Designing for Cisco Internetwork Solutions (DESGN) v3.0

Course ID#: 1575-908-21-W

Hours: 35

Course Content

Course Description:

Designing for Cisco Internetwork Solutions (DESGN) v3.0 will enable students to gather internetworking requirements, identify solutions, and design the network infrastructure and elements to ensure the basic functionality of the proposed network design solutions. The 5 day course provides students with the knowledge and skills to achieve associate-level competency in network design. This course is the first design course in a curriculum that supports the Cisco network design certification track. The course focuses on the technology and methods that are currently available.

Prerequisites:

The strongly recommended prerequisite for learners attending the Designing for Cisco Internetwork Solutions course is the Cisco CCNA® certification or equivalent experience. Recommended training supporting this certification can be best achieved by taking the Interconnecting Cisco Networking Devices, Part 1 (ICND1) and Interconnecting Cisco Networking Devices, Part 2 (ICND2) courses. Practical experience with deploying and operating networks that are based on Cisco network devices and Cisco IOS Software is strongly recommended. The Implementing Cisco IP Switched Networks (SWITCH) course is highly recommended for acquiring background skills and knowledge of wireless LANs, quality of service (QoS), and multilayer switching.

Topics:

Module 1: Network Design Methodology Overview
- Understanding the Network Architectures for the Enterprise
- Identifying Design Requirements
- Characterizing the Existing Network and Sites
- Using a Top-Down Approach to Network Design

Module 2: Structuring and Modularizing the Network
- Designing the Network Hierarchy
- Using a Modular Approach in Network Design
- Supporting Services on Borderless Networks
- Identifying Network Management Protocols and Features

Module 3: Designing Basic Campus and Data Center Networks
- Describing Campus Design Considerations
- Designing the Campus Infrastructure Module
- Describing Enterprise Data Center Considerations
- Describing Enterprise Network Virtualization Tools

Module 4: Designing Remote Connectivity
- Identifying WAN Technology Considerations
- Designing the Enterprise WAN
- Designing the Enterprise Branch

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Module 5: Designing IP Addressing and Selecting Routing Protocols
- Designing IPv4 Addressing
- Designing IPv6 Addressing
- Reviewing Enterprise Routing Protocols
- Designing a Routing Protocol Deployment

Module 6: Evaluating Security Solutions for the Network
- Defining Network Security
- Understanding the Cisco SAFE Approach
- Selecting Network Security Solutions

Module 7: Identifying Voice and Video Networking Considerations
- Integrating Voice and Video Architectures
- Identifying the Requirements of Voice and Video Technologies

Module 8: Identifying Design Considerations for Basic Wireless Networking
- Cisco Unified Wireless Network Review
- Wireless Network Controller Technology
- Designing Wireless Networks Using Controllers