

Enabling Secure Service Delivery on Advanced Networks



Informa Telecoms Academy and Gemalto present a unique insight into secure service provision in advanced communications networks.

Ongoing and significant changes to the telecoms business environment is leading to more complex service delivery options - with a requirement for rich media content, the capability to host or enable huge numbers of applications, and a greater emphasis on third parties within the service delivery chain.

This programme explains how advanced and secure services, applications and content can and should be planned and implemented as operators evolve their networks to HSPA, LTE, IMS.

The overall service mix, including voice, internet access, messaging, television, and advanced Value Added Services (VAS). The overall aim is to ensure the delegate is well equipped for the challenges of deploying secure services, content and applications over modern, advanced communications systems.



At the end of the training you will...

- List the services, content and applications to be provided (and their likely relevance) as operators evolve towards advanced (& 4G) networks
- Understand with clarity, the architectures that will be adopted in advanced core networks / EPS – identifying the role and operation of each network element, as well as the associated interfaces
- Identify the major options for delivering each service / content / application type – in terms of a framework that supports the required elements of services delivery (including distribution, billing, QoS, DRM and Security)
- Understand end-to-end security considerations when deploying services over multiple network technologies with several actors

Who should attend?

Anyone who requires a comprehensive overview of advanced networks & their secure deployment...

- > Core Network Planners
- > Core Network Engineers
- > R & D and Innovation Teams
- > Content / VAS Managers
- > Network IT Professionals
- > Product Marketing
- > Project Manager
- > (U)SIM Manager...

Pre-requisites:

A basic understanding of telecommunications would be an advantage.
This course is held in English

Key topics

Radio & Cellular Systems Explained
Advanced Network Architectures (incl. LTE & 4G)
Service / Content / Application Delivery Frameworks

Security Issues
Implementation options, and standards
Services / Content / Applications, including
IP TV, Web 2.0, IMS, M2M, Mobile TV, NFC



Day 1 & 2

Exercises

Trainees registration and training overview

Mobile Network Technologies

- > The Evolution from 2G to 3.5G
- > Service Drivers, Applications & Market Analysis
- > 3GPP and 3GPP2 Work Efforts
- > Standards Status and Technology Trials
- > Spectrum for Mobile Services
- > 3G HSPA & LTE - Achieving Spectral Efficiency
- > Orthogonal Frequency Division Multiplexing (OFDM)
- > Multiple Antenna Systems and MIMO Principles
- > Uplink & Downlink Proposals for LTE
- > Access Network Architecture

Core Network Evolution

- > IP in the Core Network
- > The Evolution from Circuit to Packet Switching
- > System Architecture Evolution (SAE)
- > Interfaces and Protocols
- > Migration Paths to SAE
- > Service Control and Delivery

Technologies for Multi-Service Networks

- > Delivering Telecoms, Internet and Entertainment Services
- > Telecoms Networks
- > The Internet – Features and Architecture
- > Entertainment Networks
- > Broadband Access
- > Voice over IP Principles
- > Quality of Service (QoS) & Billing for Multi-play

User Experience: Services, Applications & Terminal / Handsets)

- > Services –categories
- > Personalised, Location-based, High value services
- > Content
- > The Impact of Web 2.0
- > Multi-band and multi - system handsets
- > Devices
- > Complimentary technologies

Service Delivery Systems

- > Systems And Technologies
- > Value Added Service & Content Provision
- > Third Party Service Development
- > The Terminal/Handset
- > Billing for Services and Content
- > Messaging Systems: Multimedia Messaging Service...

Several Case Studies

Day 2 & 3	Exercises
<p>Security in the Network</p> <ul style="list-style-type: none">> Network Security:<ul style="list-style-type: none">• GSM security• 3G Security• IMS• Service Security (Application Layer): Generic Bootstrapping Architecture• Evolution in LTE• Inter-working with WLAN/CDMA/WiMAX• Inter-standard Roaming> Why security is needed at the terminal: Handset security challenges <p>Personal Proximity Services</p> <ul style="list-style-type: none">> Alternative technologies (NFC, Zigbee, Bluetooth...)> Actors landscape, use cases:<ul style="list-style-type: none">• Banks, Financial institutions• Transport Operators• Large Retailers• Poster Advertisers• Mobile Network Operators> Architecture> Security principles <p>Providing Secure Convergent Services</p> <ul style="list-style-type: none">> What is convergence?> Convergent devices> Connected PCs: Mobile Broadband> Network address book, Presence> Femtocells> Mobile-TV, IPTV technologies<ul style="list-style-type: none">• Broadcast, streaming• Conditional Access System (CAS)• Standards• Free-to-air, VOD, parental control> Security concerns <p>Machine-to-Machine (M2M) Services</p> <ul style="list-style-type: none">> Landscape, actors<ul style="list-style-type: none">• Automotive• Logistics managers• Metering• Video surveillance> Environmental constraints> SIM & subscription management <p>Bringing it all together</p> <ul style="list-style-type: none">> An integrated view> Success Stories> Timelines	<p>Several Case Studies</p>