

Course Name: CCDA Boot Camp

Course Code: 5960

Course Overview: Get the training and practice you need to design a strong, effective network and prepare for the CCDA exam in this intense Boot Camp with a technical emphasis on security, voice, and wireless. Our enhancements to Cisco's authorized content combined with case study practice and homework will have you exam ready.

Course Length: 5 days

Who should attend:

- Network engineers, systems administrators, and network designers who want CCDA certification; IT managers wanting greater skill in network design.

You will learn:

- Principles of network design and the guidelines for building a network design solution
- How SONA and the Cisco Network Architecture Model simplify the complexity of today's networks
- Identify and deploy Network Management solutions
- Design the Enterprise Campus and Data Center in a hierarchical modular fashion
- Design the Enterprise WAN network, the Enterprise Branch, and Remote Access
- Design a network address plan with IPv4 and IPv6
- Select optimal routing protocols for the network
- Evaluate security solutions for the network including the Cisco Self Defending Network
- Design Voice over IP and IP telephony
- Evaluate, select, and deploy Cisco Wireless Networks
- Determine the next career step in network design

Prerequisites:

- Familiarity with internetworking technologies such as LAN, WAN, bridging, switching, protocols, and network management
- Solid fundamental knowledge of security, voice, and wireless technologies and RF concepts
- Understanding Networking Fundamentals
- ICND (Interconnecting Cisco Network Devices)
- CCNA is highly recommended but not required
- BCMSN (Building Cisco Multi-layer Switched Networks) is highly recommended
- Understanding Networking Fundamentals
- INTRO (Introduction to Cisco Networking Technologies)
- ICND (Interconnecting Cisco Network Devices)

- CCNA Boot Camp v1.0
- BCMSN (Building Cisco Multilayer Switched Networks v3.0)

Course Fee: Call for quote

Customizable: No

Course Content:

Applying a Methodology to Network Design

- Introducing the Cisco Service-Oriented Network Architecture
- Network Design Methodology
- Examining Customer Requirements
- Characterizing the Existing Network
- Using a Top Down Approach
- Implementing the Design Methodology

Structuring and Modularizing the Network

- Designing the Network Hierarchy
- Introducing the Cisco Network Architecture Model Related to SONA
- Using a Modular Approach in Network Design
- Evaluating Infrastructure Network Services and Solutions Within Modular Network
- Identifying Network Management Protocols and Features

Designing Basic Campus and Data Center Networks

- Campus Design Methodology
- Designing the Campus Infrastructure
- Enterprise Data Center Considerations
- Design Models and Examples

Designing Remote Connectivity

- Enterprise Edge WAN Design Methodology
- Selecting Wide Area Network Technology
- Designing the Enterprise Branch and "Branch of One" Networks

Designing IP Addressing and Selecting Routing Protocols

- Planning and Designing IP Addressing
- Introduction to IPv6
- Review Enterprise Routing Protocols
- Designing a Routing Protocol Deployment

Evaluating Security Solutions for the Network

- Defining Network Security
- Cisco Self-Defending Network

- Security Solutions

Identifying Voice Networking Considerations

- Review Traditional Voice Architectures and Features
- Integrating Voice Architectures
- Identifying the Requirements of Voice Technology
- Design Models

Identifying Wireless Network Considerations

- Overview
- Introducing the Cisco Unified Wireless Network
- Autonomous vs. Lightweight Access Points
- Wireless Network Controller Technologies
- Split MAC and LWAPP
- Designing a Wireless Network with Controllers

Implementing and Operating the Network

- Network Design Guide References
- Cisco CCNP Courses
- ARCH
- Additional Courses

Case Studies

All of the CCDA case studies focus on the network design issues of a fictional company: ACMC Hospital Network. You will work in teams to solve the case studies and create and maintain a master design document throughout the week.

Case 1: Network Upgrade

Learn to document customer requirements and the existing network, identify missing information, and outline a major network design. The simulation tool will be used to analyze adding new applications, comparing before and after, and comparing with other alternatives added (such as more bandwidth).

Case 2: Network Structure and Modularity

Develop a network design plan based on SONA and the Cisco Network Architecture Model, utilizing Access, Distribution, and Core layer principles in a top-down design.

Case 3: Enterprise Campus Design

Utilize the Cisco concept of network modules in the Cisco Network Architecture Model to propose a redundant campus design for the hospital. Compare various combinations of Layer 2 vs. Layer 3 switching applied to access, distribution, and core modules.

Case 4: WAN Upgrade and Backup

Select the most optimal WAN transport for ACMC. Develop a WAN backup strategy.

Case 5: Network Addressing Plan and Routing Protocol Selection

Develop a method for planning the IP address space and apply it based on ACMC's needs. Consider IP subnets, VLSM, and summarization techniques, and incorporate them into the network design document, along with selection of an appropriate IP Routing Protocol.

Case 6: Network Security Design

Develop a design for the Internet Connectivity and E-Commerce Module along with deployment scenarios for security solutions throughout the network based on the Cisco Network Architecture Model.

Case 7: Voice Transport Over an IP Network

Consider the effect of transporting voice across the ACMC data network. Bandwidth, QoS, and IP Telephony hardware components must be considered.

Case 8: Wireless Network Design

Develop and consider a Wireless LAN solution for ACMC using Lightweight Access Points and Controllers.

Mastery Case 9:

The mastery case involves connecting more hospitals to the existing network and is optional based on pacing of the class and time available.