LTE in Public Safety Networks

Format: Classroom or Live on Web
Duration: 2 Days or 4 x 3 Hr Modules

Course Highlights

- Highly focused and in-depth training from the experts - including relevant updates from Informa’s extensive research team
- PACE enabled training to maximise competency development - see inside
- Trainers and programme directors that are experts, industry experienced, and highly accomplished training professionals
- Training outcomes and competency development designed to meet your specific requirements
Public Safety bodies around the world are looking to deploy networks using the LTE standard, to replace aging infrastructure based on TETRA, PMR, and P25. LTE has much to recommend it in this role, but “standard” LTE systems lack key functionality that is required to replace the legacy public safety networks.

Despite those limitations, governments globally, are evaluating whether LTE can meet their public safety requirements, while incumbent interests lobby from both sides of the debate. For example, the US government initially allocated $7bn for its FirstNet project - an LTE network designed for first responders - and the UK’s proposed Emergency Services Network is equally tied to the 4G telecommunications standard. With this world-wide interest, extended standardisation work has been undertaken to incorporate functionality that support requirements unique to public safety users.

This course covers the features that make LTE suitable for public safety use, and the omissions which make it less than perfect, enabling delegates to intelligently enter the debate and identify the right technology for every situation.

Learning with PACE

The key to effective learning is how the competencies (knowledge, skills and confidence) are developed, and in particular, how they are applied, both within the training and then more importantly in the work place. Our programmes are designed around this belief using the principle of PACE - Preparation, Application, Consolidation, and Experience / Engagement. Some of the PACE features listed below will be included as standard, depending on your specific programme. We will build the appropriate features into your programme, but would be happy to discuss any specific requirements you may have:

**Preparation**
- Pre course learning module(s)
- Online Webinars
  - Technology Primer
  - Topic-Specific Primer
  - Industry Update
- Pre-course assessment / quiz

**Application**
- Industry analysis from Informa Telecoms and Media analysts - applying the concepts to the industry
- Real Industry Case Studies and practical examples
- Exercises and Demonstrations
- Business Simulations
- Planning Exercises
- Industry and Technology Status Reports covering latest business trends and technology deployments
- Competency Development Journal (CDJ) - applying the learning within the work place

**Consolidation**
- Additional Telecoms Virtual Campus tutorials
- On-going Technology Analysis and white papers
- Post course tutor support
- Networking & interaction via our Linked-In Groups
- Post-course assessment / quiz
- On-going post-course Development using the CDJ

**Experience / Engagement**
- Highly interactive delivery style
- Very experienced and highly focused trainers and Programme Directors
- Class dynamics moulded to facilitate maximum learning opportunity
- Individual attention throughout the learning process in order to meet learning objectives
- Full delegate participation in building and presenting business or technology plans
- Certified or Assessed training to focus learning
Outcomes and Competency Development

Participants will develop or be able to:

- Explain the advantages of using LTE in public safety networks
- Recommend deployment strategies for public safety networks
- Make well-grounded and realistic judgements regarding the limitations of LTE technology, and how those might impact operational efficiency
- Identify the industry initiatives pushing LTE into public safety applications
- Establish the political and commercial imperatives behind the push towards LTE
- Evaluate the best technology for specific public safety applications
- Identify the key players in the public safety industry, and how their agendas impact the technology debate
- Make decisions on technology implementation and procurement that are commercially viable, minimise risk, and in line with the strategy and goals of the wider organization.

Our Trainers

We only use trainers and programme directors that satisfy the following three criteria:

- Experts in their field
- High level of Industry Experience
- Expert facilitators and training professionals

All our trainers have undergone a rigorous selection process and are subject to continuous monitoring and evaluation. Each trainer is accredited for specific courses or topic areas.

Whether engineers or business experts, all our trainers are required to continue their own development within their specialist areas, and to broaden their Industry view of trends, best practice and technology. This is achieved by our on-going work with many tier 1 operators and vendors, and by full exposure to Informa Telecoms & Media research and world-wide events. Sample biographies for some of our trainers can be found here: [http://www.telecomsacademy.com/our-team/](http://www.telecomsacademy.com/our-team/)
Course Content

Long Term Evolution

- Mobile network development
- Digital data networks
- 3GPP Systems
- 3GPP / 3G (UMTS) data services
- Key features of LTE
- LTE Architecture
- LTE Service Delivery
- LTE deployment
- LTE-Advanced

Spectrum Allocations

- Managing radio spectrum
- Public safety spectrum and allocation
- The public-safety spectral map
- Licensing Issues

Public Safety Networks

- The Role and Requirements of Public Safety Networks
- Existing networks / systems
- Capabilities and limitations
  - TETRA
  - P25
  - PMR

Public Safety Applications & Use Cases

- Law enforcement
- Fire control and protection
- Medical services
- Civil security
- Private security
- The public safety ecosystem

LTE, IMS and Service Support

- Introduction to IMS
- VoLTE and LTE voice solutions
- Session Initiation Protocol (SIP)
- Multimedia streaming
- Location services

Network Sharing

- Concept of network sharing
- Priority access in GSM
- Priority access in LTE
- Network coverage
- Commercial issues

LTE-Advanced Features for Public Safety

- Group calling
- Push to talk
- Proximity Services
- Personal relay
- 5G services
- Data offload

Regional Deployment Examples

- FirstNet
- Emergency Services Network
- A global view
Customisation and Delivery Options

We can customise your company-specific programme to incorporate or focus on a range of topic areas. We also have a number of delivery options available:

- **Classroom (face-to-face)** - Take a course off the shelf or work with us to produce a customised programme to meet your exact needs.
- **Live on Web** - Get the benefits of high quality, interactive instructor-led training online without the associated travel costs.
- **Distance Learning** - Study at your own pace with our range of fully supported and university accredited distance learning programmes.
- **On-Line Learning Modules** - Produced to a very high standard, the pre-developed modules are accessed on-line and are highly cost-effective.
- **Blended Training** - Allows you to build programmes that are engaging, interactive and keep participants motivated and progressing.
- **On-going Competency Development** - Maximise the training through a range of competency development and assessment tools.

Telecoms Academy Structure

Our training programmes are delivered worldwide as part of the training and development plans of many of the largest operators, vendors, and service providers. The programmes cover a wide range of competency development requirements.

To ensure we meet the training needs of the industry as effectively as possible, we operate three schools:

- **School of Telecoms Management** – Business training tailored to the telecoms industry, ranging from the intensive 5-day Telecoms Mini MBA to specialist leadership and marketing training.
- **School of Advanced Communication Technologies** – Covering a multitude of technologies, including the very latest, these courses range from overviews aimed at non-technical staff to in-depth engineering training.
- **Distance Learning** – Our comprehensive suite of Distance Learning programmes provide an excellent opportunity to expand knowledge and build confidence.

University Accreditation

Some of our programmes have been accredited by, and are offered in partnership with the University of Derby Corporate; a UK-based university highly acclaimed in the area of employer engagement. They are at the forefront of the drive to integrate highly focused industry-led training with the academic rigor and quality control of university-based education.

Our comprehensive Advanced Telecoms Management Series (ATMS) have been accredited at Level 7 (Post-Graduate), with our extensive suite of Distance Learning at Level 4 (Undergraduate Level). We would be happy to discuss extending accreditation (and university qualifications for the participants) to tailored ATMS or programmes based on our Distance Learning modules.

Although accreditation is specific to these programmes, the work we do with the University of Derby enable us to develop and apply best practice across our portfolio.

Further Details

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