Signaling system 7

Introduction:

- The Public Switched Telephone Network (PSTN)
- Switching Evolution
- Switching Hierarchy (Class 1 - 5)
- The Role of Signaling and SS7
- Intelligent Network (AIN/IN)The Evolution of Signaling
- What is Signaling?
- What is Out-of-Band Signaling?
- Signaling Network Architecture
- Network Signaling Evolution
- The North American Signaling Architecture
- SS7, CC#7 or Signaling System No 7
- S7 Protocols
- Lower Layers
- ISUP (Call Control)
- TCAP (Transactions)
- MAP (Mobile)
- INAP (AIN)
- SS7, IN, and AIN
- MAP and CAMEL
- CAMEL (Prepaid Roaming)
- SIGTRAN (SS7 over IP Transport)

Introduction to SS7:

- SS7 Network Architecture and Protocols Introduction
- Protocols Found in the Traditional SS7/C7 Stack
- Message Transfer Part 2 (MTP2)
- Message Transfer Part 3 (MTP3)
- Signaling Point Codes
- Message Format

- Signaling Message Handling
- Signaling Network Management
- ISDN User Part (ISUP)
- Signaling Connection Control Part (SCCP)
- Transaction Capabilities Application Part (TCAP)
- Intelligent Networks (IN)
- GSM and ANSI-41 Mobile Application Part (MAP)
- SS7/C7 Over IP
- SS7 in the Converged World

SS7 Evolution, Protocols, Architecture, and Applications

- SS7 Call flows and Application:
- Basic Call Setup Example
- Database Query Example
- Layers of the SS7 Protocol
- What Goes Over the Signaling Link?
- Addressing in the SS7 Network
- Signal Unit Structure
- What are the Functions of the Different Signaling Units?
- Message Signal Unit Structure
- Intelligent Networks (IN) and Advanced Intelligent Networks (AIN)
- LSS7 and Database Connection
- ocal Number Portability (LNP)
- Wireless Applications
- OSS Interconnection: E911/911, LIDB, OS/DA, LNP
- HLR, VLR and EIR