

Chapter 9

Summary of Routing Policy Configuration Statements

The following sections explain each of the routing policy configuration statements. The statements are organized alphabetically.

as-path

Syntax	<code>as-path name regular-expression;</code>
Hierarchy Level	[edit policy-options]
Description	Define an AS path regular expression for use in a routing policy match condition.
Options	<i>name</i> —Name that identifies the regular expression. The name can contain letters, numbers, and hyphens (-), and can be up to 255 characters long. To include spaces in the name, enclose it in quotation marks (double quotes). <i>regular-expression</i> —One or more regular expressions used to match the AS path.
Usage Guidelines	See “Configure AS Path Regular Expressions and Communities” on page 65.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

community

Syntax `community name members [community-ids];`

Hierarchy Level [edit policy-options]

Description Define a community for use in a routing policy match condition.

Options *community-ids*—One or more community members. If you specify more than one member, you must enclose all members in brackets.

Specify each community member in the following format:

as-number:community-value

as-number is the AS number and can be a value in the range 1 through 65534.

community-value is the community identifier and can be a number in the range 0 through 65535.

You also can specify the *community-ids* option as one of the following well-known community names, which are defined in RFC 1997:

no-advertise—Routes in this community name must not be advertised to other BGP peers.

no-export—Routes in this community must not be advertised outside a BGP confederation boundary.

no-export-subconfed—Routes in this community must not be advertised to external BGP peers, including peers in other members' ASs inside a BGP confederation.

origin—Community that identifies one or more routers that inject a set of routes that carry the specified community into BGP.

target—Community that identifies one or more routers to receive a set of routes that carry the specified community, which is carried by BGP.

name—Name that identifies the regular expression. The name can contain letters, numbers, and hyphens (-), and can be up to 255 characters. To include spaces in the name, enclose it in quotation marks (double quotes).

Usage Guidelines See “Configure the BGP Community Attribute” on page 69.

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

damping

Syntax	damping <i>name</i> { disable; half-life <i>minutes</i> ; max-suppress <i>minutes</i> ; reuse <i>number</i> ; suppress <i>number</i> ; }
Hierarchy Level	[edit policy-options]
Description	Define route flap damping properties to set on BGP routes.
Options	<p>disable—Disable damping on a per-prefix basis. Any damping state that is present in the routing table for a prefix is deleted if damping is disabled.</p> <p>half-life <i>minutes</i>—Decay half-life. <i>minutes</i> is the time duration during which the accumulated figure-of-merit value is reduced by half if the route remains stable. Range: 1 through 45 Default: 15 minutes</p> <p>max-suppress <i>minutes</i>—Maximum hold-down time. <i>minutes</i> is the maximum time that a route can be suppressed no matter how unstable it has been prior to this period of stability. Range: 1 through 720 Default: 60 minutes</p> <p><i>name</i>—Name that identifies the set of damping parameters. The name can contain letters, numbers, and hyphens (-), and can be up to 255 characters long. To include spaces in the name, enclose it in quotation marks (double quotes).</p> <p>reuse <i>number</i>—Reuse threshold. <i>number</i> is the figure-of-merit value below which a suppressed route can be used again. Range: 1 through 20,000 Default: 750 (unitless)</p> <p>suppress <i>number</i>—Cutoff (suppression) threshold. <i>number</i> is the figure-of-merit value above which a route is suppressed for use or inclusion in advertisements. Range: 1 through 20,000 Default: 3000 (unitless)</p>
Usage Guidelines	See “Configure Damping Parameters” on page 77.
Required Privilege Level	<p>routing—To view this statement in the configuration.</p> <p>routing-control—To add this statement to the configuration.</p>

export

Syntax	export [<i>policy-names</i>];
Hierarchy Level	[edit protocols <i>protocol-name</i>]
Description	Apply one or more policies to routes being exported from the routing table into a routing protocol.
Options	<i>policy-names</i> —Names of one or more policies defined with a policy-statement statement.
Usage Guidelines	See “Apply Routing Policies” on page 45.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

import

Syntax	import [<i>policy-names</i>];
Hierarchy Level	[edit protocols <i>protocol-name</i>]
Description	Apply one or more policies to routes being imported into the routing table from a routing protocol.
Options	<i>policy-names</i> —Names of one or more policies defined with a policy-statement statement.
Usage Guidelines	See “Apply Routing Policies” on page 45.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

policy-options

Syntax	policy-options { ... }
Hierarchy Level	[edit]
Description	Configure routing policy.
Options	The statements are explained separately.
Usage Guidelines	See “Routing Policy Configuration Statements” on page 33.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

policy-statement

Syntax	<pre> policy-statement <i>policy-name</i> { term <i>term-name</i> { from { <i>match-conditions</i>; route-filter <i>destination-prefix match-type <actions></i>; prefix-list <i>name</i>; } to { <i>match-conditions</i>; } then <i>actions</i>; } } </pre>
Hierarchy Level	[edit policy-options]
Description	Define a routing policy.
Options	<p><i>actions</i>—(Optional) One or more actions to take if the conditions match. The actions are described in Table 3 on page 40 and Table 4 on page 41.</p> <p><i>conditions</i>—(Optional in from statement; required in to statement) One or more conditions to use to make a match. The qualifiers are described in Table 2 on page 38.</p> <p><i>from</i>—(Optional) Match a route based on its source address.</p> <p><i>policy-name</i>—Name that identifies the policy. The name can contain letters, numbers, and hyphens (-), and can be up to 255 characters long. To include spaces in the name, enclose it in quotation marks (double quotes).</p> <p><i>prefix-list name</i>—Name of a list of IP address prefixes. To create a named list of IP address prefixes, see “Define a List of IP Address Prefixes” on page 59.</p> <p><i>route-filter destination-prefix match-type <actions></i>—(Optional) List of routes on which to perform an immediate match. <i>destination-prefix</i> is the route prefix to match, and <i>match-type</i> is the type of match (see Table 6 on page 58).</p> <p><i>term-name</i>—Name that identifies the term.</p> <p><i>to</i>—(Optional) Match a route based on its destination address or the protocols into which the route is being advertised.</p> <p><i>then</i>—(Optional) Actions to take on matching routes. The actions are described in Table 3 on page 40 and Table 4 on page 41.</p>
Usage Guidelines	See “Define Routing Policies” on page 35 and “Configure Route Lists” on page 57.
Required Privilege Level	<p>routing—To view this statement in the configuration.</p> <p>routing-control—To add this statement to the configuration.</p>

