CCNA مالتي مدياي
Routing and Switching 200-120
به زبان فارسي (1 - 6 ساعت)

اين 1
شامل: DVD

38 بخش آموزشي با بيش از 450 درس به زبان انگليسي و فارسي
22 بخش طراحی، کامل و عيب یابي روترها و سوئیچ های Configuration
13 بخش سناريوهای فنی به همراه توضيحات

 شامل: ابزارهای نرم افزاری E-Book ها و مطالب جديد Utilities

Advanced EIGRP, OSPF, IPv6, PPPoE, IP Services, HA, Datacenter
PT 6, NETSIM 8, IOS 15, Nexus, VPN, MPLS, VSAT, Virtualization

System Requirements
- Windows XP with SP 2
- 256 MB RAM
- CD-ROM or DVD
- 1024 x 768 High Resolution Video Card & Monitor
# CCNA Routing and Switching 200-120

## Routing Units

### Unit-1 Internetworking
1. Internetworking
2. OSI Model
3. Ethernet Networks
4. Ethernet Cabling
5. Network Domain
6. Ethernet Addressing
7. Cisco 3-Layer Hierarchical Model
8. Ethernet Frame Types

### Unit-2 TCP/IP Addressing & Protocols
2.1 IP Addressing Overview
2.2 IP Subnetting Part I
2.3 VLSM Part I
2.4 NAT Overview

### Unit-3 Basic Router Configuration
3.1 Cisco Routers
3.2 Connecting to a Cisco Router
3.3 Booting a Cisco Router
3.4 Cisco Router Components
3.5 Cisco Router Models
3.6 Cisco Router Passwords
3.7 Cisco Router Commands
3.8 Cisco Router Banner
3.9 Cisco Router Interfaces
3.10 Cisco Router Serial Interfaces
3.11 Router Configuration Commands
3.12 Troubleshooting
3.13 Verifying Router Configuration

### Unit-4 IP Routing & Routing Protocols
4.1 Distance Vector vs. Link State Routing
4.2 Link State Operation
4.3 Routing Updates
4.4 Routing Tables

### Unit-5 Dynamic Routing Protocols Part I
5.1 RIP v1 Overview
5.2 IGRP Overview
5.3 EIGRP Overview
5.4 OSPF Overview

## Switching & WAN Units

### Unit-1 Layer-2 Switching
1.1 Ethernet Overview
1.2 Switch vs. Bridge
1.3 Switch Functions
1.4 How a Switch Works (Example)
1.5 LAN Switch Types
1.6 Configuring Cisco 1900 Series
1.7 Configuring Cisco 2950 Series
1.8 Cisco Switch Verification
1.9 Switch Port Security
1.10 Static MAC Addresses
1.11 Port Security on 1900
1.12 Port Security on 2950
1.13 CDP Overview
1.14 CDP Commands

### Unit-2 Spanning Tree Protocol
2.1 STP Overview
2.2 STP Terminology
2.3 STP Operation
2.4 STP Port States
2.5 When to use STP
2.6 STP Examples

### Unit-3 Virtual LANs
3.1 VLAN Overview
3.2 VLAN Trunking
3.3 VLAN Trunking Protocols
3.4 VTP Pruning
3.5 Routing between VLANs
3.6 Configuring VLANs
3.7 Configuring Trunk Ports
3.8 Configuring Inter-VLAN Routing
3.9 Configuring VTP

### Unit-4 Wide Area Network
4.1 Introduction to WANs
4.2 WAN Terminology
4.3 WAN Interface Types
4.4 WAN Connection Types
4.5 WAN Protocols (HDLC)
4.6 WAN Protocols (PPP & Its Components)
4.7 PPP LCP Configuration Options
4.8 PPP Session Establishment & Auth. Methods
4.9 Configuring & Verifying PPP

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Unit 10  Cisco’s Wireless Technologies
10.1  Wireless Networking Overview
10.2  802.11 Standards
10.3  Cisco’s Unified Wireless Solution
10.4  Split MAC Architecture
10.5  Wireless Security

Unit 11  IPv6
11.1  Needs and Benefits of IPv6
11.2  IPv6 Addressing & Address Types
11.3  IPv6 Autoconfiguration
11.4  Configuring Cisco Routers with IPv6, DHCPv6 & ICMPv6
11.5  IPv6 Routing Protocols
11.6  Migrating to IPv6
11.7  Configuring IPv6

Unit 12  WAN Part II
12.1  Cable & DSL
12.2  Using ASDM for ASA for WAN Connections
12.3  VPNs
12.4  Introduction to Cisco IOS IPSec
12.5  Using ASDM for ASA for VPN and IPSec
12.6  Effective Bandwidth

Unit 13  VoIP, Multicast, DHCP
13.1  VoIP
13.2  Multicast
13.3  DHCP Overview
13.4  Configuring DHCP
13.5  DHCP Verification Commands

Routing Configuration Labs
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Lab-2  Routing in Two Subnets
Lab-3  Routing in Four Subnets
Lab-4  Using Static and Default Routes
Lab-5  Serial Communication
Lab-6  Configuring RIPv1
Lab-7  Configuring IGPR
Lab-8  Configuring EIGRP
Lab-9  Configuring OSPF
Lab-10  Configuring IP ACLs

Switching and WAN Configuration Labs
Lab-1  PC to PC Communication
Lab-2  Configuring CDP
Lab-3  LAN Switching 2950
Lab-4  Configuring 1900 Series Switches
Lab-5  Configuring the 2950 Switches
Lab-6  Configuring STP on 1900 Series
Lab-7  Configuring VLAN on 1900 Series
Lab-8  Configuring VLAN on 2950 Switches
Lab-9  Configuring VLAN Trunking
Lab-10  Configuring & Verifying PPP
Lab-11  Configuring and Verifying Frame Relay
Lab-12  Configuring and Verifying FR Subinterfaces

Review Scenarios
- OSI, Ethernet, NAT, Connections
- TCP/IP Protocols, Addressing, Subnetting
- IOS Commands, Routes, IP Routing Table
- CDP & Administrative Distance
- Routing Protocols
- RIP, IGRP, EIGRP & OSPF
- Switch & Switch Configuration
- STP General, Port States, Root Bridge
- VLAN Configuration, VLAN Troubleshooting, VTP
- Configuration Registration, Password Recovery, Configuration Files, IOS Images
- Standard IP ACLS, Extended IP ACLs
- WAN (HDLC & PPP & ATM)
- Frame Relay & Troubleshooting

Utilities Folder
- Exam
- Tools
- NETSIM 8
- Packet Tracer 6
- Cisco Configuration White Papers and Guides: Protocols, IOS 15, NEXUS Switches
- Cisco Video Mentor
### Appendix-A

A-1 **Cisco IOS Threat Defenses**
- A1.1 Introducing the Cisco IOS Firewall
- A1.2 Configuring Cisco IOS Firewall
- A1.3 Introducing Cisco IOS IPS
- A1.4 Configuring Cisco IOS IPS
- A1.5 Introduction to Adaptive Security Appliance

A-2 **Switch Port Aggregation with EtherChannel**
- A2.1 EtherChannels, PAgP & LACP Protocols
- A2.2 Etherchannel Configuration

A-3 **Multilayer Switching**
- A3.1 Routing Considerations
- A3.2 Configuring Routing between VLANs
- A3.3 Routing Configuration on a Switch
- A3.4 Router on a Stick Setup
- A3.5 Multi Layer Switching (MLS) Overview
- A3.6 MLS using CEF
- A3.7 CEF Example

A-4 **Layer-3 High Availability**
- A4.1 HSRP Part I
- A4.2 HSRP Part II
- A4.3 Configuring HSRP
- A4.4 VRRP
- A4.5 VRRP Commands
- A4.6 GLBP Operation and Load Balancing

### Appendix-B

B-1 **Integrating Wireless LANs**
- B1.1 WLAN QoS
- B1.2 WLAN Security Issues
- B1.3 WLAN Management
- B1.4 Configuring Switch Ports for WLAN Use

B-2 **Securing Switch Access**
- B2.1 Switch Security
- B2.2 Authentication, Authorization & Accounting (AAA)
- B2.3 Switch Port Security
- B2.4 Port-based Authentication with 802.1X
- B2.5 Mitigating Spoofing Attacks

B-3 **VPN, PPPoE, Advanced NAT, VSAT & Internet Service**
- B3.1 VPN
- B3.2 Cisco VPN
- B3.3 PPPoE
- B3.4 Advanced NAT
- B3.5 VSAT
- B3.6 Internet Service

B-4 **IP QoS**
- B4.1 Introduction to QoS
- B4.2 Identifying and Comparing QoS Models

B-5 **New Cisco Technologies**
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- B5.2 Virtualization I
- B5.3 Virtualization II
- B5.4 Cisco Nexus Switches
- B5.5 Cisco NX-OS/IOS Configuration Comparison
- B5.6 Data Centers
- B5.7 Cisco IOS Software Release 15 M&T

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C-2 IPv6 Part I
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  C2.2 IPv6 Address
  C2.3 IPv6 Address Types
  C2.4 IPv6 Prefix and Subnetting
  C2.5 IPv6 Interface ID

C-3 IPv6 Part II
  C3.1 IPv6 Address Assignment Methods
  C3.2 IPv6 Address Command List
  C3.3 IPv6 Routing Protocols
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  C3.6 IPv6 Link Types

C-4 Tools for Troubleshooting
  C4.1 Network Time Protocol (NTP)
  C4.2 Logging & SNMP
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  C4.4 Show Commands
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  C4.7 PING & Telnet