

Chapter 23

Summary of Layer 2 Circuit Configuration Statements

The following sections explain the major protocol configuration statements that apply specifically to Layer 2 circuits. The statements are organized alphabetically. Protocols and the statements at the [edit protocols] hierarchy level are explained in the *JUNOS Internet Software Configuration Guide: Routing and Routing Protocols*.

community

Syntax	community <i>community-name</i> ;
Hierarchy Level	[edit policy-options], [edit protocols l2circuit neighbor <i>address</i> interface <i>interface-name</i>]
Description	Specify the community for the Layer 2 circuit.
Usage Guidelines	See “Configure the Layer 2 Circuit Community” on page 370.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

control-word

Syntax	(control-word no-control-word);
Hierarchy Level	[edit protocols l2circuit neighbor <i>address</i> interface <i>interface-name</i>] [edit routing-instances <i>routing-instance-name</i> protocols l2vpn]
Description	The control word is 4 bytes long and is inserted between the Layer 2 protocol data unit (PDU) being transported and the VC label that is used for demultiplexing. control-word—Enables the use of the control word. Default: The control word is enabled by default. You can also configure the control word explicitly using the control-word statement. no-control-word—Disables the use of the control word.
Usage Guidelines	See “Disable the Control Word for Layer 2 Circuits” on page 372 or “Disable the Control Word for Layer 2 VPNs” on page 48.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

description

Syntax	description <i>text</i> ;
Hierarchy Level	[edit protocols l2circuit neighbor <i>address</i> interface <i>interface-name</i>]
Description	Allows you to provide a text description for the Layer 2 circuit. Enclose any descriptive text that includes spaces in quotation marks (" "). Text you include is displayed in the output of the show route instance detail command and has no effect on the operation of the routing instance.
Usage Guidelines	See "Configure the Description" on page 15.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

install-nexthop

Syntax	install-nexthop [lsp <i>lsp-name</i> lsp-regex <i>lsp-regular-expression</i>];
Hierarchy Level	[edit policy-options policy-statement <i>policy-name</i> term <i>term-name</i> then]
Description	Allows you to select a specific LSP or select an LSP from a set of similarly named LSPs as the traffic destination for the configured community. <p style="margin-left: 40px;"><i>lsp lsp-name</i>—Configure a specific LSP.</p> <p style="margin-left: 40px;"><i>lsp-regex lsp-regular-expression</i>—Configure a range of similarly named LSPs. You can use the following wildcard characters when configuring an LSP regular expression:</p> <p style="margin-left: 80px;">Asterisk (*)—A wildcard character that matches any characters.</p> <p style="margin-left: 80px;">Period (.)—A wildcard character that matches any single digit.</p>
Usage Guidelines	See "Configure the Policy Statement for the Layer 2 Circuit Community" on page 371.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

interface

Syntax	interface <i>interface-name</i> ;
Hierarchy Level	[edit protocols l2circuit neighbor <i>address</i>]
Description	Interface over which Layer 2 circuit traffic travels.
Options	<i>interface-name</i> —Name of the interface to configure.
Usage Guidelines	See "Configure the Neighbor and Interface" on page 368.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

neighbor

Syntax	<code>neighbor address</code>
Hierarchy Level	[edit protocols l2circuit]
Description	Each Layer 2 circuit is represented by the logical interface connecting the local provider edge (PE) router to the local customer edge (CE) router. All the Layer 2 circuits using a particular remote PE router designated for remote CE routers are listed under the neighbor statement (neighbor designates the PE router). Each neighbor is identified by its IP address and is usually the end-point destination for the label-switched path (LSP) tunnel (transporting the Layer 2 circuit).
Options	<i>address</i> —IP address of a neighboring router.
Usage Guidelines	See “Configure the Neighbor and Interface” on page 368.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

no-control-word

See “control-word” on page 375.

traceoptions

Syntax	<pre> traceoptions { file filename <replace> <size size> <files number> <nostamp> <no-world-readable world-readable>; flag flag <flag-modifier> <disable>; } </pre>
Hierarchy Level	[edit protocols l2circuit]
Description	Trace traffic flowing through a Layer 2 circuit.
Options	<p><i>disable</i>—(Optional) Disable the tracing operation. You can use this option to disable a single operation when you have defined a broad group of tracing operations, such as all.</p> <p><i>file filename</i>—Name of the file to receive the output of the tracing operation. Enclose the name within quotation marks.</p> <p><i>files number</i>—(Optional) Maximum number of trace files. When a trace file named <i>trace-file</i> reaches its maximum size, it is renamed <i>trace-file.0</i>, then <i>trace-file.1</i>, and so on, until the maximum number of trace files is reached. Then the oldest trace file is overwritten.</p> <p>If you specify a maximum number of files, you also must specify a maximum file size with the <i>size</i> option.</p> <p>Range: 2 to 1000 Default: 2 files</p>

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

connections—Layer 2 circuit connections (events and state changes)

error—Error conditions

FEC—Layer 2 circuit advertisements received or sent by means of the Label Distribution Protocol (LDP)

topology—Layer 2 circuit topology changes caused by reconfiguration or advertisements received from other PE routers

flag-modifier—(Optional) Modifier for the tracing flag. You can specify the detail modifier if you want to provide detailed trace information.

nostamp—(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 the tracing output.

no-world-readable—(Optional) Do not allow 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 Layer 2 Circuit Creation and Changes” on page 373.

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

virtual-circuit-id

Syntax	virtual-circuit-id <i>identifier</i> ;
Hierarchy Level	[edit protocols l2circuit neighbor <i>address</i> interface <i>interface-name</i>]
Description	Uniquely identifies a Layer 2 circuit.
Usage Guidelines	See “Configure the Virtual Circuit ID” on page 368.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

virtual-circuit-id