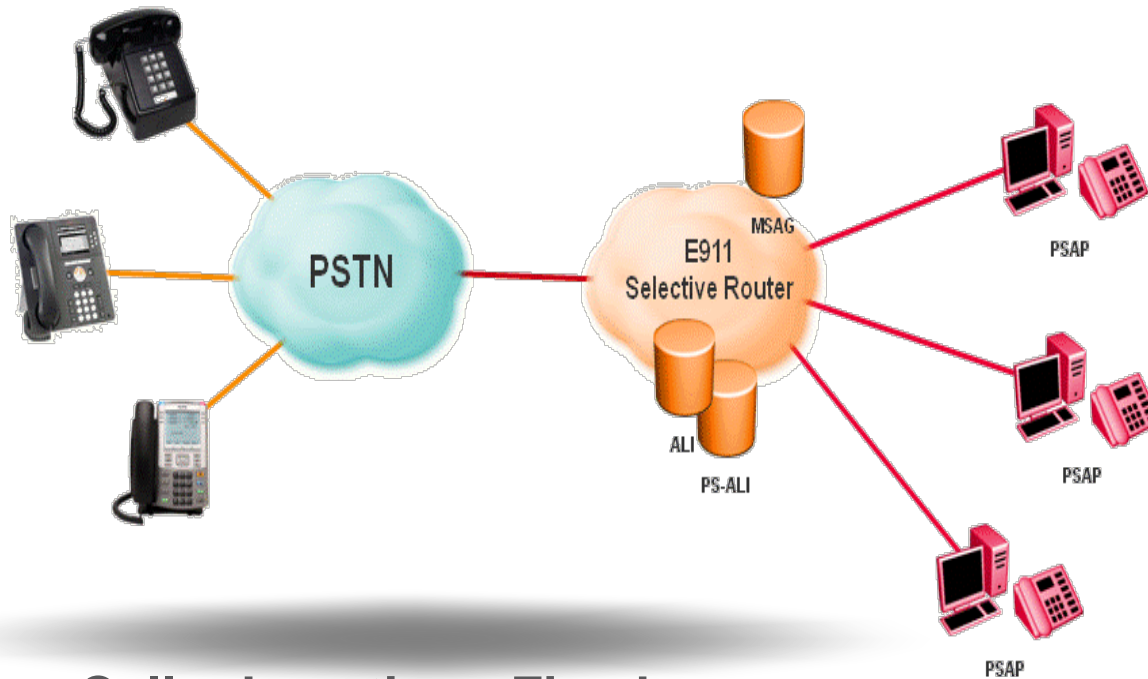
FirstNet™



The **most significant change** in Public Safety Communications in the past 30 years **is occurring NOW** and will continue for years to come!

LEGACY 9-1-1 ENVIRONMENT

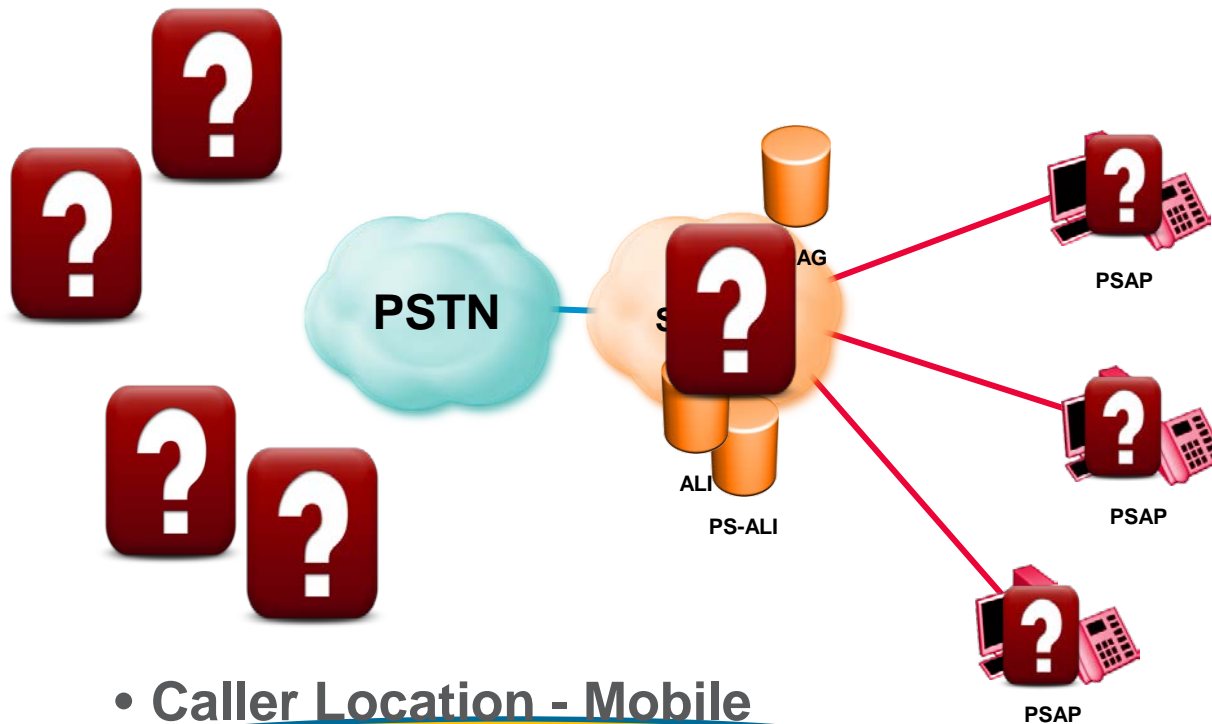
Analog technology based on fixed endpoints



- **Caller Location - Fixed**
- **Telephone Number = Location**
- **Voice Only**
- **Highly Predictable**

TODAY'S 9-1-1 ENVIRONMENT

Multimedia with MOBILITY



- Caller Location - Mobile
- Telephone Number \neq Location
- Multimedia (audio, video, text)
- Less Predictable

NG9-1-1 COMMUNICATIONS INFRASTRUCTURE

CORE CAPABILITIES	Legacy E9-1-1	I3 NG9-1-1
Telephony	Circuit switched (CAMA, TDM, SS7)	VoIP/SIP
Communications Profile	Voice Centric	Data Centric
Integrated multimedia (text, video, etc.)	No	Yes
Caller Location & Call Routing	Static & Tabular	Dynamic & Geospatial
Network Architecture	PSTN	IP Network
911 Call Center Solutions	At the PSAP	Can be Shared / Hosted
Technology Infrastructure & Interfaces	Proprietary / Standards	Standards based

NG9-1-1 CHARACTERISTICS

- Environmental
 - PSAP infrastructure components/functions expand beyond the traditional confines of the PSAP
 - Infrastructure sharing (regional, hosted infrastructure) becomes prevalent
 - Managed services become imperative in a next generation network (IP) world
- Operational
 - Steadily increasing amounts of data
 - Processes are modified to accommodate more data centric ops
 - Interoperability and collaboration becomes the norm
 - Operations take on “*Command and Control*” type characteristics

KEY BENEFITS

1. Delivery and management of content
 - SMS and multimedia with greater mobility
 - ACN/eCall, CCTV, IP video, alarms, and real-time data
2. Enhanced Interoperability
 - PSAP-to-PSAP and first responders
3. Greater Operational Effectiveness
 - Improved Situational Awareness
 - Common Operating Picture
4. Operational Flexibility
 - Advanced routing capabilities
 - Resources reside any place on the network
5. Increased deployment flexibility
 - Virtual consolidation
 - Backup, overflow, disaster recovery
6. Improved system availability / reliability
 - Highly survivable systems



NEXT-GENERATION PUBLIC SAFETY COMMUNICATIONS ECOSYSTEM



USER-INITIATED EVENTS

Request for service originates from any device



INTEGRATED, GEOSPATIAL, MULTIMEDIA PLATFORM

Telephone, Radio, NSS, GIS, Incident/Resource Management, Video, Text, Content Viewers



SENSOR-INITIATED EVENTS

ACN, Cameras, Smart Buildings, Alarms, Radiation Detectors, Etc.



Secure
Application
Data Centers



P25 MOBILE & PEDESTRIAN TERMINALS

i3 VOICE & MULTIMEDIA (ESInet)

NG9-1-1
PLATFORM

PUBLIC
SAFETY
NETWORK

P25 MISSION CRITICAL RADIO

LTE PUBLIC SAFETY BROADBAND

Notification
& Public
Information



VEHICLE & HANDHELD APPS

Radio, GIS, Query,
Messaging, Video

IN CONCLUSION...

- Standards are key to maintaining an open, interoperable NG9-1-1 environment

Q&A/



THANK YOU/

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SUPPORTING DATA