IMS Explained (3 hours)

Forming part of mpirical's acclaimed "Explained" series, this 3 hour eSeminar introduces the key features and processes behind the IMS. The eSeminar achieves this by initially detailing the function and role of the IMS nodes required to support seamless service delivery. In addition, IMS registration and session establishment will be detailed, before considering how a variety of services can be supported through the use of additional IMS entities.

Who Should Attend

IP Transport Network Engineers considering what impact IMS traffic will have on the network. Telecoms Engineers requiring a detailed overview of IMS architecture, features and services.

Course Outline

Divided into 3 sections, the topics covered will include:

Section 1: IMS fundamental Architecture (1hour)

This initial section will introduce the end-to-end IMS architecture and also defines the key nodes associated with service delivery in the IMS. As such, elements associated with session control and establishment will be detailed, as well as support for subscriber information. IMS control protocols will also be examined as part of this section.

- IMS service management and delivery - P, I and S-CSCF.
- Subscriber information - HSS, AuC and SLF.
- IMS Signalling - SIP and Diameter.

Section 2: Registration and Session Establishment (1hour)

Using the information provided in the previous section, this section will show how these elements are employed in order to support registration and session establishment in the IMS. Accordingly, signalling flows associated with both of these processes will be examined, including an overview of how subscriber signalling is secured.

- Signalling flows for IMS Registration - Public / Private IDs.
- Subscriber Security including IMS AKA and IPSec.
- IMS Session Establishment - signalling flows and features.

Section 3: Service Considerations (1hour)

This concluding section is designed to address interworking between the IMS and other entities such as the PSTN, 3rd party services and peer IMS networks. The key nodes required to ensure service delivery is both achievable and secure will be examined as part of this, showing situations where these nodes will be employed.

- PSTN Interworking - BGCF, MGCF, MGW, SGW.
- Support for services - MRF (Media Servers), ISC and SCIM.
- IMS-to-IMS interworking - IBCF and the I-CSCF.