



# Public Safety Communications Research (PSCR) Program

# Presentation Materials

- All presentations can be downloaded from <http://pscr.gov/agenda.php>
- Send questions and/or comments at any time during the meeting to [zoomhz@its.bldrdoc.gov](mailto:zoomhz@its.bldrdoc.gov)

# 3GPP & ATIS Standards Dev for Public Safety

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# PSCR Broadband Standards Efforts

- PSCR uniquely positioned to communicate public safety requirements to 3GPP
- LTE specifications managed by 3GPP
- ATIS is the North American Organizational Partner
- Department of Commerce is member of ATIS
- NIST/OLES is a member of 3GPP



*PSCR is directly involved in commercial standards, representing public safety requirements.*

# Three Paths for Standards Info

- Demonstration Network
  - Problems discovered through testing
  - Features developed through user needs
- Existing Requirements
  - Gap analysis of public safety req's with standards
    - SAFECOM Public Safety Statement of Requirements
      - Is technology and spectrum agnostic
    - NPSTC Public Safety 700MHz SoR
      - Is technology agnostic but spectrum specific
    - NPSTC Broadband Task Force Report
      - Is technology and spectrum specific
- New requirements
  - NPSTC Public Safety 700MHz SoR Round 2

# ATIS Current Efforts

- Wireless Technologies and Systems Committee
  - G3GSN (Mobile/wireless GSM/3G Systems and Networks)
    - We participate in this committee to inform the North American participants of current events in public safety
    - This will support our efforts to continue standards work for public safety should other fora (such as 3GPP) prove unsuccessful

# ATIS Current Efforts Cont'd

- ATIS IMSI Oversight Committee
  - Fall 2010 – PSCR and Motorola Solutions worked to modify the ATIS IOC Guidelines to allow public safety to apply for a PLMN ID
  - After successfully completing the modification, the ATIS IOC Administrator decided that the current licensee was not eligible to apply for use of a PLMN ID

# ATIS Current Efforts Cont'd

- ATIS IMSI Oversight Committee
  - PSCR and Motorola Solutions again worked to modify the ATIS IOC Guidelines to allow suitable public safety agencies (waiver recipients) to apply for use of a PLMN ID
    - We suggested that the ATIS IOC designate a single PLMN ID for general public safety use (313-100) and set aside a range of PLMN IDs for subsequent use should the governance model and technical issues require
  - On Feb 16, 2012 - the ATIS IOC published new guidelines with Annex D allowing FCC approved waiver recipients to apply for and utilize the PLMN ID
    - The designation of PLMN ID 313-100 was completed



# ATIS Current Efforts Cont'd

- ATIS IMSI Oversight Committee – Next steps
  - Once FirstNet is formally created, we will again work within the ATIS IOC to eliminate the Annex D and have the PLMN ID (313-100) formally assigned

# 3GPP Structure

## TSG Structure

**TSG GERAN**  
GSM EDGE Radio  
Access Network

GERAN WG1  
Radio Aspects

GERAN WG2  
Protocol Aspects

GERAN WG3  
Terminal Testing

**TSG RAN**  
Radio Access  
Network

RAN WG1  
RL 1 Spec

RAN WG2  
RL 2 Spec  
RL 3 RR Spec

RAN WG3  
Lub, lur, lu specs  
UTRAN O&M Reqs

RAN WG4  
Radio Perf  
Protocol Aspects

RAN WG5  
Mobile Terminal  
Conformance Testing

**TSG SA**  
Service &  
Systems Aspects

SA WG1  
Services

SA WG2  
Architecture

SA WG3  
Security

SA WG4  
Codec

SA WG5  
Telecom Mgt

**TSG CT**  
Core Network &  
Terminals

CT WG1  
MM/CC/SM (lu)

CT WG3  
Interworking w/ Ext networks

CT WG4  
MAP/GTP/BCH/SS

CT WG6  
Smart Card App Aspects

# 3GPP Current Efforts

- Proximity Services (PROSE)
  - First discussed in SA Bratislava in June 2011
  - Formally introduced in SA1 Dublin in August 2011
    - We worked to ensure public safety's need to communicate in the absence of infrastructure was included
    - This need was removed as a last minute deal to get European carries on board
  - Formally adopted as Study Item in SA Fukuoka in Sept 2011
    - We worked with TETRA to introduce a letter into the SA meeting stating a global need to communicate in the absence of infrastructure – this allowed us to re-insert public safety requirements back into the Study Item for formal approval
      - Without the TETRA letter, public safety's need would NOT be addressed in 3GPP

# 3GPP Current Efforts Cont'd

- Proximity Services (PROSE)
  - We introduced a set of public safety use cases in SA1 San Francisco in November 2011
    - NIST, ALU, AT&T, NSN as co-signers
  - We introduced a new set of public safety use cases in SA1 Kyoto in February 2012
    - NIST, ALU, NSN, AT&T, Qualcomm, Motorola Solutions, Cassidian, Panasonic, ITRI, ETRI as co-signers
  - There appears to be an effort to split the commercial side of PROSE from public safety
    - This would fracture the market and create a public safety specific solution, resulting in less competition and increased costs
  - Ongoing

# 3GPP Current Efforts Cont'd

- Group Based Communications (GROUP)
  - We have drafted a discussion paper to introduce the need for group based communications to be considered for both voice and data within 3GPP
    - We have held off for the moment as the impact of the recent legislation is considered
      - We expect the legislation to increase our ability to influence 3GPP to meet public safety's needs given the amount of funding involved
      - We are also working to expand the global public safety perspective to further influence 3GPP that this is NOT just an North American need, but a global public safety need

# 3GPP Current Efforts Cont'd

- RAN/SA Plenary June 2012
  - RAN planning session for Release 12+
    - It is critical that public safety be on the “to do” list at that meeting
  - SA Plenary
    - We expect to introduce group based discussion paper at this point
- Next steps
  - Security, P25-LTE, etc.