



CCNA Voice (640-461)

Course Details:

Lesson 01: Bangladesh Telecom Industry

- BTRC
- ILDTS Policy
- IGW, ICX, IIG , IPTSP And Mobile Licensing Guideline
- VSP Licensing Guideline
- What Is Needed To Set Up A VOIP Business
- Successfully Running A VOIP Business
- What Is E1 And Stm1
- What Is Softswitch
- What Is Mobile Dialer
- What Is Calling Card Platform
- What Is VOIP Billing
- What Is KPI For Voice: ASR, CER, ACD, MOS etc.

Lesson 02: History of Analog Voice Connectivity

- PROPERTIES OF ELECTRICITY IN VOICE TRANSMISSION
- ANALOG SIGNALING:
- LOOP AND GROUND START
- SUPERVISORY SIGNALING (ON HOOK, OFF HOOK, RINGING)
- INFORMATIONAL SIGNALING (DIAL TONE, BUSY, RING BACK, CALL END ETC.)
- ADDRESS SIGNALING: PULSE AND DTMF
- PROBLEMS IN ANALOG CONNECTIVITY

Lesson 03: Digital Voice Connectivity

- How To Sample A Analog Voice Signal To Digital (Sampling, Pam, PCM)
- Understanding TDM And Ds0's
- Digital Signaling Method: Channel Associated Signaling (CAS) & Common Channel Signaling (Ccs)
- What Is E1 And T1
- Voice Codecs
- Understanding DSP & Bandwidth Savings In VOIP Network
- RTP/RTCP
- Signaling Protocol: Sip, H.323 etc.

Lesson 04: Legacy Voice Components

- Structure Of PSTN
- Structure Of PBX And Key System
- PSTN Numbering Plan
- FXO/FXS Ports

Lesson 05: Cisco Voice Infrastructure

- Layer Of Voice Components (Call Processing Elements, Endpoints, Application, Infrastructure)
- Endpoint Devices: IP Phone, Video Phone etc.
- Infrastructure: Voice Router/Switch/Gateway
- Application: Voice Mail, IVR etc.
- Call Processing Elements: CUCM, Call Manager

Lesson 06: Network Component in Voice

- Voice VLAN, Data VLAN, Inter VLAN Routing, DHCP, TFTP, NTP, QOS, POE etc.
- How Data & Voice Network Merged Together
- Secured Voice Network With GRE Tunnel And IPSEC

Lesson 07: Cisco Voice Processing Foundation

- IP Phone Registration Process
- EPHONE, EPHONE-DNS
- Registered An IP Phone By Mac
- Assign A Directory Number In An IP Phone
- Call Routing In Different Network

Lesson 08: Cisco Unified Communication Manager

- Introduction To CUCM
- Configuring A Directory
- Understanding Call Forward, Call Transfer, Call Pickup, Call Conference, Call Park, Intercom, Paging etc.
- Configuring Voice Dial Peer, Digit Manipulation etc.
- Customize Phone SOFTKEY Template
- How To Configure Partition And Calling Search Space(Access Privilege) In CUCM
- Review Of Other Add ONS In CUCM