CCNA/CCNA Security/CCNP

IT services is going to conduct CCNA classes starting from 22 Oct, 2011 timing 12:00am to 4:00 pm.

For more detail contact –

S/D-

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Detail syllabus:

<table>
<thead>
<tr>
<th>Course Title</th>
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<tbody>
<tr>
<td><strong>Cisco Certified Network Associate (CCNA):</strong>-</td>
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<td>The 640-802 CCNA is the composite exam associated with the Cisco Certified Network Associate certification. This exam tests a candidate's knowledge and skills required to install, operate, and troubleshoot a small to medium size enterprise branch network. Candidates can prepare for this exam by taking the Interconnecting Cisco Networking Devices Part 1 (ICND1) v1.0 and the Interconnecting Cisco Networking Devices Part 2 (ICND2) v1.0 courses.</td>
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</tbody>
</table>

**Course Contents:**

**Describe how a network works**

- Describe the purpose and functions of various network devices
- Selecting components required to meet a network specification
- OSI and TCP/IP models
- Protocols in the OSI and TCP models
- Describe the impact of applications (Voice Over IP and Video Over IP) on a network
- Interpret network diagrams
- Determine the path between two hosts across a network
- Describe the components required for network and Internet communications
- Identify and correct common network problems at layers 1, 2, 3 and 7 using a layered model approach
- Differentiate between LAN/WAN operation and features

**Configure, verify and troubleshoot a switch with VLANs and interswitch communications**
Selecting media, cables, ports, and connectors to connect switches to other network devices

Technology and media access control method for Ethernet networks

Network segmentation and basic traffic management concepts

Basic switching concepts and the operation of Cisco switches

Initial switch configuration tasks including remote access management

Verifying network status and switch operation using basic utilities (including: ping, traceroute, telnet, SSH, arp, ipconfig), SHOW & DEBUG commands

Switched network media issues, configuration issues, auto negotiation, and switch hardware failures

Enhanced switching technologies (including: VTP, RSTP, VLAN, PVSTP, 802.1q)

Configuring, verifying and troubleshooting VLANs / trunking / interVLAN routing / VTP / RSTP operations.

Using show and debug commands to verify the operational status of a Cisco switched network.

Implement basic switch security (including: port security, trunk access, management vlan other than vlan1, etc.)

Implement an IP addressing scheme in a medium-size Enterprise branch office network

Private and public IP addressing

Benefits of using DHCP and DNS

DHCP and DNS operation on a router.(including: CLI/SDM)

Implementing static & dynamic addressing for hosts in a LAN

Calculating & applying VLSM IP addressing design to a network

Classless addressing using VLSM and summarization for requirements in a LAN/WAN

Running IPv6 in conjunction with IPv4 (including: protocols, dual stack, tunneling, etc).

Describe IPv6 addresses

Common problems associated with IP addressing and host configurations

Configuring and troubleshooting basic router operation and routing on Cisco devices

Basic routing concepts (including: packet forwarding, router lookup process)

Operation of Cisco routers (including: router bootup process, POST, router components)

Selecting appropriate media, ports and connectors to connect routers to other network devices and hosts

Configuring, verifying and troubleshoot RIPv2

Access and utilize the router to set basic parameters.(including: CLI/SDM)

Connecting, configuring and verifying status of a device interface

Verifying network connectivity using ping, traceroute, telnet, SSH or other utilities

Static and default routing

Managing IOS configuration files. (including: save, edit, upgrade, restore)

Managing Cisco IOS

Configuring, verifying and troubleshooting OSPF

Configuring, verifying and troubleshooting EIGRP

Troubleshooting routing issues
Verifying router hardware and software operation using SHOW & DEBUG commands.
Implementing basic router security

Explaining and selecting administrative tasks required for a WLAN

- Standards associated with wireless media (including: IEEE WI-FI Alliance, ITU/FCC)
- Components in a small wireless network. (Including: SSID, BSS, ESS)
- Identifying basic parameters to configure on a wireless network
- Wireless security features and capabilities of WPA security (including: open, WEP, WPA-1/2)
- Common issues with implementing wireless networks. (Including: Interface, misconfiguration)

Security threats to a network and describe general methods to mitigate those threats

- Network security threats and security policy to mitigate the threats
- Common security appliances and applications
- Security recommended practices including initial steps to secure network devices

Implementing, verifying and troubleshooting NAT and ACLs in a branch office network

- Purpose and types of ACLs
- Configuring ACLs based on network filtering requirements. (including: CLI/SDM)
- Configuring & applying ACLs to limit telnet and SSH access to the router using (including: SDM/CLI)
- Monitoring ACLs in a network environment
- Troubleshooting ACL
- Basic operation of NAT
- Configuring NAT (including: CLI/SDM)
- Troubleshooting NAT

Implementing and verifying WAN links

- Different methods for connecting to a WAN
- Configuring & verifying a basic WAN serial connection
- Configuring & verifying Frame Relay on Cisco routers
- Troubleshooting WAN implementation issues
✔ Describing VPN technology (including: importance, benefits, role, impact, components)
✔ Configuring & verifying PPP connection between Cisco routers

✔ Leading providers of Communication Solutions and Services

Routers | Switches | VPN Security Solutions | Modules | Cables | ISDN Simulator | Modems |
VOIP(Analog/Digital/IP Phone) | Converters | Fiber Products | SUN | HP | IBM | Upgrades |

We also rent out Cisco Routers/ Switches / VOIP Gateways / CCIE Labs.