

Building Converged Cisco Multi-layered Switched Networks (BCMSN)



Experts in Networking

This course is designed for network administrators and support or design staff requiring a greater understanding of the advanced features and functions of Cisco Switching

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This 4 day instructor led course explains how to design, build, configure and troubleshoot resilient campus networks using Cisco products and understand the appropriate technologies to build scalable multilayer switched networks.

- All exam topics are covered
- Authorised Cisco Instructors
- 12 months post course support

Course Pre-Requisites

Delegates are required to meet the following prerequisites:

- Completion of the CCNA course or equivalent
- A basic knowledge of the windows operating system

Course	Course Objectives
<p>Building Cisco Multi-layered Switched Networks</p> <p>This course forms part of the following Cisco certifications</p> <p>CCNP (Cisco Certified Network Professional)</p> <p>CCDP (Cisco Certified Design Professional)</p> <p><u>Certification</u></p> <p>Required topics are covered for the Cisco exam:</p> <p>642-812 BCMSN</p> <p><u>Duration</u></p> <p>4 days</p>	<p>Upon completion of this course, the delegate will be able to:</p> <ul style="list-style-type: none">• Creating VLANs• Propagating VLAN information with VTP• Managing Redundant Links with Spanning Tree• Enabling InterVLAN Routing• Improving IP Routing performance with Multilayer Switching• Implementing HSRP for Fault Tolerant Routing• Managing high bandwidth broadcasts with IP Multicast• Implementing secure wireless connectivity into the campus topology• Using QoS to meet the service levels required by applications• Securing the network and eliminating unwanted traffic• Extending the campus through the use of Metropolitan Ethernet

Course Content

- Introduction to Campus Networks
- Course Introduction
- Campus Networks as part of an Enterprise Network
- Devices in a Non-hierarchical Network
- Layer 2 Network Issues
- Routed Network Issues
- What is a Multilayer Switch
- Issues with Multilayer Switches and VLANs in a Non-hierarchical Network
- The Enterprise Composite Model
- Benefits of the Enterprise Composite Model
- Campus Infrastructure Module
- Best Practices for VLAN Topologies
- Implementing VLANs
- Implementing Trunks
- Propagating VLAN Configurations with VTP
- Correcting Common VLAN Configuration Errors
- Spanning Tree Protocol
- Preventing STP Forwarding Loops
- Implementing Rapid Spanning Tree Protocol (RSTP)
- Implementing the Multiple Spanning Tree Protocol (MSTP)
- Configuring Link Aggregation and Ether Channel
- Routing Between VLANs
- Deploying CEF-Based Multilayer Switching
- Enabling Routing Between VLANs
- Configuring Layer 3 Redundancy with HSRP
- Configuring Layer 3 Redundancy with VRRP and GLBP
- Implementing Hardware and Software Redundancy in Modular Switches
- Redundant Power Supply Configuration Commands
- Introducing Wireless LANs (WLANs)
- Wireless Theory and Standards
- Implementing WLANs
- Cisco WLAN
- Cisco Wireless Clients
- Configuring Basic WLAN
- Planning for Implementation of Voice in a Campus Network
- Accommodating Voice Traffic on Campus Switches
- Switch Security Issues
- Protecting Against VLAN Attacks
- Protecting Against Spoof Attacks
- Securing Network Switches
- STP Security Mechanisms