

## 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 cdxiii.

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 631, `<apply-groups-except>` on page 631, and `<apply-macro>` on page 632.

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**<gateway> (configuration/services/border-signaling-gateway)**

---

**Usage** <configuration>  
           <services>  
             <border-signaling-gateway>  
               **<gateway>**  
                 <name>*name*</name>   <!-- identifier -->  
                 <service-interface>*service-interface*</service-interface>   <!-- mandatory -->  
                 <sip>...</sip>  
                 <service-point>...</service-point>  
                 <embedded-spdf>...</embedded-spdf>  
                 <traceoptions>...</traceoptions>  
               **</gateway>**  
             </border-signaling-gateway>  
           </services>  
     </configuration>

**Description** No documentation is available yet.

**Contents** <embedded-spdf>—No documentation is available yet.

<name>—Gateway name.

<service-interface>—Associated services interface.

<service-point>—No documentation is available yet.

<sip>—No documentation is available yet.

<traceoptions>—Trace options for border signaling gateway.

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

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

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <charging>  
                 <characteristics>  
                     <profile4>  
                         <gtp-prime>  
                             **<gateway>**  
                                 <name>name</name>   <!-- identifier -->  
                             **</gateway>**  
                         </gtp-prime>  
                     </profile4>  
                 </characteristics>  
             </charging>  
         </ggsn>  
     </services>  
</configuration>

**Description** Address of billing gateway.

**Contents** <name>—Address of billing gateway.

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

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <charging>  
                 <characteristics>  
                     <profile5>  
                         <gtp-prime>  
                             **<gateway>**  
                                 <name>name</name>   <!-- identifier -->  
                             **</gateway>**  
                         </gtp-prime>  
                     </profile5>  
                 </characteristics>  
             </charging>  
         </ggsn>  
     </services>  
</configuration>

**Description** Address of billing gateway.

**Contents** <name>—Address of billing gateway.



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

---

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

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

---

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

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

---

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

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;charging&gt;         &lt;characteristics&gt;           &lt;profile9&gt;             &lt;gtp-prime&gt;               &lt;gateway&gt;                 &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;/gateway&gt;             &lt;/gtp-prime&gt;           &lt;/profile9&gt;         &lt;/characteristics&gt;       &lt;/charging&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Address of billing gateway.
<b>Contents</b>	<name>—Address of billing gateway.

**<gateway> (configuration/services/pgcp)**

---

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

<local-controller>—The gateway controller is local.

<name>—PGCP Controller Name.

<remote-controller>—The gateway controller is remote.

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

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

---

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

## **<generate> (configuration/routing-options)**

---

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



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

---

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

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

---

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

**<ggsn> (configuration/services)**

---

**Usage** <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>

**Description** GGSN settings.

**Contents** <address-reuse-timeout>—Timeout for reuse of IP addresses.

<apn>—Access point configuration.

<charging>—GGSN charging and CDR configuration.

<dhcp>—DHCP settings.

<fault-management>—Settings for fault management.

<ggsn-plmn-id>—GGSN Public Land Mobile Network identifier.

<ggsnc>—Global settings for GGSN-C PICs.

<ggsnu>—Global settings for GGSN-U PICs.

<gom-routing-instance>—Routing instance for Gom network.

<gtp>—GTP settings.

<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**   <configuration>  
               <dynamic-profiles>  
               <interfaces>  
               <interface>  
                   **<ggsn-options>**  
                   <syslog/>  
                   <core-dump/>  
                   **</ggsn-options>**  
               </interface>  
               </interfaces>  
               </dynamic-profiles>  
               </configuration>

**Description**   GGSN interface-specific options.

**Contents**       <core-dump>—Enable core dumping on this interface.

                  <syslog>—Enable system logging on this interface.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;interfaces&gt;     &lt;interface&gt;       &lt;ggsn-options&gt;         &lt;syslog/&gt;         &lt;core-dump/&gt;       &lt;/ggsn-options&gt;     &lt;/interface&gt;   &lt;/interfaces&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	GGSN interface-specific options.
<b>Contents</b>	<p>&lt;core-dump&gt;—Enable core dumping on this interface.</p> <p>&lt;syslog&gt;—Enable system logging on this interface.</p>

**<ggsnc> (configuration/services/ggsn)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;ggsnc&gt;         &lt;gn-address-range&gt;gn-address-range&lt;/gn-address-range&gt; &lt;!-- mandatory --&gt;         &lt;gom-address-range&gt;gom-address-range&lt;/gom-address-range&gt;       &lt;/ggsnc&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Global settings for GGSN-C PICs.
<b>Contents</b>	<p>&lt;gn-address-range&gt;—Gn network address range for GGSN-C PICs.</p> <p>&lt;gom-address-range&gt;—Gom network address range for GGSN-C PICs.</p>

**<ggsnu> (configuration/services/ggsn)**

---

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

**Description**   Global settings for GGSN-U PICs.

**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>
        <b><gigether-options></b>
          <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/>
        <b></gigether-options></b>
      </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> (configuration/security/idp/sensor-configuration)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;security&gt;     &lt;idp&gt;       &lt;sensor-configuration&gt;         &lt;global&gt;           &lt;enable-packet-pool/&gt;           &lt;enable-all-qmodules/&gt;           &lt;policy-lookup-cache/&gt;           &lt;memory-limit-percent&gt;memory-limit-percent&lt;/memory-limit-percent&gt;         &lt;/global&gt;       &lt;/sensor-configuration&gt;     &lt;/idp&gt;   &lt;/security&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Global configuration.
<b>Contents</b>	<p>&lt;enable-all-qmodules&gt;—Enable all qmodules.</p> <p>&lt;enable-packet-pool&gt;—Enable packet pool.</p> <p>&lt;memory-limit-percent&gt;—Memory limit percentage.</p> <p>&lt;policy-lookup-cache&gt;—Policy lookup cache.</p>

**<global-mac-limit> (configuration/logical-systems/protocols/l2-learning)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;l2-learning&gt;         &lt;global-mac-limit&gt;           &lt;mac-limit&gt;mac-limit&lt;/mac-limit&gt;           &lt;packet-action&gt;packet-action-choice&lt;/packet-action&gt;         &lt;/global-mac-limit&gt;       &lt;/l2-learning&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	System level MAC limit options.
<b>Contents</b>	<p>&lt;mac-limit&gt;—System level MAC limit.</p> <p>&lt;packet-action&gt;—No documentation is available yet.</p> <ul style="list-style-type: none"> <li>■ drop—Enable packet-action drop when MAC limit is reached.</li> </ul>



**<global-mac-limit> (configuration/protocols/l2-learning)**

---

- Usage** <configuration>  
     <protocols>  
         <l2-learning>  
             **<global-mac-limit>**  
                 <mac-limit>*mac-limit*</mac-limit>  
                 <packet-action>*packet-action-choice*</packet-action>  
             **</global-mac-limit>**  
         </l2-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)**

---

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

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

---

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

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

---

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

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;esis&gt;         <b>&lt;graceful-restart&gt;</b>           &lt;disable/&gt;           &lt;restart-duration&gt;seconds&lt;/restart-duration&gt;         <b>&lt;/graceful-restart&gt;</b>       &lt;/esis&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	ES-IS graceful restart options.
<b>Contents</b>	<p><b>&lt;disable&gt;</b>—Disable graceful restart.</p> <p><b>&lt;restart-duration&gt;</b>—Maximum time for graceful restart to finish.</p>

**<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/realms)**

---

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

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

---

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



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

---

- Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <rip>  
                 **<graceful-restart>**  
                   <disable/>  
                   <restart-time>*restart-time*</restart-time>  
                 **</graceful-restart>**  
               </rip>  
             </protocols>  
           </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/protocols/ripng)**

---

- Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <ripng>  
                 **<graceful-restart>**  
                   <disable/>  
                   <restart-time>*restart-time*</restart-time>  
                 **</graceful-restart>**  
               </ripng>  
             </protocols>  
           </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/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/realm)**

---

**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)**

---

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

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

---

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

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

---

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

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

---

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



**<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** <configuration>  
           <protocols>  
           <rip>  
             **<graceful-restart>**  
               <disable/>  
               <restart-time>*restart-time*</restart-time>  
             **</graceful-restart>**  
           </rip>  
         </protocols>  
       </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/protocols/ripng)**

---

- Usage** <configuration>  
           <protocols>  
           <ripng>  
             **<graceful-restart>**  
               <disable/>  
               <restart-time>*restart-time*</restart-time>  
             **</graceful-restart>**  
           </ripng>  
         </protocols>  
       </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/protocols/rsvp)**

---

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

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

---

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



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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;multicast-snooping-options&gt;         &lt;graceful-restart&gt;           &lt;restart-duration&gt;seconds&lt;/restart-duration&gt;         &lt;/graceful-restart&gt;       &lt;/multicast-snooping-options&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure graceful restart attributes.
<b>Contents</b>	<restart-duration>—Maximum time for graceful restart to finish.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;bgp&gt;           &lt;graceful-restart&gt;             &lt;disable/&gt;             &lt;restart-time&gt;restart-time&lt;/restart-time&gt;             &lt;stale-routes-time&gt;stale-routes-time&lt;/stale-routes-time&gt;           &lt;/graceful-restart&gt;         &lt;/bgp&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	BGP graceful restart options.
<b>Contents</b>	<p>&lt;disable&gt;—Disable graceful restart.</p> <p>&lt;restart-time&gt;—Restart time used when negotiating with a peer.</p> <p>&lt;stale-routes-time&gt;—Maximum time for which stale routes are kept.</p>

## **<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** <configuration>  
           <routing-instances>  
             <instance>  
               <protocols>  
                 <esis>  
                   **<graceful-restart>**  
                     <disable/>  
                     <restart-duration>seconds</restart-duration>  
                   **</graceful-restart>**  
                 </esis>  
               </protocols>  
             </instance>  
           </routing-instances>  
         </configuration>

**Description** ES-IS graceful restart options.

**Contents** <disable>—Disable graceful restart.

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

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

---

**Usage** <configuration>  
           <routing-instances>  
             <instance>  
               <protocols>  
                 <isis>  
                   **<graceful-restart>**  
                     <disable/>  
                     <helper-disable/>  
                     <restart-duration>seconds</restart-duration>  
                   **</graceful-restart>**  
                 </isis>  
               </protocols>  
             </instance>  
           </routing-instances>  
         </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/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/realms)**

---

**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)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;pim&gt;           &lt;graceful-restart&gt;             &lt;disable/&gt;             &lt;restart-duration&gt;seconds&lt;/restart-duration&gt;           &lt;/graceful-restart&gt;         &lt;/pim&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure graceful restart attributes.
<b>Contents</b>	<p>&lt;disable&gt;—Disable PIM graceful restart capability.</p> <p>&lt;restart-duration&gt;—Maximum time for graceful restart to finish (seconds).</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;rip&gt;           &lt;graceful-restart&gt;             &lt;disable/&gt;             &lt;restart-time&gt;restart-time&lt;/restart-time&gt;           &lt;/graceful-restart&gt;         &lt;/rip&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	RIP graceful restart options.
<b>Contents</b>	<p>&lt;disable&gt;—Disable graceful restart.</p> <p>&lt;restart-time&gt;—Time after which RIP is declared out of restart.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;ripng&gt;           &lt;graceful-restart&gt;             &lt;disable/&gt;             &lt;restart-time&gt;restart-time&lt;/restart-time&gt;           &lt;/graceful-restart&gt;         &lt;/ripng&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	RIPng graceful restart options.
<b>Contents</b>	<p>&lt;disable&gt;—Disable graceful restart.</p> <p>&lt;restart-time&gt;—Time after which RIPng is declared out of restart.</p>

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

---

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

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

---

- Usage** `<configuration>`  
           `<routing-options>`  
             **<graceful-restart>**  
               `<disable/>`  
               `<restart-duration>restart-duration</restart-duration>`  
             **</graceful-restart>**  
           `</routing-options>`  
         `</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/services/pgcp/gateway)**

---

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

## **<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)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;protocols&gt;       &lt;igmp&gt;         &lt;interface&gt;           &lt;static&gt;             <b>&lt;group&gt;</b>               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;exclude/&gt;               &lt;source&gt;...&lt;/source&gt;             <b>&lt;/group&gt;</b>           &lt;/static&gt;         &lt;/interface&gt;       &lt;/igmp&gt;     &lt;/protocols&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	IP multicast group address.
<b>Contents</b>	<p><b>&lt;exclude&gt;</b>—Exclude sources.</p> <p><b>&lt;name&gt;</b>—IP multicast group address.</p> <p><b>&lt;source&gt;</b>—IP multicast source address.</p>

**<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)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;msdp&gt;         &lt;group&gt;           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;           &lt;mode&gt;mode-choice&lt;/mode&gt;           &lt;disable/&gt;           &lt;export&gt;...&lt;/export&gt;           &lt;import&gt;...&lt;/import&gt;           &lt;local-address&gt;local-address&lt;/local-address&gt;           &lt;traceoptions&gt;...&lt;/traceoptions&gt;           &lt;peer&gt;...&lt;/peer&gt;         &lt;/group&gt;       &lt;/msdp&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure MSDP peer groups.
<b>Contents</b>	<p>&lt;disable&gt;—Disable MSDP.</p> <p>&lt;export&gt;—Export policy.</p> <p>&lt;import&gt;—Import policy.</p> <p>&lt;local-address&gt;—Local address.</p> <p>&lt;mode&gt;—MSDP group source-active flooding mode.</p> <ul style="list-style-type: none"> <li>■ mesh-group—Group peers are mesh group members.</li> <li>■ standard—Use standard MSDP source-active flooding rules.</li> </ul> <p>&lt;name&gt;—MSDP peer group name.</p> <p>&lt;peer&gt;—Configure an MSDP peer.</p> <p>&lt;traceoptions&gt;—Trace options for MSDP.</p>

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

---

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

---

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

---

**Usage** `<configuration>`  
     `<routing-instances>`  
         `<instance>`  
             `<provider-tunnel>`  
                 `<mdt>`  
                     `<threshold>`  
                         **<group>**  
                             `<name>name</name>`   <!-- identifier -->  
                             `<source>...</source>`  
                         **</group>**  
                     `</threshold>`  
                 `</mdt>`  
             `</provider-tunnel>`  
         `</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/provider-tunnel/selective)**

---

**Usage** `<configuration>`  
     `<routing-instances>`  
         `<instance>`  
             `<provider-tunnel>`  
                 `<selective>`  
                     **<group>**  
                         `<name>name</name>`   <!-- identifier -->  
                         `<source>...</source>`  
                     **</group>**  
                 `</selective>`  
             `</provider-tunnel>`  
         `</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/routing-options/fate-sharing)**

---

**Usage**   <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>

**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/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)**

---

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

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

---

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



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

---

**Usage** <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>

**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-members> (configuration/security/idp/custom-attack-group)**

---

**Usage** <configuration>  
     <security>  
         <idp>  
             <custom-attack-group>  
                 **<group-members>**  
                     <name>name</name>   <!-- identifier -->  
                 **</group-members>**  
             </custom-attack-group>  
         </idp>  
     </security>  
</configuration>

**Description** List of attacks/attack groups belonging to this group.

**Contents** <name>—List of attacks/attack groups belonging to this group.

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

---

**Usage**   <configuration>  
           <dynamic-profiles>  
           <protocols>  
           <igmp>  
           <interface>  
             **<group-policy>**  
               <name>*name*</name>   <!-- identifier -->  
             **</group-policy>**  
           </interface>  
         </igmp>  
       </protocols>  
     </dynamic-profiles>  
 </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/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** <configuration>  
 <access>  
   **<group-profile>**  
     <name>name</name>   <!-- identifier -->  
     <ppp>...</ppp>  
     <l2tp>...</l2tp>  
   **</group-profile>**  
</access>  
</configuration>

**Description** Group profile to use for this client.

**Contents** <l2tp>—Configuration for Layer 2 Tunneling Protocol.

<name>—Group profile name.

<ppp>—Configuration for Point-to-Point Protocol.

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

---

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

**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>  
               <b>gtp</b>  
                 <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>  
                 <b>gtp</b>  
                     <no-path-management/>  
                 </b>  
             </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**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <characteristics>  
          <profile1>  
          **<gtp-prime>**  
          <gateway>...</gateway>  
          **</gtp-prime>**  
          </profile1>  
          </characteristics>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**Description**   Characteristic specific GTP Prime configuration.

**Contents**   <gateway>—Address of billing gateway.

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

---

**Usage**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <characteristics>  
          <profile10>  
          **<gtp-prime>**  
          <gateway>...</gateway>  
          **</gtp-prime>**  
          </profile10>  
          </characteristics>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**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**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <characteristics>  
          <profile13>  
          **<gtp-prime>**  
          <gateway>...</gateway>  
          **</gtp-prime>**  
          </profile13>  
          </characteristics>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**Description**   Characteristic specific GTP Prime configuration.

**Contents**    <gateway>—Address of billing gateway.

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

---

**Usage**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <characteristics>  
          <profile14>  
          **<gtp-prime>**  
          <gateway>...</gateway>  
          **</gtp-prime>**  
          </profile14>  
          </characteristics>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**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**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <characteristics>  
          <profile3>  
          **<gtp-prime>**  
          <gateway>...</gateway>  
          **</gtp-prime>**  
          </profile3>  
          </characteristics>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**Description**   Characteristic specific GTP Prime configuration.

**Contents**    <gateway>—Address of billing gateway.

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

---

**Usage**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <characteristics>  
          <profile4>  
          **<gtp-prime>**  
          <gateway>...</gateway>  
          **</gtp-prime>**  
          </profile4>  
          </characteristics>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**Description**   Characteristic specific GTP Prime configuration.

**Contents**    <gateway>—Address of billing gateway.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;charging&gt;         &lt;characteristics&gt;           &lt;profile5&gt;             <b>&lt;gtp-prime&gt;</b>               &lt;gateway&gt;...&lt;/gateway&gt;             <b>&lt;/gtp-prime&gt;</b>           &lt;/profile5&gt;         &lt;/characteristics&gt;       &lt;/charging&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Characteristic specific GTP Prime configuration.
<b>Contents</b>	<gateway>—Address of billing gateway.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;charging&gt;         &lt;characteristics&gt;           &lt;profile6&gt;             <b>&lt;gtp-prime&gt;</b>               &lt;gateway&gt;...&lt;/gateway&gt;             <b>&lt;/gtp-prime&gt;</b>           &lt;/profile6&gt;         &lt;/characteristics&gt;       &lt;/charging&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Characteristic specific GTP Prime configuration.
<b>Contents</b>	<gateway>—Address of billing gateway.

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

---

**Usage**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <characteristics>  
          <profile7>  
          **<gtp-prime>**  
          <gateway>...</gateway>  
          **</gtp-prime>**  
          </profile7>  
          </characteristics>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**Description**   Characteristic specific GTP Prime configuration.

**Contents**    <gateway>—Address of billing gateway.

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

---

**Usage**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <characteristics>  
          <profile8>  
          **<gtp-prime>**  
          <gateway>...</gateway>  
          **</gtp-prime>**  
          </profile8>  
          </characteristics>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**Description**   Characteristic specific GTP Prime configuration.

**Contents**    <gateway>—Address of billing gateway.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;charging&gt;         &lt;characteristics&gt;           &lt;profile9&gt;             <b>&lt;gtp-prime&gt;</b>               &lt;gateway&gt;...&lt;/gateway&gt;             <b>&lt;/gtp-prime&gt;</b>           &lt;/profile9&gt;         &lt;/characteristics&gt;       &lt;/charging&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Characteristic specific GTP Prime configuration.
<b>Contents</b>	<gateway>—Address of billing gateway.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;charging&gt;         &lt;charging-log&gt;           <b>&lt;gtp-prime-log&gt;</b>             &lt;activate-on-failure/&gt;           <b>&lt;/gtp-prime-log&gt;</b>         &lt;/charging-log&gt;       &lt;/charging&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	GTP Prime CDRs logged to disk on failure in reaching charging gateways.
<b>Contents</b>	<activate-on-failure>—Store GTP Prime CDRs on disk if all charging gateways are down.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;class-of-service&gt;     &lt;traffic-control-profiles&gt;       &lt;guaranteed-rate&gt;         &lt;rate&gt;bits per second&lt;/rate&gt;         &lt;percent&gt;percent&lt;/percent&gt;         &lt;burst-size&gt;bytes&lt;/burst-size&gt;       &lt;/guaranteed-rate&gt;     &lt;/traffic-control-profiles&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Guaranteed rate.
<b>Contents</b>	<p>&lt;burst-size&gt;—Guaranteed Rate Burst size.</p> <p>&lt;percent&gt;—Guaranteed rate as a percentage.</p> <p>&lt;rate&gt;—Guaranteed rate as an absolute rate.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;class-of-service&gt;       &lt;traffic-control-profiles&gt;         &lt;guaranteed-rate&gt;           &lt;rate&gt;bits per second&lt;/rate&gt;           &lt;percent&gt;percent&lt;/percent&gt;           &lt;burst-size&gt;bytes&lt;/burst-size&gt;         &lt;/guaranteed-rate&gt;       &lt;/traffic-control-profiles&gt;     &lt;/class-of-service&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Guaranteed rate.
<b>Contents</b>	<p>&lt;burst-size&gt;—Guaranteed Rate Burst size.</p> <p>&lt;percent&gt;—Guaranteed rate as a percentage.</p> <p>&lt;rate&gt;—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.