

## QOS v2.5 - Implementing Cisco Quality of Service

### Course Outline

#### **Module 1: Introduction to QoS**

- Lesson 1: Review Converged Networks
- Lesson 2: Understand QoS
- Lesson 3: Describe Best-Effort and Integrated Services Models
- Lesson 4: Describe the Differentiated Services Model
- Lesson 5: Module Summary
- Lesson 6: Module Self-Check

#### **Module 2: Implement and Monitor QoS**

- Lesson 1: MQC Introduction
- Lesson 2: Monitor QoS
- Lesson 3: Define Campus AutoQoS
- Lesson 4: Define WAN AutoQoS
- Lesson 5: Module Summary
- Lesson 6: Module Self-Check

#### **Module 3: Classification and Marking**

- Lesson 1: Classification and Marking Overview
- Lesson 2: MQC for Classification and Marking
- Lesson 3: NBAR for Classification
- Lesson 4: Use of QoS Preclassify
- Lesson 5: Campus Classification and Marking
- Lesson 6: Module Summary
- Lesson 7: Module Self-Check

#### **Module 4: Congestion Management**

- Lesson 1: Queuing Introduction
- Lesson 2: Configure WFQ
- Lesson 3: Configure CBWFQ and LLQ
- Lesson 4: Configure Campus Congestion Management
- Lesson 5: Module Summary
- Lesson 6: Module Self-Check

#### **Module 5: Congestion Avoidance**

- Lesson 1: Congestion Avoidance Introduction
- Lesson 2: Configure Class-Based WRED

Lesson 3: Configure ECN  
Lesson 4: Describe Campus-Based Congestion Avoidance  
Lesson 5: Module Summary  
Lesson 6: Module Self-Check

## **Module 6: Traffic Policing and Shaping**

Lesson 1: Traffic Policing and Shaping Overview  
Lesson 2: Configure Class-Based Policing  
Lesson 3: Campus Policing  
Lesson 4: Configure Class-Based Shaping  
Lesson 5: Configure Class-Based Shaping on Frame Relay Interfaces  
Lesson 6: Configure Frame Relay Voice-Adaptive Traffic Shaping and Fragmentation  
Lesson 7: Module Summary  
Lesson 8: Module Self-Check

## **Module 7: Link Efficiency Mechanisms**

Lesson 1: Link Efficiency Mechanisms Overview  
Lesson 2: Configure Class-Based Header Compression  
Lesson 3: Configure LFI  
Lesson 4: Module Summary  
Lesson 5: Module Self-Check

## **Module 8: Deploying End-to-End QoS**

Lesson 1: Apply Best Practices for QoS Policy Design  
Lesson 2: End-to-End QoS Deployments  
Lesson 3: Module Summary  
Lesson 4: Module Self-Check

## **Lab outline**

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-CBWFO  
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