

Chapter 7

Tag Elements Beginning with G

This chapter lists the configuration tag elements that have names beginning with the letter *g*. The tag names are in alphabetical order. For information about the notation used in this chapter, see Table 2 on page cdv.

For information about the tag elements that client applications use to request, change, and commit configuration information, see the *JUNOScript API Guide* and *NETCONF API Guide*.



NOTE: Every tag element in this chapter optionally accepts the `<apply-groups>` or `<apply-groups-except>` tag element and the `<apply-macro>` tag element as children. For brevity, the reference entries do not list these tag elements as children. For information about these tag elements, see `<apply-groups>` on page 606, `<apply-groups-except>` on page 606, and `<apply-macro>` on page 607.

`<gateway>` (configuration/services/ggsn/charging/characteristics/profile0/gtp-prime)

Usage	<pre><configuration> <services> <ggsn> <charging> <characteristics> <profile0> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile0> </characteristics> </charging> </ggsn> </services> </configuration></pre>
Description	Address of billing gateway.
Contents	<code><name></code> —Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile1/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile1> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile1> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile10/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile10> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile10> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile11/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile11> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile11> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile12/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile12> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile12> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile13/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile13> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile13> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile14/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile14> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile14> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile15/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile15> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile15> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile2/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile2> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile2> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile3/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile3> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile3> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile4/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile4> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile4> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile5/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile5> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile5> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile6/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile6> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile6> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile7/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile7> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile7> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile8/gtp-prime)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile8> <gtp-prime> <gateway> <name>name</name> <!-- identifier --> </gateway> </gtp-prime> </profile8> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Address of billing gateway.
Contents	<name>—Address of billing gateway.

<gateway> (configuration/services/ggsn/charging/characteristics/profile9/gtp-prime)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile9>
 <gtp-prime>
 <gateway>
 <name>*name*</name> <!-- identifier -->
 </gateway>
 </gtp-prime>
 </profile9>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Address of billing gateway.

Contents <name>—Address of billing gateway.

<gateway> (configuration/services/pgcp)

Usage <configuration>
 <services>
 <pgcp>
 <gateway>
 <name>name</name> <!-- identifier -->
 <gateway-address>gateway-address</gateway-address> <!-- mandatory -->
 <gateway-port>gateway-port</gateway-port>
 <cleanup-timeout>seconds</cleanup-timeout>
 <service-state>service-state-choice</service-state>
 <h248-timers>...</h248-timers>
 <h248-properties>...</h248-properties>
 <h248-options>...</h248-options>
 <max-concurrent-calls>max-concurrent-calls</max-concurrent-calls>
 <gateway-controller>...</gateway-controller> <!-- mandatory -->
 <monitor>...</monitor>
 <graceful-restart>...</graceful-restart>
 <fast-update-filters>...</fast-update-filters>
 <session-mirroring>...</session-mirroring>
 <data-inactivity-detection>...</data-inactivity-detection>
 <overload-control>...</overload-control>
 </gateway>
 </pgcp>
 </services>
 </configuration>

Description One or more Packet Gateways.

Contents <cleanup-timeout>—When expires the PG will clean its gate state (Applicable in disconnections).

<data-inactivity-detection>—No documentation is available yet.

<fast-update-filters>—No documentation is available yet.

<gateway-address>—Local Gateway IP address.

<gateway-controller>—No documentation is available yet.

<gateway-port>—Local Gateway transport port.

<graceful-restart>—No documentation is available yet.

<h248-options>—No documentation is available yet.

<h248-properties>—No documentation is available yet.

<h248-timers>—No documentation is available yet.

<max-concurrent-calls>—Maximum number of concurrent calls.

<monitor>—Monitor voice traffic.

<name>—Gateway Name.

<overload-control>—No documentation is available yet.

<service-state>—Service state.

- in-service—Gateway is operational.
- out-of-service-forced—Gateway is nonoperational.
- out-of-service-graceful—Gateway becomes nonoperational by draining.

<session-mirroring>—No documentation is available yet.

<gateway-controller> (configuration/services/pgcp/gateway)

Usage <configuration>
 <services>
 <pgcp>
 <gateway>
 <gateway-controller>
 <name>name</name> <!-- identifier -->
 <controller-address>controller-address
 </controller-address> <!-- mandatory -->
 <controller-port>controller-port</controller-port>
 <interim-ah-scheme>...</interim-ah-scheme>
 </gateway-controller>
 </gateway>
 </pgcp>
 </services>
</configuration>

Description No documentation is available yet.

Contents <controller-address>—Gateway controller IP address.

<controller-port>—Gateway controller port.

<interim-ah-scheme>—No documentation is available yet.

<name>—PGCP Controller Name.

<general-authentication-service> (configuration/system/processes)

Usage	<pre> <configuration> <system> <processes> <general-authentication-service> <disable/> <traceoptions>...</traceoptions> </general-authentication-service> </processes> </system> </configuration> </pre>
Description	General authentication service process.
Contents	<p><disable>—Disable general-authentication service process.</p> <p><traceoptions>—General authentication service trace options.</p>

<generate> (configuration/logical-systems/routing-instances/instance/routing-options)

Usage	<pre> <configuration> <logical-systems> <routing-instances> <instance> <routing-options> <generate> <defaults>...</defaults> <route>...</route> </generate> </routing-options> </instance> </routing-instances> </logical-systems> </configuration> </pre>
Description	Route of last resort.
Contents	<p><defaults>—Global route options.</p> <p><route>—Individual route options.</p>

<generate> (configuration/logical-systems/routing-instances/instance/routing-options/rib)

Usage	<pre> <configuration> <logical-systems> <routing-instances> <instance> <routing-options> <rib> <generate> <defaults>...</defaults> <route>...</route> </generate> </rib> </routing-options> </instance> </routing-instances> </logical-systems> </configuration> </pre>
Description	Route of last resort.
Contents	<p><defaults>—Global route options.</p> <p><route>—Individual route options.</p>

<generate> (configuration/logical-systems/routing-options)

Usage	<pre> <configuration> <logical-systems> <routing-options> <generate> <defaults>...</defaults> <route>...</route> </generate> </routing-options> </logical-systems> </configuration> </pre>
Description	Route of last resort.
Contents	<p><defaults>—Global route options.</p> <p><route>—Individual route options.</p>

<generate> (configuration/logical-systems/routing-options/rib)

Usage	<pre> <configuration> <logical-systems> <routing-options> <rib> <generate> <defaults>...</defaults> <route>...</route> </generate> </rib> </routing-options> </logical-systems> </configuration> </pre>
Description	Route of last resort.
Contents	<p><defaults>—Global route options.</p> <p><route>—Individual route options.</p>

<generate> (configuration/routing-instances/instance/routing-options)

Usage	<pre> <configuration> <routing-instances> <instance> <routing-options> <generate> <defaults>...</defaults> <route>...</route> </generate> </routing-options> </instance> </routing-instances> </configuration> </pre>
Description	Route of last resort.
Contents	<p><defaults>—Global route options.</p> <p><route>—Individual route options.</p>

<generate> (configuration/routing-instances/instance/routing-options/rib)

Usage	<pre> <configuration> <routing-instances> <instance> <routing-options> <rib> <generate> <defaults>...</defaults> <route>...</route> </generate> </rib> </routing-options> </instance> </routing-instances> </configuration> </pre>
Description	Route of last resort.
Contents	<p><defaults>—Global route options.</p> <p><route>—Individual route options.</p>

<generate> (configuration/routing-options)

Usage	<pre> <configuration> <routing-options> <generate> <defaults>...</defaults> <route>...</route> </generate> </routing-options> </configuration> </pre>
Description	Route of last resort.
Contents	<p><defaults>—Global route options.</p> <p><route>—Individual route options.</p>

<generate> (configuration/routing-options/rib)

Usage	<pre> <configuration> <routing-options> <rib> <generate> <defaults>...</defaults> <route>...</route> </generate> </rib> </routing-options> </configuration> </pre>
Description	Route of last resort.
Contents	<p><defaults>—Global route options.</p> <p><route>—Individual route options.</p>

<generate-event> (configuration/event-options)

Usage	<pre> <configuration> <event-options> <generate-event> <name>name</name> <!-- identifier --> <time-of-day>time-of-day</time-of-day> <time-interval>seconds</time-interval> </generate-event> </event-options> </configuration> </pre>
Description	Generate an internal event.
Contents	<p><name>—Name of the event to be generated.</p> <p><time-interval>—Frequency at which to generate event.</p> <p><time-of-day>—Time of day at which to generate event (hh:mm:ss).</p>

<ggsn> (configuration/services)

Usage	<pre> <configuration> <services> <ggsn> <node>node</node> <apn>...</apn> <charging>...</charging> <dhcp>...</dhcp> <ggsnc>...</ggsnc> <!-- mandatory --> <pic-allocation>...</pic-allocation> <isp>...</isp> <ggsnu>...</ggsnu> <!-- mandatory --> <gom-routing-instance>gom-routing-instance</gom-routing-instance> <gtp>...</gtp> <address-reuse-timeout>seconds</address-reuse-timeout> <no-address-reuse-quarantine/> <ipv6-router-advertisement>...</ipv6-router-advertisement> <logical-apn>...</logical-apn> <ggsn-plmn-id>ggsn-plmn-id</ggsn-plmn-id> <plmn>...</plmn> <pdp-context>...</pdp-context> <radius>...</radius> <service-based-charging>...</service-based-charging> <sgsn>...</sgsn> <rule-space>...</rule-space> <service-set>...</service-set> <service-identification>...</service-identification> <fault-management>...</fault-management> </ggsn> </services> </configuration> </pre>
Description	GGSN settings.
Contents	<p><address-reuse-timeout>—Timeout for reuse of IP addresses.</p> <p><apn>—Access point configuration.</p> <p><charging>—GGSN charging and CDR configuration.</p> <p><dhcp>—DHCP settings.</p> <p><fault-management>—Settings for fault management.</p> <p><ggsn-plmn-id>—GGSN Public Land Mobile Network identifier.</p> <p><ggsnc>—Global settings for GGSN-C PICs.</p> <p><ggsnu>—Global settings for GGSN-U PICs.</p> <p><gom-routing-instance>—Routing instance for Gom network.</p> <p><gtp>—GTP settings.</p>

<ipv6-router-advertisement>—IPv6 router advertisement parameters.

<isp>—ISP settings.

<logical-apn>—Logical access point name configuration.

<no-address-reuse-quarantine>—Don't quarantine addresses before reuse.

<node>—Identifier for GGSN node.

<pdp-context>—PDP context settings.

<pic-allocation>—PIC allocation.

<plmn>—PLMN network data.

<radius>—RADIUS settings.

<rule-space>—Rule space configuration for charging control.

<service-based-charging>—Service-based charging settings.

<service-identification>—Service identification configuration for packet inspection.

<service-set>—Service set configuration for packet inspection.

<sgsn>—SGSN settings.

<ggsn-options> (configuration/dynamic-profiles/interfaces/interface)

Usage	<pre> <configuration> <dynamic-profiles> <interfaces> <interface> <ggsn-options> <syslog/> <core-dump/> </ggsn-options> </interface> </interfaces> </dynamic-profiles> </configuration> </pre>
Description	GGSN interface-specific options.
Contents	<p><core-dump>—Enable core dumping on this interface.</p> <p><syslog>—Enable system logging on this interface.</p>

<ggsn-options> (configuration/interfaces/interface)

- Usage** <configuration>
 <interfaces>
 <interface>
 <ggsn-options>
 <syslog/>
 <core-dump/>
 </ggsn-options>
 </interface>
 </interfaces>
 </configuration>
- Description** GGSN interface-specific options.
- Contents** <core-dump>—Enable core dumping on this interface.
 <syslog>—Enable system logging on this interface.

<ggsnc> (configuration/services/ggsn)

- Usage** <configuration>
 <services>
 <ggsn>
 <ggsnc>
 <gn-address-range>*gn-address-range*</gn-address-range> <!-- mandatory
 -->
 <gom-address-range>*gom-address-range*</gom-address-range>
 </ggsnc>
 </ggsn>
 </services>
 </configuration>
- Description** Global settings for GGSN-C PICs.
- Contents** <gn-address-range>—Gn network address range for GGSN-C PICs.
 <gom-address-range>—Gom network address range for GGSN-C PICs.

<ggsnu> (configuration/services/ggsn)

```
Usage  <configuration>
      <services>
      <ggsn>
        <b>ggsnu</b>
          <gn-address-range>gn-address-range
                                </gn-address-range>    <!-- mandatory -->
          <gom-address-range>gom-address-range</gom-address-range>
        <b>ggsnu</b>
      </ggsn>
    </services>
  </configuration>
```

Description	Global settings for GGSN-U PICs.
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Contents

- <gn-address-range>—Gn network address range for GGSN-U PICs.
- <gom-address-range>—Gom network address range for GGSN-U PICs.

<gigether-options> (configuration/dynamic-profiles/interfaces/interface)

Usage <configuration>
 <dynamic-profiles>
 <interfaces>
 <interface>
 <gigether-options>
 <loopback/>
 <flow-control/>
 <source-filtering/>
 <no-auto-negotiation/>
 <auto-negotiation>...</auto-negotiation>
 <asynchronous-notification/>
 <source-address-filter>...</source-address-filter>
 <redundant-parent>...</redundant-parent>
 <ieee-802.3ad>...</ieee-802.3ad>
 <ethernet-switch-profile>...</ethernet-switch-profile>
 <mpls>...</mpls>
 <ignore-l3-incompletes/>
 </gigether-options>
 </interface>
 </interfaces>
 </dynamic-profiles>
 </configuration>

Description Gigabit Ethernet interface-specific options.

Contents <asynchronous-notification>—Enable sending asynchronous notification to peer on CCC-down.

<auto-negotiation>—Enable auto-negotiation.

<ethernet-switch-profile>—Ethernet virtual LAN/media access control-level options.

<flow-control>—Enable flow control.

<ieee-802.3ad>—IEEE 802.3ad.

<ignore-l3-incompletes>—Ignore L3 incomplete errors.

<loopback>—Enable loopback.

<mpls>—MPLS options.

<no-auto-negotiation>—Disable auto-negotiation.

<redundant-parent>—Parent of this interface.

<source-address-filter>—Source address filters.

<source-filtering>—Enable source address filtering.

<gigether-options> (configuration/interfaces/interface)

Usage <configuration>
 <interfaces>
 <interface>
 <gigether-options>
 <loopback/>
 <flow-control/>
 <source-filtering/>
 <no-auto-negotiation/>
 <auto-negotiation>...</auto-negotiation>
 <asynchronous-notification/>
 <source-address-filter>...</source-address-filter>
 <redundant-parent>...</redundant-parent>
 <ieee-802.3ad>...</ieee-802.3ad>
 <ethernet-switch-profile>...</ethernet-switch-profile>
 <mpls>...</mpls>
 <ignore-l3-incompletes/>
 </gigether-options>
 </interface>
 </interfaces>
 </configuration>

Description Gigabit Ethernet interface-specific options.

Contents <asynchronous-notification>—Enable sending asynchronous notification to peer on CCC-down.

<auto-negotiation>—Enable auto-negotiation.

<ethernet-switch-profile>—Ethernet virtual LAN/media access control-level options.

<flow-control>—Enable flow control.

<ieee-802.3ad>—IEEE 802.3ad.

<ignore-l3-incompletes>—Ignore L3 incomplete errors.

<loopback>—Enable loopback.

<mpls>—MPLS options.

<no-auto-negotiation>—Disable auto-negotiation.

<redundant-parent>— Parent of this interface.

<source-address-filter>—Source address filters.

<source-filtering>—Enable source address filtering.

<global-mac-limit> (configuration/logical-systems/protocols/I2-learning)

- Usage** <configuration>
 <logical-systems>
 <protocols>
 <I2-learning>
 <global-mac-limit>
 <mac-limit>*mac-limit*</mac-limit>
 <packet-action>*packet-action-choice*</packet-action>
 </global-mac-limit>
 </I2-learning>
 </protocols>
 </logical-systems>
</configuration>
- Description** System level MAC limit options.
- Contents** <mac-limit>—System level MAC limit.
- <packet-action>—No documentation is available yet.
- drop—Enable packet-action drop when MAC limit is reached.

<global-mac-limit> (configuration/protocols/I2-learning)

- Usage** <configuration>
 <protocols>
 <I2-learning>
 <global-mac-limit>
 <mac-limit>*mac-limit*</mac-limit>
 <packet-action>*packet-action-choice*</packet-action>
 </global-mac-limit>
 </I2-learning>
 </protocols>
</configuration>
- Description** System level MAC limit options.
- Contents** <mac-limit>—System level MAC limit.
- <packet-action>—No documentation is available yet.
- drop—Enable packet-action drop when MAC limit is reached.

<graceful-restart> (configuration/bridge-domains/domain/multicast-snooping-options)

Usage <configuration>
 <bridge-domains>
 <domain>
 <multicast-snooping-options>
 <graceful-restart>
 <restart-duration>*seconds*</restart-duration>
 </graceful-restart>
 </multicast-snooping-options>
 </domain>
 </bridge-domains>
 </configuration>

Description Configure graceful restart attributes.

Contents <restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/logical-systems/protocols/bgp)

Usage <configuration>
 <logical-systems>
 <protocols>
 <bgp>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
 </graceful-restart>
 </bgp>
 </protocols>
 </logical-systems>
 </configuration>

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/logical-systems/protocols/bgp/ group)

Usage	<pre> <configuration> <logical-systems> <protocols> <bgp> <group> <graceful-restart> <disable/> <restart-time>restart-time</restart-time> <stale-routes-time>stale-routes-time</stale-routes-time> </graceful-restart> </group> </bgp> </protocols> </logical-systems> </configuration> </pre>
Description	BGP graceful restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><restart-time>—Restart time used when negotiating with a peer.</p> <p><stale-routes-time>—Maximum time for which stale routes are kept.</p>

<graceful-restart> (configuration/logical-systems/protocols/bgp/group/neighbor)

Usage <configuration>
 <logical-systems>
 <protocols>
 <bgp>
 <group>
 <neighbor>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
 </graceful-restart>
 </neighbor>
 </group>
 </bgp>
 </protocols>
 </logical-systems>
 </configuration>

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/logical-systems/protocols/esis)

Usage <configuration>
 <logical-systems>
 <protocols>
 <esis>
 <graceful-restart>
 <disable/>
 <restart-duration>*seconds*</restart-duration>
 </graceful-restart>
 </esis>
 </protocols>
 </logical-systems>
 </configuration>

Description ES-IS graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/logical-systems/protocols/isis)

Usage <configuration>
 <logical-systems>
 <protocols>
 <isis>
 <graceful-restart>
 <disable/>
 <helper-disable/>
 <restart-duration>*seconds*</restart-duration>
 </graceful-restart>
 </isis>
 </protocols>
 </logical-systems>
 </configuration>

Description IS-IS graceful restart options.

Contents <disable>—Disable graceful restart.
 <helper-disable>—Disable graceful restart helper capability.
 <restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/logical-systems/protocols/ldp)

Usage <configuration>
 <logical-systems>
 <protocols>
 <ldp>
 <graceful-restart>
 <disable/>
 <helper-disable/>
 <recovery-time>seconds</recovery-time>
 <maximum-neighbor-recovery-time>seconds
 </maximum-neighbor-recovery-time>
 <reconnect-time>seconds</reconnect-time>
 <maximum-neighbor-reconnect-time>seconds
 </maximum-neighbor-reconnect-time>
 </graceful-restart>
 </ldp>
 </protocols>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable graceful restart.

<helper-disable>—Disable the graceful restart helper capability.

<maximum-neighbor-reconnect-time>—Maximum reconnect time allowed from a restarting neighbor.

<maximum-neighbor-recovery-time>—Maximum time stale mappings are maintained.

<reconnect-time>—Time required to reestablish session after graceful restart.

<recovery-time>—Time required for recovery.

<graceful-restart> (configuration/logical-systems/protocols/ospf)

Usage <configuration>
 <logical-systems>
 <protocols>
 <ospf>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </ospf>
 </protocols>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/logical-systems/protocols/ospf3)

Usage <configuration>
 <logical-systems>
 <protocols>
 <ospf3>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </ospf3>
 </protocols>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/logical-systems/protocols/ospf3/realm)

Usage	<pre> <configuration> <logical-systems> <protocols> <ospf3> <realm> <graceful-restart> <disable/> <restart-duration>seconds</restart-duration> <notify-duration>seconds</notify-duration> <helper-disable/> <no-strict-lsa-checking/> </graceful-restart> </realm> </ospf3> </protocols> </logical-systems> </configuration> </pre>
Description	Configure graceful restart attributes.
Contents	<p><disable>—Disable OSPF graceful restart capability.</p> <p><helper-disable>—Disable graceful restart helper capability.</p> <p><no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.</p> <p><notify-duration>—Time to send all max-aged grace LSAs.</p> <p><restart-duration>—Time for all neighbors to become full.</p>

<graceful-restart> (configuration/logical-systems/protocols/pim)

Usage	<pre> <configuration> <logical-systems> <protocols> <pim> <graceful-restart> <disable/> <restart-duration>seconds</restart-duration> </graceful-restart> </pim> </protocols> </logical-systems> </configuration> </pre>
Description	Configure graceful restart attributes.
Contents	<p><disable>—Disable PIM graceful restart capability.</p> <p><restart-duration>—Maximum time for graceful restart to finish (seconds).</p>

<graceful-restart> (configuration/logical-systems/protocols/rip)

Usage	<pre> <configuration> <logical-systems> <protocols> <rip> <graceful-restart> <disable/> <restart-time>restart-time</restart-time> </graceful-restart> </rip> </protocols> </logical-systems> </configuration> </pre>
Description	RIP graceful restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><restart-time>—Time after which RIP is declared out of restart.</p>

<graceful-restart> (configuration/logical-systems/protocols/ripng)

Usage	<pre> <configuration> <logical-systems> <protocols> <ripng> <graceful-restart> <disable/> <restart-time>restart-time</restart-time> </graceful-restart> </ripng> </protocols> </logical-systems> </configuration> </pre>
Description	RIPng graceful restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><restart-time>—Time after which RIPng is declared out of restart.</p>

<graceful-restart> (configuration/logical-systems/protocols/rsvp)

Usage <configuration>
 <logical-systems>
 <protocols>
 <rsvp>
 <graceful-restart>
 <disable/>
 <helper-disable/>
 <maximum-helper-restart-time>seconds</maximum-helper-restart-time>
 <maximum-helper-recovery-time>seconds</maximum-helper-recovery-time>
 </graceful-restart>
 </rsvp>
 </protocols>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable RSVP graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <maximum-helper-recovery-time>—Maximum time restarting neighbor states are kept.

 <maximum-helper-restart-time>—Maximum wait time from down event to neighbor dead.

<graceful-restart> (configuration/logical-systems/routing-instances/instance/bridge-domains/domain/multicast-snooping-options)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <bridge-domains>
 <domain>
 <multicast-snooping-options>
 <graceful-restart>
 <restart-duration>seconds</restart-duration>
 </graceful-restart>
 </multicast-snooping-options>
 </domain>
 </bridge-domains>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/logical-systems/routing-instances/instance/multicast-snooping-options)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <multicast-snooping-options>
 <graceful-restart>
 <restart-duration>seconds</restart-duration>
 </graceful-restart>
 </multicast-snooping-options>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/logical-systems/ routing-instances/instance/protocols/bgp)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
 </graceful-restart>
 </bgp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

 <restart-time>—Restart time used when negotiating with a peer.

 <stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/logical-systems/routing-instances/instance/protocols/bgp/group)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <group>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
 </graceful-restart>
 </group>
 </bgp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

 <restart-time>—Restart time used when negotiating with a peer.

 <stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/logical-systems/ routing-instances/instance/protocols/bgp/group/neighbor)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <group>
 <neighbor>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
 </graceful-restart>
 </neighbor>
 </group>
 </bgp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

 <restart-time>—Restart time used when negotiating with a peer.

 <stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/logical-systems/ routing-instances/instance/protocols/esis)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <esis>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 </graceful-restart>
 </esis>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description ES-IS graceful restart options.

Contents <disable>—Disable graceful restart.
 <restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/logical-systems/ routing-instances/instance/protocols/isis)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <isis>
 <graceful-restart>
 <disable/>
 <helper-disable/>
 <restart-duration>seconds</restart-duration>
 </graceful-restart>
 </isis>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description IS-IS graceful restart options.

Contents <disable>—Disable graceful restart.
 <helper-disable>—Disable graceful restart helper capability.
 <restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/logical-systems/routing-instances/instance/protocols/ldp)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <graceful-restart>
              <disable/>
              <helper-disable/>
              <recovery-time>seconds</recovery-time>
              <maximum-neighbor-recovery-time>seconds
                </maximum-neighbor-recovery-time>
              <reconnect-time>seconds</reconnect-time>
              <maximum-neighbor-reconnect-time>seconds
                </maximum-neighbor-reconnect-time>
            </graceful-restart>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Configure graceful restart attributes.

Contents <disable>—Disable graceful restart.

<helper-disable>—Disable the graceful restart helper capability.

<maximum-neighbor-reconnect-time>—Maximum reconnect time allowed from a restarting neighbor.

<maximum-neighbor-recovery-time>—Maximum time stale mappings are maintained.

<reconnect-time>—Time required to reestablish session after graceful restart.

<recovery-time>—Time required for recovery.

<graceful-restart> (configuration/logical-systems/ routing-instances/instance/protocols/ospf)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <ospf>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </ospf>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/logical-systems/ routing-instances/instance/protocols/ospf3)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <ospf3>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </ospf3>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/logical-systems/ routing-instances/instance/protocols/ospf3/realms)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <ospf3>
 <realm>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </realm>
 </ospf3>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/logical-systems/routing-instances/instance/protocols/pim)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 </graceful-restart>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable PIM graceful restart capability.
 <restart-duration>—Maximum time for graceful restart to finish (seconds).

<graceful-restart> (configuration/logical-systems/routing-instances/instance/protocols/rip)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <rip>
 <graceful-restart>
 <disable/>
 <restart-time>restart-time</restart-time>
 </graceful-restart>
 </rip>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description RIP graceful restart options.

Contents <disable>—Disable graceful restart.
 <restart-time>—Time after which RIP is declared out of restart.

<graceful-restart> (configuration/logical-systems/routing-instances/instance/protocols/ripng)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <ripng>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 </graceful-restart>
 </ripng>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description RIPng graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Time after which RIPng is declared out of restart.

<graceful-restart> (configuration/logical-systems/routing-instances/instance/routing-options)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <routing-options>
 <graceful-restart>
 <disable/>
 <restart-duration>*restart-duration*</restart-duration>
 </graceful-restart>
 </routing-options>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Graceful or hitless routing restart options.

Contents <disable>—Disable graceful restart.

<restart-duration>—Maximum time for which router is in graceful restart.

<graceful-restart> (configuration/logical-systems/routing-options)

Usage	<pre> <configuration> <logical-systems> <routing-options> <graceful-restart> <disable/> <restart-duration>restart-duration</restart-duration> </graceful-restart> </routing-options> </logical-systems> </configuration> </pre>
Description	Graceful or hitless routing restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><restart-duration>—Maximum time for which router is in graceful restart.</p>

<graceful-restart> (configuration/multicast-snooping-options)

Usage	<pre> <configuration> <multicast-snooping-options> <graceful-restart> <restart-duration>seconds</restart-duration> </graceful-restart> </multicast-snooping-options> </configuration> </pre>
Description	Configure graceful restart attributes.
Contents	<restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/protocols/bgp)

- Usage** <configuration>
 <protocols>
 <bgp>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
 </graceful-restart>
 </bgp>
 </protocols>
 </configuration>
- Description** BGP graceful restart options.
- Contents** <disable>—Disable graceful restart.
- <restart-time>—Restart time used when negotiating with a peer.
- <stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/protocols/bgp/group)

- Usage** <configuration>
 <protocols>
 <bgp>
 <group>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
 </graceful-restart>
 </group>
 </bgp>
 </protocols>
 </configuration>
- Description** BGP graceful restart options.
- Contents** <disable>—Disable graceful restart.
- <restart-time>—Restart time used when negotiating with a peer.
- <stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/protocols/bgp/group/neighbor)

Usage <configuration>
 <protocols>
 <bgp>
 <group>
 <neighbor>
<graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
</graceful-restart>
 </neighbor>
 </group>
 </bgp>
 </protocols>
 </configuration>

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/protocols/esis)

Usage <configuration>
 <protocols>
 <esis>
<graceful-restart>
 <disable/>
 <restart-duration>*seconds*</restart-duration>
</graceful-restart>
 </esis>
 </protocols>
 </configuration>

Description ES-IS graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/protocols/isis)

Usage <configuration>
 <protocols>
 <isis>
 <graceful-restart>
 <disable/>
 <helper-disable/>
 <restart-duration>*seconds*</restart-duration>
 </graceful-restart>
 </isis>
 </protocols>
 </configuration>

Description IS-IS graceful restart options.

Contents <disable>—Disable graceful restart.
 <helper-disable>—Disable graceful restart helper capability.
 <restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/protocols/ldp)

Usage <configuration>
 <protocols>
 <ldp>
 <graceful-restart>
 <disable/>
 <helper-disable/>
 <recovery-time>seconds</recovery-time>
 <maximum-neighbor-recovery-time>seconds
 </maximum-neighbor-recovery-time>
 <reconnect-time>seconds</reconnect-time>
 <maximum-neighbor-reconnect-time>seconds
 </maximum-neighbor-reconnect-time>
 </graceful-restart>
 </ldp>
 </protocols>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable graceful restart.

<helper-disable>—Disable the graceful restart helper capability.

<maximum-neighbor-reconnect-time>—Maximum reconnect time allowed from a restarting neighbor.

<maximum-neighbor-recovery-time>—Maximum time stale mappings are maintained.

<reconnect-time>—Time required to reestablish session after graceful restart.

<recovery-time>—Time required for recovery.

<graceful-restart> (configuration/protocols/ospf)

Usage <configuration>
 <protocols>
 <ospf>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </ospf>
 </protocols>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/protocols/ospf3)

Usage <configuration>
 <protocols>
 <ospf3>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </ospf3>
 </protocols>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/protocols/ospf3/realm)

Usage <configuration>
 <protocols>
 <ospf3>
 <realm>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </realm>
 </ospf3>
 </protocols>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

<helper-disable>—Disable graceful restart helper capability.

<no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

<notify-duration>—Time to send all max-aged grace LSAs.

<restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/protocols/pim)

Usage <configuration>
 <protocols>
 <pim>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 </graceful-restart>
 </pim>
 </protocols>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable PIM graceful restart capability.

<restart-duration>—Maximum time for graceful restart to finish (seconds).

<graceful-restart> (configuration/protocols/rip)

Usage	<pre><configuration> <protocols> <rip> <graceful-restart> <disable/> <restart-time>restart-time</restart-time> </graceful-restart> </rip> </protocols> </configuration></pre>
Description	RIP graceful restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><restart-time>—Time after which RIP is declared out of restart.</p>

<graceful-restart> (configuration/protocols/ripng)

Usage	<pre><configuration> <protocols> <ripng> <graceful-restart> <disable/> <restart-time>restart-time</restart-time> </graceful-restart> </ripng> </protocols> </configuration></pre>
Description	RIPng graceful restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><restart-time>—Time after which RIPng is declared out of restart.</p>

<graceful-restart> (configuration/protocols/rsvp)

Usage	<pre> <configuration> <protocols> <rsvp> <graceful-restart> <disable/> <helper-disable/> <maximum-helper-restart-time>seconds</maximum-helper-restart-time> <maximum-helper-recovery-time>seconds</maximum-helper-recovery-time> </graceful-restart> </rsvp> </protocols> </configuration> </pre>
Description	Configure graceful restart attributes.
Contents	<p><disable>—Disable RSVP graceful restart capability.</p> <p><helper-disable>—Disable graceful restart helper capability.</p> <p><maximum-helper-recovery-time>—Maximum time restarting neighbor states are kept.</p> <p><maximum-helper-restart-time>—Maximum wait time from down event to neighbor dead.</p>

<graceful-restart> (configuration/routing-instances/instance/bridge-domains/domain/multicast-snooping-options)

Usage	<pre> <configuration> <routing-instances> <instance> <bridge-domains> <domain> <multicast-snooping-options> <graceful-restart> <restart-duration>seconds</restart-duration> </graceful-restart> </multicast-snooping-options> </domain> </bridge-domains> </instance> </routing-instances> </configuration> </pre>
Description	Configure graceful restart attributes.
Contents	<restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/routing-instances/instance/multicast-snooping-options)

Usage <configuration>
 <routing-instances>
 <instance>
 <multicast-snooping-options>
 <graceful-restart>
 <restart-duration>seconds</restart-duration>
 </graceful-restart>
 </multicast-snooping-options>
 </instance>
 </routing-instances>
 </configuration>

Description Configure graceful restart attributes.

Contents <restart-duration>—Maximum time for graceful restart to finish.

<graceful-restart> (configuration/routing-instances/instance/protocols/bgp)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <graceful-restart>
 <disable/>
 <restart-time>restart-time</restart-time>
 <stale-routes-time>stale-routes-time</stale-routes-time>
 </graceful-restart>
 </bgp>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/routing-instances/instance/protocols/bgp/group)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <group>
 <graceful-restart>
 <disable/>
 <restart-time>*restart-time*</restart-time>
 <stale-routes-time>*stale-routes-time*</stale-routes-time>
 </graceful-restart>
 </group>
 </bgp>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

 <restart-time>—Restart time used when negotiating with a peer.

 <stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <graceful-restart>
                <disable/>
                <restart-time>restart-time</restart-time>
                <stale-routes-time>stale-routes-time</stale-routes-time>
              </graceful-restart>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description BGP graceful restart options.

Contents <disable>—Disable graceful restart.

<restart-time>—Restart time used when negotiating with a peer.

<stale-routes-time>—Maximum time for which stale routes are kept.

<graceful-restart> (configuration/routing-instances/instance/protocols/esis)

Usage	<pre> <configuration> <routing-instances> <instance> <protocols> <esis> <graceful-restart> <disable/> <restart-duration>seconds</restart-duration> </graceful-restart> </esis> </protocols> </instance> </routing-instances> </configuration> </pre>
Description	ES-IS graceful restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><restart-duration>—Maximum time for graceful restart to finish.</p>

<graceful-restart> (configuration/routing-instances/instance/protocols/isis)

Usage	<pre> <configuration> <routing-instances> <instance> <protocols> <isis> <graceful-restart> <disable/> <helper-disable/> <restart-duration>seconds</restart-duration> </graceful-restart> </isis> </protocols> </instance> </routing-instances> </configuration> </pre>
Description	IS-IS graceful restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><helper-disable>—Disable graceful restart helper capability.</p> <p><restart-duration>—Maximum time for graceful restart to finish.</p>

<graceful-restart> (configuration/routing-instances/instance/protocols/ldp)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <graceful-restart>
            <disable/>
            <helper-disable/>
            <recovery-time>seconds</recovery-time>
            <maximum-neighbor-recovery-time>seconds
              </maximum-neighbor-recovery-time>
            <reconnect-time>seconds</reconnect-time>
            <maximum-neighbor-reconnect-time>seconds
              </maximum-neighbor-reconnect-time>
          </graceful-restart>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Configure graceful restart attributes.

Contents <disable>—Disable graceful restart.

<helper-disable>—Disable the graceful restart helper capability.

<maximum-neighbor-reconnect-time>—Maximum reconnect time allowed from a restarting neighbor.

<maximum-neighbor-recovery-time>—Maximum time stale mappings are maintained.

<reconnect-time>—Time required to reestablish session after graceful restart.

<recovery-time>—Time required for recovery.

<graceful-restart> (configuration/routing-instances/instance/protocols/ospf)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <ospf>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </ospf>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/routing-instances/instance/protocols/ospf3)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <ospf3>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </ospf3>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/routing-instances/instance/protocols/ospf3/realn)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <ospf3>
 <realm>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 <notify-duration>seconds</notify-duration>
 <helper-disable/>
 <no-strict-lsa-checking/>
 </graceful-restart>
 </realm>
 </ospf3>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable OSPF graceful restart capability.

 <helper-disable>—Disable graceful restart helper capability.

 <no-strict-lsa-checking>—Do not abort graceful helper mode upon LSA changes.

 <notify-duration>—Time to send all max-aged grace LSAs.

 <restart-duration>—Time for all neighbors to become full.

<graceful-restart> (configuration/routing-instances/instance/protocols/pim)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <graceful-restart>
 <disable/>
 <restart-duration>seconds</restart-duration>
 </graceful-restart>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Configure graceful restart attributes.

Contents <disable>—Disable PIM graceful restart capability.
 <restart-duration>—Maximum time for graceful restart to finish (seconds).

<graceful-restart> (configuration/routing-instances/instance/protocols/rip)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <rip>
 <graceful-restart>
 <disable/>
 <restart-time>restart-time</restart-time>
 </graceful-restart>
 </rip>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description RIP graceful restart options.

Contents <disable>—Disable graceful restart.
 <restart-time>—Time after which RIP is declared out of restart.

<graceful-restart> (configuration/routing-instances/instance/protocols/ripng)

- Usage** `<configuration>
<routing-instances>
<instance>
<protocols>
<ripng>
 <graceful-restart>
 <disable/>
 <restart-time>restart-time</restart-time>
 </graceful-restart>
</ripng>
</protocols>
</instance>
</routing-instances>
</configuration>`
- Description** RIPng graceful restart options.
- Contents** `<disable>`—Disable graceful restart.
- `<restart-time>`—Time after which RIPng is declared out of restart.

<graceful-restart> (configuration/routing-instances/instance/routing-options)

- Usage** `<configuration>
<routing-instances>
<instance>
 <routing-options>
 <graceful-restart>
 <disable/>
 <restart-duration>restart-duration</restart-duration>
 </graceful-restart>
 </routing-options>
</instance>
</routing-instances>
</configuration>`
- Description** Graceful or hitless routing restart options.
- Contents** `<disable>`—Disable graceful restart.
- `<restart-duration>`—Maximum time for which router is in graceful restart.

<graceful-restart> (configuration/routing-options)

Usage	<pre> <configuration> <routing-options> <graceful-restart> <disable/> <restart-duration>restart-duration</restart-duration> </graceful-restart> </routing-options> </configuration> </pre>
Description	Graceful or hitless routing restart options.
Contents	<p><disable>—Disable graceful restart.</p> <p><restart-duration>—Maximum time for which router is in graceful restart.</p>

<graceful-restart> (configuration/services/pgcp/gateway)

Usage	<pre> <configuration> <services> <pgcp> <gateway> <graceful-restart> <maximum-synchronization-time>seconds</maximum-synchronization-time> <maximum-synchronization-mismatches>max-sync-mismtcs </maximum-synchronization-mismatches> <no-synchronization/> </graceful-restart> </gateway> </pgcp> </services> </configuration> </pre>
Description	No documentation is available yet.
Contents	<p><maximum-synchronization-mismatches>—Maximum number of mismatches for synchronization procedure with the PIC.</p> <p><maximum-synchronization-time>—Maximum time for synchronization procedure with the PIC.</p> <p><no-synchronization>—Disable the synchronization procedure with the PIC.</p>

<group> (configuration/bridge-domains/domain/forwarding-options/dhcp-relay)

Usage <configuration>
 <bridge-domains>
 <domain>
 <forwarding-options>
 <dhcp-relay>
 <group>
 <name>name</name> <!-- identifier -->
 <active-server-group>active-server-group</active-server-group>
 <authentication>...</authentication>
 <dynamic-profile>...</dynamic-profile>
 <overrides>...</overrides>
 <relay-option-60>...</relay-option-60>
 <relay-option-82>...</relay-option-82>
 <interface>...</interface>
 </group>
 </dhcp-relay>
 </forwarding-options>
 </domain>
 </bridge-domains>
 </configuration>

Description Define a DHCP group.

Contents <active-server-group>—Name of DHCP server group.

 <authentication>—DHCP authentication.

 <dynamic-profile>—Dynamic profile to use.

 <interface>—One or more interfaces.

 <name>—Group name.

 <overrides>—DHCP override processing.

 <relay-option-60>—DHCP option-60 processing.

 <relay-option-82>—DHCP option-82 processing.

<group> (configuration/bridge-domains/domain/protocols/igmp-snooping/interface/static)

Usage <configuration>
 <bridge-domains>
 <domain>
 <protocols>
 <igmp-snooping>
 <interface>
 <static>
 <group>
 <name>*name*</name> <!-- identifier -->
 <source>...</source>
 </group>
 </static>
 </interface>
 </igmp-snooping>
 </protocols>
 </domain>
 </bridge-domains>
 </configuration>

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/bridge-domains/domain/protocols/igmp-snooping/vlan/interface/static)

Usage <configuration>
 <bridge-domains>
 <domain>
 <protocols>
 <igmp-snooping>
 <vlan>
 <interface>
 <static>
 <group>
 <name>name</name> <!-- identifier -->
 <source>...</source>
 </group>
 </static>
 </interface>
 </vlan>
 </igmp-snooping>
 </protocols>
 </domain>
 </bridge-domains>
 </configuration>

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

**<group> (configuration/dynamic-profiles/protocols/igmp/
interface/static)**

Usage <configuration>
 <dynamic-profiles>
 <protocols>
 <igmp>
 <interface>
 <static>
 <group>
 <name>name</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </static>
 </interface>
 </igmp>
 </protocols>
 </dynamic-profiles>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude sources.

 <name>—IP multicast group address.

 <source>—IP multicast source address.

<group> (configuration/forwarding-options/dhcp-relay)

Usage <configuration>
 <forwarding-options>
 <dhcp-relay>
 <group>
 <name>*name*</name> <!-- identifier -->
 <active-server-group>*active-server-group*</active-server-group>
 <authentication>...</authentication>
 <dynamic-profile>...</dynamic-profile>
 <overrides>...</overrides>
 <relay-option-60>...</relay-option-60>
 <relay-option-82>...</relay-option-82>
 <interface>...</interface>
 </group>
 </dhcp-relay>
 </forwarding-options>
 </configuration>

Description Define a DHCP group.

Contents <active-server-group>—Name of DHCP server group.

<authentication>—DHCP authentication.

<dynamic-profile>—Dynamic profile to use.

<interface>—One or more interfaces.

<name>—Group name.

<overrides>—DHCP override processing.

<relay-option-60>—DHCP option-60 processing.

<relay-option-82>—DHCP option-82 processing.

<group> (configuration/logical-systems/forwarding-options/dhcp-relay)

Usage <configuration>
 <logical-systems>
 <forwarding-options>
 <dhcp-relay>
 <group>
 <name>name</name> <!-- identifier -->
 <active-server-group>active-server-group</active-server-group>
 <authentication>...</authentication>
 <dynamic-profile>...</dynamic-profile>
 <overrides>...</overrides>
 <relay-option-60>...</relay-option-60>
 <relay-option-82>...</relay-option-82>
 <interface>...</interface>
 </group>
 </dhcp-relay>
 </forwarding-options>
 </logical-systems>
 </configuration>

Description Define a DHCP group.

Contents <active-server-group>—Name of DHCP server group.

<authentication>—DHCP authentication.

<dynamic-profile>—Dynamic profile to use.

<interface>—One or more interfaces.

<name>—Group name.

<overrides>—DHCP override processing.

<relay-option-60>—DHCP option-60 processing.

<relay-option-82>—DHCP option-82 processing.

<group> (configuration/logical-systems/protocols/bgp)

Usage <configuration>
 <logical-systems>
 <protocols>
 <bgp>
 <group>
 <name>name</name> <!-- identifier -->
 <type>type-choice</type>
 <traceoptions>...</traceoptions>
 <description>description</description>
 <metric-out>...</metric-out>
 <multihop>...</multihop>
 <accept-remote-nexthop/>
 <preference>preference</preference>
 <local-preference>local-preference</local-preference>
 <local-address>local-address</local-address>
 <local-interface>local-interface</local-interface>
 <hold-time>hold-time</hold-time>
 <passive/>
 <advertise-inactive/>
 <advertise-peer-as/>
 <advertise-external>...</advertise-external>
 <keep>keep-choice</keep>
 <no-aggregator-id/>
 <mtu-discovery/>
 <out-delay>out-delay</out-delay>
 <log-updown/>
 <damping/>
 <import>...</import>
 <family>...</family>
 <authentication-key>authentication-key</authentication-key>
 <authentication-algorithm>authentication-algorithm-choice
 </authentication-algorithm>
 <authentication-key-chain>authentication-key-chain
 </authentication-key-chain>
 <export>...</export>
 <vpn-apply-export/>
 <remove-private/>
 <cluster>cluster</cluster>
 <no-client-reflect/>
 <peer-as>peer-as</peer-as>
 <local-as>...</local-as>
 <ipsec-sa>ipsec-sa</ipsec-sa>
 <graceful-restart>...</graceful-restart>
 <include-mp-next-hop/>
 <outbound-route-filter>...</outbound-route-filter>
 <tcp-mss>tcp-mss</tcp-mss>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 <multipath>...</multipath>
 <as-override/>
 <allow>...</allow>
 <neighbor>...</neighbor>
 </group>

```

    </bgp>
  </protocols>
</logical-systems>
</configuration>

```

Description Define a peer group.

Contents <accept-remote-nexthop>—Allow import policy to specify a non-directly connected next-hop.

<advertise-external>—Advertise best external routes.

<advertise-inactive>—Advertise inactive routes.

<advertise-peer-as>—Advertise routes received from the same autonomous system.

<allow>—Configure peer connections for specific networks.

<as-override>—Replace neighbor AS number with our AS number.

<authentication-algorithm>—Authentication algorithm name.

- aes-128-cmac-96—Cipher-based Message Authentication Code (AES128) (96 bits).
- hmac-sha-1-96—Hash-based Message Authentication Code (SHA1) (96 bits).
- md5—Message Digest 5.

<authentication-key>—MD5 authentication key.

<authentication-key-chain>—Key chain name.

<bfd-liveness-detection>—Bidirectional Forwarding Detection (BFD) options.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<include-mp-next-hop>—Include NEXT-HOP attribute in multiprotocol updates.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- **all**—Retain all routes.

- **none**—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGp peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<mtu-discovery>—Enable TCP path MTU discovery.

<multihop>—Configure an EBGp multihop session.

<multipath>—Allow load sharing among multiple BGP paths.

<name>—Group name.

<neighbor>—Configure a neighbor.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<outbound-route-filter>—Dynamically negotiated cooperative route filtering.

<passive>—Do not send open messages to a peer.

<peer-as>—Autonomous system number in plain number or 'higher 16bits'. 'Lower 16 bits' (asdot notation) format.

<preference>—Preference value.

<remove-private>—Remove well-known private AS numbers.

<tcp-mss>—Maximum TCP segment size.

<traceoptions>—Trace options for BGP.

<type>—Type of peer group.

- **external**—EBGP group.

- **internal**—IBGP group.

<vpn-apply-export>—Apply BGP export policy when exporting VPN routes.

<group> (configuration/logical-systems/protocols/igmp/interface/static)

Usage <configuration>
 <logical-systems>
 <protocols>
 <igmp>
 <interface>
 <static>
 <group>
 <name>name</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </static>
 </interface>
 </igmp>
 </protocols>
 </logical-systems>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude sources.

 <name>—IP multicast group address.

 <source>—IP multicast source address.

<group> (configuration/logical-systems/protocols/igmp-host/client/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <igmp-host>
 <client>
 <interface>
 <group>
 <name>*name*</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </interface>
 </client>
 </igmp-host>
 </protocols>
 </logical-systems>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude these sources.
 <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/logical-systems/protocols/mld/interface/static)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mld>
 <interface>
 <static>
 <group>
 <name>name</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </static>
 </interface>
 </mld>
 </protocols>
 </logical-systems>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude sources.

 <name>—IP multicast group address.

 <source>—IP multicast source address.

<group> (configuration/logical-systems/protocols/mld-host/client/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mld-host>
 <client>
 <interface>
 <group>
 <name>*name*</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </interface>
 </client>
 </mld-host>
 </protocols>
 </logical-systems>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude these sources.
 <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/logical-systems/protocols/msdp)

Usage <configuration>
 <logical-systems>
 <protocols>
 <msdp>
 <group>
 <name>*name*</name> <!-- identifier -->
 <mode>*mode-choice*</mode>
 <disable/>
 <export>...</export>
 <import>...</import>
 <local-address>*local-address*</local-address>
 <traceoptions>...</traceoptions>
 <peer>...</peer>
 </group>
 </msdp>
 </protocols>
 </logical-systems>
 </configuration>

Description Configure MSDP peer groups.

Contents <disable>—Disable MSDP.

<export>—Export policy.

<import>—Import policy.

<local-address>—Local address.

<mode>—MSDP group source-active flooding mode.

■ mesh-group—Group peers are mesh group members.

■ standard—Use standard MSDP source-active flooding rules.

<name>—MSDP peer group name.

<peer>—Configure an MSDP peer.

<traceoptions>—Trace options for MSDP.

<group> (configuration/logical-systems/protocols/pim/mdt/threshold)

Usage	<pre> <configuration> <logical-systems> <protocols> <pim> <mdt> <threshold> <group> <name>name</name> <!-- identifier --> <source>...</source> </group> </threshold> </mdt> </pim> </protocols> </logical-systems> </configuration> </pre>
Description	IP prefix of multicast group.
Contents	<p><name>—IP prefix of group.</p> <p><source>—IP prefix of one or more multicast sources .</p>

<group> (configuration/logical-systems/protocols/rip)

Usage <configuration>
 <logical-systems>
 <protocols>
 <rip>
 <group>
 <name>name</name> <!-- identifier -->
 <route-timeout>seconds</route-timeout>
 <update-interval>seconds</update-interval>
 <preference>preference</preference>
 <metric-out>metric-out</metric-out>
 <export>...</export>
 <import>...</import>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 <neighbor>...</neighbor>
 </group>
 </rip>
 </protocols>
 </logical-systems>
 </configuration>

Description Instance configuration.

Contents <bfd-liveness-detection>—Bidirectional Forwarding Detection options.

<export>—Export policy.

<import>—Import policy.

<metric-out>—Default metric of exported routes.

<name>—Group name.

<neighbor>—Neighbor configuration.

<preference>—Preference of routes learned by this group.

<route-timeout>—Delay before routes time out.

<update-interval>—Interval between regular route updates.

<group> (configuration/logical-systems/protocols/ripng)

Usage <configuration>
 <logical-systems>
 <protocols>
 <ripng>
 <group>
 <name>name</name> <!-- identifier -->
 <route-timeout>seconds</route-timeout>
 <update-interval>seconds</update-interval>
 <preference>preference</preference>
 <metric-out>metric-out</metric-out>
 <export>...</export>
 <import>...</import>
 <neighbor>...</neighbor>
 </group>
 </ripng>
 </protocols>
 </logical-systems>
 </configuration>

Description Instance configuration.

Contents <export>—Export policy.
 <import>—Import policy.
 <metric-out>—Default metric of exported routes.
 <name>—Group name.
 <neighbor>—Neighbor configuration.
 <preference>—Preference of routes learned by this group.
 <route-timeout>—Delay before routes time out.
 <update-interval>—Interval between regular route updates.

<group> (configuration/logical-systems/routing-instances/instance/bridge-domains/domain/forwarding-options/dhcp-relay)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <forwarding-options>
              <dhcp-relay>
                <group>
                  <name>name</name>    <!-- identifier -->
                  <active-server-group>active-server-group</active-server-group>
                  <authentication>...</authentication>
                  <dynamic-profile>...</dynamic-profile>
                  <overrides>...</overrides>
                  <relay-option-60>...</relay-option-60>
                  <relay-option-82>...</relay-option-82>
                  <interface>...</interface>
                </group>
              </dhcp-relay>
            </forwarding-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Define a DHCP group.

Contents <active-server-group>—Name of DHCP server group.

<authentication>—DHCP authentication.

<dynamic-profile>—Dynamic profile to use.

<interface>—One or more interfaces.

<name>—Group name.

<overrides>—DHCP override processing.

<relay-option-60>—DHCP option-60 processing.

<relay-option-82>—DHCP option-82 processing.

<group> (configuration/logical-systems/routing-instances/instance/bridge-domains/domain/protocols/igmp-snooping/interface/static)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <bridge-domains>
 <domain>
 <protocols>
 <igmp-snooping>
 <interface>
 <static>
 <group>
 <name>*name*</name> <!-- identifier -->
 <source>...</source>
 </group>
 </static>
 </interface>
 </igmp-snooping>
 </protocols>
 </domain>
 </bridge-domains>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/logical-systems/routing-instances/instance/bridge-domains/domain/protocols/igmp-snooping/vlan/interface/static)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <protocols>
              <igmp-snooping>
                <vlan>
                  <interface>
                    <static>
                      <group>
                        <name>name</name>    <!-- identifier -->
                        <source>...</source>
                      </group>
                    </static>
                  </interface>
                </vlan>
              </igmp-snooping>
            </protocols>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description IP multicast group address.

Contents

- <name>—IP multicast group address.
- <source>—IP multicast source address.

<group> (configuration/logical-systems/routing-instances/instance/forwarding-options/dhcp-relay)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <forwarding-options>
 <dhcp-relay>
 <group>
 <name>*name*</name> <!-- identifier -->
 <active-server-group>*active-server-group*</active-server-group>
 <authentication>...</authentication>
 <dynamic-profile>...</dynamic-profile>
 <overrides>...</overrides>
 <relay-option-60>...</relay-option-60>
 <relay-option-82>...</relay-option-82>
 <interface>...</interface>
 </group>
 </dhcp-relay>
 </forwarding-options>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Define a DHCP group.

Contents <active-server-group>—Name of DHCP server group.

<authentication>—DHCP authentication.

<dynamic-profile>—Dynamic profile to use.

<interface>—One or more interfaces.

<name>—Group name.

<overrides>—DHCP override processing.

<relay-option-60>—DHCP option-60 processing.

<relay-option-82>—DHCP option-82 processing.

<group> (configuration/logical-systems/routing-instances/instance/protocols/bgp)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
<group>
 <name>*name*</name> <!-- identifier -->
 <type>*type-choice*</type>
 <traceoptions>...</traceoptions>
 <description>*description*</description>
 <metric-out>...</metric-out>
 <multihop>...</multihop>
 <accept-remote-nexthop/>
 <preference>*preference*</preference>
 <local-preference>*local-preference*</local-preference>
 <local-address>*local-address*</local-address>
 <local-interface>*local-interface*</local-interface>
 <hold-time>*hold-time*</hold-time>
 <passive/>
 <advertise-inactive/>
 <advertise-peer-as/>
 <advertise-external>...</advertise-external>
 <keep>*keep-choice*</keep>
 <no-aggregator-id/>
 <mtu-discovery/>
 <out-delay>*out-delay*</out-delay>
 <log-updown/>
 <damping/>
 <import>...</import>
 <family>...</family>
 <authentication-key>*authentication-key*</authentication-key>
 <authentication-algorithm>*authentication-algorithm-choice*
 </authentication-algorithm>
 <authentication-key-chain>*authentication-key-chain*
 </authentication-key-chain>
 <export>...</export>
 <vpn-apply-export/>
 <remove-private/>
 <cluster>*cluster*</cluster>
 <no-client-reflect/>
 <peer-as>*peer-as*</peer-as>
 <local-as>...</local-as>
 <ipsec-sa>*ipsec-sa*</ipsec-sa>
 <graceful-restart>...</graceful-restart>
 <include-mp-next-hop/>
 <outbound-route-filter>...</outbound-route-filter>
 <tcp-mss>*tcp-mss*</tcp-mss>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 <multipath>...</multipath>
 <as-override/>


```

        <allow>...</allow>
        <neighbor>...</neighbor>
    </group>
</bgp>
</protocols>
</instance>
</routing-instances>
</logical-systems>
</configuration>

```

Description Define a peer group.

Contents <accept-remote-nexthop>—Allow import policy to specify a non-directly connected next-hop.

<advertise-external>—Advertise best external routes.

<advertise-inactive>—Advertise inactive routes.

<advertise-peer-as>—Advertise routes received from the same autonomous system.

<allow>—Configure peer connections for specific networks.

<as-override>—Replace neighbor AS number with our AS number.

<authentication-algorithm>—Authentication algorithm name.

- aes-128-cmac-96—Cipher-based Message Authentication Code (AES128) (96 bits).

- hmac-sha-1-96—Hash-based Message Authentication Code (SHA1) (96 bits).

- md5—Message Digest 5.

<authentication-key>—MD5 authentication key.

<authentication-key-chain>—Key chain name.

<bfd-liveness-detection>—Bidirectional Forwarding Detection (BFD) options.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<export>—Export policy.

<family>—Protocol family for NLRI in updates.

<graceful-restart>—BGP graceful restart options.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

`<include-mp-next-hop>`—Include NEXT-HOP attribute in multiprotocol updates.

`<ipsec-sa>`—IPSec SA name.

`<keep>`—How to retain routes in the routing table.

- `all`—Retain all routes.
- `none`—Retain no routes.

`<local-address>`—Address of local end of BGP session.

`<local-as>`—Local autonomous system number.

`<local-interface>`—Local interface for IPv6 link local EBGp peering.

`<local-preference>`—Value of LOCAL_PREF path attribute.

`<log-updown>`—Log a message for peer state transitions.

`<metric-out>`—Route metric sent in MED.

`<mtu-discovery>`—Enable TCP path MTU discovery.

`<multihop>`—Configure an EBGp multihop session.

`<multipath>`—Allow load sharing among multiple BGP paths.

`<name>`—Group name.

`<neighbor>`—Configure a neighbor.

`<no-aggregator-id>`—Set router ID in aggregator path attribute to 0.

`<no-client-reflect>`—Disable intracluster route redistribution.

`<out-delay>`—How long before exporting routes from routing table.

`<outbound-route-filter>`—Dynamically negotiated cooperative route filtering.

`<passive>`—Do not send open messages to a peer.

`<peer-as>`—Autonomous system number in plain number or 'higher 16bits'. 'Lower 16 bits' (asdot notation) format.

`<preference>`—Preference value.

`<remove-private>`—Remove well-known private AS numbers.

`<tcp-mss>`—Maximum TCP segment size.

`<traceoptions>`—Trace options for BGP.

`<type>`—Type of peer group.

- `external`—EBGP group.

- internal—IBGP group.

<vpn-apply-export>—Apply BGP export policy when exporting VPN routes.

<group> (configuration/logical-systems/routing-instances/ instance/protocols/igmp-snooping/interface/static)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <igmp-snooping>
 <interface>
 <static>
 <group>
 <name>name</name> <!-- identifier -->
 <source>...</source>
 </group>
 </static>
 </interface>
 </igmp-snooping>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/logical-systems/routing-instances/instance/protocols/igmp-snooping/vlan/interface/static)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <igmp-snooping>
            <vlan>
              <interface>
                <static>
                  <group>
                    <name>name</name>    <!-- identifier -->
                    <source>...</source>
                  </group>
                </static>
              </interface>
            </vlan>
          </igmp-snooping>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/logical-systems/routing-instances/instance/protocols/msdp)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <msdp>
 <group>
 <name>*name*</name> <!-- identifier -->
 <mode>*mode-choice*</mode>
 <disable/>
 <export>...</export>
 <import>...</import>
 <local-address>*local-address*</local-address>
 <traceoptions>...</traceoptions>
 <peer>...</peer>
 </group>
 </msdp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Configure MSDP peer groups.

Contents <disable>—Disable MSDP.

<export>—Export policy.

<import>—Import policy.

<local-address>—Local address.

<mode>—MSDP group source-active flooding mode.

■ mesh-group—Group peers are mesh group members.

■ standard—Use standard MSDP source-active flooding rules.

<name>—MSDP peer group name.

<peer>—Configure an MSDP peer.

<traceoptions>—Trace options for MSDP.

<group> (configuration/logical-systems/routing-instances/instance/protocols/pim/mdt/threshold)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <pim>
            <mdt>
              <threshold>
                <group>
                  <name>name</name>    <!-- identifier -->
                  <source>...</source>
                </group>
              </threshold>
            </mdt>
          </pim>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description IP prefix of multicast group.

Contents <name>—IP prefix of group.

<source>—IP prefix of one or more multicast sources .

<group> (configuration/logical-systems/routing-instances/instance/protocols/rip)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <rip>
 <group>
 <name>*name*</name> <!-- identifier -->
 <route-timeout>*seconds*</route-timeout>
 <update-interval>*seconds*</update-interval>
 <preference>*preference*</preference>
 <metric-out>*metric-out*</metric-out>
 <export>...</export>
 <import>...</import>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 <neighbor>...</neighbor>
 </group>
 </rip>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Instance configuration.

Contents <bfd-liveness-detection>—Bidirectional Forwarding Detection options.

<export>—Export policy.

<import>—Import policy.

<metric-out>—Default metric of exported routes.

<name>—Group name.

<neighbor>—Neighbor configuration.

<preference>—Preference of routes learned by this group.

<route-timeout>—Delay before routes time out.

<update-interval>—Interval between regular route updates.

<group> (configuration/logical-systems/routing-instances/instance/protocols/ripng)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ripng>
            <group>
              <name>name</name>    <!-- identifier -->
              <route-timeout>seconds</route-timeout>
              <update-interval>seconds</update-interval>
              <preference>preference</preference>
              <metric-out>metric-out</metric-out>
              <export>...</export>
              <import>...</import>
              <neighbor>...</neighbor>
            </group>
          </ripng>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Instance configuration.

Contents

- <export>—Export policy.
- <import>—Import policy.
- <metric-out>—Default metric of exported routes.
- <name>—Group name.
- <neighbor>—Neighbor configuration.
- <preference>—Preference of routes learned by this group.
- <route-timeout>—Delay before routes time out.
- <update-interval>—Interval between regular route updates.

<group> (configuration/logical-systems/routing-instances/instance/provider-tunnel/selective)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <provider-tunnel>
 <selective>
 <group>
 <name>*name*</name> <!-- identifier -->
 <source>...</source>
 </group>
 </selective>
 </provider-tunnel>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description IP prefix of multicast group.

Contents <name>—IP prefix of group.

 <source>—IP prefix of one or more multicast sources.

<group> (configuration/logical-systems/routing-instances/instance/routing-options/fate-sharing)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <routing-options>
 <fate-sharing>
 <group>
 <name>name</name> <!-- identifier -->
 <cost>cost</cost>
 <from>...</from>
 </group>
 </fate-sharing>
 </routing-options>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Group of objects sharing common characteristics.

Contents <cost>—Cost value.

 <from>—No documentation is available yet.

 <name>—Name of object groups sharing the same fate.

<group> (configuration/logical-systems/routing-instances/instance/system/services/dhcp-local-server)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <system>
 <services>
 <dhcp-local-server>
 <group>
 <name>*name*</name> <!-- identifier -->
 <authentication>...</authentication>
 <overrides>...</overrides>
 <dynamic-profile>...</dynamic-profile>
 <interface>...</interface>
 </group>
 </dhcp-local-server>
 </services>
 </system>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Define a DHCP local server group.

Contents <authentication>—DHCP authentication.
 <dynamic-profile>—Dynamic profile to use.
 <interface>—One or more interfaces.
 <name>—Group name.
 <overrides>—DHCP override processing.

<group> (configuration/logical-systems/routing-options/fate-sharing)

Usage <configuration>
 <logical-systems>
 <routing-options>
 <fate-sharing>
 <group>
 <name>name</name> <!-- identifier -->
 <cost>cost</cost>
 <from>...</from>
 </group>
 </fate-sharing>
 </routing-options>
 </logical-systems>
 </configuration>

Description Group of objects sharing common characteristics.

Contents <cost>—Cost value.

 <from>—No documentation is available yet.

 <name>—Name of object groups sharing the same fate.

<group> (configuration/logical-systems/system/services/dhcp-local-server)

Usage <configuration>
 <logical-systems>
 <system>
 <services>
 <dhcp-local-server>
 <group>
 <name>*name*</name> <!-- identifier -->
 <authentication>...</authentication>
 <overrides>...</overrides>
 <dynamic-profile>...</dynamic-profile>
 <interface>...</interface>
 </group>
 </dhcp-local-server>
 </services>
 </system>
 </logical-systems>
 </configuration>

Description Define a DHCP local server group.

Contents <authentication>—DHCP authentication.
 <dynamic-profile>—Dynamic profile to use.
 <interface>—One or more interfaces.
 <name>—Group name.
 <overrides>—DHCP override processing.

<group> (configuration/protocols/bgp)

```

Usage  <configuration>
      <protocols>
      <bgp>
        <group>
          <name>name</name>    <!-- identifier -->
          <type>type-choice</type>
          <traceoptions>...</traceoptions>
          <description>description</description>
          <metric-out>...</metric-out>
          <multihop>...</multihop>
          <accept-remote-nexthop/>
          <preference>preference</preference>
          <local-preference>local-preference</local-preference>
          <local-address>local-address</local-address>
          <local-interface>local-interface</local-interface>
          <hold-time>hold-time</hold-time>
          <passive/>
          <advertise-inactive/>
          <advertise-peer-as/>
          <advertise-external>...</advertise-external>
          <keep>keep-choice</keep>
          <no-aggregator-id/>
          <mtu-discovery/>
          <out-delay>out-delay</out-delay>
          <log-updown/>
          <damping/>
          <import>...</import>
          <family>...</family>
          <authentication-key>authentication-key</authentication-key>
          <authentication-algorithm>authentication-algorithm-choice
            </authentication-algorithm>
          <authentication-key-chain>authentication-key-chain
            </authentication-key-chain>
          <export>...</export>
          <vpn-apply-export/>
          <remove-private/>
          <cluster>cluster</cluster>
          <no-client-reflect/>
          <peer-as>peer-as</peer-as>
          <local-as>...</local-as>
          <ipsec-sa>ipsec-sa</ipsec-sa>
          <graceful-restart>...</graceful-restart>
          <include-mp-next-hop/>
          <outbound-route-filter>...</outbound-route-filter>
          <tcp-mss>tcp-mss</tcp-mss>
          <bfd-liveness-detection>...</bfd-liveness-detection>
          <multipath>...</multipath>
          <as-override/>
          <allow>...</allow>
          <neighbor>...</neighbor>
        </group>
      </bgp>

```

```

    </protocols>
</configuration>

```

Description Define a peer group.

Contents <accept-remote-nexthop>—Allow import policy to specify a non-directly connected next-hop.

<advertise-external>—Advertise best external routes.

<advertise-inactive>—Advertise inactive routes.

<advertise-peer-as>—Advertise routes received from the same autonomous system.

<allow>—Configure peer connections for specific networks.

<as-override>—Replace neighbor AS number with our AS number.

<authentication-algorithm>—Authentication algorithm name.

- aes-128-cmac-96—Cipher-based Message Authentication Code (AES128) (96 bits).

- hmac-sha-1-96—Hash-based Message Authentication Code (SHA1) (96 bits).

- md5—Message Digest 5.

<authentication-key>—MD5 authentication key.

<authentication-key-chain>—Key chain name.

<bfd-liveness-detection>—Bidirectional Forwarding Detection (BFD) options.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<include-mp-next-hop>—Include NEXT-HOP attribute in multiprotocol updates.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- all—Retain all routes.

- none—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGp peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<mtu-discovery>—Enable TCP path MTU discovery.

<multihop>—Configure an EBGp multihop session.

<multipath>—Allow load sharing among multiple BGP paths.

<name>—Group name.

<neighbor>—Configure a neighbor.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<outbound-route-filter>—Dynamically negotiated cooperative route filtering.

<passive>—Do not send open messages to a peer.

<peer-as>—Autonomous system number in plain number or 'higher 16bits'. 'Lower 16 bits' (asdot notation) format.

<preference>—Preference value.

<remove-private>—Remove well-known private AS numbers.

<tcp-mss>—Maximum TCP segment size.

<traceoptions>—Trace options for BGP.

<type>—Type of peer group.

- external—EBGP group.

- internal—IBGP group.

<vpn-apply-export>—Apply BGP export policy when exporting VPN routes.

<group> (configuration/protocols/igmp/interface/static)

Usage <configuration>
 <protocols>
 <igmp>
 <interface>
 <static>
 <group>
 <name>*name*</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </static>
 </interface>
 </igmp>
 </protocols>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude sources.

 <name>—IP multicast group address.

 <source>—IP multicast source address.

<group> (configuration/protocols/igmp-host/client/interface)

Usage <configuration>
 <protocols>
 <igmp-host>
 <client>
 <interface>
 <group>
 <name>*name*</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </interface>
 </client>
 </igmp-host>
 </protocols>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude these sources.

 <name>—IP multicast group address.

 <source>—IP multicast source address.

<group> (configuration/protocols/mld/interface/static)

Usage <configuration>
 <protocols>
 <mld>
 <interface>
 <static>
 <group>
 <name>*name*</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </static>
 </interface>
 </mld>
 </protocols>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude sources.
 <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/protocols/mld-host/client/interface)

Usage <configuration>
 <protocols>
 <mld-host>
 <client>
 <interface>
 <group>
 <name>*name*</name> <!-- identifier -->
 <exclude/>
 <source>...</source>
 </group>
 </interface>
 </client>
 </mld-host>
 </protocols>
 </configuration>

Description IP multicast group address.

Contents <exclude>—Exclude these sources.
 <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/protocols/msdp)

Usage <configuration>
 <protocols>
 <msdp>
 <group>
 <name>*name*</name> <!-- identifier -->
 <mode>*mode-choice*</mode>
 <disable/>
 <export>...</export>
 <import>...</import>
 <local-address>*local-address*</local-address>
 <traceoptions>...</traceoptions>
 <peer>...</peer>
 </group>
 </msdp>
 </protocols>
 </configuration>

Description Configure MSDP peer groups.

Contents <disable>—Disable MSDP.

<export>—Export policy.

<import>—Import policy.

<local-address>—Local address.

<mode>—MSDP group source-active flooding mode.

■ mesh-group—Group peers are mesh group members.

■ standard—Use standard MSDP source-active flooding rules.

<name>—MSDP peer group name.

<peer>—Configure an MSDP peer.

<traceoptions>—Trace options for MSDP.

<group> (configuration/protocols/pim/mdt/threshold)

Usage <configuration>
 <protocols>
 <pim>
 <mdt>
 <threshold>
 <group>
 <name>*name*</name> <!-- identifier -->
 <source>...</source>
 </group>
 </threshold>
 </mdt>
 </pim>
 </protocols>
 </configuration>

Description IP prefix of multicast group.

Contents <name>—IP prefix of group.
 <source>—IP prefix of one or more multicast sources .

<group> (configuration/protocols/rip)

Usage <configuration>
 <protocols>
 <rip>
 <group>
 <name>*name*</name> <!-- identifier -->
 <route-timeout>*seconds*</route-timeout>
 <update-interval>*seconds*</update-interval>
 <preference>*preference*</preference>
 <metric-out>*metric-out*</metric-out>
 <export>...</export>
 <import>...</import>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 <neighbor>...</neighbor>
 </group>
 </rip>
 </protocols>
 </configuration>

Description Instance configuration.

Contents <bfd-liveness-detection>—Bidirectional Forwarding Detection options.

<export>—Export policy.

<import>—Import policy.

<metric-out>—Default metric of exported routes.

<name>—Group name.

<neighbor>—Neighbor configuration.

<preference>—Preference of routes learned by this group.

<route-timeout>—Delay before routes time out.

<update-interval>—Interval between regular route updates.

<group> (configuration/protocols/ripng)

Usage <configuration>
 <protocols>
 <ripng>
 <group>
 <name>name</name> <!-- identifier -->
 <route-timeout>seconds</route-timeout>
 <update-interval>seconds</update-interval>
 <preference>preference</preference>
 <metric-out>metric-out</metric-out>
 <export>...</export>
 <import>...</import>
 <neighbor>...</neighbor>
 </group>
 </ripng>
 </protocols>
 </configuration>

Description Instance configuration.

Contents <export>—Export policy.
 <import>—Import policy.
 <metric-out>—Default metric of exported routes.
 <name>—Group name.
 <neighbor>—Neighbor configuration.
 <preference>—Preference of routes learned by this group.
 <route-timeout>—Delay before routes time out.
 <update-interval>—Interval between regular route updates.

<group> (configuration/routing-instances/instance/bridge-domains/domain/forwarding-options/dhcp-relay)

Usage <configuration>
 <routing-instances>
 <instance>
 <bridge-domains>
 <domain>
 <forwarding-options>
 <dhcp-relay>
 <group>
 <name>*name*</name> <!-- identifier -->
 <active-server-group>*active-server-group*</active-server-group>
 <authentication>...</authentication>
 <dynamic-profile>...</dynamic-profile>
 <overrides>...</overrides>
 <relay-option-60>...</relay-option-60>
 <relay-option-82>...</relay-option-82>
 <interface>...</interface>
 </group>
 </dhcp-relay>
 </forwarding-options>
 </domain>
 </bridge-domains>
 </instance>
 </routing-instances>
</configuration>

Description Define a DHCP group.

Contents <active-server-group>—Name of DHCP server group.

<authentication>—DHCP authentication.

<dynamic-profile>—Dynamic profile to use.

<interface>—One or more interfaces.

<name>—Group name.

<overrides>—DHCP override processing.

<relay-option-60>—DHCP option-60 processing.

<relay-option-82>—DHCP option-82 processing.

<group> (configuration/routing-instances/instance/bridge-domains/domain/protocols/igmp-snooping/interface/static)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <protocols>
            <igmp-snooping>
              <interface>
                <static>
                  <group>
                    <name>name</name>    <!-- identifier -->
                    <source>...</source>
                  </group>
                </static>
              </interface>
            </igmp-snooping>
          </protocols>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>

```

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/routing-instances/instance/bridge-domains/domain/protocols/igmp-snooping/vlan/interface/static)

Usage <configuration>
 <routing-instances>
 <instance>
 <bridge-domains>
 <domain>
 <protocols>
 <igmp-snooping>
 <vlan>
 <interface>
 <static>
 <group>
 <name>*name*</name> <!-- identifier -->
 <source>...</source>
 </group>
 </static>
 </interface>
 </vlan>
 </igmp-snooping>
 </protocols>
 </domain>
 </bridge-domains>
 </instance>
 </routing-instances>
 </configuration>

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/routing-instances/instance/forwarding-options/dhcp-relay)

Usage <configuration>
 <routing-instances>
 <instance>
 <forwarding-options>
 <dhcp-relay>
 <group>
 <name>name</name> <!-- identifier -->
 <active-server-group>active-server-group</active-server-group>
 <authentication>...</authentication>
 <dynamic-profile>...</dynamic-profile>
 <overrides>...</overrides>
 <relay-option-60>...</relay-option-60>
 <relay-option-82>...</relay-option-82>
 <interface>...</interface>
 </group>
 </dhcp-relay>
 </forwarding-options>
 </instance>
 </routing-instances>
 </configuration>

Description Define a DHCP group.

Contents <active-server-group>—Name of DHCP server group.

 <authentication>—DHCP authentication.

 <dynamic-profile>—Dynamic profile to use.

 <interface>—One or more interfaces.

 <name>—Group name.

 <overrides>—DHCP override processing.

 <relay-option-60>—DHCP option-60 processing.

 <relay-option-82>—DHCP option-82 processing.

<group> (configuration/routing-instances/instance/protocols/bgp)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <group>
 <name>*name*</name> <!-- identifier -->
 <type>*type-choice*</type>
 <traceoptions>...</traceoptions>
 <description>*description*</description>
 <metric-out>...</metric-out>
 <multihop>...</multihop>
 <accept-remote-nexthop/>
 <preference>*preference*</preference>
 <local-preference>*local-preference*</local-preference>
 <local-address>*local-address*</local-address>
 <local-interface>*local-interface*</local-interface>
 <hold-time>*hold-time*</hold-time>
 <passive/>
 <advertise-inactive/>
 <advertise-peer-as/>
 <advertise-external>...</advertise-external>
 <keep>*keep-choice*</keep>
 <no-aggregator-id/>
 <mtu-discovery/>
 <out-delay>*out-delay*</out-delay>
 <log-updown/>
 <damping/>
 <import>...</import>
 <family>...</family>
 <authentication-key>*authentication-key*</authentication-key>
 <authentication-algorithm>*authentication-algorithm-choice*
 </authentication-algorithm>
 <authentication-key-chain>*authentication-key-chain*
 </authentication-key-chain>
 <export>...</export>
 <vpn-apply-export/>
 <remove-private/>
 <cluster>*cluster*</cluster>
 <no-client-reflect/>
 <peer-as>*peer-as*</peer-as>
 <local-as>...</local-as>
 <ipsec-sa>*ipsec-sa*</ipsec-sa>
 <graceful-restart>...</graceful-restart>
 <include-mp-next-hop/>
 <outbound-route-filter>...</outbound-route-filter>
 <tcp-mss>*tcp-mss*</tcp-mss>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 <multipath>...</multipath>
 <as-override/>
 <allow>...</allow>
 <neighbor>...</neighbor>

```

        </group>
    </bgp>
</protocols>
</instance>
</routing-instances>
</configuration>

```

Description Define a peer group.

Contents <accept-remote-nexthop>—Allow import policy to specify a non-directly connected next-hop.

<advertise-external>—Advertise best external routes.

<advertise-inactive>—Advertise inactive routes.

<advertise-peer-as>—Advertise routes received from the same autonomous system.

<allow>—Configure peer connections for specific networks.

<as-override>—Replace neighbor AS number with our AS number.

<authentication-algorithm>—Authentication algorithm name.

- aes-128-cmac-96—Cipher-based Message Authentication Code (AES128) (96 bits).
- hmac-sha-1-96—Hash-based Message Authentication Code (SHA1) (96 bits).
- md5—Message Digest 5.

<authentication-key>—MD5 authentication key.

<authentication-key-chain>—Key chain name.

<bfd-liveness-detection>—Bidirectional Forwarding Detection (BFD) options.

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<hold-time>—Hold time used when negotiating with a peer.

<import>—Import policy.

<include-mp-next-hop>—Include NEXT-HOP attribute in multiprotocol updates.

<ipsec-sa>—IPSec SA name.

<keep>—How to retain routes in the routing table.

- all—Retain all routes.
- none—Retain no routes.

<local-address>—Address of local end of BGP session.

<local-as>—Local autonomous system number.

<local-interface>—Local interface for IPv6 link local EBGp peering.

<local-preference>—Value of LOCAL_PREF path attribute.

<log-updown>—Log a message for peer state transitions.

<metric-out>—Route metric sent in MED.

<mtu-discovery>—Enable TCP path MTU discovery.

<multihop>—Configure an EBGp multihop session.

<multipath>—Allow load sharing among multiple BGP paths.

<name>—Group name.

<neighbor>—Configure a neighbor.

<no-aggregator-id>—Set router ID in aggregator path attribute to 0.

<no-client-reflect>—Disable intracluster route redistribution.

<out-delay>—How long before exporting routes from routing table.

<outbound-route-filter>—Dynamically negotiated cooperative route filtering.

<passive>—Do not send open messages to a peer.

<peer-as>—Autonomous system number in plain number or 'higher 16bits'. 'Lower 16 bits' (asdot notation) format.

<preference>—Preference value.

<remove-private>—Remove well-known private AS numbers.

<tcp-mss>—Maximum TCP segment size.

<traceoptions>—Trace options for BGP.

<type>—Type of peer group.

- external—EBGP group.
- internal—IBGP group.

<vpn-apply-export>—Apply BGP export policy when exporting VPN routes.

<group> (configuration/routing-instances/instance/protocols/igmp-snooping/interface/static)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <igmp-snooping>
 <interface>
 <static>
 <group>
 <name>name</name> <!-- identifier -->
 <source>...</source>
 </group>
 </static>
 </interface>
 </igmp-snooping>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/routing-instances/instance/protocols/igmp-snooping/vlan/interface/static)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <igmp-snooping>
 <vlan>
 <interface>
 <static>
 <group>
 <name>*name*</name> <!-- identifier -->
 <source>...</source>
 </group>
 </static>
 </interface>
 </vlan>
 </igmp-snooping>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description IP multicast group address.

Contents <name>—IP multicast group address.
 <source>—IP multicast source address.

<group> (configuration/routing-instances/instance/protocols/msdp)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <msdp>
 <group>
 <name>*name*</name> <!-- identifier -->
 <mode>*mode-choice*</mode>
 <disable/>
 <export>...</export>
 <import>...</import>
 <local-address>*local-address*</local-address>
 <traceoptions>...</traceoptions>
 <peer>...</peer>
 </group>
 </msdp>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Configure MSDP peer groups.

Contents <disable>—Disable MSDP.

<export>—Export policy.

<import>—Import policy.

<local-address>—Local address.

<mode>—MSDP group source-active flooding mode.

■ mesh-group—Group peers are mesh group members.

■ standard—Use standard MSDP source-active flooding rules.

<name>—MSDP peer group name.

<peer>—Configure an MSDP peer.

<traceoptions>—Trace options for MSDP.

<group> (configuration/routing-instances/instance/protocols/pim/mdt/threshold)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <mdt>
 <threshold>
 <group>
 <name>*name*</name> <!-- identifier -->
 <source>...</source>
 </group>
 </threshold>
 </mdt>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description IP prefix of multicast group.

Contents <name>—IP prefix of group.
 <source>—IP prefix of one or more multicast sources .

<group> (configuration/routing-instances/instance/protocols/rip)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <rip>
 <group>
 <name>*name*</name> <!-- identifier -->
 <route-timeout>*seconds*</route-timeout>
 <update-interval>*seconds*</update-interval>
 <preference>*preference*</preference>
 <metric-out>*metric-out*</metric-out>
 <export>...</export>
 <import>...</import>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 <neighbor>...</neighbor>
 </group>
 </rip>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Instance configuration.

Contents <bfd-liveness-detection>—Bidirectional Forwarding Detection options.

<export>—Export policy.

<import>—Import policy.

<metric-out>—Default metric of exported routes.

<name>—Group name.

<neighbor>—Neighbor configuration.

<preference>—Preference of routes learned by this group.

<route-timeout>—Delay before routes time out.

<update-interval>—Interval between regular route updates.

<group> (configuration/routing-instances/instance/protocols/ripng)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <ripng>
 <group>
 <name>*name*</name> <!-- identifier -->
 <route-timeout>*seconds*</route-timeout>
 <update-interval>*seconds*</update-interval>
 <preference>*preference*</preference>
 <metric-out>*metric-out*</metric-out>
 <export>...</export>
 <import>...</import>
 <neighbor>...</neighbor>
 </group>
 </ripng>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Instance configuration.

Contents <export>—Export policy.
 <import>—Import policy.
 <metric-out>—Default metric of exported routes.
 <name>—Group name.
 <neighbor>—Neighbor configuration.
 <preference>—Preference of routes learned by this group.
 <route-timeout>—Delay before routes time out.
 <update-interval>—Interval between regular route updates.

<group> (configuration/routing-instances/instance/provider-tunnel/selective)

Usage	<pre> <configuration> <routing-instances> <instance> <provider-tunnel> <selective> <group> <name>name</name> <!-- identifier --> <source>...</source> </group> </selective> </provider-tunnel> </instance> </routing-instances> </configuration> </pre>
Description	IP prefix of multicast group.
Contents	<p><name>—IP prefix of group.</p> <p><source>—IP prefix of one or more multicast sources.</p>

<group> (configuration/routing-instances/instance/routing-options/fate-sharing)

Usage	<pre> <configuration> <routing-instances> <instance> <routing-options> <fate-sharing> <group> <name>name</name> <!-- identifier --> <cost>cost</cost> <from>...</from> </group> </fate-sharing> </routing-options> </instance> </routing-instances> </configuration> </pre>
Description	Group of objects sharing common characteristics.
Contents	<p><cost>—Cost value.</p> <p><from>—No documentation is available yet.</p> <p><name>—Name of object groups sharing the same fate.</p>

<group> (configuration/routing-instances/instance/system/services/dhcp-local-server)

Usage <configuration>
 <routing-instances>
 <instance>
 <system>
 <services>
 <dhcp-local-server>
 <group>
 <name>*name*</name> <!-- identifier -->
 <authentication>...</authentication>
 <overrides>...</overrides>
 <dynamic-profile>...</dynamic-profile>
 <interface>...</interface>
 </group>
 </dhcp-local-server>
 </services>
 </system>
 </instance>
 </routing-instances>
</configuration>

Description Define a DHCP local server group.

Contents <authentication>—DHCP authentication.
 <dynamic-profile>—Dynamic profile to use.
 <interface>—One or more interfaces.
 <name>—Group name.
 <overrides>—DHCP override processing.

<group> (configuration/routing-options/fate-sharing)

Usage	<pre> <configuration> <routing-options> <fate-sharing> <group> <name>name</name> <!-- identifier --> <cost>cost</cost> <from>...</from> </group> </fate-sharing> </routing-options> </configuration> </pre>
Description	Group of objects sharing common characteristics.
Contents	<p><cost>—Cost value.</p> <p><from>—No documentation is available yet.</p> <p><name>—Name of object groups sharing the same fate.</p>

<group> (configuration/snmp/v3/vacm/access)

Usage	<pre> <configuration> <snmp> <v3> <vacm> <access> <group> <name>name</name> <!-- identifier --> <default-context-prefix>...</default-context-prefix> <context-prefix>...</context-prefix> </group> </access> </vacm> </v3> </snmp> </configuration> </pre>
Description	Group access configuration.
Contents	<p><context-prefix>—Context-prefix access configuration.</p> <p><default-context-prefix>—Default context-prefix access configuration.</p> <p><name>—SNMPv3 VACM group name.</p>

<group> (configuration/system/services/dhcp-local-server)

Usage	<pre> <configuration> <system> <services> <dhcp-local-server> <group> <name>name</name> <!-- identifier --> <authentication>...</authentication> <overrides>...</overrides> <dynamic-profile>...</dynamic-profile> <interface>...</interface> </group> </dhcp-local-server> </services> </system> </configuration> </pre>
Description	Define a DHCP local server group.
Contents	<p><authentication>—DHCP authentication.</p> <p><dynamic-profile>—Dynamic profile to use.</p> <p><interface>—One or more interfaces.</p> <p><name>—Group name.</p> <p><overrides>—DHCP override processing.</p>

<group-policy> (configuration/dynamic-profiles/protocols/igmp/interface)

Usage	<pre> <configuration> <dynamic-profiles> <protocols> <igmp> <interface> <group-policy> <name>name</name> <!-- identifier --> </group-policy> </interface> </igmp> </protocols> </dynamic-profiles> </configuration> </pre>
Description	Group filter applied to incoming IGMP report messages.
Contents	<name>—Group filter applied to incoming IGMP report messages.

<group-policy> (configuration/logical-systems/protocols/igmp/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <igmp>
 <interface>
 <group-policy>
 <name>*name*</name> <!-- identifier -->
 </group-policy>
 </interface>
 </igmp>
 </protocols>
 </logical-systems>
 </configuration>

Description Group filter applied to incoming IGMP report messages.

Contents <name>—Group filter applied to incoming IGMP report messages.

<group-policy> (configuration/logical-systems/protocols/mld/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mld>
 <interface>
 <group-policy>
 <name>*name*</name> <!-- identifier -->
 </group-policy>
 </interface>
 </mld>
 </protocols>
 </logical-systems>
 </configuration>

Description Group filter applied to incoming MLD report messages.

Contents <name>—Group filter applied to incoming MLD report messages.

<group-policy> (configuration/protocols/igmp/interface)

Usage <configuration>
 <protocols>
 <igmp>
 <interface>
 <group-policy>
 <name>*name*</name> <!-- identifier -->
 </group-policy>
 </interface>
 </igmp>
 </protocols>
 </configuration>

Description Group filter applied to incoming IGMP report messages.

Contents <name>—Group filter applied to incoming IGMP report messages.

<group-policy> (configuration/protocols/mld/interface)

Usage <configuration>
 <protocols>
 <mld>
 <interface>
 <group-policy>
 <name>*name*</name> <!-- identifier -->
 </group-policy>
 </interface>
 </mld>
 </protocols>
 </configuration>

Description Group filter applied to incoming MLD report messages.

Contents <name>—Group filter applied to incoming MLD report messages.

<group-profile> (configuration/access)

Usage	<pre> <configuration> <access> <group-profile> <name>name</name> <!-- identifier --> <ppp>...</ppp> <l2tp>...</l2tp> </group-profile> </access> </configuration> </pre>
Description	Group profile to use for this client.
Contents	<p><l2tp>—Configuration for Layer 2 Tunneling Protocol.</p> <p><name>—Group profile name.</p> <p><ppp>—Configuration for Point-to-Point Protocol.</p>

<group-ranges> (configuration/logical-systems/protocols/pim/rp/embedded-rp)

Usage	<pre> <configuration> <logical-systems> <protocols> <pim> <rp> <embedded-rp> <group-ranges> <name>name</name> <!-- identifier --> </group-ranges> </embedded-rp> </rp> </pim> </protocols> </logical-systems> </configuration> </pre>
Description	Group address range of RP.
Contents	<name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/protocols/pim/rp/local)

Usage <configuration>
 <logical-systems>
 <protocols>
 <pim>
 <rp>
 <local>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </local>
 </rp>
 </pim>
 </protocols>
 </logical-systems>
</configuration>

Description Group address range for which this router can be an RP (IPv4 only).

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/protocols/pim/rp/local/family/inet)

Usage <configuration>
 <logical-systems>
 <protocols>
 <pim>
 <rp>
 <local>
 <family>
 <inet>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </inet>
 </family>
 </local>
 </rp>
 </pim>
 </protocols>
 </logical-systems>
</configuration>

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/protocols/pim/rp/local/family/inet6)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <pim>
        <rp>
          <local>
            <family>
              <inet6>
                <group-ranges>
                  <name>name</name>    <!-- identifier -->
                </group-ranges>
              </inet6>
            </family>
          </local>
        </rp>
      </pim>
    </protocols>
  </logical-systems>
</configuration>

```

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/protocols/pim/rp/static/address)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <pim>
        <rp>
          <static>
            <address>
              <group-ranges>
                <name>name</name>    <!-- identifier -->
              </group-ranges>
            </address>
          </static>
        </rp>
      </pim>
    </protocols>
  </logical-systems>
</configuration>

```

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/routing-instances/instance/protocols/pim/rp/embedded-rp)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <embedded-rp>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </embedded-rp>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/routing-instances/instance/protocols/pim/rp/local)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <local>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </local>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Group address range for which this router can be an RP (IPv4 only).

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/routing-instances/instance/protocols/pim/rp/local/family/inet)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <pim>
            <rp>
              <local>
                <family>
                  <inet>
                    <group-ranges>
                      <name>name</name>    <!-- identifier -->
                    </group-ranges>
                  </inet>
                </family>
              </local>
            </rp>
          </pim>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/routing-instances/instance/protocols/pim/rp/local/family/inet6)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <local>
 <family>
 <inet6>
 <group-ranges>
 <name>*name*</name> <!-- identifier -->
 </group-ranges>
 </inet6>
 </family>
 </local>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/logical-systems/routing-instances/instance/protocols/pim/rp/static/address)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <static>
 <address>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </address>
 </static>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/protocols/pim/rp/embedded-rp)

Usage <configuration>
 <protocols>
 <pim>
 <rp>
 <embedded-rp>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </embedded-rp>
 </rp>
 </pim>
 </protocols>
 </configuration>

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/protocols/pim/rp/local)

Usage <configuration>
 <protocols>
 <pim>
 <rp>
 <local>
 <group-ranges>
 <name>*name*</name> <!-- identifier -->
 </group-ranges>
 </local>
 </rp>
 </pim>
 </protocols>
 </configuration>

Description Group address range for which this router can be an RP (IPv4 only).

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/protocols/pim/rp/local/family/inet)

Usage <configuration>
 <protocols>
 <pim>
 <rp>
 <local>
 <family>
 <inet>
 <group-ranges>
 <name>*name*</name> <!-- identifier -->
 </group-ranges>
 </inet>
 </family>
 </local>
 </rp>
 </pim>
 </protocols>
 </configuration>

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/protocols/pim/rp/local/family/inet6)

Usage <configuration>
 <protocols>
 <pim>
 <rp>
 <local>
 <family>
 <inet6>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </inet6>
 </family>
 </local>
 </rp>
 </pim>
 </protocols>
 </configuration>

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/protocols/pim/rp/static/address)

Usage <configuration>
 <protocols>
 <pim>
 <rp>
 <static>
 <address>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </address>
 </static>
 </rp>
 </pim>
 </protocols>
 </configuration>

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/routing-instances/instance/protocols/pim/rp/embedded-rp)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <embedded-rp>
 <group-ranges>
 <name>*name*</name> <!-- identifier -->
 </group-ranges>
 </embedded-rp>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/routing-instances/instance/protocols/pim/rp/local)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <local>
 <group-ranges>
 <name>*name*</name> <!-- identifier -->
 </group-ranges>
 </local>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Group address range for which this router can be an RP (IPv4 only).

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/routing-instances/instance/protocols/pim/rp/local/family/inet)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <local>
 <family>
 <inet>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </inet>
 </family>
 </local>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/routing-instances/instance/protocols/pim/rp/local/family/inet6)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <local>
              <family>
                <inet6>
                  <group-ranges>
                    <name>name</name>    <!-- identifier -->
                  </group-ranges>
                </inet6>
              </family>
            </local>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Group address range for which this router can be an RP.

Contents <name>—No documentation is available yet.

<group-ranges> (configuration/routing-instances/instance/protocols/pim/rp/static/address)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <static>
 <address>
 <group-ranges>
 <name>name</name> <!-- identifier -->
 </group-ranges>
 </address>
 </static>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Group address range of RP.

Contents <name>—No documentation is available yet.

<gtp> (configuration/services/ggsn)

Usage <configuration>
 <services>
 <ggsn>
 <gtp>
 <keepalive-interval>seconds</keepalive-interval>
 <t3-response-time>seconds</t3-response-time>
 <n3-requests>n3-requests</n3-requests>
 <diffserv>diffserv-choice</diffserv>
 <path-management/>
 <gn-routing-instance>gn-routing-instance</gn-routing-instance>
 <version-list>...</version-list>
 <bandwidth-constraint>...</bandwidth-constraint>
 <downlink-dscp-remapping>...</downlink-dscp-remapping>
 <no-n3t3-path-failure/>
 <no-recovery-path-failure/>
 </gtp>
 </ggsn>
 </services>
 </configuration>

Description GTP settings.

Contents <bandwidth-constraint>—SGSN-GGSN bandwidth constraints.

<diffserv>—DiffServ DSCP for GTP packets.

- af11—Assured forwarding class 1, low drop precedence.
- af12—Assured forwarding class 1, medium drop precedence.
- af13—Assured forwarding class 1, high drop precedence.
- af21—Assured forwarding class 2, low drop precedence.
- af22—Assured forwarding class 2, medium drop precedence.
- af23—Assured forwarding class 2, high drop precedence.
- af31—Assured forwarding class 3, low drop precedence.
- af32—Assured forwarding class 3, medium drop precedence.
- af33—Assured forwarding class 3, high drop precedence.
- af41—Assured forwarding class 4, low drop precedence.
- af42—Assured forwarding class 4, medium drop precedence.
- af43—Assured forwarding class 4, high drop precedence.
- be—Best effort forwarding.
- ef—Expedited forwarding.

<downlink-dscp-remapping>—Gn interface quality-of-service to DSCP remapping.

<gn-routing-instance>—Routing instance for GTP traffic.

<keepalive-interval>—Seconds between sending keepalive messages.

<n3-requests>—Retransmissions allowed for a control message.

<no-n3t3-path-failure>—Disable path failure on N3-T3 timeout.

<no-recovery-path-failure>—Disable path failure on recovery change.

<path-management>—Use path management.

<t3-response-time>—Seconds between control message retries.

<version-list>—GTP version.

<gtp> (configuration/services/ggsn/sgsn)

Usage

```

<configuration>
  <services>
    <ggsn>
      <sgsn>
        <gtp>
          <no-path-management/>
        </gtp>
      </sgsn>
    </ggsn>
  </services>
</configuration>

```

Description GTP configuration.

Contents <no-path-management>—SGSN does not support GTP path management.

<gtp-prime> (configuration/services/ggsn/charging)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <gtp-prime>
 <keepalive-interval>seconds</keepalive-interval>
 <t3-response-time>seconds</t3-response-time>
 <n3-requests>n3-requests</n3-requests>
 <diffserv>diffserv-choice</diffserv>
 <path-management/>
 <version>version-choice</version>
 </gtp-prime>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description GTP Prime configuration.

Contents <diffserv>—DiffServ DSCP for GTP packets.

- af11—Assured forwarding class 1, low drop precedence.
 - af12—Assured forwarding class 1, medium drop precedence.
 - af13—Assured forwarding class 1, high drop precedence.
 - af21—Assured forwarding class 2, low drop precedence.
 - af22—Assured forwarding class 2, medium drop precedence.
 - af23—Assured forwarding class 2, high drop precedence.
 - af31—Assured forwarding class 3, low drop precedence.
 - af32—Assured forwarding class 3, medium drop precedence.
 - af33—Assured forwarding class 3, high drop precedence.
 - af41—Assured forwarding class 4, low drop precedence.
 - af42—Assured forwarding class 4, medium drop precedence.
 - af43—Assured forwarding class 4, high drop precedence.
 - be—Best effort forwarding.
 - ef—Expedited forwarding.
- <keepalive-interval>—Seconds between sending keepalive messages.
- <n3-requests>—Retransmissions allowed for a control message.

<path-management>—Use path management.

<t3-response-time>—Seconds between control message retries.

<version>—GTP Prime version.

- v0-20—Use GTP Prime version v0 with 20 bytes header.
- v0-6—Use GTP Prime version v0 with 6 bytes header.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile0)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile0>
 <gtp-prime>
 <gateway>...</gateway>
 </gtp-prime>
 </profile0>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Characteristic specific GTP Prime configuration.

Contents <gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile1)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile1> <gtp-prime> <gateway>...</gateway> </gtp-prime> </profile1> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Characteristic specific GTP Prime configuration.
Contents	<gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile10)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile10> <gtp-prime> <gateway>...</gateway> </gtp-prime> </profile10> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Characteristic specific GTP Prime configuration.
Contents	<gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile11)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile11>
 <gtp-prime>
 <gateway>...</gateway>
 </gtp-prime>
 </profile11>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Characteristic specific GTP Prime configuration.

Contents <gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile12)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile12>
 <gtp-prime>
 <gateway>...</gateway>
 </gtp-prime>
 </profile12>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Characteristic specific GTP Prime configuration.

Contents <gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile13)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile13> <gtp-prime> <gateway>...</gateway> </gtp-prime> </profile13> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Characteristic specific GTP Prime configuration.
Contents	<gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile14)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile14> <gtp-prime> <gateway>...</gateway> </gtp-prime> </profile14> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Characteristic specific GTP Prime configuration.
Contents	<gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile15)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile15>
 <gtp-prime>
 <gateway>...</gateway>
 </gtp-prime>
 </profile15>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Characteristic specific GTP Prime configuration.

Contents <gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile2)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile2>
 <gtp-prime>
 <gateway>...</gateway>
 </gtp-prime>
 </profile2>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Characteristic specific GTP Prime configuration.

Contents <gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile3)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile3> <gtp-prime> <gateway>...</gateway> </gtp-prime> </profile3> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Characteristic specific GTP Prime configuration.
Contents	<gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile4)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile4> <gtp-prime> <gateway>...</gateway> </gtp-prime> </profile4> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Characteristic specific GTP Prime configuration.
Contents	<gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile5)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile5>
 <gtp-prime>
 <gateway>...</gateway>
 </gtp-prime>
 </profile5>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Characteristic specific GTP Prime configuration.

Contents <gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile6)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile6>
 <gtp-prime>
 <gateway>...</gateway>
 </gtp-prime>
 </profile6>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Characteristic specific GTP Prime configuration.

Contents <gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile7)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile7> <gtp-prime> <gateway>...</gateway> </gtp-prime> </profile7> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Characteristic specific GTP Prime configuration.
Contents	<gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile8)

Usage	<pre> <configuration> <services> <ggsn> <charging> <characteristics> <profile8> <gtp-prime> <gateway>...</gateway> </gtp-prime> </profile8> </characteristics> </charging> </ggsn> </services> </configuration> </pre>
Description	Characteristic specific GTP Prime configuration.
Contents	<gateway>—Address of billing gateway.

<gtp-prime> (configuration/services/ggsn/charging/characteristics/profile9)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <characteristics>
 <profile9>
 <gtp-prime>
 <gateway>...</gateway>
 </gtp-prime>
 </profile9>
 </characteristics>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description Characteristic specific GTP Prime configuration.

Contents <gateway>—Address of billing gateway.

<gtp-prime-log> (configuration/services/ggsn/charging/charging-log)

Usage <configuration>
 <services>
 <ggsn>
 <charging>
 <charging-log>
 <gtp-prime-log>
 <activate-on-failure/>
 </gtp-prime-log>
 </charging-log>
 </charging>
 </ggsn>
 </services>
 </configuration>

Description GTP Prime CDRs logged to disk on failure in reaching charging gateways.

Contents <activate-on-failure>—Store GTP Prime CDRs on disk if all charging gateways are down.

<guaranteed-rate> (configuration/class-of-service/traffic-control-profiles)

Usage	<pre> <configuration> <class-of-service> <traffic-control-profiles> <guaranteed-rate> <rate>bits per second</rate> <percent>percent</percent> </guaranteed-rate> </traffic-control-profiles> </class-of-service> </configuration> </pre>
Description	Guaranteed rate.
Contents	<p><percent>—Guaranteed rate as a percentage.</p> <p><rate>—Guaranteed rate as an absolute rate.</p>

<guaranteed-rate> (configuration/dynamic-profiles/class-of-service/traffic-control-profiles)

Usage	<pre> <configuration> <dynamic-profiles> <class-of-service> <traffic-control-profiles> <guaranteed-rate> <rate>bits per second</rate> <percent>percent</percent> </guaranteed-rate> </traffic-control-profiles> </class-of-service> </dynamic-profiles> </configuration> </pre>
Description	Guaranteed rate.
Contents	<p><percent>—Guaranteed rate as a percentage.</p> <p><rate>—Guaranteed rate as an absolute rate.</p>

<gx-profile> (configuration/services/ggsn/apn/service-based-charging/policy-control/dynamic)

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <policy-control>
            <dynamic>
              <gx-profile>
                <name>name</name>    <!-- identifier -->
                <diameter-application-system>diameter-application-system
                  </diameter-application-system>    <!-- mandatory -->
                <subscription-id>...</subscription-id>
                <selection-key>selection-key-choice</selection-key>
                <pcrf-selection>...</pcrf-selection>
                <failure-action>failure-action-choice</failure-action>
                <disable-gx-extensions/>
                <qos-control/>
                <deny-empty-context/>
                <rule-space-negotiation/>
                <immediate-credit-control/>
                <disconnect-ip-sessions/>
              </gx-profile>
            </dynamic>
          </policy-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Settings for standard and enhanced Gx.

- Contents**
- <deny-empty-context>—Deny PDP context activation without authorized services.
 - <diameter-application-system>—Diameter application system.
 - <disable-gx-extensions>—Do not allow use of Gx + extensions.
 - <disconnect-ip-sessions>—Delete all active IP sessions using a CRF if contact is lost or server has restarted.
 - <failure-action>—Failure settings.
 - reject-request—Reject PDP context activate and update requests.
 - use-local—Use the local policy configuration for the IP session until it terminates.
 - use-local-reestablish—Use the local policy configuration and try to reestablish connection periodically .

<immediate-credit-control>—Immediate credit control for dynamic charging rules.

<name>—Profile identifier.

<pcrf-selection>—Settings for selection of PCRF and P-CSCF.

<qos-control>—Enable support of QoS control over Gx.

<rule-space-negotiation>—Enable rule-space-negotiation over Gx.

<selection-key>—Set input parameter for selection of PCRF.

- ip-address—Select PCRF based on modulo operation on ip-address.
- msisdn—Select PCRF based on modulo operation on msisdn.

<subscription-id>—Subscription identifier.

