

Design and Implement Cisco Quality of Service (QoS)

The Designing and 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.

Duration: 5 days

Batch Size: 5 – 7

Prerequisites

- Completion of Interconnecting Cisco Networking Devices (ICND) or Cisco Certified Networking Associate (CCNA).
- BGP or equivalent is recommended because some BGP background is assumed for the QoS course.

Course Objectives

After completing this course the student should be able to:

- Identify the components of the Cisco Unity system, describe their standard and optional features, and explain and how they integrate into a unified messaging system
- Explain the need to implement Quality of Service (QoS) and explain methods for implementing and managing QoS
- Identify and describe different models used for ensuring QoS in a network and explain key IP QoS mechanisms used to implement the models
- Explain the use of MQC and AutoQoS to implement QoS on the network
- 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
- Successfully use Cisco link efficiency mechanisms to improve the bandwidth efficiency of the link
- Correctly select the most appropriate QoS mechanisms for providing QoS using Cisco best practices

Course Outline

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