

Chapter 21

Summary of GMPLS Configuration Statements

address

Syntax	<code>address ip-address;</code>
Hierarchy Level	[edit protocols link-management peer <i>peer-name</i>]
Description	The router ID of the peer.
Options	<i>ip-address</i> —The IP address of the peer.
Default	Only the loopback address is advertised.
Usage Guidelines	See “Configure LMP Peers” on page 267.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

control-channel

Syntax	<code>control-channel control-channel-name;</code>
Hierarchy Level	[edit protocols link-management peer <i>peer-name</i>]
Description	Specifies the control channel for the peer.
Options	<i>control-channel-name</i> —Name of the control channel.
Usage Guidelines	See “Configure LMP Peers” on page 267.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

dead-interval

Syntax	dead-interval <i>seconds</i> ;
Hierarchy Level	[edit protocols ospf area <i>area-number</i> peer-interface <i>peer-interface-name</i>]
Description	Specify how long OSPF and OSPFv3 wait before declaring that a neighboring router is unavailable. This is an interval during which the router receives no hello packets from the neighbor.
Options	<i>seconds</i> —Interval to wait. Range: 1 through 65,535 Default: 40 seconds (four times the hello interval)
Usage Guidelines	See “Configure Peer Interfaces on OSPF and RSVP” on page 268.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.
See Also	hello-interval on page 272

disable

Syntax	disable;
Hierarchy Level	[edit protocols ospf area <i>area-number</i> peer-interface <i>peer-interface-name</i>]
Description	Disable an OSPF peer interface.
Default	The configured object is enabled (operational) unless explicitly disabled.
Usage Guidelines	See “Configure Peer Interfaces on OSPF and RSVP” on page 268.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

hello-interval

Syntax	hello-interval <i>seconds</i> ;
Hierarchy Level	[edit protocols ospf area <i>area-number</i> peer-interface <i>peer-interface-name</i>]
Description	Specify how often the router sends hello packets out the peer interface. The hello interval must be the same for all routers on a shared logical IP network.
Options	<i>seconds</i> —Length of time between hello packets. Range: 1 through 255 Default: 10 seconds; 120 seconds (nonbroadcast networks)
Usage Guidelines	See “Configure Peer Interfaces on OSPF and RSVP” on page 268.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.
See Also	dead-interval on page 272

interface

Syntax	interface <i>interface-name</i> ;
Hierarchy Level	[edit protocols link-management te-link <i>te-link-name</i>]
Description	Specifies the egress router interface.
Options	<i>interface-name</i> —Name of the interface to the egress router.
Usage Guidelines	See “Configure LMP” on page 265.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

link-management

Syntax	link-management { ... }
Hierarchy Level	[edit protocols]
Description	Enable the Link Management Protocol (LMP) on the router.
Usage Guidelines	See “Configure LMP” on page 265.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

local-address

Syntax	local-address <i>ip-address</i> ;
Hierarchy Level	[edit protocols link-management te-link <i>te-link-name</i>], [edit protocols link-management te-link <i>te-link-name</i> interface <i>interface-name</i>]
Description	Specifies the local IP address associated with the TE link.
Options	<i>local-address</i> —Local IP address of the TE link.
Usage Guidelines	See “Configure LMP TE Links” on page 266.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

peer

Syntax	peer <i>peer-name</i> { address <i>ip-address</i> ; control-channel <i>interface</i> ; te-link <i>te-link-name</i> ; }
Hierarchy Level	[edit protocols link-management]
Description	Configure a network peer.
Options	<i>peer-name</i> —Name of the network peer. The remaining statements are described separately in this chapter.
Usage Guidelines	See “Configure LMP Peers” on page 267.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

peer-interface

Syntax	peer-interface <i>peer-interface-name</i> ;
Hierarchy Level	[edit protocols ospf area <i>area-name</i>]
Description	Configure the control channel. The peer interface name is the same as the peer interface name configured under LMP.
Usage Guidelines	See “Configure Peer Interfaces on OSPF and RSVP” on page 268.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

remote-address

Syntax	remote-address <i>ip-address</i> ;
Hierarchy Level	[edit protocols link-management te-link <i>te-link-name</i>], [edit protocols link-management te-link <i>te-link-name</i> interface <i>interface-name</i>]
Description	Specifies the remote IP address for the TE link.
Options	<i>ip-address</i> —Remote IP address mapped to the TE link.
Usage Guidelines	See “Configure LMP TE Links” on page 266.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

remote-id

Syntax	remote-id <i>id-number</i> ;
Hierarchy Level	[edit protocols link-management te-link <i>te-link-name</i>], [edit protocols link-management te-link <i>te-link-name</i> interface <i>interface-name</i>]
Description	Specifies the ID assigned to a TE link or an interface (resource) on the peer node.
Options	<i>id-number</i> —ID number for the remote device.
Usage Guidelines	See “Configure LMP TE Links” on page 266.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

retransmit-interval

Syntax	retransmit-interval <i>seconds</i> ;
Hierarchy Level	[edit protocols ospf area <i>area-number</i> peer-interface <i>peer-interface-name</i>]
Description	Specify how long the router waits to receive a link-state acknowledgment packet before retransmitting link-state advertisements to a peer interface’s neighbors.
Options	<i>seconds</i> —Interval to wait. Range: 1 through 65,535 Default: 5 seconds
Usage Guidelines	See “Configure Peer Interfaces on OSPF and RSVP” on page 268.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

te-link

Syntax te-link *te-link-name* {
 interface *interface-name* {
 local-address *ip-address*;
 remote-address *ip-address*;
 remote-id *id-number*;
 }
 local-address *ip-address*;
 remote-address *ip-address*;
 remote-id *id-number*;
 }

Hierarchy Level [edit protocols link-management]
 [edit protocols link-management peer *peer-name*]

Description Represents a collection of physical ports or timeslots. Assigns a TE link to the specified network peer.

Options *te-link-name*—Name of the collection of physical ports or the name of the timeslots.

The other statements are described separately in this chapter.

Usage Guidelines See “Configure LMP TE Links” on page 266.

Required Privilege Level routing—To view this statement in the configuration.
 routing-control—To add this statement to the configuration.

traceoptions

Syntax traceoptions {
 file *filename* <files *number*> <no-stamp> <replace> <size *size*>
 <(world-readable | no-world-readable)>;
 flag *flag* < *flag-modifier*> < disable> ;
 }

Hierarchy Level [edit protocols link-management]

Description Trace options for the LMP protocol.

Options *filename*—Name of the file to receive the output of the tracing operation. Enclose the name within quotation marks. All files are placed in the directory `/var/log`.

files number—(Optional) Maximum number of trace files. When a trace file named *trace-file* reaches its maximum size, it is renamed *trace-file.0*, then *trace-file.1*, and so on, until the maximum number of trace files is reached. Then, the oldest trace file is overwritten.

If you specify the maximum number of files, you also must specify the maximum file size with the `size` option.

Range: 2 through 1000

Default: 2 files

flag—Tracing operation to perform. To specify more than one tracing operation, include multiple flag statements.

all—Trace all available operations

init—Output from the initialization messages

parse—Operation of the parser

process—Operation of the general configuration

route-socket—Operation of route socket events

routing—Operation of the routing protocols

server—Server processing operations

show—Show command servicing operations

flag-modifier—(Optional) Modifier for the tracing flag. You can specify one or more of these modifiers:

detail—Provide detailed trace information

receive—Packets being received

send—Packets being transmitted

no-stamp—(Optional) Do not place timestamp information at the beginning of each line in the trace file.

Default: If you omit this option, timestamp information is placed at the beginning of each line of tracing output.

no-world-readable—(Optional) Disallow any user to read the log file.

replace—(Optional) Replace an existing trace file if there is one.

Default: If you do not include this option, tracing output is appended to an existing trace file.

size *size*—(Optional) Maximum size of each trace file, in kilobytes (KB), megabytes (MB), or gigabytes (GB). When a trace file named *trace-file* reaches this size, it is renamed *trace-file.0*. When the *trace-file* again reaches its maximum size, *trace-file.0* is renamed *trace-file.1* and *trace-file* is renamed *trace-file.0*. This renaming scheme continues until the maximum number of trace files is reached. Then, the oldest trace file is overwritten.

If you specify a maximum file size, you also must specify a maximum number of trace files with the *files* option.

Syntax: *xk* to specify KB, *xm* to specify MB, or *xg* to specify GB

Range: 10 KB through the maximum file size supported on your system

Default: 1 MB

world-readable—(Optional) Allow any user to read the log file.

Usage Guidelines See “Trace LMP Traffic” on page 269 and the *JUNOS Internet Software Configuration Guide: Network Management*.

Required Privilege Level routing and trace—To view this statement in the configuration.
routing-control and trace-control—To add this statement to the configuration.

transit-delay

Syntax transit-delay *seconds*;

Hierarchy Level [edit protocols ospf area *area-number* peer-interface *peer-interface-name*]

Description Set the estimated time required to transmit a link-state update on the peer interface. When calculating this time, you should account for transmission and propagation delays.

Options *seconds*—Estimated time.
Range: 1 through 65,535
Default: 1 second

Usage Guidelines See “Configure Peer Interfaces on OSPF and RSVP” on page 268.

Required Privilege Level routing—To view this statement in the configuration.
routing-control—To add this statement to the configuration.