



FirstNet and LMR Coexistence: Planning for Interoperability and Migration

North Carolina Public Safety Broadband Summit
May 23, 2018

Sponsor:

CONNECT (X)

Speaker

- > Neil Horden
 - > Chief Consultant
 - > Federal Engineering, Inc.



Session Overview

- > LMR Vs. LTE
- > LMR and FirstNet
- > Technology Transitions – Not a switch flip
- > Coexistence will be the norm
- > Key issues and considerations as agencies interoperate and migrate



LTE vs. LMR

- >Public Safety communications and LMR grew up together
 - >Technology
 - >Operational
 - >Products
- >LTE developed from the commercial cellular world
 - >Different requirements
 - >Different solutions



Technology Transitions – Not a switch flip

- > Coexistence will be the norm
 - > Coexistence due to technology readiness
 - > Coexistence due to transition timing
 - > Coexistence due to interoperability needs



FirstNet vs. LMR

- >FirstNet provides the next evolutionary step
 - >LTE Paralleled with LMR
 - >LTE Partnered with LMR
 - >LTE Replacing LMR



LTE Paralleled with LMR

- > LMR carrying today's voice traffic
- > LTE/FirstNet carrying supplemental data
 - > Extension of current mobile data applications
 - > Potential for improved performance
 - > Targeted capacity
 - > Priority and preemption

LTE Partnered with LMR

- > Selective voice services transition to FirstNet
 - > Telephone like voice services
 - > Non-Mission Critical PTT
 - > Administrative
 - > Investigation
 - > Code enforcement
- > New applications



LTE Replacing LMR

- >MC-PTT
- >Coverage Enhancements
- >Direct / Off-Network Mode
- >Specially Products



Key issues and considerations as agencies interoperate and migrate

- >Technology
- >Products
- >Policy

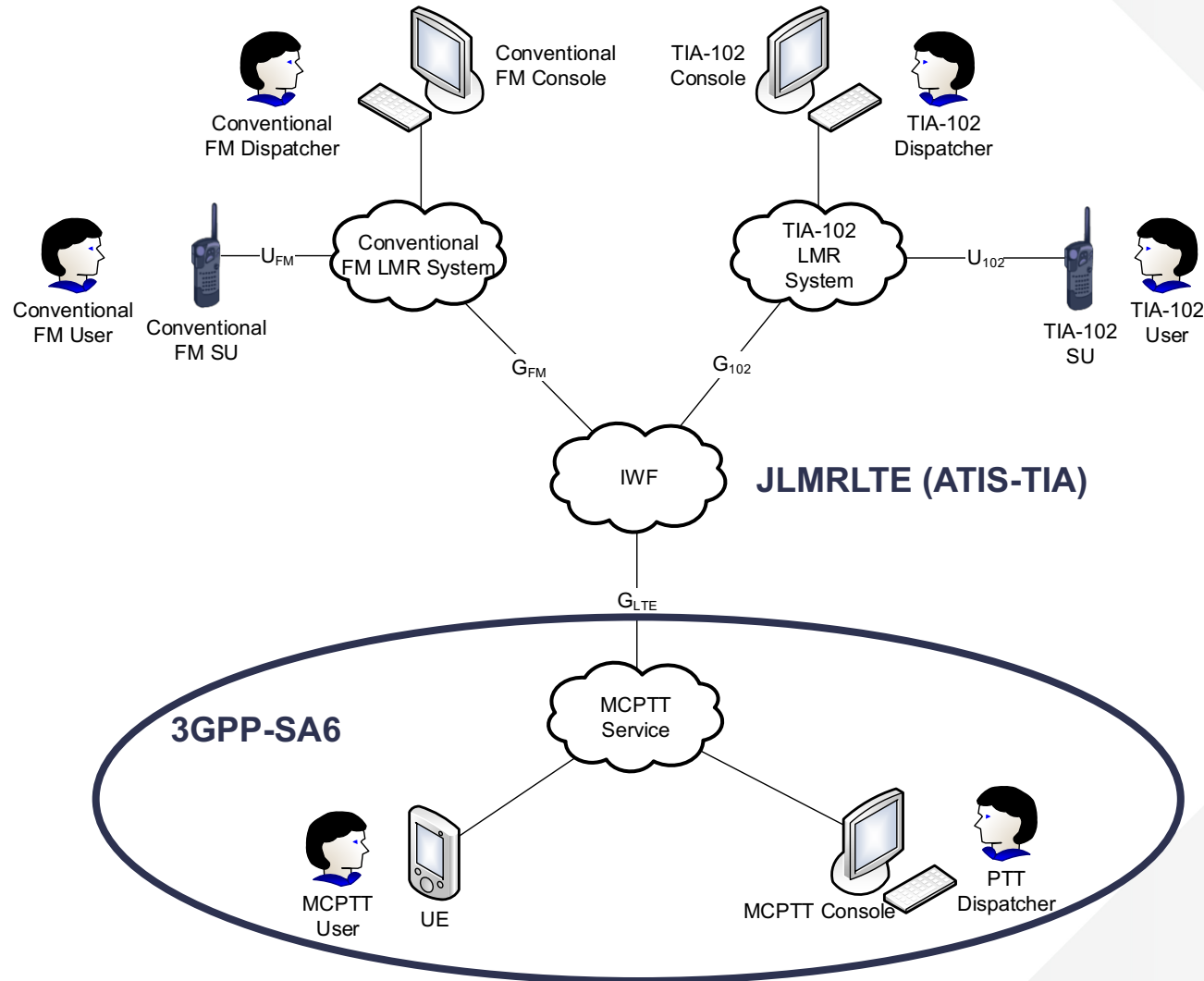


Key issues; Technology

- >Coverage
 - >Overall
 - >Targeted
- >Features
 - >MC-PTT
 - >Direct Mode
- >Interfaces



LTE to LMR interfaces



- > GLTE is what 3GPP SA6 is defining
- > G102 has not been defined yet – maybe ISSI/CSSI
- > GFM hasn't been defined yet – could be ISSI/CSSI ... or something else
- > The IWF being defined in JLMRLTE (ATIS-TIA)
- > Will likely look like
 - > MC-X server on the LTE side
 - > An ISSI node on the LMR side

Key issues; Products

- >Ruggedized
- >Specialized Functions
- >Specialized Form Factors



Key issues; Policy

- > Shared Resource
 - > Shared Responsibility
- > Local Control
 - > Overlapping control
- > Communications Interoperability
 - > Content ownership and control



Questions & Answers



For More Information

Neil Horden

Chief Consultant

Federal Engineering, Inc.

nhorden@fedeng.com

703-349-5704



Thank You!!

***Federal Engineering, Inc.
10600 Arrowhead Drive
Fairfax, VA 22030
703-359-8200***



www.fedeng.com

facebook.com/federal.engineering.inc

linkedin.com/company/federal-engineering-inc

