

QOS: Implementing Cisco Quality of Service 2.5

Implementing Cisco Quality of Service (QoS) v2.5 provides learners with in-depth knowledge of QoS requirements, conceptual models such as best effort, IntServ, and DiffServ, and the implementation of QoS on Cisco platforms. The curriculum covers the theory of QoS, design issues, and configuration of various QoS mechanisms to facilitate the creation of effective administrative policies providing QoS. Case studies and lab exercises included in the course help learners to apply the concepts from the individual modules to real-life scenarios. The course also gives learners design and usage rule for advanced QoS features. This gives the learners the opportunity to design and implement efficient, optimal, and trouble-free multiservice networks.



AUDIENCE

This course is designed for pre-and-post-sales technical engineers responsible for designing, implementing, or troubleshooting networks, network architects responsible for designing multiservice networks to carry voice, video, and data traffic in an enterprise or service provider environment, and CCIP & CCVP candidates will benefit from this course.

PREREQUISITES

To fully benefit from this course, students should have the following prerequisite skills and knowledge:

- » Interconnecting Cisco Networking Devices, Part 1 and 2 (ICND1 and ICND2)

WHAT YOU WILL LEARN

- » Explain the need for QoS, describe the fundamentals of QoS policy, and identify and describe the different models that are used for ensuring QoS in a network
- » Explain the use of MQC and AutoQoS to implement QoS on the network and describe some of the mechanisms used to monitor QoS implementations
- » Given a converged network and a policy defining QoS requirements, classify & mark network traffic to implement the policy
- » Use Cisco QoS queuing mechanisms to manage network congestion
- » Use Cisco QoS congestion avoidance mechanisms to reduce the effects of congestion on the network
- » Use Cisco QoS traffic policing and traffic shaping mechanisms to effectively limit the rate of network traffic
- » Given a low speed WAN link, use Cisco link efficiency mechanisms to improve the bandwidth efficiency of the link
- » Describe the recommended best practices and methods used for end-to-end QoS deployment in the enterprise

"Yes, very helpful, which helped me to understand my own work environment."

QOS Student
Phoenix, AZ

\$3395.00

- 5-day course
- Promotional and package discounts may apply
- CLC Eligible

QUESTIONS?
Call 602-266-8585



CAN'T MAKE IT TO CLASS IN PERSON?

Attend many classes online with RemoteLive.™

Call 602-266-8585 today for a live demo.

©2014 Interface Technical Training All rights reserved

(course outline
on back side)



COURSE OUTLINE

QOS: Implementing Cisco Quality of Service 2.5

Module 1: Introduction to QoS

Lessons

- » Review Converged Networks
- » Understand QoS
- » Describe Best-Effort and Integrated Services Models
- » Describe the Differentiated Services Model

Module 2: Implement and Monitor QoS

Lessons

- » MQC Introduction
- » Monitor QoS
- » Define Campus AutoQoS
- » Define WAN AutoQoS

Module 3: Classification and Marking

Lessons

- » Classification and
- » MQC for Classification
- » NBAR for Classification
- » Use of QoS Preclassify
- » Campus Classification and Marking

Module 4: Congestion Management

Lessons

- » Queuing Introduction
- » Configure WFQ
- » Configure CBWFQ and LLQ
- » Configure Campus Congestion Management

Module 5: Congestion Avoidance

Lessons

- » Congestion Avoidance Introduction
- » Configure Class-Based WRED
- » Configure ECN
- » Describe Campus-Based Congestion Avoidance

Module 6: Traffic Policing and Shaping

Lessons

- » Traffic Policing and Shaping Overview
- » Configure Class-Based Policing
- » Campus Policing
- » Configure Class-Based Shaping
- » Configure Class-Based Shaping on Frame Relay Interfaces
- » Configure Frame Relay Voice-Adaptive Traffic Shaping and Fragmentation

Module 7: Link Efficiency Mechanisms

Lessons

- » Link Efficiency Mechanisms Overview
- » Configure Class-Based Header Compression
- » Configure LFI

Module 8: Deploying End-to-End QoS

Lessons

- » Apply Best Practices for QoS Policy Design
- » End-to-End QoS Deployments

Labs

- » Lab 2-1: IP SLA Setup and QoS Baseline Measurement
- » Lab 2-2: Configuring QoS with Cisco AutoQoS
- » Lab 3-2: Classification and Marking Using MQC
- » Lab 3-3: Using NBAR for Classification
- » Lab 3-4: Configuring QoS Preclassify
- » Lab 3-5: Campus Classification and Marking Using MQC
- » Lab 4-1: Configuring Fair Queuing
- » Lab 4-2: Configuring LLQ-CBWFQ
- » Lab 4-3: Configuring Campus-Based Queuing Mechanisms
- » Lab 5-2: Configuring DSCP-Based WRED
- » Lab 5-3: Configuring WTD Thresholds
- » Lab 6-1: Configuring Class-Based Policing
- » Lab 6-2: Configuring Class-Based Shaping
- » Lab 7-1: Configuring Class-Based Header Compression
- » Lab 7-2: Configuring LFI
- » Lab 8-1: Mapping Enterprise QoS Policy to the Service Provider Policy