

CI - QOS

Implementing Cisco Quality of Service

Summary

Duration
5 Days

Vendor
Cisco

Category
CCIP / CCVP /



Introduction

The Implementing Cisco Quality of Service (QoS) course provides students with in-depth knowledge of IP QoS requirements, conceptual models using Differentiated Services (DiffServ), Integrated Services (IntServ) and Best Effort (over provisioning), and the implementation of IP QoS on Cisco IOS switch and router platforms.

The curriculum covers the theory of IP 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 students to apply the concepts mastered in individual modules to real-life scenarios.

The course also gives students design and usage rules for various advanced IP QoS features and the integration of IP QoS with underlying Layer 2 QoS mechanisms, allowing them to design and implement efficient, optimized, and trouble-free multi-service networks.

Prerequisites

- Completion of the Cisco Certified Networking Associate (CCNA) curriculum
- Configuring BGP on Cisco Routers course (BGP) or equivalent is recommended because some BGP background is assumed for the QoS course.

Course Objectives

After completing this course, students will be able to:

- Given a converged network, explain the need to implement Quality of Service (QoS) and explain methods for implementing and managing QoS.
- Given a converged network, identify and describe different models used for ensuring QoS in a network and explain key IP QoS mechanisms used to implement the models.
- Given a congested network, use Cisco QoS queuing mechanisms to manage network congestion.
- Given a network, use Cisco QoS traffic policing and traffic shaping mechanisms to effectively limit the rate of network traffic.
- Given a low speed WAN link, successfully use Cisco link efficiency mechanisms to improve the bandwidth efficiency of the link.
- Given a description of a service provider network or an enterprise network, correctly select the most appropriate QoS mechanisms for providing QoS using Cisco's best practices.

Course Outline

- Introduction to IP QoS
- The Building Blocks of IP QoS
- Introduction to Modular QoS CLI and Auto-QoS
- Classification and Marking Module
- Congestion Management
- Congestion Avoidance
- Traffic Policing and Shaping
- Link Efficiency Mechanisms
- QoS Best Practices

Associated Certifications & Exams

The QoS exam 642-642 is one of the qualifying exams for the Cisco Certified Internetwork Professional, Cisco Certified Voice Professional, Cisco IP Telephony Design Specialist, Cisco IP Telephony Express Specialist, Cisco IP Telephony Operations Specialist, and Cisco IP Telephony Support Specialist certifications.

On successful completion of this course students will receive a Torque IT attendance certificate.