

Cisco Networks

Optimizing Converged Cisco Networks (ONT)

Course:ET914

Advanced Security Configuration

Course Description

In this course, you will learn the characteristics of real-time multimedia traffic, such as voice, and you'll investigate the importance of Quality of Service (QoS) management on the network and learn about the application of wireless technologies to the enterprise.

Who should attend?

IT professionals, network administrators, and technicians who design, configure, or support a network that uses Cisco Voice or Wireless technologies; those pursuing CCNP, CCDP, & CCIE certifications.

Pre-requisites

- Cisco Certified Network Associate (CCNA)

Course Objectives

- Cisco hierarchical network model as it pertains to an end-to-end enterprise network
- Specific requirements for implementing a VoIP network
- Implementing QoS on a converged network
- Features & functions of the Security Device Mgr on Cisco routers
- Key QoS mechanisms used to implement the DiffServ QoS model
- Configure Auto QoS for Enterprise
- Functions & features of Lightweight Access Points & WLAN Controllers
- Operation of QoS in WLAN environments
- Configure Wireless LAN Controllers LWAPP
- Configure client authentication techniques including WPA/PSK and server-based LEAP
- Configure the Wireless Control System (WCS) for centralized management of WLAN Controllers

Lab Equipments

Course Outline

1. Network Requirements
2. Cisco VoIP Implementations
 - Introducing VoIP Networks
 - Digitizing and Packetizing Voice
 - Encapsulating Voice Packets for Transport
 - Calculating Bandwidth Requirements
 - Implementing Voice Support in an Enterprise Network

Hands-On Labs

Placing and Examining VoIP Calls

3. Introduction to IP QoS
 - Introducing QoS
 - Identifying Models for Implementing QoS
 - Methods for Implementing QoS
 - Advantages

4. Implement the DiffServ QoS Model
 - Introducing Classification and Marking
 - Using NBAR for Classification
 - Introducing Queuing Implementations
 - Configuring WFQ
 - Configuring CBWFQ and LLQ
 - Introducing Congestion Avoidance
 - Introducing Traffic Policing and Shaping
 - WAN Link Efficiency Mechanisms
 - Implementing QoS Pre-Classify
 - Deploying End-to-End QoS

Hands-On Labs

Introducing MQC and the SDM QoS Wizard

Configuring NBAR

Configuring FIFO and WFQ Queuing Mechanisms

Configuring LLQ Queuing Mechanism

Class-Based Header Compression

Configuring LFI

Configuring QoS Pre-Classify

5. Implement AutoQoS
 - Introducing AutoQoS
 - Mitigating Common AutoQoS Problems

Hands-On Labs

Configuring QoS with Cisco AutoQoS

Using MQC to Tune QoS Mechanisms

Configured With AutoQoS

Troubleshooting Converged Networks

6. Implement Wireless Scalability
 - WLAN QoS Implementation
 - Introducing 802.1x
 - Configuring Encryption and Authentication on Lightweight Access Points
 - WLAN Management

Hands-On Labs

Setting Up the Wireless LAN Controller

Basic Security Configuration Using WPA-PSK

Register Now 02-260-3233
<http://www.ctt-center.com>

Certifeid Technical Training Center Co.,Ltd