PTT Over LTE Mission Critical Public Safety Voice Requirements

Stephen Devine, Chair
PTT over LTE Working Group
Technology Subcommittee
National Public Safety Telecommunications Council

The member organizations of the National Public Safety Telecommunications Council are grateful to the Department of Homeland Security's Science and Technology Directorate, Office for Interoperability and Compatibility (OIC) and the National Protection and Programs Directorate, Office of Emergency Communications (OEC)
Points of view or opinions expressed are those of the originators and do not necessarily represent the official position or policies of the U.S. Department of Homeland Security.
PTT Over LTE

The NPSTC PTT over LTE Report and Working Group is the result of a number of initiatives, including::

- PTT Section of Statement of Requirements (Section 4.1.10)  
  PTT Voice (Not in FINAL SOR)
- PTT Section of Statement of Requirements  
  (Section 4.3.11) Off Network Communications (NOT in FINAL SOR)
- Direct Mode Communications (NPSTC Technology Subcommittee Working Group)
PTT Over LTE Working Group
Members

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Steve Devine-State of Missouri
Tom Sorley-City of Houston, TX
Bill Carter-Illinois Department of Health

NPSTC is a federation of organizations whose mission is to improve public safety communications and interoperability through collaborative leadership.
Objective and Purpose

- **Objective:** Our goal in identifying PTT and Direct-Mode communications requirements is that these requirements be adopted in their entirety by FirstNet and the 3GPP community for incorporation into future LTE releases.

- **Purpose of this Document:** The principal purpose of this document is to define, from the perspective of the National Public Safety Telecommunications Council (NPSTC), broadband public safety PTT requirements for consideration by FirstNet as it embarks on its mission to deploy the nation’s first Nationwide Public Safety Broadband Network (NPSBN).
Topics Addressed

- PTT over LTE Mission Critical Voice
  - General PTT requirements for FirstNet consideration
  - PTT Call requirements for FirstNet consideration
    » Group, Private and Announcement
  - PTT Service Requirements for FirstNet consideration
    » Audio Requirements, Late Entry, Dynamic Group Management, Call Monitoring
  - PTT Call Priority requirements for FirstNet consideration
    » Call Priority, Emergency/Immediate Peril Calls,
  - PTT Identity and Security requirements for FirstNet consideration
    » Talker ID, Personality Management, Security

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Topics Addressed, Cont.

- LMR to LTE Interface
  - PTT between LTE and LMR requirements for FirstNet consideration
    » LTE to LMR, LTE to Project 25, LTE to other LMR interfaces
- Direct Mode-Off Network Communications
  - PTT off-network requirements for FirstNet consideration
    » General Off Network PTT Requirements, Off Network UE Functionality
Summary

• This document is a work in progress and will continue to evolve.

• This is a first detailed look at public safety mission critical voice requirements by public safety to help public safety on its transition to the NPSBN.

• The Working Group feels strongly that initial PTT over LTE rollouts (non-mission critical) will be invaluable to public safety as they’ll assist in learning more about how the NPSBN can support public safety mission critical voice in the future.
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The Work Continues….

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