ENG-207 - Next Generation Networks

Description

A 5-day Training Program to provide participants with a sound understanding of the fundamentals of Next Generation Networks (NGNs).

The Training Program will cover topics such as NGN architecture, protocols, main network components, interworking with legacy networks, Quality of Service (QoS) and network management. The program will also address NGN consumer and business services and consider some of the major issues associated with migrating from a legacy network to an environment incorporating an NGN.

Objectives

- Provide an overview of NGNs and the differences from legacy networks
- Describe the architecture of NGNs and their main components including: softswitches, gateways, application servers, and signaling
- Provide an understanding of QoS in NGNs
- Explore NGN applications for consumers and businesses as well as carriers
- Explain NGN management with respect to configuration, faults, performance, accounting and security
- Provide an overview of new technology and its influence on evolution of NGNs
- Explore the issues and opportunities associated with migration from legacy to Next Generation Networks

Topics

Introduction and overview

- NGN: definitions, concepts and services
- Displacement of legacy networks: an historical and technical perspective

- Typical structure of a NGN and differences from legacy networks
- Examples of the current world NGNs

NGN architecture and main components

- Review of IP and its protocols
- NGN architecture and components
    - Softswitches
    - Gateways
    - Application servers
    - Signaling and interworking

Quality of Service (QoS)

- Understanding QoS
- Principles of queuing applied to QoS
- Techniques and protocols addressing QoS
    - Virtual Private Networks (VPNs)
    - Multi-Protocol Label Switch (MPLS)
- Bandwidth management
- Traffic, Service Level Agreements (SLAs), carrier versus enterprise requirements

NGN applications

- NGN services
    - Voice over IP (VoIP)
    - Video on Demand (VoD)
    - Others
- Consumer versus business services
    - Voice
    - Data
    - Video
- Security issues and techniques used in NGNs
- NGN management
    - Configuration
    - Fault
    - Performance
    - Accounting

New technology and its influence on the evolution of NGNs

Migration to NGN services

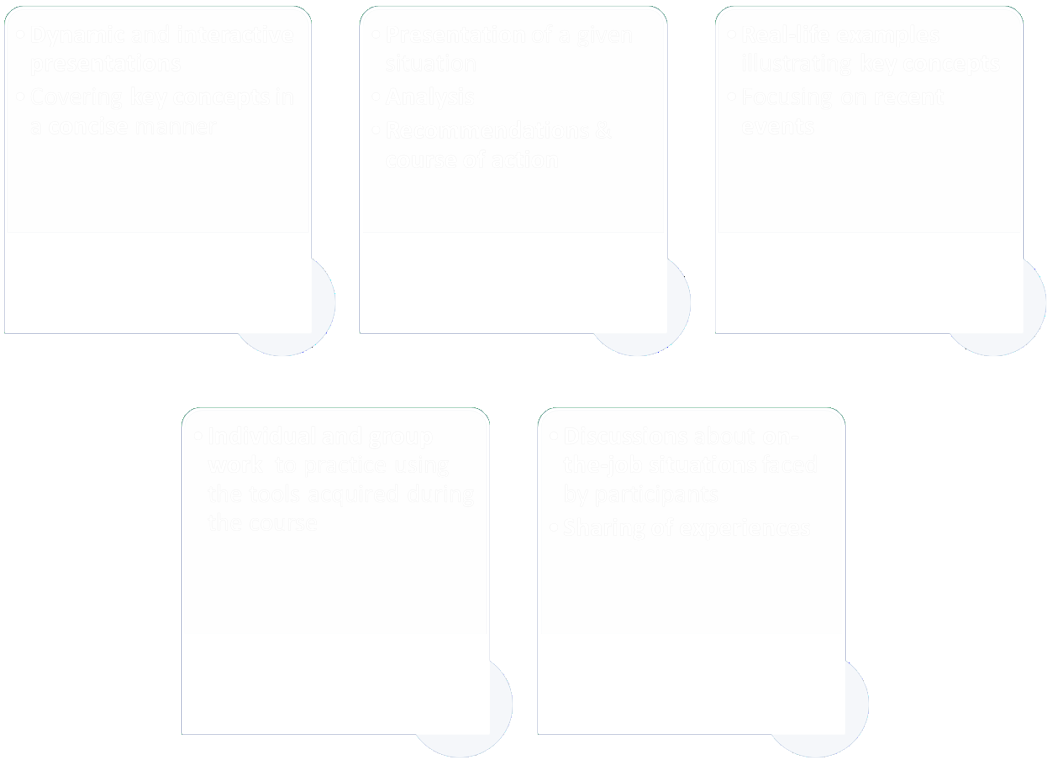
- Technical migration issues
- Business migration issues
- NGN regulatory and policy issues
- Opportunities for new revenue generation in the NGN market

Target Audience

- Telecommunications managers and personnel responsible for network design, implementation or operations
- Managers looking to complement their skill-set by gaining a good understanding of Next Generation Networks

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.

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