ENG-517 - 5G & IoT – A Technical and Regulatory Perspective

Description

Current Telco architecture is transforming from being composed of vertically integrated discrete network elements to being cognitive, cloud-optimized and seamless in operation. Such next-generation networks will not be server-centric, but instead will focus on data and content requirements. Data and the applications that use it will be decoupled. The new network architecture will support easy scalability, have built-in security and privacy, enable energy efficient operation, offer lower Operational Expenses (OPEX), and flexibly support an extremely wide range of uses.

This 5-day course is designed to provide an overview of 5G from a technical and regulatory point of view.

Learning Outcomes

At the end of the course, participants will be able to:

- Identify 5G technology enablers and the features

- Describe the technical architecture and components of a 5G network

- Discuss the challenges of migration to 5G and some use cases of this new type of network

- Describe the applications and advancement of 5G, assess security considerations and the role of analytics and applications

- Discuss the regulatory challenges and the role of a regulator in facilitating the rollout of 5G

- Explain the different business models needed for this new generation of technology and how operators can shift smoothly to 5G

Topics

The training course covers the following topics:**DAY 1**

- **Regulatory and Policy Issues Around 5G**

  - Trends/shift to a digital economy (environment) - Introductory section/span>
  - National telecommunications strategies and the shift to a digital economy
  - 5G and national telecommunications strategy
  - 5G – To regulate or not to regulate?
  - Business model challenges of 5G
  - Regulatory issues of 5G

- *Workshop: 5G Technology Readiness*
- *Workshop: Key Considerations for Rolling Out 5G*

Day 2

- **5G – Introduction to Technology and Architecture**

- 5G and IoT technology enablers
  - Introdution to 5G and applications
  - 5G netowork deployment options
  - 5G architecture – CORE

- *Workshop: The Role of Regulators in 5G Deployment*

DAY 3

- **Key Regulatory Issues**

  - 5G and spectrum allocation
  - Network sharing
  - 5G roaming
  - Privacy an security for 5G

- *Workshop: Comparison of Different Approaches to Rolling Out 5G*
- *Workshop: Network Sharing*

DAY 4

- **5G Architecture in Depth**

  - 5G architecture – RAN
  - 5G advancement & air interface
  - Massive MIMO & beamforming
  - 5G NR physical layer
  - 5G protocols
  - 5GS QoS model principles
  - 5GS QoS flow handling
- *Case Study: 5G Rollout Implications in the UK*

Day 5

- **5G, IoT, Security Issues, Applications and Use Cases**

  - 5G and IoT
  - Security - 5G
  - Cloud and applications
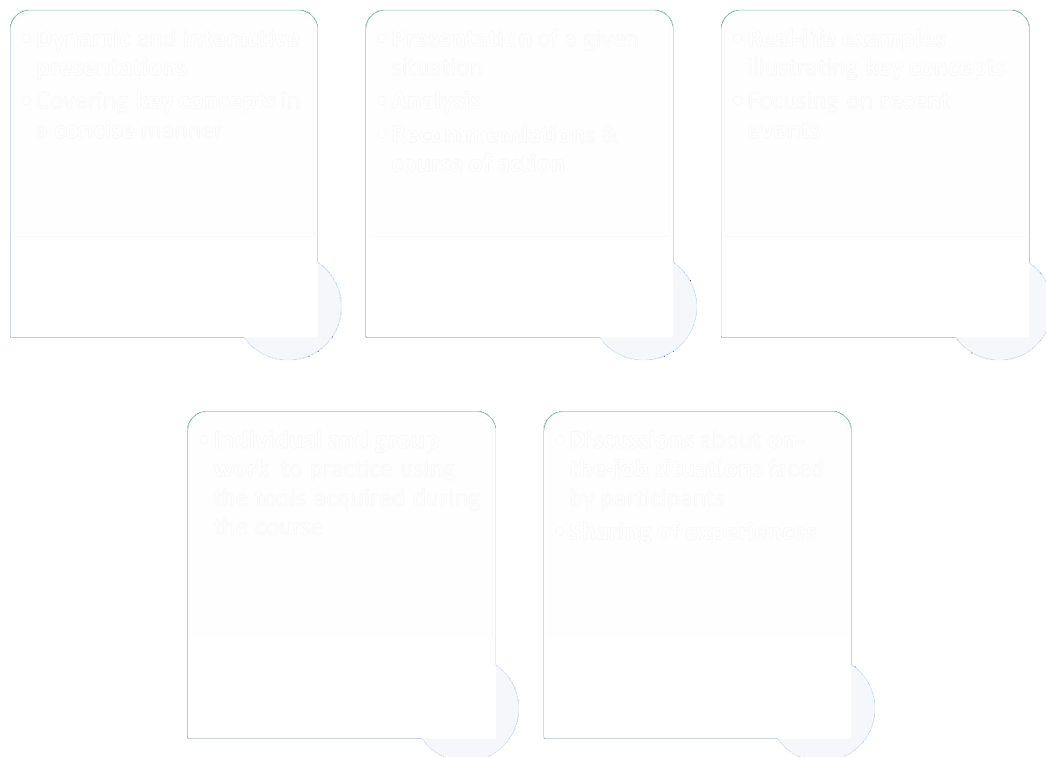-

Workshop: 5G Security Concerns - The Huawei Case

- *Case Study: Why 5G is so Important for Healthcase Use Cases*

Target Audience

- Strategic or technical managers, consultants, communications professionals, network professionals and others who plan on using, evaluating or working with 5G wireless networks, applications and services, including IoT.
- Telecom professional who need to understand the technical aspects of 5G and IoT and have an understanding of the associated regulatory considerations.

Methodology

A combination of engaging activities and dynamic presentations to stimulate and maximize participants' learning.

Location

A selection of Neotelis' training courses is held in various cities around the world. Please contact us at training@neotelis.com for the complete Yearly Training Calendar.

Neotelis can also deliver in-house sessions of this course specifically for your organization. Please contact us at training@neotelis.com for more information and a Proposal.

About Neotelis

Neotelis provides training, consulting, conferences and publications to the telecommunications industry worldwide. Its team of senior experts has trained thousands of executives and managers working for operators, regulators, policy-makers and governments in over 120 countries around the world.