Essentials of LTE for Public Safety

The key building block of high speed mobile broadband

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Overview

This seminar takes the participant through the transition of a 3G/UMTS mobile network to a 4G/LTE network. It highlights the main additions and modifications as the LTE network evolves while focusing on the Public Safety features. The participant will understand the key roles of the new network elements and how these elements are connected together via the transmission system. The basic concepts of what makes LTE systems different to 2G/3G or P25/TETRA networks are also discussed.

Who can benefit

This program is designed to provide those working in the communications environment with an overview of issues and key aspects of LTE with particular application to public safety. In particular it is useful for those who are the decision makers within the organization.

Pre requisite knowledge

None

Outline

Introduction

- What is 3GPP Long Term Evolution?
- What are the basic system capabilities of LTE?
- How is spectrum allocated & licenced?
- 3GSM Family of Technologies
- Public safety licencing
- Release 11/12 public safety features
- Example public safety LTE networks

LTE Network Architecture

- Overall LTE network architecture
- The LTE air interface
- What is OFDMA?
- Deployment at different frequency bands
- The Enhanced UTRAN
- Transmission network requirements for LTE
- The Enhanced Packet Core
- Rationale for all-IP

LTE Service Architecture for Public Safety

- LTE devices & band support
- Portable & mobile handsets
- LTE public safety features:
  - Proximity Services (ProSe)
  - Group Call System Enablers (GCSE_LTE)
- How are voice & SMS handled in LTE?
- What are the key public safety applications?

LTE Test and Measurement

- Test & compliance framework for LTE equipment
- Example test configuration
- Protocol testing
- Application testing
- Field drive testing

DURATION	1 day
MAXIMUM CLASS SIZE	20

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