

BCMSN, Building Cisco Multilayer Switched Networks

Varighed: 5 Days Kursus Kode: BCMSN

Beskrivelse:

Delegates learn how to implement campus networks using multilayer switching technologies over high-speed Ethernet and wireless topologies. This course addresses the integration of routing and switching technologies to create an efficient campus network. Design, build, and configure a campus network with device and link redundancy for high reliability, while maintaining the performance to meet today's demanding application requirements, such as voice, video, and secure wireless technologies. Learn to choose and configure the necessary Layer 2 and 3 protocols and features to guarantee constant access. Hands-on labs ensure delegates have an opportunity to practice what they have learnt before returning to the work environment.

Målgruppe:

This course is designed for individuals looking to achieve the Cisco CCNP®, andCCDP® Certification as well as Network administrators and technicians responsible for supporting, implementing and troubleshooting complex routed network environments

Agenda:

- **After you complete this course you will be able to:**
- Describe the Campus Infrastructure module of the ECNM
- Define VLANs to segment network traffic and manage network utilization
- Explain the procedure for configuring both 802.1Q and ISL trunking between two switches so that VLANs that span the switches can connect
- Describe how VLAN configuration of switches in a single management domain can be automated with the Cisco proprietary VTP
- Implement high availability technologies and techniques using multilayer switches in a campus environment
- Describe WLANs
- Describe and configure switch infrastructure to support voice
- Describe and implement security features in a switched network

Forudsætninger:

Attendees should meet the following prerequisites:

- [ICND1](#) Interconnecting Cisco Network Devices Part 1
- [ICND2](#) Interconnecting Cisco Network Devices Part 2
- Or
- [CCNABC](#) Cisco CCNA Certification Fast Track Programme

Test og certificering:

Recommended preparation for exam(s):

- [642-812](#) BCMSN - Building Cisco Multilayer Switched Networks

This exam is required for those delegates wishing to achieve either the Cisco Certified Network Professional or the Cisco Certified Design Professional Certifications

Yderligere Kurser:

The following courses are recommended for further study:

- BSCI Building Scalable Cisco Internetworks (CCNP,CCDP,CCIP)
- ONT Optimizing Converged Cisco Networks (CCNP)
- ISCW Implementing Secure Converged Wide Area Networks (CCNP)
- ARCH Designing Cisco Network Architectures (CCDP)

Indhold:

Network Requirements

- Introducing Campus Networks

Defining VLANs

- Implementing Best Practices for VLAN Topologies
- Implementing VLANs
- Implementing Trunks
- Propagating VLAN Configurations with VTP
- Correcting Common VLAN Configuration Errors

Implementing Spanning Tree

- Describing the STP
- Implementing RSTP
- Implementing MSTP
- Configuring Link Aggregation with EtherChannel

Implementing Inter-VLAN Routing

- Describing Routing between VLANs
- Enabling Routing Between VLANs on a Multilayer Switch
- Deploying CEF-Based Multilayer Switching

Implementing High Availability in a Campus Environment

- Configuring Layer 3 Redundancy with HSRP
- Optimizing HSRP
- Configuring Layer 3 Redundancy with VRRp and GLBP

Wireless LANs

- Introducing WLANs
- Describing WLAN Topologies
- Explaining WLAN Technology and Standards
- Configuring Cisco WLAN Clients
- Implementing WLANs
- Configuring WLANs

Configuring Campus Switches to Support Voice

- Planning for Implementation of Voice in a Campus Network
- Accommodating Voice Traffic on Campus Switches

Minimizing Service Loss and Data Theft in a Campus Network

- Understanding Switch Security Issues
- Protecting Against VLAN Attacks
- Protecting Against Spoof Attacks
- Describing STP Security Mechanisms
- Preventing STP Forwarding Loops
- Securing Network Switches

Labs

- Lab 1-2: Getting Started with Cisco Catalyst Equipment
- Lab 2-1: Configuring VLANs and VTP
- Lab 3-1: Configuring Primary and Backup Root Bridges
- Lab 3-2: Implementing PVRST
- Lab 3-3: Implementing MSTP
- Lab 3-4: Configuring EtherChannel
- Lab 3-5: Troubleshooting Spanning Tree
- Lab 4-2: Routing Between VLANs
- Lab 5-1: Enabling and Optimizing HSRP
- Lab 6-1: Configuring Switches for WLANs
- Lab 6-2: Setting Up the WLAN Controller
- Lab 6-3: Configuring the Controller via the Web Browser
- Lab 6-4: Configuring a Wireless Client (Optional)
- Lab 7-1: Configuring IP Telephony Support
- Lab 8-3: Applying Security Tools

Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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