CHAPTER 23

Using MPLS-TP Commands

MPLS-TP is a carrier-grade packet transport technology that enables the move from SONET and SDH time-division multiplexing (TDM) to packet switching. MPLS-TP enables MPLS to be deployed in a transport network and to operate similarly to existing transport technologies. MPLS-TP enables MPLS to support packet transport services with a degree of predictability that is similar to the existing transport networks.

The goal of MPLS-TP is to provide connection-oriented transport for packet and TDM services over networks leveraging the widely deployed MPLS technology. Operations, administration, and maintenance (OAM) and resiliency features are defined and implemented in MPLS-TP to ensure:

- Scalable operations
- High availability
- Performance monitoring
- Multidomain support
- Carrier-grade packet transport networks

An MPLS-TP tunnel has:

- Two endpoints where the tunnel is configure as a tunnel interface
- One or two bidirectional label switched path (LSP) pairs between the endpoints. If there are two pairs, then one is a working path, the second a protection path.
- Pair of bidirectional LSPs that are congruent.
- Where there is no control plane, the LSPs are configured at all the midpoints.
- The MPLS-TP tunnel is used to carry pseudowires.

Supported Network Elements

You can run the MPLS-TP commands on the following network elements:

- Cisco 7600 Series Routers
- Cisco CPT Devices.

Configuring MPLS-TP Components

The following commands facilitate the configuration of MPLS-TP components:

MPLS-TP Tunnel Ping

Use the **MPLS-TP Tunnel Ping** command to ping the MPLS-TP tunnel.

Step 1 In the inventory window, expand the Logical Inventory tree and MPLS-TP node.

Step 2 Right-click and choose **MPLS-TP Global > Commands > Configuration > MPLSTP Tunnel Ping.**

Step 3 Enter values for the following parameters

Input Parameter	Description
TunnelId	The unique identifier of the MPLS-TP tunnel. The range of the tunnel is from 1 to 65535
LSP Path	The LSP path information- path, working.

Step 4 To see the commands that will be applied on the device, click **Preview**.

You can view the commands in the Result tab. You can go back and make any required changes to the input parameters.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the commands, click **Execute Now**.

Any errors are displayed in the Result tab.

Step 7 To close the dialog box, click **Close**.

MPLS-TP Tunnel Trace

Use the **MPLS-TP Tunnel Trace** command to trace the MPLS-TP tunnel.

Step 1 In the inventory window, expand the Logical Inventory tree and MPLS-TP node.

Step 2 Right-click and choose **MPLS-TP Global > Commands > Configuration > MPLSTP Tunnel Trace**

Step 3 Enter values for the following parameters.

Input Parameter	Description
TunnelID	The unique identifier of the MPLS-TP tunnel. The range of the tunnel is from 1 to 65535
LSP Path	The LSP path information.

Step 4 To see the commands that will be applied on the device, click **Preview**.

You can view the commands in the Result tab. You can go back and make any required changes to the input parameters.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the commands, click **Execute Now**.

Any errors are displayed in the Result tab.

Step 7 To close the dialog box, click **Close**.

LSP Path Lockout

Use the **LSP Path Lockout** command to lock the LSP path.

Step 1 In the inventory window, expand the Logical Inventory tree and MPLS-TP node.

Step 2 Right-click and choose **MPLS-TP Global > Commands > Configuration > LSP path lockout.**

Step 3 Enter values for the following parameters

Input Parameter	Description
TunnelID	The unique identifier of the MPLS-TP tunnel. The range of the tunnel is from 1 to 65535
LSP Path	The LSP path information- Protect LSP, Working LSP.
Lockout	The lockout of the LSP is signaled from one endpoint to the other.

Step 4 To see the commands that will be applied on the device, click **Preview**.

You can view the commands in the Result tab. You can go back and make any required changes to the input parameters.

Step 5 To schedule the command, click the Scheduling tab. For more details on scheduling, see Scheduling a Command.

Step 6 To run the commands, click **Execute Now**.

Any errors are displayed in the Result tab.

Step 7 To close the dialog box, click **Close**.