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## Maintaining Cisco Service Provider Quality of Service

**Duration: 3 Days**    **Course Code: MSPQS**

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### Overview:

The Maintaining Service Provider Quality of Service (MSPQS) course is designed to provide learners with the knowledge needed to provide support in a service-provider environment using quality-of-service (QoS) mechanisms. The course focuses on the QoS mechanisms, how they are implemented using Cisco IOS® Software and Cisco IOS XR Software, and how to perform monitoring and troubleshooting of QoS in service provider environments. The course is also intended to help prepare students for the CCNP SP Operations certification exam.

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### Target Audience:

This course is designed for: Support staff Service provider network operations center (NOC) personnel Service provider engineers Service provider partners

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### Objectives:

- Upon completion of this course, you should be able to meet these overall objectives:
  - Identify the typical QoS requirements in service provider networks and list solutions and describe the change, performance, and fault management procedures for QoS.
  - Perform changes in the configuration of QoS based on designs and implementation templates as well as ITIL®-based change management processes and procedures
  - Gather and interpret performance statistics for QoS mechanisms using various tools such as show commands and Simple Network Management Protocol (SNMP)-based monitoring tools.
  - Perform fault management for QoS mechanisms using various tools such as show commands and SNMP-based monitoring tools.
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### Prerequisites:

The knowledge and skills that a learner must have before attending this course are as follows:

- IP networking skills and experience using Cisco IOS Software commandline interface (CLI)
- Operations process knowledge and ability to use NMS tools to monitor networks and network devices.
- Ability to implement service provider change management procedures and configuration management procedures.
- Understanding of and ability to identify the critical factors for availability, scalability and manageability of Open Shortest Path First (OSPF), Intermediate System-to-Intermediate System (IS-IS), and Border Gateway Protocol (BGP)
- Ability to implement Cisco IOS Software and Cisco IOS XR Software configuration and monitoring commands.
- UNIX and/or Linux operating system experience as applied to IP network environments

To gain the prerequisite skills and knowledge, Cisco strongly recommends the knowledge of the following courses:

- Supporting Cisco Service Provider IP NGN Operations (SSPO)
- Operational Foundations of Cisco Service Provider Core Networks (OFCN)

### Testing and Certification

Recommended as preparation for:

- 642-785 - Maintaining Cisco Service Provider Quality of Service MSPQS is one of four courses required for **Cisco Certified Network Professional Service Provider Operations (CCNP SPOPS) Certification**

## Follow-on-Courses:

- Maintaining Cisco Service Provider Routing Protocols (MSPRP)
- Maintaining Cisco Service Provider VPNs and MPLS Networks (MSPVM)

All the above courses are part of the **Cisco Certified Network Professional Service Provider Operations (CCNP SPOPS)** Certification

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## Content:

### Service Provider QoS Operation Processes

- Service Provider QoS Overview
- Service Provider Routing Operation Processes Based on ITIL®

### Change Management for QoS

- Implementing QoS Mechanisms in Service Provider Networks
- Adding Core and Edge Routers or Core and Edge Links and Implementing QoS
- Analyze Lab Scenario

### Performance Management for QoS

- Monitor QoS Performance in the Core and Edge
- Analyze Lab Scenario

### Fault Management for QoS

- Troubleshoot QoS in the Edge and Core
  - Analyze Lab Scenario
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## Further Information:

For More information, or to book your course, please call us on +254 713 027 191

[training@clclearningafrica.com](mailto:training@clclearningafrica.com)

[www.clclearningafrica.com](http://www.clclearningafrica.com)

Computer Learning Centre 2nd Floor Museum Hill Centre, Muthithi Road, Westlands, Nairobi, Kenya