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## Implementing Cisco MPLS Traffic Engineering & Other Features

**Duration: 5 Days**    **Course Code: MPLST**

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### Overview:

The Implementing Cisco MPLS Traffic Engineering & Other Features (MPLST) course will enable customers to gather information from the technology basics to some of the more updated features and functions such as Traffic Engineering, Carrier Supporting Carrier and Any Transport over MPLS (AToM). The focus of the course is on technology issues of MPLS from the Service Providers perspective and how to configure some of those features and functions in an existing routed environment.

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### Target Audience:

This course is designed for: Individuals seeking advanced MPLS based knowledge and skills. Pre- and Post-sales technical engineers who are responsible for designing, implementing, and troubleshooting MPLS networks or solutions that are based on MPLS technology

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### Objectives:

- Upon completing this course, the learner will be able to meet these overall objectives:
  - Identify the MPLS peer-to-peer architecture and explain label allocation, routing update distribution, and packet forwarding as they relate to this architecture
  - Use the Cisco IOS commands that are required to successfully configure, monitor, and troubleshoot service provider support using the MPLS Carrier Supporting Carrier service
  - Identify the MPLS Traffic Engineering architecture and explain how MPLS implements traffic engineering, establishes the constraint-based path, and assigns traffic to traffic trunks
  - Use the Cisco IOS commands that are required to successfully configure, monitor, and troubleshoot MPLS Traffic Engineering
  - Use the Cisco IOS commands that are required to successfully implement a defined SLA using MPLS QoS services
  - Use the Cisco IOS commands that are required to successfully configure, monitor, and troubleshoot Layer 2 services using the Any Transport over MPLS service
  - Use the Cisco IOS commands that are required to successfully configure, monitor, and troubleshoot IPv6 support in an MPLS environment
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### Prerequisites:

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

- CCIP certification or an equivalent level of working knowledge and experience.
- Practical experience with deploying and operating networks that are based on Cisco network devices and Cisco IOS software is strongly recommended.

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

- Implementing Cisco IP Routing
  - Implementing Cisco Quality of Service
  - Configuring BGP on Cisco Routers
  - Implementing Cisco MPLS
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## Content:

### MPLS VPN Review

- Basic MPLS Concepts
- Label Distribution in Frame-Mode MPLS
- Configuring MPLS
- MPLS VPN Routing Model and Packet Forwarding
- Configuring Simple MPLS VPNs

### Carrier Supporting Carrier

- Carrier's Carrier Overview
- Implementing the CSC Models

### Configuring MPLS Traffic Engineering

- Configuring MPLS Traffic Engineering on Cisco IOS Platforms
- Advanced MPLS-TE Path Selection
- Advanced MPLS-TE Link Protection
- Advanced MPLS-TE Bandwidth Control
- MPLS-TE Interarea Support
- Monitoring and Troubleshooting MPLS-TE

### MPLS Quality of Service

- QoS models
- MPLS support for DiffServ
- Configuring MPLS QoS
- QoS in MPLS Applications

### Any Transport over MPLS (AToM)

- Introduction to Any Transport over MPLS
- Configuring AToM on Cisco IOS Platforms
- Monitoring AToM on Cisco IOS Platforms

### MPLS IPv6 support

- Review of IPv6
- Implementing IPv6 over MPLS
- Monitoring IPv6 over MPLS

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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