

Chapter 37

Summary of Tunnel Services Configuration Statements

The following sections explain each of the tunnel services statements. The statements are organized alphabetically.

backup-destination

Syntax	<code>backup-destination address;</code>
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel], [edit logical-routers <i>logical-router-name</i> interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel]
Description	For tunnel interfaces, specify the remote address of the backup tunnel.
Options	<i>address</i> —Address of the remote side of the connection.
Usage Guidelines	See “Configuring IPsec Tunnel Redundancy” on page 297.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.
See Also	destination on page 505

destination

See the following sections:

destination (Address) on page 506

destination (Routing Instance) on page 506

destination (Address)

Syntax	<i>destination address;</i>
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel], [edit logical-routers <i>logical-router-name</i> interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel]
Description	For tunnel interfaces, specify the remote address of the tunnel.
Options	<i>destination-address</i> —Address of the remote side of the connection.
Usage Guidelines	See “Configuring a Unicast Tunnel” on page 492, “Configuring Traffic Sampling” on page 316, and “Configuring Flow Monitoring” on page 323.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.

destination (Routing Instance)

Syntax	<i>destination routing-instance-name;</i>
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel routing-instance]
Description	Specify the destination routing instance that points to the routing table containing the tunnel destination address.
Default	The default Internet routing table inet.0.
Usage Guidelines	See “Configuring a Tunnel Interface for Routing Table Lookup” on page 496.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.

destination-networks

Syntax	<i>destination-networks prefix</i>
Hierarchy Level	[edit logical-routers <i>logical-router-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>], [edit logical-routers <i>logical-router-name</i> routing-instances <i>routing-instance-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>], [edit routing-options dynamic-tunnels <i>tunnel-name</i>], [edit routing-instances <i>routing-instance-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>]
Description	Create a tunnel for routes in these destination networks.
Options	<i>prefix</i> —Destination prefix of network.
Usage Guidelines	See “Configuring a Dynamic Tunnel” on page 499.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

dynamic-tunnels

Syntax	dynamic-tunnels <i>tunnel-name</i> { destination-networks <i>prefix</i> ; source-address <i>address</i> ; tunnel-type <i>type-of-tunnel</i> ; }
Hierarchy Level	[edit logical-routers <i>logical-router-name</i> routing-options], [edit logical-routers <i>logical-router-name</i> routing-instances <i>routing-instance-name</i> routing-options], [edit routing-options], [edit routing-instances <i>routing-instance-name</i> routing-options]
Description	Configure a dynamic tunnel between two provider edge (PE) routers.
Options	<i>tunnel-name</i> —Name of the dynamic tunnel. The statements are explained separately in this chapter.
Usage Guidelines	See “Configuring a Dynamic Tunnel” on page 499.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

interfaces

Syntax	interfaces { ... }
Hierarchy Level	[edit]
Description	Configure interfaces on the router.
Default	The management and internal Ethernet interfaces are automatically configured. You must configure all other interfaces.
Usage Guidelines	See the <i>JUNOS Network Interfaces and Class of Service Configuration Guide</i> .
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.

key

Syntax	<i>key number</i> ;
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel], [edit logical-routers <i>logical-router-name</i> interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel]
Description	For Adaptive Services PICs on M-series platforms (except the M320), identify an individual traffic flow within a tunnel, as defined in RFC 2890.
Options	<i>number</i> —Value of the key. Range: 0 through 4,294,967,295
Usage Guidelines	See “Configuring a Key Number on GRE Tunnels” on page 493.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.

multicasts-only

Syntax	multicasts-only;
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i> family inet], [edit logical-routers <i>logical-router-name</i> interfaces <i>interface-name</i> unit <i>logical-unit-number</i> family inet]
Description	Configure the unit and family so that the interface can transmit and receive multicast traffic only. You can configure this property on the IP family only.
Usage Guidelines	See “Configuring a Multicast Tunnel” on page 495.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.
See Also	tunnel on page 511

peer-unit

Syntax	peer-unit <i>unit-number</i> ;
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i>], [edit logical-routers <i>logical-router-name</i> interfaces <i>interface-name</i> unit <i>logical-unit-number</i>]
Description	Configure a peer relationship between two logical routers.
Options	<i>unit-number</i> —Peering logical router unit number.
Usage Guidelines	See “Configuring a Logical Tunnel” on page 495.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.

routing-instance

Syntax	routing-instance { <i>destination routing-instance-name</i> ; }
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel], [edit logical-routers <i>logical-router-name</i> interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel]
Description	Specify the destination routing instance that points to the routing table containing the tunnel destination address.
Default	The default Internet routing table inet.0.
Usage Guidelines	See “Configuring a Tunnel Interface for Routing Table Lookup” on page 496.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.

SOURCE

Syntax	source <i>source-address</i> ;
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i> tunnel <i>destination-address</i>]
Description	Specify the source address of the tunnel.
Default	If you do not specify a source address, the tunnel uses the unit’s primary address as the source address of the tunnel.
Options	<i>source-address</i> —Address of the local side of the tunnel. This is the address that is placed in the outer IP header’s source field.
Usage Guidelines	See “Tunnel Interfaces Configuration Guidelines” on page 491.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.

source-address

Syntax	source-address <i>address</i> ;
Hierarchy Level	[edit logical-routers <i>logical-router-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>], [edit logical-routers <i>logical-router-name</i> routing-instances <i>routing-instance-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>], [edit routing-options dynamic-tunnels <i>tunnel-name</i>], [edit routing-instances <i>routing-instance-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>]
Description	Configure the tunnel source address.
Options	<i>address</i> —Name of the source address.
Usage Guidelines	See “Configuring a Dynamic Tunnel” on page 499.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

ttl

Syntax	ttl <i>value</i> ;
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>number</i> tunnel]
Description	Set the time-to-live value bit in the header of the outer IP packet.
Options	<i>value</i> —Time-to-live value. Range: 0 through 255 Default: 64
Usage Guidelines	See “Tunnel Interfaces Configuration Guidelines” on page 491.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.

tunnel

Syntax	tunnel { backup-destination <i>address</i> ; destination <i>destination-address</i> ; key <i>number</i> ; routing-instance { destination <i>routing-instance-name</i> ; } source <i>source-address</i> ; ttl <i>number</i> ; }
Hierarchy Level	[edit interfaces <i>interface-name</i> unit <i>logical-unit-number</i>], [edit logical-routers <i>router-name</i> interfaces <i>interface-name</i> unit <i>logical-unit-number</i>]
Description	Configure a tunnel. You can use the tunnel for unicast and multicast traffic or just for multicast traffic. You can also use tunnels for encrypted traffic or VPNs. The statements are explained separately.
Usage Guidelines	See “Encryption Interfaces Configuration Guidelines” on page 287 and “Tunnel Interfaces Configuration Guidelines” on page 491.
Required Privilege Level	interface—To view this statement in the configuration. interface-control—To add this statement to the configuration.
See Also	<i>JUNOS VPNs Configuration Guide</i>

tunnel-type

Syntax	tunnel-type <i>type</i> ;
Hierarchy Level	[edit logical-routers <i>logical-router-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>], [edit logical-routers <i>logical-router-name</i> routing-instances <i>routing-instance-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>], [edit routing-options dynamic-tunnels <i>tunnel-name</i>], [edit routing-instances <i>routing-instance-name</i> routing-options dynamic-tunnels <i>tunnel-name</i>]
Description	Select the dynamic tunnel type.
Options	<i>type</i> —Tunnel type. GRE is supported as tunnel type.
Usage Guidelines	See “Configuring a Dynamic Tunnel” on page 499.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

unit

Syntax	<pre> unit <i>logical-unit-number</i> { peer-unit <i>unit-number</i>; tunnel { backup-destination <i>address</i>; destination <i>destination-address</i>; key <i>number</i>; routing-instance { destination <i>routing-instance-name</i>; } source <i>source-address</i>; ttl <i>number</i>; } } </pre>
Hierarchy Level	[edit interfaces <i>interface-name</i>], [edit logical-routers <i>logical-router-name</i> interfaces <i>interface-name</i>]
Description	Configure a logical interface on the physical device. You must configure a logical interface to be able to use the physical device.
Options	<p><i>logical-unit-number</i>—Number of the logical unit. Range: 0 through 16,384</p> <p>The remaining statements are explained separately.</p>
Usage Guidelines	See “Tunnel Interfaces Configuration Guidelines” on page 491.
Required Privilege Level	<p>interface—To view this statement in the configuration.</p> <p>interface-control—To add this statement to the configuration.</p>
See Also	<i>JUNOS Network Interfaces and Class of Service Configuration Guide</i> for other statements that do not affect services interfaces.