

CCNA 200-120

CISCO CERTIFIED NETWORK ASSOCIATE (200-120)

Basic Networking

- Introduction to computer networking
- Network devices & cabling
- System Communications
- OSI Layers & TCP/IP Model
- IP Addressing Schema
- Subnet mask & Gateways
- IP Subnetting with examples

Basic Router Configuration

- Cisco Routers
- Connecting to a Cisco Router
- Booting a Cisco Router
- Cisco Router Components
- Cisco Router Models
- Cisco Router Passwords
- Cisco Router Commands
- Cisco Router Banner
- Cisco Router Interfaces
- Cisco Router Serial Interfaces
- Router Configuration Commands
- Troubleshooting
- Verifying Router Configuration

IP Routing & Routing Protocols

- Distance Vector vs Link State Routing
- Link State Operation
- Routing Updates
- Routing Tables

Dynamic Routing Protocols Part

- RIPv Overview
- Configuring RIP
- EIGRP Overview
- Configuring EIGRP
- OSPF
- Configuring OSPF
- Configuring EIGRP & OSPF Summary Routes
- Route Redistribution

Switching & WAN Units

- Ethernet Overview
- Switch vs Bridge
- Switch Functions
- LAN Switch Types
- Cisco Switch Verification
- Switch Port Security
- Static MAC Addresses
- CDP Overview
- CDP Commands

Spanning Tree Protocol

- STP Overview
- STP Terminology

- STP Operation
- STP Port States
- When to use STP
- STP Examples

Virtual LANs

- VLAN Overview
- VLAN Trunking
- VLAN Trunking Protocols
- VTP Pruning
- Routing between VLANs
- Configuring VLANs & Trunk Ports
- Configuring Inter-VLAN Routing & VTP

Wide Area Network

- WAN Terminology
- WAN Interface Types
- WAN Connection Types
- WAN Protocols (HDLC)
- WAN Protocols (PPP & Its Components)
- PPP LCP Configuration Options
- PPP Session Establishment & Auth Methods
- Configuring & Verifying PPP

Managing a Cisco Router & Internetwork

- Router Configuration Register
- Router Password Recovery
- IOS Image Backup and Upgrade
- IP Host Tables

IP Access Lists

- Standard IP Access List
- Extended IP Access List

TCP/IP Addressing & Protocols

- IP Subnetting Part II
- VLSM Part II
- TCP/IP Suite Overview
- Application Layer Protocols
- Transport Layer Protocols
- Internet Layer Protocols

Cisco's IOS and Security Device Manager

- SSH, Do Command & using the PIPE
- Cisco Security Device Manager (SDM)
- Cisco ASDM for ASA (Demo)
- SDM User Guide

Frame Relay

- Introduction to Frame Relay
- Frame Relay Technology and Terminology
- Frame Relay Encapsulation, VCs & DLCI
- Local Management Interface
- E Example: LMI Configuration
- Frame Relay Congestion Control
- Subinterfaces
- Monitoring Frame Relay

Managing a Cisco Router & Internetwork

- Boot System Command and using Cisco IFS
- Using SDM to Manage the Flash Memory
- Backup & Restore & using SDM
- CDP, SDM & Telnet & Debugging

Layer- Switching & Advanced STP Topics

- Cisco Switches
- Switching Services
- PortFast, UplinkFast & BackboneFast
- RSTP & Etherchannel
- Catalyst Switch Configuration
- Configuring PortFast, BPDUGuard, BPDU Filter, UplinkFast & BackboneFast
- Configuring RSTP & Etherchannel
- Verifying Catalyst Switch Configuration
- Cisco Network Assistant

Voice VLANs

- Configuring Voice VLANs
- Configuring IP Phone Voice Traffic

Security

- Secured Networking and Cisco IOS Firewalls
- Advanced ACLs

Network Address Translation

- NAT, NAT Types & NAT Names
- How NAT Works
- Testing & Troubleshooting NAT
- Using ASDM for ASA to Configure NAT

Cisco's Wireless Technologies

- Wireless Networking Overview
- Standards
- Cisco's Unified Wireless Solution
- Split MAC Architecture
- Wireless Security

IPv

- Needs and Benefits of IPv
- IPv Addressing & Address Types
- IPv Autoconfiguration
- Configuring Cisco Routers with IPv, DHCPv & ICMPv
- IPv Routing Protocols
- Migrating to IPv
- Configuring IPv

WAN Part II

- Cable & DSL
- Using ASDM for ASA for WAN Connections
- VPNs
- Introduction to Cisco IOS IPsec
- Using ASDM for ASA for VPN and IPsec
- Effective Bandwidth