

NETWORKING

3 MONTHS



CURRICULUM

Ducat is one of the best IT training Institute in Delhi It offers customized Courses for IT background as well as Non IT background students, which is highly in demand in the industry.

In 3 Month we equip the students with the help of state of the art technical lab and make them industry ready. The striking feature of our training is that we provide opportunity to work on live projects along with industry visit. Which makes you global IT professional?

Student has to spend two hours in a day. In addition to this extra practice under expert supervision is provided. We also sharpen the communication and presentation skills and provide special batches for interview preparation.

CCNA (200-125)

» Operation of IP Data Networks

- 1.1 Recognize the purpose and functions of various network devices such as routers, switches, bridges and hubs
- 1.2 Select the components required to meet a given network specification
- 1.3 Identify common applications and their impact on the network
- 1.4 Describe the purpose and basic operation of the protocols in the OSI and TCP/IP models
- 1.5 Predict the data flow between two hosts across a network
- 1.6 Identify the appropriate media, cables, ports, and connectors to connect Cisco network devices to other network devices and hosts in a LAN

» LAN Switching Technologies

- 2.1 Determine the technology and media access control method for Ethernet networks
- 2.2 Identify basic switching concepts and the operation of Cisco switches
- 2.3 Collision Domains and Broadcast Domains
- 2.4 Ways to switch store, Forward and Cut Through and CAM Table
- 2.5 Configure and verify initial switch configuration including remote access management
- 2.6 hostname ,Management IP address, Local username and Password, Console and VTY Logins
- 2.7 Verify network status and switch operation using basic utilities such as PING, TELNET.SSH
- 2.8 Describe how VLANs create logically separate networks and the need for routing between them
- 2.9 Explain network segmentation and basic traffic management concepts
- 2.10 Configure and verify VLANs ,Trunks,DTP ,Auto Negotiation
- 2.11 Identify enhanced switching technologies PVST and RSTP
- 2.12 Ether channels(Link Aggregation) ,PAGP and LACP

» IP Addressing (IPv4/IPv6)

- 3.1 Describe the operation and necessity of using private and public IP addresses for IPv4 addressing
- 3.2 Identify the appropriate IPv6 addressing scheme to satisfy addressing requirements in a LAN/WAN environment
- 3.3 Identify the appropriate IPv4 addressing scheme using VLSM and summarization to satisfy addressing requirements in a LAN/WAN environment
- 3.4 Describe the technological requirements for running IPv6 in conjunction with IPv4
- 3.5 Describe IPv6 addresses, Global Unicast, Link Local, Multicast, EUI-64 and Auto Configuration

» IP Routing Technologies

- 4.1 Describe basic routing concepts, Packet Forwarding, Router Lookup Process
- 4.1 Process Switching/Fast Switching/CEF
- 4.2 Configure and verify utilizing the CLI to set basic Router configuration
- 4.3 Configure and verify operation status of a device interface
- 4.4 Verify router configuration and network connectivity using PING, TRACEROUTE, TELNET,SSH
- 4.5 Configure and verify routing configuration for a static or default route given specific routing requirements
- 4.6 Static vs. dynamic Routing
- 4.7 Configure and verify OSPF, Benefit of Multiple area
- 4.8 Understand LSA types and purpose
- 4.9 Configure and verify interVLAN routing (Router on a stick)
- 4.10 Manage Cisco IOS Files, Boot Preferences, Licensing
- 4.11 Configure and verify EIGRP, Feasible Distance/Feasible Successors/Administrative distance
- 4.12 Feasibility condition and Metric Composition

» IP Services

- 5.1 Configure and verify DHCP (IOS Router)
- 5.2 Describe the types, features, and applications of ACLs
- 5.3 standard (editing and sequence numbers) and Extended
- 5.4 Identify the basic operation of NAT, Purpose, Pool, Static, Overloading
- 5.5 Configure and verify NTP as a client
- 5.6 Recognize High availability (FHRP) VRRP, HSRP, GLBP
- 5.7 Configure and verify syslog

» Network Device Security

- 6.1 Configure and verify network device security features
- 6.2 Device password security, Enable secret vs. enable, Transport ,Disable Telnet
- 6.3 Configure and verify Switch Port Security
- 6.4 Sticky MAC,MAC address limitation, Violation Modes, Err disable Recovery
- 6.5 Configure and verify ACLs to filter network traffic
- 6.6 Configure and verify ACLs to limit telnet and SSH access to the router

» Troubleshooting

- 7.1 Troubleshoot and correct common problems associated with IP addressing and host configurations
- 7.2 Troubleshoot and resolve VLAN problems
- 7.3 Troubleshoot and resolve trunking problems on Cisco switches
- 7.4 CRC ,Runts,Giants,droppedPackets,Late Collisions
- 7.5 Monitor NetFlow statistics
- 7.6 TS Ether Channel problems

» WAN Technologies

- 8.1 Identify different WAN Technologies
- 8.2 T1/E1 ,DSL ,ISDN,Frame-Relay ,VPN
- 8.3 Configure and verify a basic WAN serial connection
- 8.4 Configure and verify a PPP connection between Cisco routers
- 8.5 Configure and verify frame relay on Cisco routers
- 8.6 Implement and troubleshoot PPPoE

CCNP (Route)

» Eigrp

- Basic configuration
- Eigrp Tables
- Eigrp packets
- Load balancing in Eigrp

- Route summary
- Md5 authentication
- Eigrp over frame Relay
- Route Filtering
- Troubleshooting in Eigrp

» OSPF

- Basic Configuration
- Ospf Neighbor ship states
- ospf Packet
- Route Summary
- Special Area (Stub,Stub,No-summary,NSSA,No-summary)
- Md5 authentication
- ospf over Frame-Relay
- Troubleshooting in Ospf

» BGP

- History of BGP and Need of BGP
- Ibgp and Ebgp peering
- Bgp Neighbor ship with physical and virtual interface
- BGp Neighbor Ship states
- Bgp messages
- BGp attributes (Weight, Metric, As-path, Local-preference)
- Route Filtering
- Troubleshooting in BGP

» Ipv6 with Routing Protocol

» Redistribution (one-way, and two-way)

» PBR (policy Based Routing)

» SLA (Service level Agreement) and GRE tunnel

SWITCH

» Basic Concept of Switch

- Vlan
- Switch port (Trunk port and Access port)
- DTP (Dynamic Trunking Protocol)
- VTP (Vlan Trunking Protocol) version 2.0 and 3.0
- InterVlan Routing
- Stp (Spanning Tree protocol)
- STP mode (CST, PVST, PVST+, MST)
- RSTP (Rapid Spanning-Tree protocol)
- Ether Channel
- FHRP (First hop redundancy Protocol)
 - HSRP
 - VRRP
 - GLBP

» Switch Security

- Private vlan
- Mac Binding
- Mac Spoofing

» Troubleshooting

Microsoft Windows Server:

» Windows Client

- Installation
- File System
- Partition
- User and Group
- Local policy
- Driver management
- File Folder permissions and sharing
- Remote Desktop and Remote Assistance

» Windows Server

- Installation
- AD (Active Directory)
- Domain User
- User profile
 - Local
 - Roaming
 - Mandatory
- AD-DS, DNS, DHCP
- DFS (Distributed File System)
- WDS (Windows Deploy Services)
- Print Management
- Overview of AD (CDC, ADC, RODC)
- Forest and Tree Structure

Partners :



Java



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