v1.200

IMS Essentials

Course Duration:

- 1 day

Course Description:

- This course addresses the needs of everybody who needs fundamental understanding of the IMS.
- The course starts with an animated presentation of some new services which offering is enabled through the IMS. After this we explain how basic telephony services are provided in the IMS-environment.
- The following part provides an overview of the IMS internal architecture and to the related protocols.
- The course concludes with the presentation of a real-life implementation of an IMS.

Pre-Requisites:

- Basic IP-knowledge.-
- Basic telecom knowledge.

Course Target:

- After the course the student will have basic knowledge about the IMS and its internals including the used protocols.
- Most importantly, the student is enabled to contribute to IMS-related discussions and work assignments.
-

Some of your questions that will be answered:

- What are typical IMS-specific applications and services like “See what I see” and how do they work?
- What are the names and functions of the different network nodes inside the IMS?
- What are the implications of a split or a centralized IMS-installation?
- What is a hosted IMS?
- How can IMS-services be charged?
- How do real-life implementations of the IMS look like?

© INACON GmbH 1999 - 2015. All rights reserved. Reproduction and/or unauthorized use of this material is prohibited and will be prosecuted to the full extent of German and international laws.

Who should attend this class?

- Managers and everybody else who requires an overview on the IMS and the services that it offers.

Table of Contents:

© INACON GmbH 1999 - 2015. All rights reserved. Reproduction and/or unauthorized use of this material is prohibited and will be prosecuted to the full extent of German and international laws.

CSCF Cabinet- Front & Rear View, Applications Servers and Session Border Controllers

- **Functional Description of IMS Network Elements**
  - ⇒ Typical User Agents of the IMS
  - ⇒ Server Types (generic)
  - ⇒ Special Server Types (generic)
  - ⇒ Operation of Registrars
  - ⇒ Detailed Consideration of SBC and B2BUA
    Example: VoD for a Mobile Client with limited Access Rates, Example: SBC for Traffic Inspection
  - ⇒ Operation of Event Servers
  - ⇒ Generic Servers vs. IMS-specific Servers
- **Protocols within the IMS**
  - ⇒ Control Plane
  - ⇒ User Plane
  - ⇒ Consideration of SIP
    Scope of SIP, Session Setup Example through SIP
  - ⇒ Consideration of SDP
    The Offer/Answer Model
  - ⇒ Consideration of the DIAMETER Protocol
    IMS-specific Amendments to DIAMETER Protocol
  - ⇒ RTP / RTCP

Reviewing a typical IMS-Implementation

- **Architectural Overview**
  - ⇒ Overall Network Design
  - ⇒ Physical Topology Design
  - ⇒ Customer Premises with WIMAX Access
  - ⇒ Summary of the Main Components of Network Architecture
  - ⇒ Distribution of IMS-Core Network Entities

© INACON GmbH 1999 - 2015. All rights reserved. Reproduction and/or unauthorized use of this material is prohibited and will be prosecuted to the full extent of German and international laws.