



DCT Unified Communications

Duration: 5 Days

Course Code: DCT03

Overview:

DCT Unified Communications is a unique Multi-vendor course that introduces IP Telephony, Unified Messaging, Unified Presence and Unified mail to ICT Professional who are interested in venturing into the world of IP communications. The class based training offers advanced hands on experience labs to prepare students for any deployment scenarios.

Target Audience:

Network Engineers

Objectives:

- Describe the components of IP Telephony.
- Describe PSTN components and technologies.
- Describe how to interconnect VoIP with service provider networks.
- Implement a Unified Communication Systems PBX
- Implement phone provisioning to support endpoints.
- Implement Basic Voicemail and IVR on an IP PBX platform.
- Implement Voice Gateways and analogue Phone integration with IP Systems

Pre-requisite

- Those attending this course require basic understanding of IP Basic Knowledge of telephony desired but not compulsory.

Course Content

- Introduction to unified communications.
- Design a UC solution _Vendor Offering.
- Migration option from legacy to IP.
- Basic configuration hand on lab.
- Integrated IP telephony PSTN.
- Integrated IP telephony Legacy PBX and analogue Phones.
- Advanced configuration, call restriction ,call routing and QOS.

LABS

- LAB 1: Configuring CUCME on Cisco 2900 Router.
- LAB 2: Configuring Avaya IP Office 500.
- LAB 3: Configuring Huawei eSpace U19100.
- LAB 4: Installing and configuring asterisk open source IP PBX.
- LAB 5: Integration of VOIP gateways to IP Systems..

Further Information:

For More information, or to book your course, please Email us on:

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Content: Copper

1. Introduction to Balanced Twisted-Pair Cables
 - Connecting Hardware
 - Telecommunications Outlets
 - Patch panels
 - Wiring Blocks
2. Networks
 - Local and Wide Area Networks
 - Pros and Cons of a Network
 - Network Topologies
 - Generic (Structured) Cabling
3. Cabling Standards
 - ANSI/TIA/EIA Standards
 - ISO/IEC Standards
 - CENELEC Standards
 - Cable Categories
4. Horizontal Cabling
 - Horizontal Channels
 - Open Office Cabling
 - Channel Lengths
 - Horizontal Pathways
 - Maximum Pathway Fill
5. Backbone Cabling
 - Backbone Cabling Systems
 - Backbone Cabling Distance Limitations
6. Work Area Cabling
 - Work Area Components
 - Telecommunications Outlets
 - Work Area Cable Termination
7. Telecommunications Spaces
 - Equipment Rooms
 - Telecommunication Rooms
 - Entrance Facilities
8. Electromagnetic Interference (EMI)
 - EMI
 - Power Separations
9. Installation Practices
 - Cable Management
 - Bend Radius
 - Cable Stacking Height
 - Cable Stress
 - Cable Support
 - Rack Clearance
 - Equipment Locations
 - Mounting Connecting Hardware
 - Earthing And Bonding
 - Cable Pulling
 - Cable Termination
10. Testing
 - Permanent Link Testing
 - Channel Testing
 - Test Parameters
11. Administration
 - Labels
 - Records
 - Administration Classes (1-4)
12. Warranties
 - Test Results
 - Warranty Registration Form

Content: Fibre

1. Introduction to Fibre Optics
 - What is Optical Fibre?
 - Optical Fibre Constructions
 - Fibre Sizes
2. Optical Fibre Transmission
 - Fibre Optic Transmission Systems and Data Links
 - Fibre Optic Transceivers
 - Types of Fibre
 - Electromagnetic Spectrum and Wavelength
3. Fibre Optic Transmission Windows
 - Fibre Optic Cable Types
 - Loose tube and Tight Buffer
 - Simplex and Duplex
 - Distribution and Break-out cables
 - Indoor/Outdoor Cables
 - Self-Supporting
 - Armoured
4. Fibre Splicing and Terminating
 - Mechanical and Fusion Splicing
 - Types of Fibre Connectors
 - Hot and Cold Cure Termination
 - Mechanical Termination
5. Signal Degradation
 - Dispersion
 - Attenuation
 - Scattering
 - Absorption
 - Factors affecting Slice points
6. Implementing Fibre Optic Cabling in the LAN
 - Fibre vs Copper
 - Fibre in the LAN
 - Channel Classification
 - Optical Fibre Categories
 - Fibre Cannel Classification
 - Fibre Channel Length
 - Optical Fibre Applications
 - Fibre Cabling Design
 - Fibre Optic in the Work Area
7. Fibre Optic Safety
 - Chemical Hazards
 - Optical Hazards
 - Fibre Fragments
 - Environment
 - Safety for Everyone
8. Fibre Optic Cable Installation
 - Cable Pulling
 - Maximum Pulling Load
 - Bend Radius
 - Pulling Cables in Ducts
 - Colour Codes
9. Fibre Optic Testing
 - Types of Test Required
 - Flashlight and Visual Fault Locator
 - Fibre Microscope
 - Attenuation Testing Using LSPM
 - Channel Attenuation Calculations
 - Optical Time Domain Reflectometer

Labs

- Terminations, Troubleshooting and testing on:
- Category 6 UTP Cabling system
 - Category 6A FTP Cabling system
 - Trouble shooting and Testing of both Cat 6 and Cat 6A cabling
 - Fibre Field terminations
 - Fibre splicing
 - Fibre Trouble shooting and Testing

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