

## Chapter 19

# Tag Elements Beginning with S

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

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



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

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## **<sampling> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet)**

---

**Usage** <configuration>  
           <dynamic-profiles>  
             <interfaces>  
               <interface>  
                 <unit>  
                   <family>  
                     <inet>  
                       **<sampling>**  
                         <input/>  
                         <output/>  
                       **</sampling>**  
                     </inet>  
                   </family>  
                 </unit>  
               </interface>  
             </interfaces>  
           </dynamic-profiles>  
         </configuration>

**Description** Interface sampling.

**Contents** <input>—Sample all packets input on this interface.  
               <output>—Sample all packets output on this interface.

## **<sampling> (configuration/forwarding-options)**

---

**Usage** <configuration>  
           <forwarding-options>  
             **<sampling>**  
               <disable/>  
               <traceoptions>...</traceoptions>  
               <input>...</input>  
               <output>...</output>  
             **</sampling>**  
           </forwarding-options>  
         </configuration>

**Description** Statistical traffic sampling options.

**Contents** <disable>—Disable sampling.  
               <input>—Traffic sampling data acquisition.  
               <output>—Traffic sampling data disposition.  
               <traceoptions>—Traffic sampling trace options.

**<sampling> (configuration/interfaces/interface/unit/family/inet)**

---

**Usage** <configuration>  
           <interfaces>  
             <interface>  
               <unit>  
                 <family>  
                   <inet>  
                     **<sampling>**  
                       <input/>  
                       <output/>  
                     **</sampling>**  
                   </inet>  
                 </family>  
               </unit>  
             </interface>  
           </interfaces>  
         </configuration>

**Description** Interface sampling.

**Contents** <input>—Sample all packets input on this interface.  
               <output>—Sample all packets output on this interface.

**<sampling> (configuration/logical-systems/interfaces/interface/unit/family/inet)**

---

**Usage** <configuration>  
           <logical-systems>  
             <interfaces>  
               <interface>  
                 <unit>  
                   <family>  
                     <inet>  
                       **<sampling>**  
                       <input/>  
                       <output/>  
                     **</sampling>**  
                   </inet>  
                 </family>  
               </unit>  
             </interface>  
           </logical-systems>  
         </configuration>

**Description** Interface sampling.

**Contents** <input>—Sample all packets input on this interface.  
               <output>—Sample all packets output on this interface.

## **<sampling> (configuration/logical-systems/routing-instances/instance/forwarding-options)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <forwarding-options>  
          **<sampling>**  
          <disable/>  
          <traceoptions>...</traceoptions>  
          <input>...</input>  
          <output>...</output>  
          **</sampling>**  
          </forwarding-options>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Statistical traffic sampling options.

**Contents**   <disable>—Disable sampling.  
  
              <input>—Traffic sampling data acquisition.  
  
              <output>—Traffic sampling data disposition.  
  
              <traceoptions>—Traffic sampling trace options.

## **<sampling> (configuration/routing-instances/instance/forwarding-options)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;forwarding-options&gt;         &lt;sampling&gt;           &lt;disable/&gt;           &lt;traceoptions&gt;...&lt;/traceoptions&gt;           &lt;input&gt;...&lt;/input&gt;           &lt;output&gt;...&lt;/output&gt;         &lt;/sampling&gt;       &lt;/forwarding-options&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Statistical traffic sampling options.
<b>Contents</b>	<p>&lt;disable&gt;—Disable sampling.</p> <p>&lt;input&gt;—Traffic sampling data acquisition.</p> <p>&lt;output&gt;—Traffic sampling data disposition.</p> <p>&lt;traceoptions&gt;—Traffic sampling trace options.</p>

## **<sap> (configuration/logical-systems/protocols)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;sap&gt;         &lt;disable/&gt;         &lt;listen&gt;...&lt;/listen&gt;       &lt;/sap&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Session Advertisement Protocol options.
<b>Contents</b>	<p>&lt;disable&gt;—Disable SAP.</p> <p>&lt;listen&gt;—Address for SAP and SDP to listen on.</p>

**<sap> (configuration/protocols)**


---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;sap&gt;       &lt;disable/&gt;       &lt;listen&gt;...&lt;/listen&gt;     &lt;/sap&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Session Advertisement Protocol options.
<b>Contents</b>	<p>&lt;disable&gt;—Disable SAP.</p> <p>&lt;listen&gt;—Address for SAP and SDP to listen on.</p>

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


---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;interfaces&gt;       &lt;interface&gt;         &lt;satop-options&gt;           &lt;idle-pattern&gt;idle-pattern&lt;/idle-pattern&gt;           &lt;payload-size&gt;payload-size&lt;/payload-size&gt;           &lt;excessive-packet-loss-rate&gt;...&lt;/excessive-packet-loss-rate&gt;           &lt;jitter-buffer-packets&gt;jitter-buffer-packets&lt;/jitter-buffer-packets&gt;           &lt;jitter-buffer-latency&gt;milliseconds&lt;/jitter-buffer-latency&gt;           &lt;jitter-buffer-auto-adjust/&gt;           &lt;bit-rate&gt;bit-rate&lt;/bit-rate&gt;         &lt;/satop-options&gt;       &lt;/interface&gt;     &lt;/interfaces&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Structure-Agnostic TDM over Packet protocol options.
<b>Contents</b>	<p>&lt;bit-rate&gt;—In multiples of DS0.</p> <p>&lt;excessive-packet-loss-rate&gt;—Packet loss options.</p> <p>&lt;idle-pattern&gt;—An 8-bit hexadecimal pattern to replace TDM data in a lost packet.</p> <p>&lt;jitter-buffer-auto-adjust&gt;—Automatically adjust jitter buffer.</p> <p>&lt;jitter-buffer-latency&gt;—Number of milliseconds delay in jitter buffer.</p> <p>&lt;jitter-buffer-packets&gt;—Number of packets in jitter buffer.</p> <p>&lt;payload-size&gt;—Number of payload bytes per packet.</p>

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

---

**Usage**   <configuration>  
           <interfaces>  
           <interface>  
             **<satop-options>**  
               <idle-pattern>*idle-pattern*</idle-pattern>  
               <payload-size>*payload-size*</payload-size>  
               <excessive-packet-loss-rate>...</excessive-packet-loss-rate>  
               <jitter-buffer-packets>*jitter-buffer-packets*</jitter-buffer-packets>  
               <jitter-buffer-latency>*milliseconds*</jitter-buffer-latency>  
               <jitter-buffer-auto-adjust/>  
               <bit-rate>*bit-rate*</bit-rate>  
             **</satop-options>**  
           </interface>  
         </interfaces>  
       </configuration>

**Description**   Structure-Agnostic TDM over Packet protocol options.

**Contents**   <bit-rate>—In multiples of DS0.

          <excessive-packet-loss-rate>—Packet loss options.

          <idle-pattern>—An 8-bit hexadecimal pattern to replace TDM data in a lost packet.

          <jitter-buffer-auto-adjust>—Automatically adjust jitter buffer.

          <jitter-buffer-latency>—Number of milliseconds delay in jitter buffer.

          <jitter-buffer-packets>—Number of packets in jitter buffer.

          <payload-size>—Number of payload bytes per packet.

**<sbcc-configuration-process> (configuration/system/processes)**

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<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;system&gt;     &lt;processes&gt;       &lt;sbcc-configuration-process&gt;         &lt;disable/&gt;         &lt;failover&gt;failover-choice&lt;/failover&gt;         &lt;traceoptions&gt;...&lt;/traceoptions&gt;       &lt;/sbcc-configuration-process&gt;     &lt;/processes&gt;   &lt;/system&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SBC configuration process.
<b>Contents</b>	<p>&lt;disable&gt;—Disable SBC configuration process.</p> <p>&lt;failover&gt;—How to handle failure of SBC configuration process.</p> <ul style="list-style-type: none"> <li>■ alternate-media—On failure, reboot off alternate media.</li> <li>■ other-routing-engine—On failure, switch mastership to other Routing Engine.</li> </ul> <p>&lt;traceoptions&gt;—SBC configuration process trace options.</p>

**<scheduler-map> (configuration/class-of-service/fabric)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;class-of-service&gt;     &lt;fabric&gt;       &lt;scheduler-map&gt;         &lt;priority&gt;...&lt;/priority&gt;       &lt;/scheduler-map&gt;     &lt;/fabric&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Mapping of fabric traffic to packet schedulers.
<b>Contents</b>	<priority>—Fabric traffic priority.



## **<scheduler-map> (configuration/dynamic-profiles/class-of-service/fabric)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;class-of-service&gt;       &lt;fabric&gt;         &lt;scheduler-map&gt;           &lt;priority&gt;...&lt;/priority&gt;         &lt;/scheduler-map&gt;       &lt;/fabric&gt;     &lt;/class-of-service&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Mapping of fabric traffic to packet schedulers.
<b>Contents</b>	<priority>—Fabric traffic priority.

## **<scheduler-maps> (configuration/class-of-service)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;class-of-service&gt;     &lt;scheduler-maps&gt;       &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;       &lt;forwarding-class&gt;...&lt;/forwarding-class&gt;     &lt;/scheduler-maps&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Mapping of forwarding classes to packet schedulers.
<b>Contents</b>	<forwarding-class>—Forwarding class name to map to scheduler.  <name>—Scheduler map name.

## **<scheduler-maps> (configuration/dynamic-profiles/class-of-service)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;class-of-service&gt;       &lt;scheduler-maps&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;forwarding-class&gt;...&lt;/forwarding-class&gt;       &lt;/scheduler-maps&gt;     &lt;/class-of-service&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Mapping of forwarding classes to packet schedulers.
<b>Contents</b>	<p>&lt;forwarding-class&gt;—Forwarding class name to map to scheduler.</p> <p>&lt;name&gt;—Scheduler map name.</p>

## **<scheduler-maps> (configuration/dynamic-profiles/interfaces/interface/atm-options)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;interfaces&gt;       &lt;interface&gt;         &lt;atm-options&gt;           &lt;scheduler-maps&gt;             &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;vc-cos-mode&gt;vc-cos-mode-choice&lt;/vc-cos-mode&gt;             &lt;forwarding-class&gt;...&lt;/forwarding-class&gt;           &lt;/scheduler-maps&gt;         &lt;/atm-options&gt;       &lt;/interface&gt;     &lt;/interfaces&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	ATM2 CoS parameters assigned to forwarding classes.
<b>Contents</b>	<p>&lt;forwarding-class&gt;—Scheduling parameters associated with forwarding class.</p> <p>&lt;name&gt;—ATM2 CoS scheduler map name.</p> <p>&lt;vc-cos-mode&gt;—ATM2 virtual circuit CoS mode.</p> <ul style="list-style-type: none"> <li>■ alternate—Every other packet from high priority queue (default).</li> <li>■ strict—Always schedule high priority queue first.</li> </ul>

**<scheduler-maps> (configuration/interfaces/interface/atm-options)**

---

**Usage** <configuration>  
           <interfaces>  
             <interface>  
               <atm-options>  
                 **<scheduler-maps>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <vc-cos-mode>*vc-cos-mode-choice*</vc-cos-mode>  
                   <forwarding-class>...</forwarding-class>  
                 **</scheduler-maps>**  
               </atm-options>  
             </interface>  
           </interfaces>  
         </configuration>

**Description** ATM2 CoS parameters assigned to forwarding classes.

**Contents** <forwarding-class>—Scheduling parameters associated with forwarding class.

<name>—ATM2 CoS scheduler map name.

<vc-cos-mode>—ATM2 virtual circuit CoS mode.

- **alternate**—Every other packet from high priority queue (default).
- **strict**—Always schedule high priority queue first.

**<schedulers> (configuration/class-of-service)**

---

**Usage**   <configuration>  
           <class-of-service>  
             **<schedulers>**  
               <name>*name*</name>   <!-- identifier -->  
               <transmit-rate>...</transmit-rate>  
               <excess-rate>...</excess-rate>  
               <shaping-rate>...</shaping-rate>  
               <buffer-size>...</buffer-size>  
               <priority>*priority*</priority>  
               <excess-priority>*excess-priority-choice*</excess-priority>  
               <drop-profile-map>...</drop-profile-map>  
             **</schedulers>**  
           </class-of-service>  
         </configuration>

**Description**   Packet schedulers.

**Contents**   <buffer-size>—Queue transmission buffer size.

              <drop-profile-map>—Assign drop profile to a loss priority and protocol.

              <excess-priority>—Priority in the excess region.

              ■   high—Excess priority high.

              ■   low—Excess priority low.

              <excess-rate>—Excess bandwidth shaing proportion.

              <name>—Scheduler name.

              <priority>—Scheduling priority.

              <shaping-rate>—Shaping rate.

              <transmit-rate>—Transmit rate.

**<schedulers> (configuration/dynamic-profiles/class-of-service)**

---

**Usage** <configuration>  
           <dynamic-profiles>  
             <class-of-service>  
               **<schedulers>**  
                 <name>*name*</name>   <!-- identifier -->  
                 <transmit-rate>...</transmit-rate>  
                 <excess-rate>...</excess-rate>  
                 <shaping-rate>...</shaping-rate>  
                 <buffer-size>...</buffer-size>  
                 <priority>*priority*</priority>  
                 <excess-priority>*excess-priority-choice*</excess-priority>  
                 <drop-profile-map>...</drop-profile-map>  
               **</schedulers>**  
             </class-of-service>  
           </dynamic-profiles>  
         </configuration>

**Description** Packet schedulers.

**Contents** <buffer-size>—Queue transmission buffer size.

<drop-profile-map>—Assign drop profile to a loss priority and protocol.

<excess-priority>—Priority in the excess region.

- high—Excess priority high.
- low—Excess priority low.

<excess-rate>—Excess bandwidth shaing proportion.

<name>—Scheduler name.

<priority>—Scheduling priority.

<shaping-rate>—Shaping rate.

<transmit-rate>—Transmit rate.

## **<scope> (configuration/logical-systems/routing-instances/instance/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-instances&gt;       &lt;instance&gt;         &lt;routing-options&gt;           &lt;multicast&gt;             &lt;scope&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;prefix&gt;prefix&lt;/prefix&gt; &lt;!-- mandatory --&gt;               &lt;interface&gt;...&lt;/interface&gt;             &lt;/scope&gt;           &lt;/multicast&gt;         &lt;/routing-options&gt;       &lt;/instance&gt;     &lt;/routing-instances&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Multicast address scope.
<b>Contents</b>	<p>&lt;interface&gt;—Interface on which to configure scoping.</p> <p>&lt;name&gt;—Name to identify multicast address scope.</p> <p>&lt;prefix&gt;—Administratively scoped address.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-options&gt;       &lt;multicast&gt;         &lt;scope&gt;           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;           &lt;prefix&gt;prefix&lt;/prefix&gt; &lt;!-- mandatory --&gt;           &lt;interface&gt;...&lt;/interface&gt;         &lt;/scope&gt;       &lt;/multicast&gt;     &lt;/routing-options&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Multicast address scope.
<b>Contents</b>	<p>&lt;interface&gt;—Interface on which to configure scoping.</p> <p>&lt;name&gt;—Name to identify multicast address scope.</p> <p>&lt;prefix&gt;—Administratively scoped address.</p>

## **<scope> (configuration/routing-instances/instance/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;routing-options&gt;         &lt;multicast&gt;           &lt;scope&gt;             &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;prefix&gt;prefix&lt;/prefix&gt;  &lt;!-- mandatory --&gt;             &lt;interface&gt;...&lt;/interface&gt;           &lt;/scope&gt;         &lt;/multicast&gt;       &lt;/routing-options&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Multicast address scope.
<b>Contents</b>	<p>&lt;interface&gt;—Interface on which to configure scoping.</p> <p>&lt;name&gt;—Name to identify multicast address scope.</p> <p>&lt;prefix&gt;—Administratively scoped address.</p>

## **<scope> (configuration/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-options&gt;     &lt;multicast&gt;       &lt;scope&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;prefix&gt;prefix&lt;/prefix&gt;  &lt;!-- mandatory --&gt;         &lt;interface&gt;...&lt;/interface&gt;       &lt;/scope&gt;     &lt;/multicast&gt;   &lt;/routing-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Multicast address scope.
<b>Contents</b>	<p>&lt;interface&gt;—Interface on which to configure scoping.</p> <p>&lt;name&gt;—Name to identify multicast address scope.</p> <p>&lt;prefix&gt;—Administratively scoped address.</p>

## **<scope-policy> (configuration/logical-systems/routing-instances/instance/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-instances&gt;       &lt;instance&gt;         &lt;routing-options&gt;           &lt;multicast&gt;             &lt;scope-policy&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;/scope-policy&gt;           &lt;/multicast&gt;         &lt;/routing-options&gt;       &lt;/instance&gt;     &lt;/routing-instances&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Scoping policy.
<b>Contents</b>	<name>—Scoping policy.

## **<scope-policy> (configuration/logical-systems/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-options&gt;       &lt;multicast&gt;         &lt;scope-policy&gt;           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;/scope-policy&gt;       &lt;/multicast&gt;     &lt;/routing-options&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Scoping policy.
<b>Contents</b>	<name>—Scoping policy.



## **<scope-policy> (configuration/routing-instances/instance/routing-options/multicast)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <routing-options>  
           <multicast>  
             **<scope-policy>**  
               <name>*name*</name>   <!-- identifier -->  
             **</scope-policy>**  
           </multicast>  
         </routing-options>  
       </instance>  
     </routing-instances>  
 </configuration>

**Description**   Scoping policy.

**Contents**    <name>—Scoping policy.

## **<scope-policy> (configuration/routing-options/multicast)**

---

**Usage**   <configuration>  
           <routing-options>  
           <multicast>  
             **<scope-policy>**  
               <name>*name*</name>   <!-- identifier -->  
             **</scope-policy>**  
           </multicast>  
         </routing-options>  
       </configuration>

**Description**   Scoping policy.

**Contents**    <name>—Scoping policy.

**<scripts> (configuration/system)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;system&gt;     &lt;scripts&gt;       &lt;commit&gt;...&lt;/commit&gt;       &lt;op&gt;...&lt;/op&gt;       &lt;load-scripts-from-flash/&gt;     &lt;/scripts&gt;   &lt;/system&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Scripting mechanisms.
<b>Contents</b>	<p>&lt;commit&gt;—Commit-time scripting mechanism.</p> <p>&lt;load-scripts-from-flash&gt;—Load scripts from flash.</p> <p>&lt;op&gt;—Operations scripting.</p>

**<search> (configuration/access/ldap-options)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;access&gt;     &lt;ldap-options&gt;       &lt;search&gt;         &lt;search-filter&gt;search-filter&lt;/search-filter&gt;    &lt;!-- mandatory --&gt;         &lt;admin-search&gt;...&lt;/admin-search&gt;       &lt;/search&gt;     &lt;/ldap-options&gt;   &lt;/access&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Search for user's distinguished name.
<b>Contents</b>	<p>&lt;admin-search&gt;—Perform an administrator search to find user's distinguished name.</p> <p>&lt;search-filter&gt;—Filter to use in search (examples: 'cn =' or 'givenName = ').</p>

**<search> (configuration/access/profile/ldap-options)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;access&gt;     &lt;profile&gt;       &lt;ldap-options&gt;         &lt;search&gt;           &lt;search-filter&gt;search-filter&lt;/search-filter&gt;    &lt;!-- mandatory --&gt;           &lt;admin-search&gt;...&lt;/admin-search&gt;         &lt;/search&gt;       &lt;/ldap-options&gt;     &lt;/profile&gt;   &lt;/access&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Search for user's distinguished name.
<b>Contents</b>	<p>&lt;admin-search&gt;—Perform an administrator search to find user's distinguished name.</p> <p>&lt;search-filter&gt;—Filter to use in search (examples: 'cn = ' or 'givenName = ').</p>

**<secondary> (configuration/chassis/synchronization)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;chassis&gt;     &lt;synchronization&gt;       &lt;secondary&gt;         &lt;external-a/&gt;         &lt;external-b/&gt;       &lt;/secondary&gt;     &lt;/synchronization&gt;   &lt;/chassis&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Alternative choice synchronization reference source list.
<b>Contents</b>	<p>&lt;external-a&gt;—Use external-a as a secondary source.</p> <p>&lt;external-b&gt;—Use external-b as a secondary source.</p>

## <secondary> (configuration/logical-systems/protocols/mpls/label-switched-path)

---

**Usage**

```

<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <secondary>
            <name>name</name>    <!-- identifier -->
            <bandwidth>...</bandwidth>
            <class-of-service>class-of-service</class-of-service>
            <no-decrement-ttl/>
            <hop-limit>hop-limit</hop-limit>
            <no-cspf/>
            <admin-down/>
            <optimize-timer>seconds</optimize-timer>
            <preference>preference</preference>
            <setup-priority>setup-priority</setup-priority>
            <reservation-priority>reservation-priority</reservation-priority>
            <record/>
            <standby/>
            <admin-group>...</admin-group>
            <oam>...</oam>
            <adaptive/>
            <select>select-choice</select>
          </secondary>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>

```

**Description** Backup path.

**Contents**

- <adaptive>—Have the LSP smoothly cut over to new routes.
- <admin-down>—Keep the LSP in administrative down state.
- <admin-group>—Administrative group policy.
- <bandwidth>—Bandwidth to reserve (bps).
- <class-of-service>—Class-of-service value.
- <hop-limit>—Maximum allowed router hops.
- <name>—Name of path.
- <no-cspf>—Disable automatic path computation.
- <no-decrement-ttl>—Do not decrement the TTL within an LSP.
- <oam>—Periodic OAM.

<optimize-timer>—Periodical path reoptimizations.

<preference>—Preference value.

<record>—Record transit routers.

<reservation-priority>—Reservation priority.

<select>—No documentation is available yet.

- **manual**—Manual override as preferred active path, if up and stable.
- **unconditional**—Unconditional override as preferred active path, regardless of up/down status.

<setup-priority>—Set-up priority.

<standby>—Keep backup paths in continuous standby.

**<secondary> (configuration/protocols/mpls/label-switched-path)**

**Usage**

```

<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <secondary>
          <name>name</name>    <!-- identifier -->
          <bandwidth>...</bandwidth>
          <class-of-service>class-of-service</class-of-service>
          <no-decrement-ttl/>
          <hop-limit>hop-limit</hop-limit>
          <no-cspf/>
          <admin-down/>
          <optimize-timer>seconds</optimize-timer>
          <preference>preference</preference>
          <setup-priority>setup-priority</setup-priority>
          <reservation-priority>reservation-priority</reservation-priority>
          <record/>
          <standby/>
          <admin-group>...</admin-group>
          <oam>...</oam>
          <adaptive/>
          <select>select-choice</select>
        </secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>

```

**Description** Backup path.

**Contents**

- <adaptive>—Have the LSP smoothly cut over to new routes.
- <admin-down>—Keep the LSP in administrative down state.
- <admin-group>—Administrative group policy.
- <bandwidth>—Bandwidth to reserve (bps).
- <class-of-service>—Class-of-service value.
- <hop-limit>—Maximum allowed router hops.
- <name>—Name of path.
- <no-cspf>—Disable automatic path computation.
- <no-decrement-ttl>—Do not decrement the TTL within an LSP.
- <oam>—Periodic OAM.
- <optimize-timer>—Periodical path reoptimizations.
- <preference>—Preference value.

<record>—Record transit routers.

<reservation-priority>—Reservation priority.

<select>—No documentation is available yet.

- manual—Manual override as preferred active path, if up and stable.
- unconditional—Unconditional override as preferred active path, regardless of up/down status.

<setup-priority>—Set-up priority.

<standby>—Keep backup paths in continuous standby.

## **<secure> (configuration/logical-systems/protocols/neighbor-discovery)**

---

**Usage**    <configuration>  
              <logical-systems>  
              <protocols>  
              <neighbor-discovery>  
              **<secure>**  
                  <security-level>...</security-level>  
                  <cryptographic-address>...</cryptographic-address>  
                  <timestamp>...</timestamp>  
                  <traceoptions>...</traceoptions>  
              **</secure>**  
              </neighbor-discovery>  
              </protocols>  
              </logical-systems>  
              </configuration>

**Description**    SEND process configuration.

**Contents**    <cryptographic-address>—Cryptographic address configuration.

                 <security-level>—Security level.

                 <timestamp>—Timestamp option configuration.

                 <traceoptions>—Trace options for SEND.

**<secure> (configuration/protocols/neighbor-discovery)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;neighbor-discovery&gt;       &lt;secure&gt;         &lt;security-level&gt;...&lt;/security-level&gt;         &lt;cryptographic-address&gt;...&lt;/cryptographic-address&gt;         &lt;timestamp&gt;...&lt;/timestamp&gt;         &lt;traceoptions&gt;...&lt;/traceoptions&gt;       &lt;/secure&gt;     &lt;/neighbor-discovery&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SEND process configuration.
<b>Contents</b>	<p>&lt;cryptographic-address&gt;—Cryptographic address configuration.</p> <p>&lt;security-level&gt;—Security level.</p> <p>&lt;timestamp&gt;—Timestamp option configuration.</p> <p>&lt;traceoptions&gt;—Trace options for SEND.</p>

**<securid-server> (configuration/access)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;access&gt;     &lt;securid-server&gt;       &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;       &lt;configuration-file&gt;configuration-file&lt;/configuration-file&gt;  &lt;!-- mandatory --&gt;     &lt;/securid-server&gt;   &lt;/access&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SecurID server configuration.
<b>Contents</b>	<p>&lt;configuration-file&gt;—Path to the SecurID server configuration (sdconf.rec) file.</p> <p>&lt;name&gt;—Name of the SecurID server.</p>



**<security> (configuration)**

---

**Usage** <configuration>  
     **<security>**  
         <certificates>...</certificates>  
         <ssh-known-hosts>...</ssh-known-hosts>  
         <traceoptions>...</traceoptions>  
         <ipsec>...</ipsec>  
         <ike>...</ike>  
         <pki>...</pki>  
         <authentication-key-chains>...</authentication-key-chains>  
     **</security>**  
 </configuration>

**Description** Security configuration.

**Contents** <authentication-key-chains>—Authentication key chain configuration.  
 <certificates>—X.509 certificate configuration.  
 <ike>—IKE configuration.  
 <ipsec>—IPSec configuration.  
 <pki>—Public key infrastructure configuration.  
 <ssh-known-hosts>—SSH known host list.  
 <traceoptions>—Trace options for IPSec key management.

**<security-association> (configuration/security/ipsec)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;security&gt;     &lt;ipsec&gt;       &lt;security-association&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;description&gt;description&lt;/description&gt;         &lt;mode&gt;mode-choice&lt;/mode&gt;         &lt;manual&gt;...&lt;/manual&gt;         &lt;dynamic&gt;...&lt;/dynamic&gt;       &lt;/security-association&gt;     &lt;/ipsec&gt;   &lt;/security&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define an IPSec security association.
<b>Contents</b>	<p>&lt;description&gt;—Text description of security association.</p> <p>&lt;dynamic&gt;—Define a dynamic security association.</p> <p>&lt;manual&gt;—Define a manual security association.</p> <p>&lt;mode&gt;—Define security association mode.</p> <ul style="list-style-type: none"> <li>■ transport—Transport mode.</li> <li>■ tunnel—Tunnel mode.</li> </ul> <p>&lt;name&gt;—Name of IPSec security association.</p>

**<security-association> (configuration/security/ipsec/internal)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;security&gt;     &lt;ipsec&gt;       &lt;internal&gt;         &lt;security-association&gt;           &lt;description&gt;description&lt;/description&gt;           &lt;manual&gt;...&lt;/manual&gt;         &lt;/security-association&gt;       &lt;/internal&gt;     &lt;/ipsec&gt;   &lt;/security&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define an IPSec security association.
<b>Contents</b>	<p>&lt;description&gt;—Text description of internal security association.</p> <p>&lt;manual&gt;—Define a manual security association.</p>

## **<security-level> (configuration/logical-systems/protocols/neighbor-discovery/secure)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;neighbor-discovery&gt;         &lt;secure&gt;           &lt;security-level&gt;             &lt;default/&gt;             &lt;secure-messages-only/&gt;           &lt;/security-level&gt;         &lt;/secure&gt;       &lt;/neighbor-discovery&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Security level.
<b>Contents</b>	<p>&lt;default&gt;—Default level.</p> <p>&lt;secure-messages-only&gt;—Allow only secure messages.</p>

## **<security-level> (configuration/protocols/neighbor-discovery/secure)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;neighbor-discovery&gt;       &lt;secure&gt;         &lt;security-level&gt;           &lt;default/&gt;           &lt;secure-messages-only/&gt;         &lt;/security-level&gt;       &lt;/secure&gt;     &lt;/neighbor-discovery&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Security level.
<b>Contents</b>	<p>&lt;default&gt;—Default level.</p> <p>&lt;secure-messages-only&gt;—Allow only secure messages.</p>

## **<security-level> (configuration/snmp/v3/vacm/access/group/context-prefix/security-model)**

---

**Usage**

```

<configuration>
  <snmp>
    <v3>
      <vacm>
        <access>
          <group>
            <context-prefix>
              <security-model>
                <security-level>
                  <name>name</name>    <!-- identifier -->
                  <context-match>context-match-choice</context-match>
                  <read-view>read-view</read-view>
                  <write-view>write-view</write-view>
                  <notify-view>notify-view</notify-view>
                </security-level>
              </security-model>
            </context-prefix>
          </group>
        </access>
      </vacm>
    </v3>
  </snmp>
</configuration>

```

**Description** Security level access configuration.

**Contents** <context-match>—Type of match to perform on context-prefix.

- exact—Exact match of prefix and context name.
- prefix—Only match the context prefix.

<name>—SNMPv3 VACM security level.

- authentication—Authentication (authNoPriv).
- none—None (noAuthNoPriv).
- privacy—Privacy and authentication (authPriv).

<notify-view>—View used to notifications.

<read-view>—View used for read access.

<write-view>—View used for write access.

## **<security-level> (configuration/snmp/v3/vacm/access/group/default-context-prefix/security-model)**

---

**Usage**

```

<configuration>
  <snmp>
    <v3>
      <vacm>
        <access>
          <group>
            <default-context-prefix>
              <security-model>
                <security-level>
                  <name>name</name>    <!-- identifier -->
                  <context-match>context-match-choice</context-match>
                  <read-view>read-view</read-view>
                  <write-view>write-view</write-view>
                  <notify-view>notify-view</notify-view>
                </security-level>
              </security-model>
            </default-context-prefix>
          </group>
        </access>
      </vacm>
    </v3>
  </snmp>
</configuration>

```

**Description** Security level access configuration.

**Contents** <context-match>—Type of match to perform on context-prefix.

- exact—Exact match of prefix and context name.
- prefix—Only match the context prefix.

<name>—SNMPv3 VACM security level.

- authentication—Authentication (authNoPriv).
- none—None (noAuthNoPriv).
- privacy—Privacy and authentication (authPriv).

<notify-view>—View used to notifications.

<read-view>—View used for read access.

<write-view>—View used for write access.

## <security-model> (configuration/snmp/v3/vacm/access/group/context-prefix)

---

**Usage**

```

<configuration>
  <snmp>
    <v3>
      <vacm>
        <access>
          <group>
            <context-prefix>
              <security-model>
                <name>name</name>    <!-- identifier -->
                <security-level>...</security-level>
              </security-model>
            </context-prefix>
          </group>
        </access>
      </vacm>
    </v3>
  </snmp>
</configuration>

```

**Description** Security model access configuration.

**Contents** <name>—SNMPv3 VACM security model.

- any—Any security model.
- usm—User-based security model.
- v1—SNMPv1 model.
- v2c—SNMPv2c model.

<security-level>—Security level access configuration.

## **<security-model> (configuration/snmp/v3/vacm/access/group/default-context-prefix)**

---

**Usage** <configuration>  
     <snmp>  
         <v3>  
             <vacm>  
                 <access>  
                     <group>  
                         <default-context-prefix>  
                             **<security-model>**  
                                 <name>*name*</name>   <!-- identifier -->  
                                 <security-level>...</security-level>  
                             **</security-model>**  
                         </default-context-prefix>  
                     </group>  
                 </access>  
             </vacm>  
         </v3>  
     </snmp>  
</configuration>

**Description** Security model access configuration.

**Contents** <name>—SNMPv3 VACM security model.

- any—Any security model.
- usm—User-based security model.
- v1—SNMPv1 model.
- v2c—SNMPv2c model.

<security-level>—Security level access configuration.

**<security-model> (configuration/snmp/v3/vacm/security-to-group)**

---

**Usage** <configuration>  
     <snmp>  
         <v3>  
             <vacm>  
                 <security-to-group>  
                     **<security-model>**  
                         <name>*name*</name>   <!-- identifier -->  
                         <security-name>...</security-name>  
                     **</security-model>**  
                 </security-to-group>  
             </vacm>  
         </v3>  
     </snmp>  
</configuration>

**Description** Security model context for group assignment.

**Contents** <name>—SNMPv3 security-to-group model name.

- usm—User-based security model.
- v1—SNMPv1 model.
- v2c—SNMPv2c model.

<security-name>—Security name to assign to group.



## **<security-name> (configuration/snmp/v3/vacm/security-to-group/security-model)**

---

**Usage** <configuration>  
     <snmp>  
         <v3>  
             <vacm>  
                 <security-to-group>  
                     <security-model>  
                         **<security-name>**  
                             <name>name</name>   <!-- identifier -->  
                             <group>group</group>  
                         **</security-name>**  
                     </security-model>  
                 </security-to-group>  
     </vacm>  
   </v3>  
</snmp>  
</configuration>

**Description** Security name to assign to group.

**Contents** <group>—Group to which to assign security name.

    <name>—Security name.

## **<security-options> (configuration/system/services/service-deployment/servers)**

---

**Usage** <configuration>  
     <system>  
         <services>  
             <service-deployment>  
                 <servers>  
                     **<security-options>**  
                         <tls/>  
                         <ssl3/>  
                     **</security-options>**  
                 </servers>  
     </service-deployment>  
   </services>  
</system>  
</configuration>

**Description** Specify mechanism to secure the connection.

**Contents** <ssl3>—Use SSLv3 for transport layer security.

    <tls>—Use TLS for transport layer security.

**<security-to-group> (configuration/snmp/v3/vacm)**

---

**Usage** <configuration>  
           <snmp>  
             <v3>  
               <vacm>  
                 **<security-to-group>**  
                   <security-model>...</security-model>  
                 **</security-to-group>**  
               </vacm>  
             </v3>  
           </snmp>  
         </configuration>

**Description** Assigns security names to group.

**Contents** <security-model>—Security model context for group assignment.

**<segmentation> (configuration/services/pgcp/gateway/h248-properties)**

---

**Usage** <configuration>  
           <services>  
             <pgcp>  
               <gateway>  
                 <h248-properties>  
                   **<segmentation>**  
                     <mgc-segmentation-timer>...</mgc-segmentation-timer>  
                     <mgc-maximum-pdu-size>...</mgc-maximum-pdu-size>  
                     <mg-segmentation-timer>...</mg-segmentation-timer>  
                     <mg-maximum-pdu-size>...</mg-maximum-pdu-size>  
                   **</segmentation>**  
                 </h248-properties>  
               </gateway>  
             </pgcp>  
           </services>  
         </configuration>

**Description** No documentation is available yet.

**Contents** <mg-maximum-pdu-size>—Maximum size of the MG's incoming messages from MGC.

<mg-segmentation-timer>—Time the MGC waits for remaining segments from MGC.

<mgc-maximum-pdu-size>—Maximum size of the MGC's incoming messages from MG.

<mgc-segmentation-timer>—Time the MG waits for remaining segments from MGC.

**<selectable> (configuration/services/ggsn/logical-apn/apn)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <logical-apn>  
                 <apn>  
                   **<selectable>**  
                     <name>*name*</name>   <!-- identifier -->  
                   **</selectable>**  
                 </apn>  
               </logical-apn>  
             </ggsn>  
           </services>  
         </configuration>

**Description** APNs that may be selected by the user.

**Contents** <name>—Name of APN.

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

---

**Usage** <configuration>  
           <logical-systems>  
             <routing-instances>  
               <instance>  
                 <provider-tunnel>  
                   **<selective>**  
                     <tunnel-limit>*tunnel-limit*</tunnel-limit>  
                     <group>...</group>  
                   **</selective>**  
                 </provider-tunnel>  
               </instance>  
             </routing-instances>  
           </logical-systems>  
         </configuration>

**Description** Selective tunnels.

**Contents** <group>—IP prefix of multicast group.

<tunnel-limit>—Maximum number of selective tunnels.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;provider-tunnel&gt;         &lt;selective&gt;           &lt;tunnel-limit&gt;<i>tunnel-limit</i>&lt;/tunnel-limit&gt;           &lt;group&gt;...&lt;/group&gt;         &lt;/selective&gt;       &lt;/provider-tunnel&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Selective tunnels.
<b>Contents</b>	<p>&lt;group&gt;—IP prefix of multicast group.</p> <p>&lt;tunnel-limit&gt;—Maximum number of selective tunnels.</p>

## **<semantic-check> (configuration/dynamic-profiles/test)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;test&gt;       &lt;semantic-check&gt;         &lt;mandatory-int&gt;<i>mandatory-int</i>&lt;/mandatory-int&gt;    &lt;!-- mandatory --&gt;         &lt;match-string&gt;<i>match-string</i>&lt;/match-string&gt;         &lt;range-int&gt;<i>range-int</i>&lt;/range-int&gt;         &lt;range-string&gt;<i>range-string</i>&lt;/range-string&gt;         &lt;interface&gt;<i>interface</i>&lt;/interface&gt;         &lt;ipaddr&gt;<i>ipaddr</i>&lt;/ipaddr&gt;       &lt;/semantic-check&gt;     &lt;/test&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	No documentation is available yet.
<b>Contents</b>	<p>&lt;interface&gt;—No documentation is available yet.</p> <p>&lt;ipaddr&gt;—No documentation is available yet.</p> <p>&lt;mandatory-int&gt;—No documentation is available yet.</p> <p>&lt;match-string&gt;—No documentation is available yet.</p> <p>&lt;range-int&gt;—No documentation is available yet.</p> <p>&lt;range-string&gt;—No documentation is available yet.</p>

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

---

**Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <rip>  
             **<send>**  
               <broadcast/>  
               <multicast/>  
               <none/>  
               <version-1/>  
             **</send>**  
           </rip>  
         </protocols>  
       </logical-systems>  
     </configuration>

**Description** Configure RIP send options.

**Contents** <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).

<multicast>—Multicast RIPv2 packets.

<none>—Do not send RIP updates.

<version-1>—Broadcast RIPv1 packets.

## **<send> (configuration/logical-systems/protocols/rip/group/neighbor)**

---

**Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <rip>  
           <group>  
           <neighbor>  
           **<send>**  
             <broadcast/>  
             <multicast/>  
             <none/>  
             <version-1/>  
           **</send>**  
           </neighbor>  
           </group>  
           </rip>  
           </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure RIP send options.

**Contents** <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).  
               <multicast>—Multicast RIPv2 packets.  
               <none>—Do not send RIP updates.  
               <version-1>—Broadcast RIPv1 packets.

## **<send> (configuration/logical-systems/protocols/ripng)**

---

**Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <ripng>  
           **<send>**  
             <none/>  
           **</send>**  
           </ripng>  
           </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure RIPvng send options.

**Contents** <none>—Do not send RIPvng updates.

## **<send> (configuration/logical-systems/protocols/ripng/group/neighbor)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <protocols>  
               <ripng>  
               <group>  
               <neighbor>  
               **<send>**  
               <none/>  
               **</send>**  
               </neighbor>  
               </group>  
               </ripng>  
               </protocols>  
               </logical-systems>  
               </configuration>

**Description**   Configure RIPng send options.

**Contents**   <none>—Do not send RIPng updates.

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

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <rip>  
          **<send>**  
            <broadcast/>  
            <multicast/>  
            <none/>  
            <version-1/>  
          **</send>**  
          </rip>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Configure RIP send options.

**Contents**   <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).  
  
              <multicast>—Multicast RIPv2 packets.  
  
              <none>—Do not send RIP updates.  
  
              <version-1>—Broadcast RIPv1 packets.



## **<send> (configuration/logical-systems/routing-instances/instance/protocols/rip/group/neighbor)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <rip>  
                         <group>  
                             <neighbor>  
                                 **<send>**  
                                     <broadcast/>  
                                     <multicast/>  
                                     <none/>  
                                     <version-1/>  
                                 **</send>**  
                             </neighbor>  
                         </group>  
                     </rip>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Configure RIP send options.

**Contents** <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).

<multicast>—Multicast RIPv2 packets.

<none>—Do not send RIP updates.

<version-1>—Broadcast RIPv1 packets.

## **<send> (configuration/logical-systems/routing-instances/instance/protocols/ripng)**

---

**Usage** <configuration>  
           <logical-systems>  
             <routing-instances>  
               <instance>  
                 <protocols>  
                   <ripng>  
                     **<send>**  
                       <none/>  
                     **</send>**  
                   </ripng>  
                 </protocols>  
               </instance>  
             </routing-instances>  
           </logical-systems>  
         </configuration>

**Description** Configure RIPng send options.

**Contents** <none>—Do not send RIPng updates.

## **<send> (configuration/logical-systems/routing-instances/instance/protocols/ripng/group/neighbor)**

---

**Usage** <configuration>  
           <logical-systems>  
             <routing-instances>  
               <instance>  
                 <protocols>  
                   <ripng>  
                     <group>  
                       <neighbor>  
                         **<send>**  
                           <none/>  
                         **</send>**  
                       </neighbor>  
                     </group>  
                   </ripng>  
                 </protocols>  
               </instance>  
             </routing-instances>  
           </logical-systems>  
         </configuration>

**Description** Configure RIPng send options.

**Contents** <none>—Do not send RIPng updates.

**<send> (configuration/protocols/rip)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;rip&gt;       &lt;send&gt;         &lt;broadcast/&gt;         &lt;multicast/&gt;         &lt;none/&gt;         &lt;version-1/&gt;       &lt;/send&gt;     &lt;/rip&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure RIP send options.
<b>Contents</b>	<p>&lt;broadcast&gt;—Broadcast RIPv2 packets (RIPv1 compatible).</p> <p>&lt;multicast&gt;—Multicast RIPv2 packets.</p> <p>&lt;none&gt;—Do not send RIP updates.</p> <p>&lt;version-1&gt;—Broadcast RIPv1 packets.</p>

**<send> (configuration/protocols/rip/group/neighbor)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;rip&gt;       &lt;group&gt;         &lt;neighbor&gt;           &lt;send&gt;             &lt;broadcast/&gt;             &lt;multicast/&gt;             &lt;none/&gt;             &lt;version-1/&gt;           &lt;/send&gt;         &lt;/neighbor&gt;       &lt;/group&gt;     &lt;/rip&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure RIP send options.
<b>Contents</b>	<p>&lt;broadcast&gt;—Broadcast RIPv2 packets (RIPv1 compatible).</p> <p>&lt;multicast&gt;—Multicast RIPv2 packets.</p> <p>&lt;none&gt;—Do not send RIP updates.</p> <p>&lt;version-1&gt;—Broadcast RIPv1 packets.</p>

**<send> (configuration/protocols/ripng)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;protocols&gt;     &lt;ripng&gt;       &lt;send&gt;         &lt;none/&gt;       &lt;/send&gt;     &lt;/ripng&gt;   &lt;/protocols&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	Configure RIPng send options.
<b>Contents</b>	<none>—Do not send RIPng updates.

**<send> (configuration/protocols/ripng/group/neighbor)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;protocols&gt;     &lt;ripng&gt;       &lt;group&gt;         &lt;neighbor&gt;           &lt;send&gt;             &lt;none/&gt;           &lt;/send&gt;         &lt;/neighbor&gt;       &lt;/group&gt;     &lt;/ripng&gt;   &lt;/protocols&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	Configure RIPng send options.
<b>Contents</b>	<none>—Do not send RIPng updates.

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

---

**Usage** <configuration>  
           <routing-instances>  
             <instance>  
               <protocols>  
                 <rip>  
                   **<send>**  
                     <broadcast/>  
                     <multicast/>  
                     <none/>  
                     <version-1/>  
                   **</send>**  
                 </rip>  
               </protocols>  
             </instance>  
           </routing-instances>  
         </configuration>

**Description** Configure RIP send options.

**Contents** <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).

<multicast>—Multicast RIPv2 packets.

<none>—Do not send RIP updates.

<version-1>—Broadcast RIPv1 packets.

## **<send> (configuration/routing-instances/instance/protocols/rip/group/neighbor)**

---

**Usage** <configuration>  
     <routing-instances>  
         <instance>  
             <protocols>  
                 <rip>  
                     <group>  
                         <neighbor>  
                             **<send>**  
                                 <broadcast/>  
                                 <multicast/>  
                                 <none/>  
                                 <version-1/>  
                             **</send>**  
                         </neighbor>  
                     </group>  
                 </rip>  
             </protocols>  
         </instance>  
     </routing-instances>  
 </configuration>

**Description** Configure RIP send options.

**Contents** <broadcast>—Broadcast RIPv2 packets (RIPv1 compatible).

<multicast>—Multicast RIPv2 packets.

<none>—Do not send RIP updates.

<version-1>—Broadcast RIPv1 packets.

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

---

**Usage** <configuration>  
     <routing-instances>  
         <instance>  
             <protocols>  
                 <ripng>  
                     **<send>**  
                         <none/>  
                     **</send>**  
                 </ripng>  
             </protocols>  
         </instance>  
     </routing-instances>  
 </configuration>

**Description** Configure RIPvng send options.

**Contents** <none>—Do not send RIPvng updates.

## **<send> (configuration/routing-instances/instance/protocols/ripng/group/neighbor)**

---

**Usage** <configuration>  
           <routing-instances>  
             <instance>  
               <protocols>  
                 <ripng>  
                   <group>  
                     <neighbor>  
                       **<send>**  
                       <none/>  
                       **</send>**  
                     </neighbor>  
                   </group>  
                 </ripng>  
               </protocols>  
             </instance>  
           </routing-instances>  
         </configuration>

**Description** Configure RIPng send options.

**Contents** <none>—Do not send RIPng updates.

## **<send> (configuration/system/processes)**

---

**Usage** <configuration>  
           <system>  
             <processes>  
               **<send>**  
               <disable/>  
               **</send>**  
             </processes>  
           </system>  
         </configuration>

**Description** Secure Neighbor Discovery Protocol process.

**Contents** <disable>—Disable SEND process.

## **<sender> (configuration/services/ggsn/service-identification/smtp-rule/term/from/smtp)**

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <service-identification>
        <smtp-rule>
          <term>
            <from>
              <smtp>
                <sender>
                  <case/>
                  <is>is</is>
                  <not-is>...</not-is>
                  <starts-with>starts-with</starts-with>
                  <not-starts-with>...</not-starts-with>
                  <ends-with>ends-with</ends-with>
                  <not-ends-with>...</not-ends-with>
                  <contains>...</contains>
                  <not-contains>...</not-contains>
                </sender>
              </smtp>
            </from>
          </term>
        </smtp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>

```

**Description** Match smtp sender.

**Contents**

- <case>—Consider case while processing.
- <contains>—Matches a substring.
- <ends-with>—End matches.
- <is>—Exact match.
- <not-contains>—Doesn't match a substring.
- <not-ends-with>—End doesn't match.
- <not-is>—Exclude exact match.
- <not-starts-with>—Beginning doesn't match.
- <starts-with>—Beginning matches.



**<serial> (configuration/chassis/alarm)**

---

**Usage** <configuration>  
           <chassis>  
           <alarm>  
             **<serial>**  
               <loss-of-rx-clock>loss-of-rx-clock-choice</loss-of-rx-clock>  
               <loss-of-tx-clock>loss-of-tx-clock-choice</loss-of-tx-clock>  
               <dcd-absent>dcd-absent-choice</dcd-absent>  
               <cts-absent>cts-absent-choice</cts-absent>  
               <dsr-absent>dsr-absent-choice</dsr-absent>  
               <tm-absent>tm-absent-choice</tm-absent>  
             **</serial>**  
           </alarm>  
         </chassis>  
       </configuration>

**Description** Serial alarms.

**Contents** <cts-absent>—CTS signal absent.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<dcd-absent>—DCD signal absent.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<dsr-absent>—DSR signal absent.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<loss-of-rx-clock>—RX clock absent.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<loss-of-tx-clock>—TX clock absent.

- ignore—Do not assert any alarm signals.

- **red**—Assert red system alarm.
- **yellow**—Assert yellow system alarm.

**<tm-absent>**—TM signal absent.

- **ignore**—Do not assert any alarm signals.
- **red**—Assert red system alarm.
- **yellow**—Assert yellow system alarm.

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

---

**Usage** <configuration>  
 <dynamic-profiles>  
 <interfaces>  
 <interface>  
   **<serial-options>**  
     <line-protocol>*line-protocol-choice*</line-protocol>  
     <dte-options>...</dte-options>  
     <dce-options>...</dce-options>  
     <dtr-circuit>*dtr-circuit-choice*</dtr-circuit>  
     <dtr-polarity>*dtr-polarity-choice*</dtr-polarity>  
     <rts-polarity>*rts-polarity-choice*</rts-polarity>  
     <control-polarity>*control-polarity-choice*</control-polarity>  
     <dcd-polarity>*dcd-polarity-choice*</dcd-polarity>  
     <dsr-polarity>*dsr-polarity-choice*</dsr-polarity>  
     <cts-polarity>*cts-polarity-choice*</cts-polarity>  
     <indication-polarity>*indication-polarity-choice*</indication-polarity>  
     <tm-polarity>*tm-polarity-choice*</tm-polarity>  
     <clocking-mode>*clocking-mode-choice*</clocking-mode>  
     <transmit-clock>*transmit-clock-choice*</transmit-clock>  
     <clock-rate>*clock-rate-choice*</clock-rate>  
     <loopback>*loopback-choice*</loopback>  
     <encoding>*encoding-choice*</encoding>  
     <idle-cycle-flag>*idle-cycle-flag-choice*</idle-cycle-flag>  
   **</serial-options>**  
 </interface>  
 </interfaces>  
 </dynamic-profiles>  
 </configuration>

**Description** Serial interface-specific options.

**Contents** <clock-rate>—Interface clock rate.

- 1.0mhz—1.0 MHz.
- 1.2khz—1.2 KHz.
- 1.3mhz—1.3 MHz.
- 125.0khz—125.0 KHz.
- 148.0khz—148.0 KHz.
- 16.384mhz—16.384 MHz.
- 19.2khz—19.2 KHz.
- 2.048mhz—2.048 MHz.
- 2.0mhz—2.0 MHz.
- 2.341mhz—2.341 MHz.

- 2.4khz—2.4 KHz.
- 2.731mhz—2.731 MHz.
- 250.0khz—250.0 KHz.
- 3.277mhz—3.277 MHz.
- 38.4khz—38.4 KHz.
- 4.096mhz—4.096 MHz.
- 4.0mhz—4.0 MHz.
- 5.461mhz—5.461 MHz.
- 500.0khz—500.0 KHz.
- 56.0khz—56.0 KHz.
- 64.0khz—64.0 KHz.
- 72.0khz—72.0 KHz.
- 8.0mhz—8.0 MHz.
- 8.192mhz—8.192 MHz.
- 800.0khz—800.0 KHz.
- 9.6khz—9.6 KHz.

<clocking-mode>—Clock mode.

- dce—DCE timing (DTE mode only, not valid for X.21).
- internal—Internal baud timing.
- loop—Loop timing.

<control-polarity>—X.21 Control signal polarity.

- negative—Negative polarity.
- positive—Positive polarity.

<cts-polarity>—Clear To Send signal polarity.

- negative—Negative polarity.
- positive—Positive polarity.

<dcd-polarity>—Data Carrier Detect signal polarity.

- negative—Negative polarity.

- **positive**—Positive polarity.
- <dce-options>**—DCE options.
- <dsr-polarity>**—Data Set Ready signal polarity.
- **negative**—Negative polarity.
  - **positive**—Positive polarity.
- <dte-options>**—DTE options/control leads.
- <dtr-circuit>**—Data Transmit Ready circuit mode.
- **balanced**—Balanced signal.
  - **unbalanced**—Unbalanced signal.
- <dtr-polarity>**—Data Transmit Ready signal polarity.
- **negative**—Negative polarity.
  - **positive**—Positive polarity.
- <encoding>**—Line encoding.
- **nrz**—Non-Return-To-Zero.
  - **nrzi**—Non-Return-To-Zero-Invertible.
- <idle-cycle-flag>**—Value to transmit in idle cycles.
- **flags**—Transmit 0x7E in idle cycles.
  - **ones**—Transmit 0xFF (all ones) in idle cycles.
- <indication-polarity>**—X.21 Indication signal polarity.
- **negative**—Negative polarity.
  - **positive**—Positive polarity.
- <line-protocol>**—Line protocol to be used.
- **eia530**—Line protocol EIA530.
  - **v.35**—Line protocol V.35.
  - **x.21**—Line protocol X.21.
- <loopback>**—Loopback mode.
- **dce-local**—DCE local loopback (DTE mode only).
  - **dce-remote**—DCE remote loopback.

- `local`—Local loopback.
- `remote`—Remote/LIU loopback.

`<rts-polarity>`—Request To Send signal polarity.

- `negative`—Negative polarity.
- `positive`—Positive polarity.

`<tm-polarity>`—Test Mode signal polarity.

- `negative`—Negative polarity.
- `positive`—Positive polarity.

`<transmit-clock>`—Transmit clock phase.

- `invert`—Shift clock phase 180 degrees.

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

---

**Usage** <configuration>  
           <interfaces>  
           <interface>  
             **<serial-options>**  
               <line-protocol>*line-protocol-choice*</line-protocol>  
               <dte-options>...</dte-options>  
               <dce-options>...</dce-options>  
               <dtr-circuit>*dtr-circuit-choice*</dtr-circuit>  
               <dtr-polarity>*dtr-polarity-choice*</dtr-polarity>  
               <rts-polarity>*rts-polarity-choice*</rts-polarity>  
               <control-polarity>*control-polarity-choice*</control-polarity>  
               <dcd-polarity>*dcd-polarity-choice*</dcd-polarity>  
               <dsr-polarity>*dsr-polarity-choice*</dsr-polarity>  
               <cts-polarity>*cts-polarity-choice*</cts-polarity>  
               <indication-polarity>*indication-polarity-choice*</indication-polarity>  
               <tm-polarity>*tm-polarity-choice*</tm-polarity>  
               <clocking-mode>*clocking-mode-choice*</clocking-mode>  
               <transmit-clock>*transmit-clock-choice*</transmit-clock>  
               <clock-rate>*clock-rate-choice*</clock-rate>  
               <loopback>*loopback-choice*</loopback>  
               <encoding>*encoding-choice*</encoding>  
               <idle-cycle-flag>*idle-cycle-flag-choice*</idle-cycle-flag>  
             **</serial-options>**  
           </interface>  
         </interfaces>  
       </configuration>

**Description** Serial interface-specific options.

**Contents** <clock-rate>—Interface clock rate.

- 1.0mhz—1.0 MHz.
- 1.2khz—1.2 KHz.
- 1.3mhz—1.3 MHz.
- 125.0khz—125.0 KHz.
- 148.0khz—148.0 KHz.
- 16.384mhz—16.384 MHz.
- 19.2khz—19.2 KHz.
- 2.048mhz—2.048 MHz.
- 2.0mhz—2.0 MHz.
- 2.341mhz—2.341 MHz.
- 2.4khz—2.4 KHz.

- 2.731mhz—2.731 MHz.
- 250.0khz—250.0 KHz.
- 3.277mhz—3.277 MHz.
- 38.4khz—38.4 KHz.
- 4.096mhz—4.096 MHz.
- 4.0mhz—4.0 MHz.
- 5.461mhz—5.461 MHz.
- 500.0khz—500.0 KHz.
- 56.0khz—56.0 KHz.
- 64.0khz—64.0 KHz.
- 72.0khz—72.0 KHz.
- 8.0mhz—8.0 MHz.
- 8.192mhz—8.192 MHz.
- 800.0khz—800.0 KHz.
- 9.6khz—9.6 KHz.

<clocking-mode>—Clock mode.

- dce—DCE timing (DTE mode only, not valid for X.21).
- internal—Internal baud timing.
- loop—Loop timing.

<control-polarity>—X.21 Control signal polarity.

- negative—Negative polarity.
- positive—Positive polarity.

<cts-polarity>—Clear To Send signal polarity.

- negative—Negative polarity.
- positive—Positive polarity.

<dcd-polarity>—Data Carrier Detect signal polarity.

- negative—Negative polarity.
- positive—Positive polarity.



<dce-options>—DCE options.

<dsr-polarity>—Data Set Ready signal polarity.

- negative—Negative polarity.
- positive—Positive polarity.

<dte-options>—DTE options/control leads.

<dtr-circuit>—Data Transmit Ready circuit mode.

- balanced—Balanced signal.
- unbalanced—Unbalanced signal.

<dtr-polarity>—Data Transmit Ready signal polarity.

- negative—Negative polarity.
- positive—Positive polarity.

<encoding>—Line encoding.

- nrz—Non-Return-To-Zero.
- nrzi—Non-Return-To-Zero-Invertible.

<idle-cycle-flag>—Value to transmit in idle cycles.

- flags—Transmit 0x7E in idle cycles.
- ones—Transmit 0xFF (all ones) in idle cycles.

<indication-polarity>—X.21 Indication signal polarity.

- negative—Negative polarity.
- positive—Positive polarity.

<line-protocol>—Line protocol to be used.

- eia530—Line protocol EIA530.
- v.35—Line protocol V.35.
- x.21—Line protocol X.21.

<loopback>—Loopback mode.

- dce-local—DCE local loopback (DTE mode only).
- dce-remote—DCE remote loopback.
- local—Local loopback.

- **remote**—Remote/LIU loopback.

<rts-polarity>—Request To Send signal polarity.

- **negative**—Negative polarity.
- **positive**—Positive polarity.

<tm-polarity>—Test Mode signal polarity.

- **negative**—Negative polarity.
- **positive**—Positive polarity.

<transmit-clock>—Transmit clock phase.

- **invert**—Shift clock phase 180 degrees.

## <server> (configuration/forwarding-options/helpers/bootp)

---

**Usage** <configuration>  
     <forwarding-options>  
         <helpers>  
             <bootp>  
                 <server>  
                     <name>*name*</name>   <!-- identifier -->  
                     <logical-system>...</logical-system>  
                     <routing-instance>...</routing-instance>  
                 </server>  
             </bootp>  
         </helpers>  
     </forwarding-options>  
 </configuration>

**Description** Server information.

**Contents** <logical-system>—Logical system of server to which to forward.  
     <name>—Name or address of servers to which to forward.  
     <routing-instance>—Routing instance of server to which to forward.

## <server> (configuration/forwarding-options/helpers/bootp/interface)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;helpers&gt;       &lt;bootp&gt;         &lt;interface&gt;           &lt;server&gt;             &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;logical-system&gt;...&lt;/logical-system&gt;             &lt;routing-instance&gt;...&lt;/routing-instance&gt;           &lt;/server&gt;         &lt;/interface&gt;       &lt;/bootp&gt;     &lt;/helpers&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Server information.
<b>Contents</b>	<p>&lt;logical-system&gt;—Logical system of server to which to forward.</p> <p>&lt;name&gt;—Name or address of servers to which to forward.</p> <p>&lt;routing-instance&gt;—Routing instance of server to which to forward.</p>

## <server> (configuration/forwarding-options/helpers/domain)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;helpers&gt;       &lt;domain&gt;         &lt;server&gt;           &lt;address&gt;address&lt;/address&gt;           &lt;logical-system&gt;...&lt;/logical-system&gt;           &lt;routing-instance&gt;routing-instance&lt;/routing-instance&gt;         &lt;/server&gt;       &lt;/domain&gt;     &lt;/helpers&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Server information.
<b>Contents</b>	<p>&lt;address&gt;—Name or address of server to which to forward.</p> <p>&lt;logical-system&gt;—Logical system of server to which to forward.</p> <p>&lt;routing-instance&gt;—Routing instance of server to which to forward.</p>

## <server> (configuration/forwarding-options/helpers/domain/interface)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;helpers&gt;       &lt;domain&gt;         &lt;interface&gt;           &lt;server&gt;             &lt;address&gt;address&lt;/address&gt;             &lt;logical-system&gt;...&lt;/logical-system&gt;             &lt;routing-instance&gt;routing-instance&lt;/routing-instance&gt;           &lt;/server&gt;         &lt;/interface&gt;       &lt;/domain&gt;     &lt;/helpers&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Server information.
<b>Contents</b>	<p>&lt;address&gt;—Name or address of server to which to forward.</p> <p>&lt;logical-system&gt;—Logical system of server to which to forward.</p> <p>&lt;routing-instance&gt;—Routing instance of server to which to forward.</p>

## <server> (configuration/forwarding-options/helpers/port)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;helpers&gt;       &lt;port&gt;         &lt;server&gt;           &lt;address&gt;address&lt;/address&gt;           &lt;logical-system&gt;...&lt;/logical-system&gt;           &lt;routing-instance&gt;routing-instance&lt;/routing-instance&gt;         &lt;/server&gt;       &lt;/port&gt;     &lt;/helpers&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Server information.
<b>Contents</b>	<p>&lt;address&gt;—Name or address of server to which to forward.</p> <p>&lt;logical-system&gt;—Logical system of server to which to forward.</p> <p>&lt;routing-instance&gt;—Routing instance of server to which to forward.</p>

## **<server> (configuration/forwarding-options/helpers/port/interface)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;helpers&gt;       &lt;port&gt;         &lt;interface&gt;           &lt;server&gt;             &lt;address&gt;address&lt;/address&gt;             &lt;logical-system&gt;...&lt;/logical-system&gt;             &lt;routing-instance&gt;routing-instance&lt;/routing-instance&gt;           &lt;/server&gt;         &lt;/interface&gt;       &lt;/port&gt;     &lt;/helpers&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Server information.
<b>Contents</b>	<p>&lt;address&gt;—Name or address of server to which to forward.</p> <p>&lt;logical-system&gt;—Logical system of server to which to forward.</p> <p>&lt;routing-instance&gt;—Routing instance of server to which to forward.</p>

## **<server> (configuration/forwarding-options/helpers/tftp)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;helpers&gt;       &lt;tftp&gt;         &lt;server&gt;           &lt;address&gt;address&lt;/address&gt;           &lt;logical-system&gt;...&lt;/logical-system&gt;           &lt;routing-instance&gt;routing-instance&lt;/routing-instance&gt;         &lt;/server&gt;       &lt;/tftp&gt;     &lt;/helpers&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Server information.
<b>Contents</b>	<p>&lt;address&gt;—Name or address of server to which to forward.</p> <p>&lt;logical-system&gt;—Logical system of server to which to forward.</p> <p>&lt;routing-instance&gt;—Routing instance of server to which to forward.</p>

## **<server> (configuration/forwarding-options/helpers/tftp/interface)**

---

**Usage**   <configuration>  
           <forwarding-options>  
           <helpers>  
           <tftp>  
           <interface>  
             **<server>**  
               <address>address</address>  
               <logical-system>...</logical-system>  
               <routing-instance>routing-instance</routing-instance>  
             **</server>**  
           </interface>  
         </tftp>  
       </helpers>  
     </forwarding-options>  
 </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
               <logical-system>—Logical system of server to which to forward.  
               <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/logical-systems/routing-instances/instance/forwarding-options/helpers/bootp)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <forwarding-options>  
           <helpers>  
           <bootp>  
           **<server>**  
             <name>*name*</name>   <!-- identifier -->  
             <logical-system>...</logical-system>  
             <routing-instance>...</routing-instance>  
           **</server>**  
           </bootp>  
           </helpers>  
           </forwarding-options>  
           </instance>  
           </routing-instances>  
           </logical-systems>  
           </configuration>

**Description**   Server information.

**Contents**   <logical-system>—Logical system of server to which to forward.

          <name>—Name or address of servers to which to forward.

          <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/logical-systems/routing-instances/instance/forwarding-options/helpers/bootp/interface)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <helpers>
            <bootp>
              <interface>
                <server>
                  <name>name</name>    <!-- identifier -->
                  <logical-system>...</logical-system>
                  <routing-instance>...</routing-instance>
                </server>
              </interface>
            </bootp>
          </helpers>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Server information.

**Contents**

- <logical-system>—Logical system of server to which to forward.
- <name>—Name or address of servers to which to forward.
- <routing-instance>—Routing instance of server to which to forward.



## **<server> (configuration/logical-systems/routing-instances/instance/forwarding-options/helpers/domain)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <forwarding-options>  
           <helpers>  
           <domain>  
           **<server>**  
             <address>address</address>  
             <logical-system>...</logical-system>  
             <routing-instance>routing-instance</routing-instance>  
           **</server>**  
           </domain>  
           </helpers>  
           </forwarding-options>  
           </instance>  
           </routing-instances>  
           </logical-systems>  
           </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
               <logical-system>—Logical system of server to which to forward.  
               <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/logical-systems/routing-instances/instance/forwarding-options/helpers/domain/interface)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <helpers>
            <domain>
              <interface>
                <server>
                  <address>address</address>
                  <logical-system>...</logical-system>
                  <routing-instance>routing-instance</routing-instance>
                </server>
              </interface>
            </domain>
          </helpers>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Server information.

**Contents**

- <address>—Name or address of server to which to forward.
- <logical-system>—Logical system of server to which to forward.
- <routing-instance>—Routing instance of server to which to forward.

**<server> (configuration/logical-systems/routing-instances/instance/forwarding-options/helpers/port)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <forwarding-options>  
          <helpers>  
          <port>  
          **<server>**  
            <address>address</address>  
            <logical-system>...</logical-system>  
            <routing-instance>routing-instance</routing-instance>  
          **</server>**  
          </port>  
          </helpers>  
          </forwarding-options>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
  
              <logical-system>—Logical system of server to which to forward.  
  
              <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/logical-systems/routing-instances/instance/forwarding-options/helpers/port/interface)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <helpers>
            <port>
              <interface>
                <server>
                  <address>address</address>
                  <logical-system>...</logical-system>
                  <routing-instance>routing-instance</routing-instance>
                </server>
              </interface>
            </port>
          </helpers>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Server information.

**Contents**

- <address>—Name or address of server to which to forward.
- <logical-system>—Logical system of server to which to forward.
- <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/logical-systems/routing-instances/instance/forwarding-options/helpers/tftp)**

---

**Usage**   <configuration>  
               <logical-systems>  
                   <routing-instances>  
                       <instance>  
                           <forwarding-options>  
                               <helpers>  
                                   <tftp>  
                                       **<server>**  
   <address>address</address>  
   <logical-system>...</logical-system>  
   <routing-instance>routing-instance</routing-instance>  
                                       **</server>**  
                                   </tftp>  
                               </helpers>  
                           </forwarding-options>  
                       </instance>  
                   </routing-instances>  
               </logical-systems>  
           </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
               <logical-system>—Logical system of server to which to forward.  
               <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/logical-systems/routing-instances/instance/forwarding-options/helpers/tftp/interface)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <helpers>
            <tftp>
              <interface>
                <server>
                  <address>address</address>
                  <logical-system>...</logical-system>
                  <routing-instance>routing-instance</routing-instance>
                </server>
              </interface>
            </tftp>
          </helpers>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Server information.

**Contents**

- <address>—Name or address of server to which to forward.
- <logical-system>—Logical system of server to which to forward.
- <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/routing-instances/instance/forwarding-options/helpers/bootp)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <forwarding-options>  
           <helpers>  
           <bootp>  
           **<server>**  
             <name>*name*</name>   <!-- identifier -->  
             <logical-system>...</logical-system>  
             <routing-instance>...</routing-instance>  
           **</server>**  
           </bootp>  
           </helpers>  
           </forwarding-options>  
           </instance>  
           </routing-instances>  
         </configuration>

**Description**   Server information.

**Contents**   <logical-system>—Logical system of server to which to forward.

          <name>—Name or address of servers to which to forward.

          <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/routing-instances/instance/forwarding-options/helpers/bootp/interface)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <helpers>
          <bootp>
            <interface>
              <server>
                <name>name</name>    <!-- identifier -->
                <logical-system>...</logical-system>
                <routing-instance>...</routing-instance>
              </server>
            </interface>
          </bootp>
        </helpers>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Server information.

**Contents**

- <logical-system>—Logical system of server to which to forward.
- <name>—Name or address of servers to which to forward.
- <routing-instance>—Routing instance of server to which to forward.



## **<server> (configuration/routing-instances/instance/forwarding-options/helpers/domain)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <forwarding-options>  
                           <helpers>  
                               <domain>  
                                   **<server>**  
                                       <address>address</address>  
                                       <logical-system>...</logical-system>  
                                       <routing-instance>routing-instance</routing-instance>  
                                   **</server>**  
                               </domain>  
                           </helpers>  
                       </forwarding-options>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
               <logical-system>—Logical system of server to which to forward.  
               <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/routing-instances/instance/forwarding-options/helpers/domain/interface)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <forwarding-options>  
                           <helpers>  
                               <domain>  
                                   <interface>  
                                       **<server>**  
   <address>address</address>  
   <logical-system>...</logical-system>  
   <routing-instance>routing-instance</routing-instance>  
                                       **</server>**  
                                   </interface>  
                               </domain>  
                           </helpers>  
                       </forwarding-options>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
               <logical-system>—Logical system of server to which to forward.  
               <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/routing-instances/instance/forwarding-options/helpers/port)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <forwarding-options>  
                           <helpers>  
                               <port>  
                                   **<server>**  
                                       <address>address</address>  
                                       <logical-system>...</logical-system>  
                                       <routing-instance>routing-instance</routing-instance>  
                                   **</server>**  
                               </port>  
                           </helpers>  
                       </forwarding-options>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
               <logical-system>—Logical system of server to which to forward.  
               <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/routing-instances/instance/forwarding-options/helpers/port/interface)**

---

**Usage**   <configuration>  
          <routing-instances>  
          <instance>  
          <forwarding-options>  
          <helpers>  
          <port>  
          <interface>  
          **<server>**  
            <address>address</address>  
            <logical-system>...</logical-system>  
            <routing-instance>routing-instance</routing-instance>  
          **</server>**  
          </interface>  
          </port>  
          </helpers>  
          </forwarding-options>  
          </instance>  
          </routing-instances>  
          </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
  
              <logical-system>—Logical system of server to which to forward.  
  
              <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/routing-instances/instance/ forwarding-options/helpers/tftp)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <forwarding-options>  
                           <helpers>  
                               <tftp>  
                                   **<server>**  
                                       <address>address</address>  
                                       <logical-system>...</logical-system>  
                                       <routing-instance>routing-instance</routing-instance>  
                                   **</server>**  
                               </tftp>  
                           </helpers>  
                       </forwarding-options>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
               <logical-system>—Logical system of server to which to forward.  
               <routing-instance>—Routing instance of server to which to forward.

## **<server> (configuration/routing-instances/instance/forwarding-options/helpers/tftp/interface)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <forwarding-options>  
           <helpers>  
           <tftp>  
           <interface>  
           **<server>**  
             <address>address</address>  
             <logical-system>...</logical-system>  
             <routing-instance>routing-instance</routing-instance>  
           **</server>**  
           </interface>  
           </tftp>  
           </helpers>  
           </forwarding-options>  
           </instance>  
           </routing-instances>  
         </configuration>

**Description**   Server information.

**Contents**   <address>—Name or address of server to which to forward.  
               <logical-system>—Logical system of server to which to forward.  
               <routing-instance>—Routing instance of server to which to forward.

**<server> (configuration/services/ggsn/apn/dhcp)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <apn>  
                 <dhcp>  
                   **<server>**  
                     <name>*name*</name>   <!-- identifier -->  
                     <timeout>*seconds*</timeout>  
                     <retry>*retry*</retry>  
                   **</server>**  
                 </dhcp>  
               </apn>  
             </ggsn>  
           </services>  
         </configuration>

**Description** DHCP server for APN.

**Contents** <name>—DHCP server address.  
               <retry>—Retry attempts.  
               <timeout>—Request timeout period.

**<server> (configuration/services/ggsn/apn/p-cscf)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <apn>  
                 <p-cscf>  
                   **<server>**  
                     <name>*name*</name>   <!-- identifier -->  
                   **</server>**  
                 </p-cscf>  
               </apn>  
             </ggsn>  
           </services>  
         </configuration>

**Description** IPv4 or IPv6 P-CSCF server.

**Contents** <name>—IPv4 or IPv6 P-CSCF server address.

**<server> (configuration/services/ggsn/apn/radius/accounting)**

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <radius>
          <accounting>
            <server>
              <name>name</name>    <!-- identifier -->
              <timeout>seconds</timeout>
              <retry>retry</retry>
              <port>port</port>
              <secret>secret</secret>    <!-- mandatory -->
              <serverdown-timeout>seconds</serverdown-timeout>
              <multicast/>
            </server>
          </accounting>
        </radius>
      </apn>
    </ggsn>
  </services>
</configuration>

```

**Description** Server for accounting requests.

**Contents** <multicast>—Allow server to participate in RADIUS multicast.

<name>—RADIUS server address.

<port>—Port number for RADIUS messages.

<retry>—Retry attempts.

<secret>—Shared secret with the RADIUS server.

<serverdown-timeout>—Time before retrying requests to a down server.

<timeout>—Request timeout period.



**<server> (configuration/services/ggsn/apn/radius/authentication)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <apn>  
                 <radius>  
                   <authentication>  
                     **<server>**  
                       <name>*name*</name>   <!-- identifier -->  
                       <timeout>*seconds*</timeout>  
                       <retry>*retry*</retry>  
                       <port>*port*</port>  
                       <secret>*secret*</secret>   <!-- mandatory -->  
                       <serverdown-timeout>*seconds*</serverdown-timeout>  
                       <multicast/>  
                     **</server>**  
                   </authentication>  
                 </radius>  
               </apn>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Server for authentication requests.

**Contents** <multicast>—Allow server to participate in RADIUS multicast.

<name>—RADIUS server address.

<port>—Port number for RADIUS messages.

<retry>—Retry attempts.

<secret>—Shared secret with the RADIUS server.

<serverdown-timeout>—Time before retrying requests to a down server.

<timeout>—Request timeout period.

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

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <dhcp>  
                 **<server>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <address>...</address>   <!-- mandatory -->  
                   <routing-instance>*routing-instance*</routing-instance>  
                   <gi-address-range>*gi-address-range*</gi-address-range>  
                   <timeout>*seconds*</timeout>  
                   <retry>*retry*</retry>  
                 **</server>**  
               </dhcp>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Shared DHCP server configuration.

**Contents** <address>—DHCP server addresses.

<gi-address-range>—Address range used in routing instance.

<name>—Name of server.

<retry>—Retry attempts.

<routing-instance>—Routing instance for server.

<timeout>—Request timeout period.

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

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <radius>  
                 **<server>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <address>...</address>   <!-- mandatory -->  
                   <routing-instance>*routing-instance*</routing-instance>  
                   <gi-address-range>*gi-address-range*</gi-address-range>  
                   <timeout>*seconds*</timeout>  
                   <retry>*retry*</retry>  
                   <port>*port*</port>  
                   <secret>*secret*</secret>   <!-- mandatory -->  
                   <serverdown-timeout>*seconds*</serverdown-timeout>  
                   <multicast-servers>*multicast-servers*</multicast-servers>  
                   <no-accounting-on/>  
                 **</server>**  
               </radius>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Shared RADIUS server configuration.

**Contents** <address>—RADIUS server addresses.

<gi-address-range>—Address range used in routing instance.

<multicast-servers>—Number of enabled RADIUS multicast servers.

<name>—Name of server.

<no-accounting-on>—Don't send accounting on and off messages.

<port>—Port number for RADIUS messages.

<retry>—Retry attempts.

<routing-instance>—Routing instance for server.

<secret>—Shared secret with the RADIUS server.

<serverdown-timeout>—Time before retrying requests to a down server.

<timeout>—Request timeout period.

**<server> (configuration/services/rpm/twamp)**

---

**Usage** <configuration>  
           <services>  
             <rpm>  
               <twamp>  
                 **<server>**  
                   <authentication-mode>...</authentication-mode>  
                   <inactivity-timeout>*seconds*</inactivity-timeout>  
                   <maximum-sessions>*maximum-sessions*</maximum-sessions>  
                   <maximum-sessions-per-connection>*maximum-sessions-per-connection*  
                     </maximum-sessions-per-connection>  
                   <maximum-connections>*maximum-connections*</maximum-connections>  
                   <maximum-connections-per-client>*maximum-connections-per-client*  
                     </maximum-connections-per-client>  
                   <port>*port*</port>  
                   <client-list>...</client-list>  
                 **</server>**  
               </twamp>  
             </rpm>  
           </services>  
         </configuration>

**Description** TWAMP server configuration.

**Contents** <authentication-mode>—Authentication modes.

<client-list>—List of allowed clients.

<inactivity-timeout>—Connection timeout value.

<maximum-connections>—Maximum number of connections for the server.

<maximum-connections-per-client>—Maximum number of server connections per client.

<maximum-sessions>—Maximum number of test sessions for the server.

<maximum-sessions-per-connection>—Maximum number of test sessions per client connection.

<port>—TWAMP server listening port.

**<server> (configuration/system/accounting/destination/radius)**

---

**Usage** <configuration>  
           <system>  
             <accounting>  
               <destination>  
                 <radius>  
                   **<server>**  
                     <name>*name*</name>   <!-- identifier -->  
                     <port>*port*</port>  
                     <accounting-port>*accounting-port*</accounting-port>  
                     <secret>*secret*</secret>   <!-- mandatory -->  
                     <timeout>*seconds*</timeout>  
                     <retry>*retry*</retry>  
                     <source-address>*source-address*</source-address>  
                   **</server>**  
                 </radius>  
               </destination>  
             </accounting>  
           </system>  
         </configuration>

**Description** RADIUS accounting server configuration.

**Contents** <accounting-port>—RADIUS server accounting port number.

<name>—RADIUS server address.

<port>—RADIUS server authentication port number.

<retry>—Retry attempts.

<secret>—Shared secret with the RADIUS server.

<source-address>—Use specified address as source address.

<timeout>—Request timeout period.

**<server> (configuration/system/accounting/destination/tacplus)**

---

**Usage**

```

<configuration>
  <system>
    <accounting>
      <destination>
        <tacplus>
          <server>
            <name>name</name>    <!-- identifier -->
            <port>port</port>
            <secret>secret</secret>
            <timeout>seconds</timeout>
            <single-connection/>
            <source-address>source-address</source-address>
          </server>
        </tacplus>
      </destination>
    </accounting>
  </system>
</configuration>

```

**Description** TACACS + server configuration.

**Contents**

- <name>—TACACS + authentication server address.
- <port>—TACACS + authentication server port number.
- <secret>—Shared secret with the authentication server.
- <single-connection>—Optimize TCP connection attempts.
- <source-address>—Use specified address as source address.
- <timeout>—Request timeout period.

**<server> (configuration/system/ntp)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;system&gt;     &lt;ntp&gt;       &lt;server&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;key&gt;key&lt;/key&gt;         &lt;version&gt;version&lt;/version&gt;         &lt;prefer/&gt;       &lt;/server&gt;     &lt;/ntp&gt;   &lt;/system&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Server parameters.
<b>Contents</b>	<p>&lt;key&gt;—Authentication key.</p> <p>&lt;name&gt;—Name or address of server.</p> <p>&lt;prefer&gt;—Prefer this server.</p> <p>&lt;version&gt;—NTP version to use.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;bridge-domains&gt;     &lt;domain&gt;       &lt;forwarding-options&gt;         &lt;dhcp-relay&gt;           &lt;server-group&gt;             &lt;server-group&gt;...&lt;/server-group&gt;           &lt;/server-group&gt;         &lt;/dhcp-relay&gt;       &lt;/forwarding-options&gt;     &lt;/domain&gt;   &lt;/bridge-domains&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define a DHCP server group.
<b>Contents</b>	<server-group>—One or more server groups.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;bridge-domains&gt;     &lt;domain&gt;       &lt;forwarding-options&gt;         &lt;dhcp-relay&gt;           &lt;server-group&gt;             &lt;server-group&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;address&gt;...&lt;/address&gt;             &lt;/server-group&gt;           &lt;/server-group&gt;         &lt;/dhcp-relay&gt;       &lt;/forwarding-options&gt;     &lt;/domain&gt;   &lt;/bridge-domains&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	One or more server groups.
<b>Contents</b>	<p>&lt;address&gt;—IP Address of one or more DHCP servers.</p> <p>&lt;name&gt;—Server group name.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;dhcp-relay&gt;       &lt;server-group&gt;         &lt;server-group&gt;...&lt;/server-group&gt;       &lt;/server-group&gt;     &lt;/dhcp-relay&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define a DHCP server group.
<b>Contents</b>	<server-group>—One or more server groups.



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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;dhcp-relay&gt;       &lt;server-group&gt;         &lt;server-group&gt;           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;           &lt;address&gt;...&lt;/address&gt;         &lt;/server-group&gt;       &lt;/server-group&gt;     &lt;/dhcp-relay&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	One or more server groups.
<b>Contents</b>	<p>&lt;address&gt;—IP Address of one or more DHCP servers.</p> <p>&lt;name&gt;—Server group name.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;forwarding-options&gt;       &lt;dhcp-relay&gt;         &lt;server-group&gt;           &lt;server-group&gt;...&lt;/server-group&gt;         &lt;/server-group&gt;       &lt;/dhcp-relay&gt;     &lt;/forwarding-options&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define a DHCP server group.
<b>Contents</b>	<server-group>—One or more server groups.

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

---

**Usage** <configuration>  
     <logical-systems>  
         <forwarding-options>  
             <dhcp-relay>  
                 <server-group>  
                     **<server-group>**  
                         <name>name</name>   <!-- identifier -->  
                         <address>...</address>  
                     **</server-group>**  
                 </server-group>  
             </dhcp-relay>  
         </forwarding-options>  
     </logical-systems>  
</configuration>

**Description** One or more server groups.

**Contents** <address>—IP Address of one or more DHCP servers.

<name>—Server group name.

## **<server-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>  
                                 **<server-group>**  
                                     <server-group>...</server-group>  
                                 **</server-group>**  
                             </dhcp-relay>  
                         </forwarding-options>  
                     </domain>  
                 </bridge-domains>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** Define a DHCP server group.

**Contents** <server-group>—One or more server groups.

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

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <bridge-domains>  
           <domain>  
           <forwarding-options>  
           <dhcp-relay>  
           <server-group>  
             **<server-group>**  
               <name>*name*</name>   <!-- identifier -->  
               <address>...</address>  
             **</server-group>**  
           </server-group>  
           </dhcp-relay>  
           </forwarding-options>  
           </domain>  
           </bridge-domains>  
           </instance>  
           </routing-instances>  
           </logical-systems>  
           </configuration>

**Description**   One or more server groups.

**Contents**    <address>—IP Address of one or more DHCP servers.

                <name>—Server group name.

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

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <forwarding-options>  
                     <dhcp-relay>  
                         **<server-group>**  
                             <server-group>...</server-group>  
                         **</server-group>**  
                     </dhcp-relay>  
                 </forwarding-options>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** Define a DHCP server group.

**Contents** <server-group>—One or more server groups.

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

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <forwarding-options>  
                     <dhcp-relay>  
                         <server-group>  
                             **<server-group>**  
                                 <name>name</name>   <!-- identifier -->  
                                 <address>...</address>  
                             **</server-group>**  
                         </server-group>  
                 </dhcp-relay>  
             </forwarding-options>  
         </instance>  
     </routing-instances>  
     </logical-systems>  
</configuration>

**Description** One or more server groups.

**Contents** <address>—IP Address of one or more DHCP servers.

<name>—Server group name.

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

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <bridge-domains>  
           <domain>  
           <forwarding-options>  
           <dhcp-relay>  
           **<server-group>**  
           <server-group>...</server-group>  
           **</server-group>**  
           </dhcp-relay>  
           </forwarding-options>  
           </domain>  
           </bridge-domains>  
           </instance>  
           </routing-instances>  
           </configuration>

**Description**   Define a DHCP server group.

**Contents**   <server-group>—One or more server groups.

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

---

**Usage** <configuration>  
 <routing-instances>  
 <instance>  
 <bridge-domains>  
 <domain>  
 <forwarding-options>  
 <dhcp-relay>  
 <server-group>  
   **<server-group>**  
     <name>name</name>   <!-- identifier -->  
     <address>...</address>  
   **</server-group>**  
 </server-group>  
 </dhcp-relay>  
 </forwarding-options>  
 </domain>  
 </bridge-domains>  
 </instance>  
 </routing-instances>  
 </configuration>

**Description** One or more server groups.

**Contents** <address>—IP Address of one or more DHCP servers.  
 <name>—Server group name.

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

---

**Usage** <configuration>  
 <routing-instances>  
 <instance>  
 <forwarding-options>  
 <dhcp-relay>  
   **<server-group>**  
     <server-group>...</server-group>  
   **</server-group>**  
 </dhcp-relay>  
 </forwarding-options>  
 </instance>  
 </routing-instances>  
 </configuration>

**Description** Define a DHCP server group.

**Contents** <server-group>—One or more server groups.

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

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <forwarding-options>  
           <dhcp-relay>  
           <server-group>  
           **<server-group>**  
             <name>*name*</name>   <!-- identifier -->  
             <address>...</address>  
           **</server-group>**  
           </server-group>  
           </dhcp-relay>  
           </forwarding-options>  
           </instance>  
           </routing-instances>  
           </configuration>

**Description**   One or more server groups.

**Contents**   <address>—IP Address of one or more DHCP servers.

          <name>—Server group name.

**<servers> (configuration/system/services/outbound-ssh/client)**

---

**Usage**   <configuration>  
          <system>  
          <services>  
          <outbound-ssh>  
          <client>  
            **<servers>**  
              <name>*name*</name>   <!-- identifier -->  
              <port>*port*</port>  
              <retry>*retry*</retry>  
              <timeout>*timeout*</timeout>  
            **</servers>**  
          </client>  
        </outbound-ssh>  
      </services>  
    </system>  
  </configuration>

**Description**   Client application servers.

**Contents**   <name>—Client address to connect to.

              <port>—Client port to connect to.

              <retry>—Maximum number of connection attempts.

              <timeout>—Timeout value for connection attempts.



**<servers> (configuration/system/services/service-deployment)**

---

**Usage**   <configuration>  
           <system>  
           <services>  
           <service-deployment>  
             **<servers>**  
               <name>*name*</name>   <!-- identifier -->  
               <port>*port*</port>  
               <user>*user*</user>  
               <security-options>...</security-options>  
             **</servers>**  
           </service-deployment>  
         </services>  
       </system>  
   </configuration>

**Description**   Service deployment system configuration.

**Contents**   <name>—IPv4 address of SDX server.

          <port>—TCP port of SDX server.

          <security-options>—Specify mechanism to secure the connection.

          <user>—Username used by SDX when logging into the router.

**<service> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet)**

---

**Usage**   <configuration>  
          <dynamic-profiles>  
          <interfaces>  
          <interface>  
          <unit>  
          <family>  
          <inet>  
          **<service>**  
            <input>...</input>  
            <output>...</output>  
          **</service>**  
          </inet>  
          </family>  
          </unit>  
          </interface>  
          </interfaces>  
          </dynamic-profiles>  
          </configuration>

**Description**   Service operations.

**Contents**   <input>—Service sets to consider for received packets.

          <output>—Service sets to consider for transmitted packets.

## **<service> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet6)**

---

**Usage** <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
           <unit>  
           <family>  
           <inet6>  
           **<service>**  
             <input>...</input>  
             <output>...</output>  
           **</service>**  
           </inet6>  
           </family>  
           </unit>  
           </interface>  
           </interfaces>  
           </dynamic-profiles>  
         </configuration>

**Description** Service operations.

**Contents** <input>—Service sets to consider for received packets.

<output>—Service sets to consider for transmitted packets.

## **<service> (configuration/interfaces/interface/unit/family/inet)**

---

**Usage** <configuration>  
           <interfaces>  
           <interface>  
           <unit>  
           <family>  
           <inet>  
           **<service>**  
             <input>...</input>  
             <output>...</output>  
           **</service>**  
           </inet>  
           </family>  
           </unit>  
           </interface>  
           </interfaces>  
         </configuration>

**Description** Service operations.

**Contents** <input>—Service sets to consider for received packets.

<output>—Service sets to consider for transmitted packets.

**<service> (configuration/interfaces/interface/unit/family/inet6)**

---

**Usage** <configuration>  
           <interfaces>  
             <interface>  
               <unit>  
                 <family>  
                   <inet6>  
                     **<service>**  
                       <input>...</input>  
                       <output>...</output>  
                     **</service>**  
                   </inet6>  
                 </family>  
               </unit>  
             </interface>  
           </interfaces>  
         </configuration>

**Description** Service operations.

**Contents** <input>—Service sets to consider for received packets.

<output>—Service sets to consider for transmitted packets.

**<service> (configuration/logical-systems/interfaces/interface/unit/family/inet)**

---

**Usage** <configuration>  
           <logical-systems>  
             <interfaces>  
               <interface>  
                 <unit>  
                   <family>  
                     <inet>  
                       **<service>**  
                       <input>...</input>  
                       <output>...</output>  
                     **</service>**  
                   </inet>  
                 </family>  
               </unit>  
             </interface>  
           </logical-systems>  
         </configuration>

**Description** Service operations.

**Contents** <input>—Service sets to consider for received packets.

<output>—Service sets to consider for transmitted packets.

**<service> (configuration/logical-systems/interfaces/interface/unit/family/inet6)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <interfaces>  
          <interface>  
          <unit>  
          <family>  
          <inet6>  
          **<service>**  
          <input>...</input>  
          <output>...</output>  
          **</service>**  
          </inet6>  
          </family>  
          </unit>  
          </interface>  
          </interfaces>  
          </logical-systems>  
          </configuration>

**Description**   Service operations.

**Contents**   <input>—Service sets to consider for received packets.  
              <output>—Service sets to consider for transmitted packets.

**<service-based-charging> (configuration/services/ggsn)**

---

**Usage**   <configuration>  
           <services>  
           <ggsn>  
             **<service-based-charging>**  
               <realm>*realm*</realm>   <!-- mandatory -->  
               <host-name>*host-name*</host-name>   <!-- mandatory -->  
               <diameter-host>...</diameter-host>  
               <diameter-peer>...</diameter-peer>  
               <diameter-application-system>...</diameter-application-system>  
               <subscription-update-nodes>...</subscription-update-nodes>  
             **</service-based-charging>**  
           </ggsn>  
         </services>  
       </configuration>

**Description**   Service-based charging settings.

**Contents**   <diameter-application-system>—Diameter application systems.  
               <diameter-host>—Diameter hosts.  
               <diameter-peer>—Diameter peers.  
               <host-name>—Host name for Diameter messages.  
               <realm>—Origin realm for Diameter messages.  
               <subscription-update-nodes>—External subscriber update server settings.

**<service-based-charging> (configuration/services/ggsn/apn)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <apn>  
                 **<service-based-charging>**  
                   <control-context>*control-context-choice*</control-context> <!-- mandatory -->  
                   <bandwidth-control>...</bandwidth-control>  
                   <packet-inspection>...</packet-inspection>  
                   <block-based-charging>...</block-based-charging>  
                   <policy-control>...</policy-control>  
                   <rating-control>...</rating-control>  
                   <credit-control>...</credit-control>  
                   <charging-unit>...</charging-unit>  
                   <resource-identification>...</resource-identification>  
                   <authorization>...</authorization>  
                 **</service-based-charging>**  
               </apn>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Service-based charging configuration.

**Contents** <authorization>—Perform authorization.

<bandwidth-control>—Bandwidth control settings.

<block-based-charging>—Block-based charging.

<charging-unit>—Charging unit.

<control-context>—Environment definition for service aware charging and control.

■ **3gpp**—Charging and control according to 3gpp standard (supports Ro and Gx interfaces).

■ **multi-bucket**—Charging and control according to CLCI and/or Gx dynamic-services-control.

■ **single-bucket**—Charging and control according to Service Aware Charging and Control version 2.

<credit-control>—Credit control.

<packet-inspection>—Packet inspection settings.

<policy-control>—Policy control.

<rating-control>—Rating control.

<resource-identification>—Resource identification service settings.

## **<service-based-charging> (configuration/services/ggsn/charging/cdr-attribute/record-extension-attributes)**

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <charging>
        <cdr-attribute>
          <record-extension-attributes>
            <service-based-charging>
              <service-identifier-volume/>
              <service-class-volume>...</service-class-volume>
              <service-class-block>...</service-class-block>
              <block>...</block>
              <initial-charge/>
              <volume-limit-action/>
              <block-based-limit-action/>
            </service-based-charging>
          </record-extension-attributes>
        </cdr-attribute>
      </charging>
    </ggsn>
  </services>
</configuration>

```

**Description** Service-based charging CDR attributes.

**Contents** <block>—Include number of blocks.

<block-based-limit-action>—Include session policy block-based limit action.

<initial-charge>—Include initial charge.

<service-class-block>—Include number of blocks per service class.

<service-class-volume>—Include volume per service class.

<service-identifier-volume>—Include volume per service identifier.

<volume-limit-action>—Include session policy volume limit action.



## **<service-based-charging> (configuration/services/ggsn/fault-management/alarm)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <fault-management>  
                 <alarm>  
                   **<service-based-charging>**  
                     <no-invalid-service-context-id-ccr/>  
                     <invalid-rating-group-ccr/>  
                     <no-invalid-rating-group-cca/>  
                     <no-invalid-cca/>  
                     <no-invalid-rule-space-cca/>  
                     <error-indication-cca>...</error-indication-cca>  
                   **</service-based-charging>**  
                 </alarm>  
               </fault-management>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Settings for service-based-charging related alarms.

**Contents** <error-indication-cca>—Codes for error indication CCA.

<invalid-rating-group-ccr>—Issue alarm on invalid rating group in CCR.

<no-invalid-cca>—Do not issue alarm on invalid CCA.

<no-invalid-rating-group-cca>—Do not issue alarm on invalid rating group in CCA.

<no-invalid-rule-space-cca>—Do not issue alarm on invalid rule-space CCA.

<no-invalid-service-context-id-ccr>—Do not issue alarm on invalid service-context-id in CCR.

## **<service-change> (configuration/services/pgcp/gateway/h248-options)**

---

**Usage**   <configuration>  
          <services>  
          <pgcp>  
          <gateway>  
          <h248-options>  
          **<service-change>**  
            <control-association-indications>...</control-association-indications>  
            <virtual-interface-indications>...</virtual-interface-indications>  
            <context-indications>...</context-indications>  
            <use-wildcard-response/>  
          **</service-change>**  
          </h248-options>  
          </gateway>  
          </pgcp>  
          </services>  
          </configuration>

**Description**   No documentation is available yet.

**Contents**   <context-indications>—Context indications.  
  
              <control-association-indications>—Control association indications.  
  
              <use-wildcard-response>—Request short response to service-change messages.  
  
              <virtual-interface-indications>—Virtual interface indications.

## **<service-class> (configuration/services/ggsn/apn/service-based-charging/block-based-charging/profile/default-roaming-class/service-class-group)**

---

**Usage**   <configuration>  
           <services>  
           <ggsn>  
           <apn>  
           <service-based-charging>  
           <block-based-charging>  
           <profile>  
           <default-roaming-class>  
           <service-class-group>  
           **<service-class>**  
             <name>*name*</name>   <!-- identifier -->  
           **</service-class>**  
           </service-class-group>  
           </default-roaming-class>  
           </profile>  
           </block-based-charging>  
           </service-based-charging>  
           </apn>  
           </ggsn>  
           </services>  
         </configuration>

**Description**   Service classes and service class ranges.

**Contents**      <name>—Service classes and service class ranges.

## **<service-class> (configuration/services/ggsn/apn/service-based-charging/block-based-charging/profile/roaming-class/service-class-group)**

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <block-based-charging>
            <profile>
              <roaming-class>
                <service-class-group>
                  <service-class>
                    <name>name</name>    <!-- identifier -->
                  </service-class>
                </service-class-group>
              </roaming-class>
            </profile>
          </block-based-charging>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

**Description** Service classes and service class ranges.

**Contents** <name>—Service classes and service class ranges.

## **<service-class> (configuration/services/ggsn/apn/ service-based-charging/policy-control/static/profile/ activation-time/default-roaming-class/default-quality-of-service)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <policy-control>  
                         <static>  
                             <profile>  
                                 <activation-time>  
                                     <default-roaming-class>  
   <default-quality-of-service>  
   **<service-class>**  
   <name>*name*</name>   <!-- identifier -->  
   <volume-rate>*volume-rate*</volume-rate>  
   <block-rate>*block-rate*</block-rate>  
   <authorization-code>*authorization-code-choice*  
   </authorization-code>  
   **</service-class>**  
   </default-quality-of-service>  
                                 </default-roaming-class>  
                         </activation-time>  
                 </profile>  
             </static>  
         </policy-control>  
     </service-based-charging>  
     </apn>  
     </ggsn>  
     </services>  
 </configuration>

**Description** Service class for rates.

**Contents** <authorization-code>—Authorization code.

- authorized—Authorized.
- denied-cost-warning—Deny access because of cost warning.
- denied-incompatible-user-application—Deny access because user application is not compatible with service.
- denied-quality-of-service—Deny access because of quality of service.
- denied-redirect-first-access—Deny access and redirect on first access of a service.
- denied-roaming—Deny access because of roaming class.
- denied-time-of-day—Deny access because of time of day.

- `denied-unknown`—Deny access for unknown reason.
- `denied-user-defined-reason-1`—Deny access due to proprietary operator definition (1).
- `denied-user-defined-reason-2`—Deny access due to proprietary operator definition (2).
- `denied-volume-expired`—Deny access because volume expired.

`<block-rate>`—Rate per block for volume-based and active-time-based block charging.

`<name>`—Service class identifier.

`<volume-rate>`—Rate per megabyte for volume-based charging.

## **<service-class> (configuration/services/ggsn/apn/ service-based-charging/policy-control/static/profile/ activation-time/default-roaming-class/quality-of-service)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <policy-control>  
                         <static>  
                             <profile>  
                                 <activation-time>  
                                     <default-roaming-class>  
   <quality-of-service>  
   **<service-class>**  
   <name>*name*</name>   <!-- identifier -->  
   <volume-rate>*volume-rate*</volume-rate>  
   <block-rate>*block-rate*</block-rate>  
   <authorization-code>*authorization-code-choice*  
   </authorization-code>  
   **</service-class>**  
   </quality-of-service>  
                                 </default-roaming-class>  
                         </activation-time>  
                 </profile>  
         </static>  
     </policy-control>  
     </service-based-charging>  
     </apn>  
     </ggsn>  
     </services>  
 </configuration>

**Description** Service class.

**Contents** <authorization-code>—Authorization code.

- authorized—Authorized.
- denied-cost-warning—Deny access because of cost warning.
- denied-incompatible-user-application—Deny access because user application is not compatible with service.
- denied-quality-of-service—Deny access because of quality of service.
- denied-redirect-first-access—Deny access and redirect on first access of a service.
- denied-roaming—Deny access because of roaming class.
- denied-time-of-day—Deny access because of time of day.

- `denied-unknown`—Deny access for unknown reason.
- `denied-user-defined-reason-1`—Deny access due to proprietary operator definition (1).
- `denied-user-defined-reason-2`—Deny access due to proprietary operator definition (2).
- `denied-volume-expired`—Deny access because volume expired.

`<block-rate>`—Rate per block for volume-based and active-time-based block charging.

`<name>`—Service class identifier.

`<volume-rate>`—Rate per megabyte for volume-based charging.



## **<service-class> (configuration/services/ggsn/apn/service-based-charging/policy-control/static/profile/activation-time/roaming-class/default-quality-of-service)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <policy-control>  
                         <static>  
                             <profile>  
                                 <activation-time>  
                                     <roaming-class>  
   <default-quality-of-service>  
   **<service-class>**  
   <name>*name*</name>   <!-- identifier -->  
   <volume-rate>*volume-rate*</volume-rate>  
   <block-rate>*block-rate*</block-rate>  
   <authorization-code>*authorization-code-choice*  
   </authorization-code>  
   **</service-class>**  
   </default-quality-of-service>  
                                     </roaming-class>  
                                 </activation-time>  
                             </profile>  
                         </static>  
                     </policy-control>  
                 </service-based-charging>  
             </apn>  
         </ggsn>  
     </services>  
</configuration>

**Description** Service class for rates.

**Contents** <authorization-code>—Authorization code.

- authorized—Authorized.
- denied-cost-warning—Deny access because of cost warning.
- denied-incompatible-user-application—Deny access because user application is not compatible with service.
- denied-quality-of-service—Deny access because of quality of service.
- denied-redirect-first-access—Deny access and redirect on first access of a service.
- denied-roaming—Deny access because of roaming class.
- denied-time-of-day—Deny access because of time of day.

- `denied-unknown`—Deny access for unknown reason.
- `denied-user-defined-reason-1`—Deny access due to proprietary operator definition (1).
- `denied-user-defined-reason-2`—Deny access due to proprietary operator definition (2).
- `denied-volume-expired`—Deny access because volume expired.

`<block-rate>`—Rate per block for volume-based and active-time-based block charging.

`<name>`—Service class identifier.

`<volume-rate>`—Rate per megabyte for volume-based charging.

## **<service-class> (configuration/services/ggsn/apn/service-based-charging/policy-control/static/profile/activation-time/roaming-class/quality-of-service)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <policy-control>  
                         <static>  
                             <profile>  
                                 <activation-time>  
                                     <roaming-class>  
   <quality-of-service>  
   **<service-class>**  
   <name>*name*</name>   <!-- identifier -->  
   <volume-rate>*volume-rate*</volume-rate>  
   <block-rate>*block-rate*</block-rate>  
   <authorization-code>*authorization-code-choice*  
   </authorization-code>  
   **</service-class>**  
   </quality-of-service>  
                                 </roaming-class>  
                         </activation-time>  
                 </profile>  
         </static>  
     </policy-control>  
     </service-based-charging>  
     </apn>  
     </ggsn>  
     </services>  
 </configuration>

**Description** Service class.

**Contents** <authorization-code>—Authorization code.

- authorized—Authorized.
- denied-cost-warning—Deny access because of cost warning.
- denied-incompatible-user-application—Deny access because user application is not compatible with service.
- denied-quality-of-service—Deny access because of quality of service.
- denied-redirect-first-access—Deny access and redirect on first access of a service.
- denied-roaming—Deny access because of roaming class.
- denied-time-of-day—Deny access because of time of day.

- `denied-unknown`—Deny access for unknown reason.
- `denied-user-defined-reason-1`—Deny access due to proprietary operator definition (1).
- `denied-user-defined-reason-2`—Deny access due to proprietary operator definition (2).
- `denied-volume-expired`—Deny access because volume expired.

`<block-rate>`—Rate per block for volume-based and active-time-based block charging.

`<name>`—Service class identifier.

`<volume-rate>`—Rate per megabyte for volume-based charging.

## **<service-class> (configuration/services/ggsn/apn/service-based-charging/policy-control/static/profile/all-time/default-roaming-class/default-quality-of-service)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <policy-control>  
                         <static>  
                             <profile>  
                                 <all-time>  
                                     <default-roaming-class>  
   <default-quality-of-service>  
   **<service-class>**  
   <name>*name*</name>   <!-- identifier -->  
   <volume-rate>*volume-rate*</volume-rate>  
   <block-rate>*block-rate*</block-rate>  
   <authorization-code>*authorization-code-choice*  
   </authorization-code>  
   **</service-class>**  
   </default-quality-of-service>  
                                 </default-roaming-class>  
                         </all-time>  
                 </profile>  
             </static>  
         </policy-control>  
     </service-based-charging>  
   </apn>  
</ggsn>  
</services>  
</configuration>

**Description** Service class for rates.

**Contents** <authorization-code>—Authorization code.

- authorized—Authorized.
- denied-cost-warning—Deny access because of cost warning.
- denied-incompatible-user-application—Deny access because user application is not compatible with service.
- denied-quality-of-service—Deny access because of quality of service.
- denied-redirect-first-access—Deny access and redirect on first access of a service.
- denied-roaming—Deny access because of roaming class.
- denied-time-of-day—Deny access because of time of day.

- `denied-unknown`—Deny access for unknown reason.
- `denied-user-defined-reason-1`—Deny access due to proprietary operator definition (1).
- `denied-user-defined-reason-2`—Deny access due to proprietary operator definition (2).
- `denied-volume-expired`—Deny access because volume expired.

`<block-rate>`—Rate per block for volume-based and active-time-based block charging.

`<name>`—Service class identifier.

`<volume-rate>`—Rate per megabyte for volume-based charging.

## **<service-class> (configuration/services/ggsn/apn/service-based-charging/policy-control/static/profile/all-time/default-roaming-class/quality-of-service)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <policy-control>  
                         <static>  
                             <profile>  
                                 <all-time>  
                                     <default-roaming-class>  
   <quality-of-service>  
   **<service-class>**  
   <name>*name*</name>   <!-- identifier -->  
   <volume-rate>*volume-rate*</volume-rate>  
   <block-rate>*block-rate*</block-rate>  
   <authorization-code>*authorization-code-choice*  
   </authorization-code>  
   **</service-class>**  
   </quality-of-service>  
                                 </default-roaming-class>  
                         </all-time>  
                 </profile>  
         </static>  
     </policy-control>  
     </service-based-charging>  
     </apn>  
     </ggsn>  
     </services>  
 </configuration>

**Description** Service class.

**Contents** <authorization-code>—Authorization code.

- authorized—Authorized.
- denied-cost-warning—Deny access because of cost warning.
- denied-incompatible-user-application—Deny access because user application is not compatible with service.
- denied-quality-of-service—Deny access because of quality of service.
- denied-redirect-first-access—Deny access and redirect on first access of a service.
- denied-roaming—Deny access because of roaming class.
- denied-time-of-day—Deny access because of time of day.

- `denied-unknown`—Deny access for unknown reason.
- `denied-user-defined-reason-1`—Deny access due to proprietary operator definition (1).
- `denied-user-defined-reason-2`—Deny access due to proprietary operator definition (2).
- `denied-volume-expired`—Deny access because volume expired.

`<block-rate>`—Rate per block for volume-based and active-time-based block charging.

`<name>`—Service class identifier.

`<volume-rate>`—Rate per megabyte for volume-based charging.



## **<service-class> (configuration/services/ggsn/apn/service-based-charging/policy-control/static/profile/all-time/roaming-class/default-quality-of-service)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <policy-control>  
                         <static>  
                             <profile>  
                                 <all-time>  
                                     <roaming-class>  
   <default-quality-of-service>  
   **<service-class>**  
   <name>*name*</name>   <!-- identifier -->  
   <volume-rate>*volume-rate*</volume-rate>  
   <block-rate>*block-rate*</block-rate>  
   <authorization-code>*authorization-code-choice*  
   </authorization-code>  
   **</service-class>**  
   </default-quality-of-service>  
                             </roaming-class>  
                         </all-time>  
             </profile>  
         </static>  
     </policy-control>  
     </service-based-charging>  
     </apn>  
     </ggsn>  
     </services>  
 </configuration>

**Description** Service class for rates.

**Contents** <authorization-code>—Authorization code.

- authorized—Authorized.
- denied-cost-warning—Deny access because of cost warning.
- denied-incompatible-user-application—Deny access because user application is not compatible with service.
- denied-quality-of-service—Deny access because of quality of service.
- denied-redirect-first-access—Deny access and redirect on first access of a service.
- denied-roaming—Deny access because of roaming class.
- denied-time-of-day—Deny access because of time of day.

- `denied-unknown`—Deny access for unknown reason.
- `denied-user-defined-reason-1`—Deny access due to proprietary operator definition (1).
- `denied-user-defined-reason-2`—Deny access due to proprietary operator definition (2).
- `denied-volume-expired`—Deny access because volume expired.

`<block-rate>`—Rate per block for volume-based and active-time-based block charging.

`<name>`—Service class identifier.

`<volume-rate>`—Rate per megabyte for volume-based charging.

## **<service-class> (configuration/services/ggsn/apn/service-based-charging/policy-control/static/profile/all-time/roaming-class/quality-of-service)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <policy-control>  
                         <static>  
                             <profile>  
                                 <all-time>  
                                     <roaming-class>  
   <quality-of-service>  
   **<service-class>**  
   <name>*name*</name>   <!-- identifier -->  
   <volume-rate>*volume-rate*</volume-rate>  
   <block-rate>*block-rate*</block-rate>  
   <authorization-code>*authorization-code-choice*  
   </authorization-code>  
   **</service-class>**  
   </quality-of-service>  
                             </roaming-class>  
                         </all-time>  
                     </profile>  
                 </static>  
             </policy-control>  
         </service-based-charging>  
     </apn>  
   </ggsn>  
</services>  
</configuration>

**Description** Service class.

**Contents** <authorization-code>—Authorization code.

- authorized—Authorized.
- denied-cost-warning—Deny access because of cost warning.
- denied-incompatible-user-application—Deny access because user application is not compatible with service.
- denied-quality-of-service—Deny access because of quality of service.
- denied-redirect-first-access—Deny access and redirect on first access of a service.
- denied-roaming—Deny access because of roaming class.
- denied-time-of-day—Deny access because of time of day.

- denied-unknown—Deny access for unknown reason.
  - denied-user-defined-reason-1—Deny access due to proprietary operator definition (1).
  - denied-user-defined-reason-2—Deny access due to proprietary operator definition (2).
  - denied-volume-expired—Deny access because volume expired.
- <block-rate>—Rate per block for volume-based and active-time-based block charging.
- <name>—Service class identifier.
- <volume-rate>—Rate per megabyte for volume-based charging.

## **<service-class> (configuration/services/ggsn/service-set/service-identification)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <service-set>  
                 <service-identification>  
                     **<service-class>**  
                         <default>default</default>  
                         <use-service-id/>  
                         <map>...</map>  
                     **</service-class>**  
                 </service-identification>  
             </service-set>  
         </ggsn>  
     </services>  
</configuration>

**Description** Service class settings.

**Contents** <default>—Default service class.

<map>—Map of service IDs to service classes.

<use-service-id>—Use service ID for unmapped service classes.

## **<service-class-block> (configuration/services/ggsn/charging/cdr-attribute/record-extension-attributes/service-based-charging)**

---

**Usage**   <configuration>  
           <services>  
           <ggsn>  
           <charging>  
           <cdr-attribute>  
           <record-extension-attributes>  
           <service-based-charging>  
           **<service-class-block>**  
           <include-rate/>  
           <payload-time/>  
           **</service-class-block>**  
           </service-based-charging>  
           </record-extension-attributes>  
           </cdr-attribute>  
           </charging>  
           </ggsn>  
           </services>  
         </configuration>

**Description**   Include number of blocks per service class.

**Contents**   <include-rate>—Include block-based rate per service class.

          <payload-time>—Include actual data transfer start and stop time.

## **<service-class-group> (configuration/services/ggsn/apn/service-based-charging/block-based-charging/profile/default-roaming-class)**

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <block-based-charging>
            <profile>
              <default-roaming-class>
                <service-class-group>
                  <name>name</name>    <!-- identifier -->
                  <service-class>...</service-class>
                  <active-time>...</active-time>
                  <volume>...</volume>
                </service-class-group>
              </default-roaming-class>
            </profile>
          </block-based-charging>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

**Description** Service class settings for block-based charging.

**Contents** <active-time>—Active time block settings.

<name>—Service class group index.

<service-class>—Service classes and service class ranges.

<volume>—Volume block settings.

## **<service-class-group> (configuration/services/ggsn/apn/service-based-charging/block-based-charging/profile/roaming-class)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                 <block-based-charging>  
                 <profile>  
                     <roaming-class>  
                         **<service-class-group>**  
                             <name>name</name>   <!-- identifier -->  
                             <service-class>...</service-class>  
                             <active-time>...</active-time>  
                             <volume>...</volume>  
                         **</service-class-group>**  
                     </roaming-class>  
                 </profile>  
             </block-based-charging>  
         </service-based-charging>  
     </apn>  
     </ggsn>  
   </services>  
</configuration>

**Description** Service class settings for block-based charging.

**Contents** <active-time>—Active time block settings.

<name>—Service class group index.

<service-class>—Service classes and service class ranges.

<volume>—Volume block settings.

## **<service-class-volume> (configuration/services/ggsn/charging/cdr-attribute/record-extension-attributes/service-based-charging)**

---

**Usage**   <configuration>  
          <services>  
          <ggsn>  
          <charging>  
          <cdr-attribute>  
          <record-extension-attributes>  
          <service-based-charging>  
          **<service-class-volume>**  
          <include-rate/>  
          **</service-class-volume>**  
          </service-based-charging>  
          </record-extension-attributes>  
          </cdr-attribute>  
          </charging>  
          </ggsn>  
          </services>  
          </configuration>

**Description**   Include volume per service class.

**Contents**   <include-rate>—Include volume rate per service class.



## **<service-data-attributes> (configuration/services/ggsn/charging/cdr-attribute/enhanced-cdr)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <charging>  
                 <cdr-attribute>  
                     <enhanced-cdr>  
                         **<service-data-attributes>**  
                             <no-rat-type/>  
                             <no-sgsn-plmn-id/>  
                             <no-sgsn-address/>  
                             <no-qos-information/>  
                             <reporting-level>reporting-level-choice</reporting-level>  
                             <rule-space>...</rule-space>  
                         **</service-data-attributes>**  
                     </enhanced-cdr>  
                 </cdr-attribute>  
             </charging>  
         </ggsn>  
     </services>  
</configuration>

**Description** Settings for service data attributes.

**Contents** <no-qos-information>—Don't include QoS information .

<no-rat-type>—Don't include radio access technology (RAT) type.

<no-sgsn-address>—Don't include SGSN address .

<no-sgsn-plmn-id>—Don't include SGSN PLMN ID .

<reporting-level>—Level for CDR reporting.

■ rating-group—Report on rating-group level.

■ service-id—Report on service-id level.

<rule-space>—Setting for enhanced CDRs handling in rule-space.

**<service-deployment> (configuration/system/services)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;system&gt;     &lt;services&gt;       &lt;service-deployment&gt;         &lt;local-certificate&gt;local-certificate&lt;/local-certificate&gt;         &lt;source-address&gt;source-address&lt;/source-address&gt;         &lt;servers&gt;...&lt;/servers&gt;         &lt;traceoptions&gt;...&lt;/traceoptions&gt;       &lt;/service-deployment&gt;     &lt;/services&gt;   &lt;/system&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configuration for Service Deployment (SDXD) management application.
<b>Contents</b>	<p>&lt;local-certificate&gt;—Name of local X.509 certificate to use.</p> <p>&lt;servers&gt;—Service deployment system configuration.</p> <p>&lt;source-address&gt;—Local IPv4 address to be used as source address for traffic to SDX.</p> <p>&lt;traceoptions&gt;—Service deployment daemon trace options.</p>

**<service-filter> (configuration/firewall/family/inet)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;firewall&gt;     &lt;family&gt;       &lt;inet&gt;         &lt;service-filter&gt;           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;           &lt;term&gt;...&lt;/term&gt;         &lt;/service-filter&gt;       &lt;/inet&gt;     &lt;/family&gt;   &lt;/firewall&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	One or more IPv4 service filters.
<b>Contents</b>	<p>&lt;name&gt;—Filter name.</p> <p>&lt;term&gt;—Service filter term.</p>

**<service-filter> (configuration/firewall/family/inet6)**

---

**Usage** <configuration>  
           <firewall>  
             <family>  
               <inet6>  
                 **<service-filter>**  
                   <name>name</name>   <!-- identifier -->  
                   <term>...</term>  
                 **</service-filter>**  
               </inet6>  
             </family>  
           </firewall>  
         </configuration>

**Description** One or more IPv6 service filters.

**Contents** <name>—Filter name.  
               <term>—Service filter term.

**<service-filter> (configuration/logical-systems/firewall/family/inet)**

---

**Usage** <configuration>  
           <logical-systems>  
             <firewall>  
               <family>  
               <inet>  
                 **<service-filter>**  
                   <name>name</name>   <!-- identifier -->  
                   <term>...</term>  
                 **</service-filter>**  
               </inet>  
             </family>  
           </firewall>  
         </logical-systems>  
       </configuration>

**Description** One or more IPv4 service filters.

**Contents** <name>—Filter name.  
               <term>—Service filter term.

## **<service-filter> (configuration/logical-systems/firewall/family/inet6)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <inet6>  
             **<service-filter>**  
               <name>*name*</name>   <!-- identifier -->  
               <term>...</term>  
             **</service-filter>**  
           </inet6>  
         </family>  
       </firewall>  
   </logical-systems>  
</configuration>

**Description**   One or more IPv6 service filters.

**Contents**    <name>—Filter name.  
               <term>—Service filter term.

## **<service-id> (configuration/services/ggsn/apn/service-based-charging/bandwidth-control/throughput-limitation)**

---

**Usage**   <configuration>  
           <services>  
           <ggsn>  
           <apn>  
             <service-based-charging>  
             <bandwidth-control>  
             <throughput-limitation>  
               **<service-id>**  
               <name>*name*</name>   <!-- identifier -->  
               **</service-id>**  
             </throughput-limitation>  
           </bandwidth-control>  
         </service-based-charging>  
   </apn>  
</ggsn>  
</services>  
</configuration>

**Description**   Service-identifier for which to apply the throughput limitation.

**Contents**    <name>—Service-identifier for which to apply the throughput limitation.

## **<service-id> (configuration/services/ggsn/rule-space/ bandwidth-control/throughput-limitation)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <rule-space>  
                 <bandwidth-control>  
                     <throughput-limitation>  
                         **<service-id>**  
                             <name>name</name>   <!-- identifier -->  
                         **</service-id>**  
                     </throughput-limitation>  
                 </bandwidth-control>  
             </rule-space>  
         </ggsn>  
     </services>  
</configuration>

**Description** Service-identifier for which to apply the throughput limitation.

**Contents** <name>—Service-identifier for which to apply the throughput limitation.

## **<service-id> (configuration/services/ggsn/rule-space/ rating-group/map)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <rule-space>  
                 <rating-group>  
                     <map>  
                         **<service-id>**  
                             <name>name</name>   <!-- identifier -->  
                         **</service-id>**  
                     </map>  
                 </rating-group>  
             </rule-space>  
         </ggsn>  
     </services>  
</configuration>

**Description** Service identifier for rating group.

**Contents** <name>—Service identifier for rating group.

## **<service-id> (configuration/services/ggsn/rule-space/redirect-map)**

---

**Usage** `<configuration>  
     <services>  
         <ggsn>  
             <rule-space>  
                 <redirect-map>  
                     <service-id>  
                         <name>name</name>   <!-- identifier -->  
                     </service-id>  
                 </redirect-map>  
             </rule-space>  
         </ggsn>  
     </services>  
</configuration>`

**Description** Service identifier to redirect for the given redirect set.

**Contents** <name>—Service identifier to redirect for the given redirect set.

## **<service-id> (configuration/services/ggsn/service-identification/header-rule/term/then)**

---

**Usage** `<configuration>  
     <services>  
         <ggsn>  
             <service-identification>  
                 <header-rule>  
                     <term>  
                         <then>  
                             <service-id>  
                                 <payload>payload</payload>  
                             </service-id>  
                         </then>  
                     </term>  
                 </header-rule>  
             </service-identification>  
         </ggsn>  
     </services>  
</configuration>`

**Description** Override service ID.

**Contents** <payload>—Identifier for payload bytes.

## **<service-id> (configuration/services/ggsn/service-set/service-identification)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;service-set&gt;         &lt;service-identification&gt;           &lt;service-id&gt;             &lt;default&gt;...&lt;/default&gt;    &lt;!-- mandatory --&gt;           &lt;/service-id&gt;         &lt;/service-identification&gt;       &lt;/service-set&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Service ID settings.
<b>Contents</b>	<default>—Default ID for packet content.

## **<service-id> (configuration/services/ggsn/service-set/service-identification/redirect-map)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;service-set&gt;         &lt;service-identification&gt;           &lt;redirect-map&gt;             &lt;service-id&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;/service-id&gt;           &lt;/redirect-map&gt;         &lt;/service-identification&gt;       &lt;/service-set&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Service identifier to redirect for the given redirect set.
<b>Contents</b>	<name>—Service identifier to redirect for the given redirect set.

## **<service-id> (configuration/services/ggsn/service-set/service-identification/service-class/map)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <service-set>  
                 <service-identification>  
                     <service-class>  
                         <map>  
                             **<service-id>**  
                                 <name>name</name>   <!-- identifier -->  
                             **</service-id>**  
                         </map>  
                     </service-class>  
                 </service-identification>  
     </service-set>  
     </ggsn>  
     </services>  
 </configuration>

**Description** Service identifier for service class.

**Contents** <name>—Service identifier for service class.

## **<service-id-level-reporting> (configuration/services/ggsn/charging/cdr-attribute/enhanced-cdr/service-data-attributes/rule-space)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <charging>  
                 <cdr-attribute>  
                     <enhanced-cdr>  
                         <service-data-attributes>  
                             <rule-space>  
                                 **<service-id-level-reporting>**  
                                     <name>name</name>   <!-- identifier -->  
                                 **</service-id-level-reporting>**  
                             </rule-space>  
                         </service-data-attributes>  
             </enhanced-cdr>  
         </cdr-attribute>  
     </charging>  
     </ggsn>  
     </services>  
 </configuration>

**Description** Report CDRs on SI level.

**Contents** <name>—Report CDRs on SI level.



**<service-identification> (configuration/services/ggsn)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               **<service-identification>**  
                 <unescape-conversion/>  
                 <flow-limits>...</flow-limits>  
                 <http-wsp-rule>...</http-wsp-rule>  
                 <http-wsp-rule-set>...</http-wsp-rule-set>  
                 <smtp-rule>...</smtp-rule>  
                 <smtp-rule-set>...</smtp-rule-set>  
                 <pop3-rule>...</pop3-rule>  
                 <pop3-rule-set>...</pop3-rule-set>  
                 <ftp-rule>...</ftp-rule>  
                 <ftp-rule-set>...</ftp-rule-set>  
                 <tftp-rule>...</tftp-rule>  
                 <tftp-rule-set>...</tftp-rule-set>  
                 <rtsp-rule>...</rtsp-rule>  
                 <rtsp-rule-set>...</rtsp-rule-set>  
                 <sip-rule>...</sip-rule>  
                 <sip-rule-set>...</sip-rule-set>  
                 <msn-rule>...</msn-rule>  
                 <msn-rule-set>...</msn-rule-set>  
                 <dns-rule>...</dns-rule>  
                 <dns-rule-set>...</dns-rule-set>  
                 <header-rule>...</header-rule>  
                 <header-rule-set>...</header-rule-set>  
                 <heuristic-rule>...</heuristic-rule>  
                 <heuristic-rule-set>...</heuristic-rule-set>  
                 <header-redirect-set>...</header-redirect-set>  
                 <uri-redirect-set>...</uri-redirect-set>  
               **</service-identification>**  
             </ggsn>  
           </services>  
     </configuration>

**Description** Service identification configuration for packet inspection.

**Contents** <dns-rule>—DNS rule.

<dns-rule-set>—Define a set of DNS rules.

<flow-limits>—Settings for limitation of inspection flows.

<ftp-rule>—FTP rule.

<ftp-rule-set>—Define a set of FTP rules.

<header-redirect-set>—Define a set of header redirect rules.

<header-rule>—Header rule.

<header-rule-set>—Define a set of header rules.

`<heuristic-rule>`—Heuristic rule.

`<heuristic-rule-set>`—Define a set of heuristic rules.

`<http-wsp-rule>`—HTTP WSP rule.

`<http-wsp-rule-set>`—Define a set of URI rules.

`<msn-rule>`—MSN rule.

`<msn-rule-set>`—Define a set of MSN rules.

`<pop3-rule>`—POP3 rule.

`<pop3-rule-set>`—Define a set of POP3 rules.

`<rtsp-rule>`—RTSP rule.

`<rtsp-rule-set>`—Define a set of RTSP rules.

`<sip-rule>`—SIP rule.

`<sip-rule-set>`—Define a set of SIP rules.

`<smtp-rule>`—SMTP rule.

`<smtp-rule-set>`—Define a set of SMTP rules.

`<tftp-rule>`—Define a TFTP rule.

`<tftp-rule-set>`—Define a set of TFTP rules.

`<unescape-conversion>`—Unescape characters in URI before processing.

`<uri-redirect-set>`—Define a set of URI redirect rules.

## <service-identification> (configuration/services/ggsn/service-set)

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <service-set>
        <service-identification>
          <service-id>...</service-id>    <!-- mandatory -->
          <service-class>...</service-class>
          <header-rule-sets>...</header-rule-sets>
          <heuristic-rule-sets>...</heuristic-rule-sets>
          <redirect-map>...</redirect-map>
          <default-header-redirect-set>default-header-redirect-set
            </default-header-redirect-set>
          <default-uri-redirect-set>default-uri-redirect-set
            </default-uri-redirect-set>
          <enable-http-pipeline/>
          <enable-wtp-reassembly>...</enable-wtp-reassembly>
          <enable-ftp-path-tracking/>
          <signaling-classification>...</signaling-classification>
          <unescape-conversion>...</unescape-conversion>
        </service-identification>
      </service-set>
    </ggsn>
  </services>
</configuration>

```

**Description** Service identification settings.

**Contents** <default-header-redirect-set>—Default header redirect set for traffic redirection.

<default-uri-redirect-set>—Default URI redirect set for traffic redirection.

<enable-ftp-path-tracking>—Enable FTP path tracking.

<enable-http-pipeline>—Enable HTTP pipeline support.

<enable-wtp-reassembly>—Enable WTP reassembly.

<header-rule-sets>—List of service identification rule sets.

<heuristic-rule-sets>—List of heuristic rule sets.

<redirect-map>—Mapping service identifiers to redirect sets.

<service-class>—Service class settings.

<service-id>—Service ID settings.

<signaling-classification>—Settings for classification of session set-up and tear-down.

<unescape-conversion>—Unescape characters in URI before processing.

## **<service-identifiers> (configuration/services/ggsn/rule-space/ buffer-pending-authorization)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <rule-space>  
                 <buffer-pending-authorization>  
                     **<service-identifiers>**  
                         <name>name</name>   <!-- identifier -->  
                     **</service-identifiers>**  
                 </buffer-pending-authorization>  
             </rule-space>  
         </ggsn>  
     </services>  
</configuration>

**Description** List of service identifiers for which payload will be buffered while waiting for authorization.

**Contents** <name>—List of service identifiers for which payload will be buffered while waiting for authorization.

## **<service-identifiers> (configuration/services/ggsn/rule-space/ pass-through-pending-authorization)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <rule-space>  
                 <pass-through-pending-authorization>  
                     **<service-identifiers>**  
                         <name>name</name>   <!-- identifier -->  
                     **</service-identifiers>**  
                 </pass-through-pending-authorization>  
             </rule-space>  
         </ggsn>  
     </services>  
</configuration>

**Description** List of service identifiers for which limited payload will pass while waiting for credit.

**Contents** <name>—List of service identifiers for which limited payload will pass while waiting for credit.

## **<service-interface-pools> (configuration/services)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;service-interface-pools&gt;       &lt;pool&gt;...&lt;/pool&gt;     &lt;/service-interface-pools&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure service interface pools.
<b>Contents</b>	<pool>—Define service interface pool.

## **<service-order> (configuration/services/service-set)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;service-set&gt;       &lt;service-order&gt;         &lt;forward-flow&gt;...&lt;/forward-flow&gt;    &lt;!-- mandatory --&gt;         &lt;reverse-flow&gt;...&lt;/reverse-flow&gt;       &lt;/service-order&gt;     &lt;/service-set&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define of order of services to be applied.
<b>Contents</b>	<p>&lt;forward-flow&gt;—Service Order for forward flow.</p> <p>&lt;reverse-flow&gt;—Service Order for reverse flow.</p>

## **<service-package> (configuration/chassis/fpc/pic/adaptive-services)**

---

**Usage**   <configuration>  
          <chassis>  
          <fpc>  
          <pic>  
          <adaptive-services>  
          **<service-package>**  
          <layer-3/>  
          <layer-2/>  
          <layer-2-3/>  
          <extension-provider>...</extension-provider>  
          **</service-package>**  
          </adaptive-services>  
          </pic>  
          </fpc>  
          </chassis>  
          </configuration>

**Description**   AS PIC service package.

**Contents**   <extension-provider>—Extension provider package configuration.  
  
              <layer-2>—Layer 2 service package.  
  
              <layer-2-3>—Combined Layer 2 and Layer 3 service package.  
  
              <layer-3>—Layer 3 service package.

**<service-package> (configuration/chassis/lcc/fpc/pic/  
adaptive-services)**

---

**Usage**   <configuration>  
          <chassis>  
          <lcc>  
          <fpc>  
          <pic>  
          <adaptive-services>  
          **<service-package>**  
          <layer-3/>  
          <layer-2/>  
          <layer-2-3/>  
          <extension-provider>...</extension-provider>  
          **</service-package>**  
          </adaptive-services>  
          </pic>  
          </fpc>  
          </lcc>  
          </chassis>  
          </configuration>

**Description**   AS PIC service package.

**Contents**   <extension-provider>—Extension provider package configuration.

              <layer-2>—Layer 2 service package.

              <layer-2-3>—Combined Layer 2 and Layer 3 service package.

              <layer-3>—Layer 3 service package.

**<service-pics> (configuration/system/processes)**

---

**Usage**   <configuration>  
          <system>  
          <processes>  
            **<service-pics>**  
              <disable/>  
              <failover>*failover-choice*</failover>  
            **</service-pics>**  
          </processes>  
        </system>  
      </configuration>

**Description**   Service PICs process.

**Contents**   <disable>—Disable service PICs process.

          <failover>—How to handle failure of service PICs process.

- alternate-media—On failure, reboot off alternate media.
- other-routing-engine—On failure, switch mastership to other Routing Engine.



## **<service-set> (configuration/dynamic-profiles/interfaces/ interface/unit/family/inet/service/input)**

---

**Usage**

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <service>
                <input>
                  <service-set>
                    <name>name</name>    <!-- identifier -->
                    <service-filter>service-filter</service-filter>
                  </service-set>
                </input>
              </service>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

**Description** Service set to consider for received packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

## **<service-set> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet/service/output)**

---

**Usage**

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <service>
                <output>
                  <service-set>
                    <name>name</name>    <!-- identifier -->
                    <service-filter>service-filter</service-filter>
                  </service-set>
                </output>
              </service>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

**Description** Service set to consider for transmitted packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

## **<service-set> (configuration/dynamic-profiles/interfaces/ interface/unit/family/inet6/service/input)**

---

**Usage**

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet6>
              <service>
                <input>
                  <service-set>
                    <name>name</name>    <!-- identifier -->
                    <service-filter>service-filter</service-filter>
                  </service-set>
                </input>
              </service>
            </inet6>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

**Description** Service set to consider for received packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

## **<service-set> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet6/service/output)**

---

**Usage**

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet6>
              <service>
                <output>
                  <service-set>
                    <name>name</name>    <!-- identifier -->
                    <service-filter>service-filter</service-filter>
                  </service-set>
                </output>
              </service>
            </inet6>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

**Description** Service set to consider for transmitted packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

**<service-set> (configuration/interfaces/interface/unit/family/  
inet/service/input)**

---

```
Usage  <configuration>
      <interfaces>
      <interface>
      <unit>
      <family>
      <inet>
      <service>
      <input>
      <service-set>
      <name>name</name>    <!-- identifier -->
      <service-filter>service-filter</service-filter>
      </service-set>
      </input>
      </service>
      </inet>
      </family>
      </unit>
      </interface>
      </interfaces>
      </configuration>
```

**Description** Service set to consider for received packets.

**Contents** <name>—Name of service set.  
  
          <service-filter>—Name of service filter.

## **<service-set> (configuration/interfaces/interface/unit/family/inet/service/output)**

---

**Usage**

```

<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <service>
              <output>
                <service-set>
                  <name>name</name>    <!-- identifier -->
                  <service-filter>service-filter</service-filter>
                </service-set>
              </output>
            </service>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>

```

**Description** Service set to consider for transmitted packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

## **<service-set> (configuration/interfaces/interface/unit/family/inet6/service/input)**

---

**Usage**   <configuration>  
           <interfaces>  
           <interface>  
           <unit>  
           <family>  
           <inet6>  
           <service>  
           <input>  
             **<service-set>**  
               <name>*name*</name>   <!-- identifier -->  
               <service-filter>*service-filter*</service-filter>  
             **</service-set>**  
           </input>  
           </service>  
           </inet6>  
           </family>  
           </unit>  
           </interface>  
           </interfaces>  
           </configuration>

**Description**   Service set to consider for received packets.

**Contents**   <name>—Name of service set.

              <service-filter>—Name of service filter.

## **<service-set> (configuration/interfaces/interface/unit/family/inet6/service/output)**

---

**Usage**

```

<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <service>
              <output>
                <service-set>
                  <name>name</name>    <!-- identifier -->
                  <service-filter>service-filter</service-filter>
                </service-set>
              </output>
            </service>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>

```

**Description** Service set to consider for transmitted packets.

**Contents**

- <name>—Name of service set.
- <service-filter>—Name of service filter.



## **<service-set> (configuration/logical-systems/interfaces/interface/unit/family/inet/service/input)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <service>
                <input>
                  <service-set>
                    <name>name</name>    <!-- identifier -->
                    <service-filter>service-filter</service-filter>
                  </service-set>
                </input>
              </service>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>

```

**Description** Service set to consider for received packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

## **<service-set> (configuration/logical-systems/interfaces/ interface/unit/family/inet/service/output)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <service>
                <output>
                  <service-set>
                    <name>name</name>    <!-- identifier -->
                    <service-filter>service-filter</service-filter>
                  </service-set>
                </output>
              </service>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>

```

**Description** Service set to consider for transmitted packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

## **<service-set> (configuration/logical-systems/interfaces/ interface/unit/family/inet6/service/input)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet6>
              <service>
                <input>
                  <service-set>
                    <name>name</name>    <!-- identifier -->
                    <service-filter>service-filter</service-filter>
                  </service-set>
                </input>
              </service>
            </inet6>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>

```

**Description** Service set to consider for received packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

## **<service-set> (configuration/logical-systems/interfaces/ interface/unit/family/inet6/service/output)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet6>
              <service>
                <output>
                  <service-set>
                    <name>name</name>    <!-- identifier -->
                    <service-filter>service-filter</service-filter>
                  </service-set>
                </output>
              </service>
            </inet6>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>

```

**Description** Service set to consider for transmitted packets.

**Contents** <name>—Name of service set.

<service-filter>—Name of service filter.

**<service-set> (configuration/services)**

---

**Usage** <configuration>  
           <services>  
             **<service-set>**  
               <name>*name*</name>   <!-- identifier -->  
               <ipsec-vpn-options>...</ipsec-vpn-options>  
               <ipsec-vpn-rules>...</ipsec-vpn-rules>  
               <ipsec-vpn-rule-sets>...</ipsec-vpn-rule-sets>  
               <syslog>...</syslog>  
               <max-flows>*max-flows*</max-flows>  
               <allow-multicast>*allow-multicast*</allow-multicast>  
               <stateful-firewall-rules>...</stateful-firewall-rules>  
               <stateful-firewall-rule-sets>...</stateful-firewall-rule-sets>  
               <nat-rules>...</nat-rules>  
               <nat-rule-sets>...</nat-rule-sets>  
               <ids-rules>...</ids-rules>  
               <ids-rule-sets>...</ids-rule-sets>  
               <cos-rules>...</cos-rules>  
               <cos-rule-sets>...</cos-rule-sets>  
               <pgcp-rules>...</pgcp-rules>  
               <pgcp-rule-sets>...</pgcp-rule-sets>  
               <interface-service>...</interface-service>  
               <next-hop-service>...</next-hop-service>  
               <extension-service>...</extension-service>  
               <service-order>...</service-order>  
             **</service-set>**  
           </services>  
         </configuration>

**Description** Define a service set.

**Contents** <allow-multicast>—Allow multicast packets.

<cos-rule-sets>—One or more CoS rule sets.

<cos-rules>—One or more CoS rules.

<extension-service>—Define the customer specific extensions.

<ids-rule-sets>—List of IDS rule sets.

<ids-rules>—List of IDS rules.

<interface-service>—Define parameters for interface-specific service sets.

<ipsec-vpn-options>—Define IPSec VPN options.

<ipsec-vpn-rule-sets>—List of IPSec VPN rule sets.

<ipsec-vpn-rules>—List of IPSec VPN rules.

<max-flows>—Maximum number of flows allowed for a service set.

<name>—Service set name.

<nat-rule-sets>—List of NAT rule sets.

<nat-rules>—List of NAT rules.

<next-hop-service>—Define parameters for next-hop service sets.

<pgcp-rule-sets>—One or more PGCP rule sets.

<pgcp-rules>—One or more PGCP rules.

<service-order>—Define of order of services to be applied.

<stateful-firewall-rule-sets>—List of stateful firewall rule sets.

<stateful-firewall-rules>—List of stateful firewall rules.

<syslog>—Define system logging parameters.

## <service-set> (configuration/services/ggsn)

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <service-set>  
                 <name>name</name>   <!-- identifier -->  
                 <service-identification>...</service-identification>   <!-- mandatory -->  
             </service-set>  
         </ggsn>  
     </services>  
</configuration>

**Description** Service set configuration for packet inspection.

**Contents** <name>—Service set name.

<service-identification>—Service identification settings.

**<services> (configuration)**

---

**Usage** <configuration>  
     **<services>**  
         <dynamic-flow-capture>...</dynamic-flow-capture>  
         <flow-tap>...</flow-tap>  
         <flow-monitoring>...</flow-monitoring>  
         <mobile-ip>...</mobile-ip>  
         <rpm>...</rpm>  
         <flow-collector>...</flow-collector>  
         <logging>...</logging>  
         <ipsec-vpn>...</ipsec-vpn>  
         <service-set>...</service-set>  
         <ggsn>...</ggsn>  
         <stateful-firewall>...</stateful-firewall>  
         <cos>...</cos>  
         <pgcp>...</pgcp>  
         <ids>...</ids>  
         <nat>...</nat>  
         <l2tp>...</l2tp>  
         <adaptive-services-pics>...</adaptive-services-pics>  
         <service-interface-pools>...</service-interface-pools>  
     **</services>**  
 </configuration>

**Description** Service PIC applications settings.

**Contents** <adaptive-services-pics>—Adaptive Services PIC daemon configuration.

<cos>—Class of Service services configuration.

<dynamic-flow-capture>—Configure Dynamic Flow Capture parameters.

<flow-collector>—Configure options to control flow collector.

<flow-monitoring>—Configure flow monitoring.

<flow-tap>—Configure flow-tap parameters.

<ggsn>—GGSN settings.

<ids>—Configure the intrusion detection system.

<ipsec-vpn>—Configure IPSec VPN service.

<l2tp>—Configure Layer 2 Tunneling Protocol service.

<logging>—Bulk logging configuration.

<mobile-ip>—Mobile IPv4 options.

<nat>—Configure Network Address Translation.

<pgcp>—Packet Gateway Control Protocol services configuration.

<rpm>—Real-time performance monitoring.

<service-interface-pools>—Configure service interface pools.

<service-set>—Define a service set.

<stateful-firewall>—Configure stateful firewall services.



**<services> (configuration/chassis/alarm)**

---

**Usage** <configuration>  
           <chassis>  
           <alarm>  
             **<services>**  
               <pic-reset>*pic-reset-choice*</pic-reset>  
               <pic-hold-reset>*pic-hold-reset-choice*</pic-hold-reset>  
               <linkdown>*linkdown-choice*</linkdown>  
               <rx-errors>*rx-errors-choice*</rx-errors>  
               <tx-errors>*tx-errors-choice*</tx-errors>  
               <sw-down>*sw-down-choice*</sw-down>  
               <hw-down>*hw-down-choice*</hw-down>  
             **</services>**  
           </alarm>  
         </chassis>  
       </configuration>

**Description** Services PIC alarms.

**Contents** <hw-down>—Services PIC hardware problem.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<linkdown>—Services PIC linkdown.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<pic-hold-reset>—Services PIC held in reset.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<pic-reset>—Services PIC reset.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<rx-errors>—Services PIC excessive rx errors.

- ignore—Do not assert any alarm signals.

- red—Assert red system alarm.
  - yellow—Assert yellow system alarm.
- <sw-down>—Services PIC software problem.
- ignore—Do not assert any alarm signals.
  - red—Assert red system alarm.
  - yellow—Assert yellow system alarm.
- <tx-errors>—Services PIC excessive tx errors.
- ignore—Do not assert any alarm signals.
  - red—Assert red system alarm.
  - yellow—Assert yellow system alarm.

## **<services> (configuration/logical-systems/routing-instances/instance/system)**

---

**Usage** <configuration>  
 <logical-systems>  
 <routing-instances>  
 <instance>  
 <system>  
   **<services>**  
     <dhcp-local-server>...</dhcp-local-server>  
   **</services>**  
 </system>  
 </instance>  
 </routing-instances>  
 </logical-systems>  
 </configuration>

**Description** System services.

**Contents** <dhcp-local-server>—Dynamic Host Configuration Protocol server configuration.

**<services> (configuration/logical-systems/system)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;logical-systems&gt;     &lt;system&gt;       &lt;services&gt;         &lt;dhcp-local-server&gt;...&lt;/dhcp-local-server&gt;       &lt;/services&gt;     &lt;/system&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	System services.
<b>Contents</b>	<dhcp-local-server>—Dynamic Host Configuration Protocol server configuration.

**<services> (configuration/routing-instances/instance/system)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;system&gt;         &lt;services&gt;           &lt;dhcp-local-server&gt;...&lt;/dhcp-local-server&gt;         &lt;/services&gt;       &lt;/system&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	System services.
<b>Contents</b>	<dhcp-local-server>—Dynamic Host Configuration Protocol server configuration.

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

---

**Usage** <configuration>  
           <system>  
             **<services>**  
               <finger>...</finger>  
               <ftp>...</ftp>  
               <ssh>...</ssh>  
               <telnet>...</telnet>  
               <xnm-clear-text>...</xnm-clear-text>  
               <xnm-ssl>...</xnm-ssl>  
               <netconf>...</netconf>  
               <flow-tap-dtcp>...</flow-tap-dtcp>  
               <service-deployment>...</service-deployment>  
               <outbound-ssh>...</outbound-ssh>  
               <dhcp-local-server>...</dhcp-local-server>  
               <database-replication>...</database-replication>  
               <web-management>...</web-management>  
               <dhcp>...</dhcp>  
             **</services>**  
           </system>  
         </configuration>

**Description** System services.

**Contents** <database-replication>—Database replication configuration.

<dhcp>—Configure DHCP server.

<dhcp-local-server>—Dynamic Host Configuration Protocol server configuration.

<finger>—Allow finger requests from remote systems.

<flow-tap-dtcp>—Configure DTCP-based Flow-tap service.

<ftp>—Allow FTP file transfers.

<netconf>—Allow NETCONF connections.

<outbound-ssh>—Initiate outbound SSH connection.

<service-deployment>—Configuration for Service Deployment (SDXD) management application.

<ssh>—Allow ssh access.

<telnet>—Allow telnet login.

<web-management>—Web management configuration.

<xnm-clear-text>—Allow clear text-based JUNOScript connections.

<xnm-ssl>—Allow SSL-based JUNOScript connections.

## **<services-options> (configuration/dynamic-profiles/interfaces/interface)**

---

- Usage** <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
             **<services-options>**  
               <syslog>...</syslog>  
               <open-timeout>seconds</open-timeout>  
               <inactivity-timeout>seconds</inactivity-timeout>  
             **</services-options>**  
           </interface>  
         </interfaces>  
       </dynamic-profiles>  
     </configuration>
- Description** Services interface-specific options.
- Contents** <inactivity-timeout>—Inactivity timeout period for established sessions.  
               <open-timeout>—Timeout period for TCP session establishment.  
               <syslog>—Define system log parameters.

## **<services-options> (configuration/interfaces/interface)**

---

- Usage** <configuration>  
           <interfaces>  
           <interface>  
             **<services-options>**  
               <syslog>...</syslog>  
               <open-timeout>seconds</open-timeout>  
               <inactivity-timeout>seconds</inactivity-timeout>  
             **</services-options>**  
           </interface>  
         </interfaces>  
       </configuration>
- Description** Services interface-specific options.
- Contents** <inactivity-timeout>—Inactivity timeout period for established sessions.  
               <open-timeout>—Timeout period for TCP session establishment.  
               <syslog>—Define system log parameters.

**<session> (configuration/logical-systems/protocols/ldp)**

---

**Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <ldp>  
                 **<session>**  
                   <name>name</name>   <!-- identifier -->  
                   <authentication-key>authentication-key</authentication-key>  
                   <authentication-algorithm>authentication-algorithm-choice  
                     </authentication-algorithm>  
                   <authentication-key-chain>authentication-key-chain  
                     </authentication-key-chain>  
                 **</session>**  
               </ldp>  
             </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure session parameters.

**Contents** <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.

<name>—Session destination address.

## **<session> (configuration/logical-systems/routing-instances/instance/protocols/ldp)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <ldp>  
               **<session>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <authentication-key>*authentication-key*</authentication-key>  
                   <authentication-algorithm>*authentication-algorithm-choice*  
                       </authentication-algorithm>  
                   <authentication-key-chain>*authentication-key-chain*  
                       </authentication-key-chain>  
               **</session>**  
               </ldp>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </logical-systems>  
               </configuration>

**Description**   Configure session parameters.

**Contents**   <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.

<name>—Session destination address.

**<session> (configuration/protocols/ldp)**

---

**Usage**   <configuration>  
           <protocols>  
           <ldp>  
             **<session>**  
               <name>*name*</name>   <!-- identifier -->  
               <authentication-key>*authentication-key*</authentication-key>  
               <authentication-algorithm>*authentication-algorithm-choice*  
                   </authentication-algorithm>  
               <authentication-key-chain>*authentication-key-chain*  
                   </authentication-key-chain>  
             **</session>**  
           </ldp>  
         </protocols>  
       </configuration>

**Description**   Configure session parameters.

**Contents**   <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.

<name>—Session destination address.



## **<session> (configuration/routing-instances/instance/protocols/ldp)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <ldp>  
             **<session>**  
               <name>*name*</name>   <!-- identifier -->  
               <authentication-key>*authentication-key*</authentication-key>  
               <authentication-algorithm>*authentication-algorithm-choice*  
                   </authentication-algorithm>  
               <authentication-key-chain>*authentication-key-chain*  
                   </authentication-key-chain>  
             **</session>**  
           </ldp>  
         </protocols>  
       </instance>  
   </routing-instances>  
</configuration>

**Description**   Configure session parameters.

**Contents**   <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.

<name>—Session destination address.

**<session> (configuration/system/services/web-management)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;system&gt;     &lt;services&gt;       &lt;web-management&gt;         &lt;session&gt;           &lt;idle-timeout&gt;minutes&lt;/idle-timeout&gt;           &lt;session-limit&gt;session-limit&lt;/session-limit&gt;         &lt;/session&gt;       &lt;/web-management&gt;     &lt;/services&gt;   &lt;/system&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Session parameters.
<b>Contents</b>	<p>&lt;idle-timeout&gt;—Default timeout of web-management sessions.</p> <p>&lt;session-limit&gt;—Maximum number of web-management sessions to allow.</p>

**<session-control> (configuration/services/ggsn/apn/pdp-context)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;apn&gt;         &lt;pdp-context&gt;           &lt;session-control&gt;             &lt;exclude-dedicated-signaling/&gt;             &lt;idle-timeout&gt;...&lt;/idle-timeout&gt;             &lt;session-timeout&gt;...&lt;/session-timeout&gt;           &lt;/session-control&gt;         &lt;/pdp-context&gt;       &lt;/apn&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Session control settings.
<b>Contents</b>	<p>&lt;exclude-dedicated-signaling&gt;—Exclude dedicated signaling from session management handling.</p> <p>&lt;idle-timeout&gt;—Idle timeout settings.</p> <p>&lt;session-timeout&gt;—Session timeout settings.</p>

**<session-control> (configuration/services/ggsn/pdp-context)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;pdp-context&gt;         &lt;session-control&gt;           &lt;dedicated-signaling-pdp/&gt;           &lt;idle-timeout&gt;...&lt;/idle-timeout&gt;           &lt;session-timeout&gt;...&lt;/session-timeout&gt;         &lt;/session-control&gt;       &lt;/pdp-context&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Session control settings.
<b>Contents</b>	<p>&lt;dedicated-signaling-pdp&gt;—Enable session management for dedicated signaling PDP context.</p> <p>&lt;idle-timeout&gt;—Idle timeout settings.</p> <p>&lt;session-timeout&gt;—Session timeout settings.</p>

**<session-limit> (configuration/services/ids/rule/term/then)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ids&gt;       &lt;rule&gt;         &lt;term&gt;           &lt;then&gt;             &lt;session-limit&gt;               &lt;by-source&gt;...&lt;/by-source&gt;               &lt;by-destination&gt;...&lt;/by-destination&gt;               &lt;by-pair&gt;...&lt;/by-pair&gt;             &lt;/session-limit&gt;           &lt;/then&gt;         &lt;/term&gt;       &lt;/rule&gt;     &lt;/ids&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define IDS session limit parameters.
<b>Contents</b>	<p>&lt;by-destination&gt;—Define IDS session limit parameters by destination.</p> <p>&lt;by-pair&gt;—Define IDS session limit parameters by source-destination pair.</p> <p>&lt;by-source&gt;—Define IDS session limit parameters by source.</p>

**<session-mirroring> (configuration/services/pgcp)**

---

- Usage** `<configuration>  
   <services>  
     <pgcp>  
       <session-mirroring>  
         <delivery-function>...</delivery-function>  
         <disable-session-mirroring/>  
       </session-mirroring>  
     </pgcp>  
   </services>  
</configuration>`
- Description** Session mirroring configuration.
- Contents** `<delivery-function>`—Interface for delivering mirrored packets.  
`<disable-session-mirroring>`—Disable PGCP session mirroring.

**<session-mirroring> (configuration/services/pgcp/gateway)**

---

- Usage** `<configuration>  
   <services>  
     <pgcp>  
       <gateway>  
         <session-mirroring>  
           <delivery-function>...</delivery-function>  
           <disable-session-mirroring/>  
         </session-mirroring>  
       </gateway>  
     </pgcp>  
   </services>  
</configuration>`
- Description** No documentation is available yet.
- Contents** `<delivery-function>`—Interface for delivering mirrored packets.  
`<disable-session-mirroring>`—Disable session mirroring for this gateway.

**<session-options> (configuration/access/profile)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;access&gt;     &lt;profile&gt;       &lt;session-options&gt;         &lt;client-group&gt;...&lt;/client-group&gt;         &lt;client-idle-timeout&gt;minutes&lt;/client-idle-timeout&gt;         &lt;client-session-timeout&gt;minutes&lt;/client-session-timeout&gt;       &lt;/session-options&gt;     &lt;/profile&gt;   &lt;/access&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Options for an authenticated client's session.
<b>Contents</b>	<p>&lt;client-group&gt;—One or more groups to which client belongs.</p> <p>&lt;client-idle-timeout&gt;—Time in minutes of idleness after which access is denied.</p> <p>&lt;client-session-timeout&gt;—Time in minutes since initial access after which access is denied.</p>

**<session-protection> (configuration/logical-systems/protocols/ldp)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;ldp&gt;         &lt;session-protection&gt;           &lt;timeout&gt;seconds&lt;/timeout&gt;         &lt;/session-protection&gt;       &lt;/ldp&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure session protection.
<b>Contents</b>	<timeout>—Session protection timeout.

## **<session-protection> (configuration/logical-systems/routing-instances/instance/protocols/ldp)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ldp>  
                         **<session-protection>**  
                             <timeout>*seconds*</timeout>  
                         **</session-protection>**  
                     </ldp>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Configure session protection.

**Contents** <timeout>—Session protection timeout.

## **<session-protection> (configuration/protocols/ldp)**

---

**Usage** <configuration>  
     <protocols>  
         <ldp>  
             **<session-protection>**  
                 <timeout>*seconds*</timeout>  
             **</session-protection>**  
         </ldp>  
     </protocols>  
 </configuration>

**Description** Configure session protection.

**Contents** <timeout>—Session protection timeout.

## **<session-protection> (configuration/routing-instances/instance/protocols/ldp)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;ldp&gt;           &lt;session-protection&gt;             &lt;timeout&gt;seconds&lt;/timeout&gt;           &lt;/session-protection&gt;         &lt;/ldp&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure session protection.
<b>Contents</b>	<timeout>—Session protection timeout.

## **<session-resilience> (configuration/services/ggsn/isp)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;isp&gt;         &lt;session-resilience&gt;           &lt;session-controller/&gt;         &lt;/session-resilience&gt;       &lt;/isp&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Session resilience settings.
<b>Contents</b>	<session-controller>—Enable session controller resilience.

## **<session-timeout> (configuration/services/ggsn/apn/pdp-context/session-control)**

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <pdp-context>
          <session-control>
            <session-timeout>
              <no-supervision/>
              <radius>...</radius>
              <sgsn-plmn-id>...</sgsn-plmn-id>
              <roaming>...</roaming>
              <charging-profile>...</charging-profile>
              <default>...</default>
            </session-timeout>
          </session-control>
        </pdp-context>
      </apn>
    </ggsn>
  </services>
</configuration>

```

**Description** Session timeout settings.

**Contents** <charging-profile>—Timeout settings based on charging profile.

<default>—Default timeout settings.

<no-supervision>—Don't allow session supervision.

<radius>—Timeout settings based on RADIUS.

<roaming>—Timeout settings based on roaming.

<sgsn-plmn-id>—Timeout settings based on SGSN PLMN IDs.



## **<session-timeout> (configuration/services/ggsn/pdp-context/session-control)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <pdp-context>  
                 <session-control>  
                   **<session-timeout>**  
                     <radius>...</radius>  
                     <sgsn-plmn-id>...</sgsn-plmn-id>  
                     <roaming>...</roaming>  
                     <charging-profile>...</charging-profile>  
                     <default>...</default>  
                   **</session-timeout>**  
                 </session-control>  
               </pdp-context>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Session timeout settings.

**Contents** <charging-profile>—Timeout settings based on charging profile.

<default>—Default timeout settings.

<radius>—Timeout settings based on RADIUS.

<roaming>—Timeout settings based on SGSN PLMN IDs.

<sgsn-plmn-id>—Timeout settings based on SGSN PLMN IDs.

## **<setup> (configuration/services/ggsn/service-set/service-identification/signaling-classification)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;service-set&gt;         &lt;service-identification&gt;           &lt;signaling-classification&gt;             &lt;setup&gt;               &lt;wsp-connection-oriented&gt;wsp-connection-oriented             &lt;/wsp-connection-oriented&gt;             &lt;tcp&gt;tcp&lt;/tcp&gt;           &lt;/setup&gt;         &lt;/signaling-classification&gt;       &lt;/service-identification&gt;     &lt;/service-set&gt;   &lt;/ggsn&gt; &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Settings for connection set-up.
<b>Contents</b>	<p>&lt;tcp&gt;—Service identifier for TCP traffic.</p> <p>&lt;wsp-connection-oriented&gt;—Service identifier for WSP connection oriented traffic.</p>

## **<sfm> (configuration/chassis)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;chassis&gt;     &lt;sfm&gt;       &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;       &lt;power&gt;power-choice&lt;/power&gt;     &lt;/sfm&gt;   &lt;/chassis&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Switching and Forwarding Module parameters.
<b>Contents</b>	<p>&lt;name&gt;—SFM slot number.</p> <p>&lt;power&gt;—Power SFMs on or off.</p> <ul style="list-style-type: none"> <li>■ off—Do not provide power to SFMs.</li> <li>■ on—Provide power to SFMs.</li> </ul>

**<sfm> (configuration/chassis/redundancy)**

---

- Usage** `<configuration>`  
           `<chassis>`  
           `<redundancy>`  
             **<sfm>**  
               `<name>name</name>`   <!-- identifier -->  
               `<always/>`  
               `<preferred/>`  
             **</sfm>**  
           `</redundancy>`  
         `</chassis>`  
       `</configuration>`
- Description** Redundancy options for Switching and Forwarding Modules.
- Contents** `<always>`—Sole device.  
               `<name>`—SFM slot number.  
               `<preferred>`—Preferred device.

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

---

- Usage** `<configuration>`  
           `<services>`  
           `<ggsn>`  
             **<sgsn>**  
               `<name>name</name>`   <!-- identifier -->  
               `<home-plmn/>`  
               `<gtp>...</gtp>`  
             **</sgsn>**  
           `</ggsn>`  
         `</services>`  
       `</configuration>`
- Description** SGSN settings.
- Contents** `<gtp>`—GTP configuration.  
               `<home-plmn>`—SGSN is within the home PLMN.  
               `<name>`—SGSN address or address prefix.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;apn&gt;         &lt;sgsn&gt;           &lt;sgsn-class&gt;...&lt;/sgsn-class&gt;         &lt;/sgsn&gt;       &lt;/apn&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SGSN class settings.
<b>Contents</b>	<sgsn-class>—SGSN class.

**<sgsn-address> (configuration/services/ggsn/apn/sgsn/sgsn-class)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;apn&gt;         &lt;sgsn&gt;           &lt;sgsn-class&gt;             &lt;sgsn-address&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;rat-types&gt;...&lt;/rat-types&gt;             &lt;/sgsn-address&gt;           &lt;/sgsn-class&gt;         &lt;/sgsn&gt;       &lt;/apn&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SGSN address associated with class.
<b>Contents</b>	<p>&lt;name&gt;—SGSN address or address prefix.</p> <p>&lt;rat-types&gt;—Radio access type (RAT) global defaults.</p>

**<sgsn-address> (configuration/services/ggsn/plmn/plmn-id)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <plmn>  
                 <plmn-id>  
                   <sgsn-address>  
                     <name>*name*</name>   <!-- identifier -->  
                     <rat-type>*rat-type-choice*</rat-type>  
                   </sgsn-address>  
                 </plmn-id>  
               </plmn>  
             </ggsn>  
           </services>  
         </configuration>

**Description** SGSN address associated with this PLMN ID.

**Contents** <name>—SGSN address or address prefix.

<rat-type>—SGSN radio access type (RAT).

- *geran*—GSM/EDGE radio access network.
- *utran*—WCDMA/UMTS Terrestrial radio access network.
- *wlan*—Wireless local area network.

## **<sgsn-class> (configuration/services/ggsn/apn/qos-control/profile)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;apn&gt;         &lt;qos-control&gt;           &lt;profile&gt;             &lt;sgsn-class&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;quality-of-service&gt;...&lt;/quality-of-service&gt;               &lt;default-quality-of-service&gt;...&lt;/default-quality-of-service&gt;             &lt;/sgsn-class&gt;           &lt;/profile&gt;         &lt;/qos-control&gt;       &lt;/apn&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SGSN class.
<b>Contents</b>	<p>&lt;default-quality-of-service&gt;—Default quality of service.</p> <p>&lt;name&gt;—SGSN class identifier.</p> <p>&lt;quality-of-service&gt;—Quality of service.</p>

## **<sgsn-class> (configuration/services/ggsn/apn/sgsn)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;apn&gt;         &lt;sgsn&gt;           &lt;sgsn-class&gt;             &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;sgsn-address&gt;...&lt;/sgsn-address&gt;    &lt;!-- mandatory --&gt;           &lt;/sgsn-class&gt;         &lt;/sgsn&gt;       &lt;/apn&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SGSN class.
<b>Contents</b>	<p>&lt;name&gt;—SGSN class identifier.</p> <p>&lt;sgsn-address&gt;—SGSN address associated with class.</p>

**<sgsn-plmn-id> (configuration/services/ggsn/apn/pdp-context/  
session-control/idle-timeout)**

---

**Usage**   <configuration>  
          <services>  
          <ggsn>  
          <apn>  
          <pdp-context>  
          <session-control>  
          <idle-timeout>  
          **<sgsn-plmn-id>**  
          <plmn>...</plmn>  
          <no-supervision/>  
          **</sgsn-plmn-id>**  
          </idle-timeout>  
          </session-control>  
          </pdp-context>  
          </apn>  
          </ggsn>  
          </services>  
          </configuration>

**Description**   Timeout settings based on SGSN PLMN IDs.

**Contents**   <no-supervision>—Don't allow idle supervision based on SGSN PLMN ID.

          <plmn>—Timeout settings based on SGSN PLMN.

## **<sgsn-plmn-id> (configuration/services/ggsn/apn/pdp-context/session-control/session-timeout)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <pdp-context>  
                     <session-control>  
                         <session-timeout>  
                             **<sgsn-plmn-id>**  
                                 <plmn>...</plmn>  
                                 <no-supervision/>  
                             **</sgsn-plmn-id>**  
                         </session-timeout>  
                     </session-control>  
                 </pdp-context>  
             </apn>  
         </ggsn>  
     </services>  
 </configuration>

**Description** Timeout settings based on SGSN PLMN IDs.

**Contents** <no-supervision>—Don't allow session supervision based on SGSN PLMN ID.

<plmn>—Timeout settings based on SGSN PLMN.

## **<sgsn-plmn-id> (configuration/services/ggsn/pdp-context/session-control/idle-timeout)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <pdp-context>  
                 <session-control>  
                     <idle-timeout>  
                         **<sgsn-plmn-id>**  
                             <plmn>...</plmn>  
                         **</sgsn-plmn-id>**  
                     </idle-timeout>  
                 </session-control>  
             </pdp-context>  
         </ggsn>  
     </services>  
 </configuration>

**Description** Timeout settings based on SGSN PLMN IDs.

**Contents** <plmn>—Timeout settings based on SGSN PLMN.



## **<sgsn-plmn-id> (configuration/services/ggsn/pdp-context/session-control/session-timeout)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <pdp-context>  
                 <session-control>  
                   <session-timeout>  
                     **<sgsn-plmn-id>**  
                       <plmn>...</plmn>  
                     **</sgsn-plmn-id>**  
                   </session-timeout>  
                 </session-control>  
               </pdp-context>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Timeout settings based on SGSN PLMN IDs.

**Contents** <plmn>—Timeout settings based on SGSN PLMN.

## **<sham-link> (configuration/logical-systems/protocols/ospf)**

---

**Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <ospf>  
                 **<sham-link>**  
                   <local>local</local>  
                 **</sham-link>**  
               </ospf>  
             </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure parameters for sham links.

**Contents** <local>—Local sham link endpoint address.

**<sham-link> (configuration/logical-systems/protocols/ospf3)**

---

**Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <ospf3>  
                 **<sham-link>**  
                   <local>local</local>  
                 **</sham-link>**  
               </ospf3>  
             </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure parameters for sham links.

**Contents** <local>—Local sham link endpoint address.

**<sham-link> (configuration/logical-systems/protocols/ospf3/realm)**

---

**Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <ospf3>  
                 <realm>  
                   **<sham-link>**  
                     <local>local</local>  
                   **</sham-link>**  
                 </realm>  
               </ospf3>  
             </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure parameters for sham links.

**Contents** <local>—Local sham link endpoint address.

## **<sham-link> (configuration/logical-systems/routing-instances/instance/protocols/ospf)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ospf>  
                         **<sham-link>**  
                             <local>local</local>  
                         **</sham-link>**  
                     </ospf>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Configure parameters for sham links.

**Contents** <local>—Local sham link endpoint address.

## **<sham-link> (configuration/logical-systems/routing-instances/instance/protocols/ospf3)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ospf3>  
                         **<sham-link>**  
                             <local>local</local>  
                         **</sham-link>**  
                     </ospf3>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Configure parameters for sham links.

**Contents** <local>—Local sham link endpoint address.

## **<sham-link> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/realm)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ospf3>  
                         <realm>  
                             **<sham-link>**  
                                 <local>local</local>  
                             **</sham-link>**  
                         </realm>  
                     </ospf3>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** Configure parameters for sham links.

**Contents** <local>—Local sham link endpoint address.

## **<sham-link> (configuration/protocols/ospf)**

---

**Usage** <configuration>  
     <protocols>  
         <ospf>  
             **<sham-link>**  
                 <local>local</local>  
             **</sham-link>**  
         </ospf>  
     </protocols>  
</configuration>

**Description** Configure parameters for sham links.

**Contents** <local>—Local sham link endpoint address.

**<sham-link> (configuration/protocols/ospf3)**

---

- Usage**   <configuration>  
           <protocols>  
           <ospf3>  
             **<sham-link>**  
               <local>*local*</local>  
             **</sham-link>**  
           </ospf3>  
         </protocols>  
       </configuration>
- Description**   Configure parameters for sham links.
- Contents**    <local>—Local sham link endpoint address.

**<sham-link> (configuration/protocols/ospf3/realm)**

---

- Usage**   <configuration>  
           <protocols>  
           <ospf3>  
           <realm>  
             **<sham-link>**  
               <local>*local*</local>  
             **</sham-link>**  
           </realm>  
         </ospf3>  
       </protocols>  
       </configuration>
- Description**   Configure parameters for sham links.
- Contents**    <local>—Local sham link endpoint address.

## **<sham-link> (configuration/routing-instances/instance/protocols/ospf)**

---

**Usage**   <configuration>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <ospf>  
          **<sham-link>**  
          <local>*local*</local>  
          **</sham-link>**  
          </ospf>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </configuration>

**Description**   Configure parameters for sham links.

**Contents**    <local>—Local sham link endpoint address.

## **<sham-link> (configuration/routing-instances/instance/protocols/ospf3)**

---

**Usage**   <configuration>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <ospf3>  
          **<sham-link>**  
          <local>*local*</local>  
          **</sham-link>**  
          </ospf3>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </configuration>

**Description**   Configure parameters for sham links.

**Contents**    <local>—Local sham link endpoint address.

## **<sham-link> (configuration/routing-instances/instance/protocols/ospf3/realms)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <protocols>  
                         <ospf3>  
                           <realm>  
                               **<sham-link>**  
                                 <local>local</local>  
                               **</sham-link>**  
                           </realm>  
                         </ospf3>  
                       </protocols>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Configure parameters for sham links.

**Contents**   <local>—Local sham link endpoint address.

## **<sham-link-remote> (configuration/logical-systems/protocols/ospf/area)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <protocols>  
           <ospf>  
           <area>  
               **<sham-link-remote>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <metric>*metric*</metric>  
                   <ipsec-sa>*ipsec-sa*</ipsec-sa>  
                   <demand-circuit/>  
                   <topology>...</topology>  
               **</sham-link-remote>**  
           </area>  
         </ospf>  
       </protocols>  
     </logical-systems>  
 </configuration>

**Description**   Configure parameters for remote sham link endpoint.

**Contents**   <demand-circuit>—Interface functions as a demand circuit.

          <ipsec-sa>—IPSec security association name.

          <metric>—Sham link metric.

          <name>—Remote sham link endpoint address.

          <topology>—Topology specific attributes.



## **<sham-link-remote> (configuration/logical-systems/protocols/ospf3/area)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <protocols>  
           <ospf3>  
           <area>  
               **<sham-link-remote>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <metric>*metric*</metric>  
                   <ipsec-sa>*ipsec-sa*</ipsec-sa>  
                   <demand-circuit/>  
                   <topology>...</topology>  
               **</sham-link-remote>**  
           </area>  
         </ospf3>  
       </protocols>  
     </logical-systems>  
 </configuration>

**Description**   Configure parameters for remote sham link endpoint.

**Contents**   <demand-circuit>—Interface functions as a demand circuit.

          <ipsec-sa>—IPSec security association name.

          <metric>—Sham link metric.

          <name>—Remote sham link endpoint address.

          <topology>—Topology specific attributes.

## **<sham-link-remote> (configuration/logical-systems/protocols/ospf3/realm/area)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <protocols>
      <ospf3>
        <realm>
          <area>
            <sham-link-remote>
              <name>name</name>    <!-- identifier -->
              <metric>metric</metric>
              <ipsec-sa>ipsec-sa</ipsec-sa>
              <demand-circuit/>
              <topology>...</topology>
            </sham-link-remote>
          </area>
        </realm>
      </ospf3>
    </protocols>
  </logical-systems>
</configuration>

```

**Description** Configure parameters for remote sham link endpoint.

**Contents** <demand-circuit>—Interface functions as a demand circuit.

<ipsec-sa>—IPSec security association name.

<metric>—Sham link metric.

<name>—Remote sham link endpoint address.

<topology>—Topology specific attributes.

## **<sham-link-remote> (configuration/logical-systems/ routing-instances/instance/protocols/ospf/area)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <ospf>  
           <area>  
             **<sham-link-remote>**  
               <name>*name*</name>    <!-- identifier -->  
               <metric>*metric*</metric>  
               <ipsec-sa>*ipsec-sa*</ipsec-sa>  
               <demand-circuit/>  
               <topology>...</topology>  
             **</sham-link-remote>**  
           </area>  
           </ospf>  
           </protocols>  
           </instance>  
           </routing-instances>  
           </logical-systems>  
         </configuration>

**Description**   Configure parameters for remote sham link endpoint.

**Contents**   <demand-circuit>—Interface functions as a demand circuit.

          <ipsec-sa>—IPSec security association name.

          <metric>—Sham link metric.

          <name>—Remote sham link endpoint address.

          <topology>—Topology specific attributes.

## **<sham-link-remote> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/area)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf3>
            <area>
              <sham-link-remote>
                <name>name</name>    <!-- identifier -->
                <metric>metric</metric>
                <ipsec-sa>ipsec-sa</ipsec-sa>
                <demand-circuit/>
                <topology>...</topology>
              </sham-link-remote>
            </area>
          </ospf3>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Configure parameters for remote sham link endpoint.

**Contents** <demand-circuit>—Interface functions as a demand circuit.

<ipsec-sa>—IPSec security association name.

<metric>—Sham link metric.

<name>—Remote sham link endpoint address.

<topology>—Topology specific attributes.

## **<sham-link-remote> (configuration/logical-systems/ routing-instances/instance/protocols/ospf3/realm/area)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ospf3>  
                         <realm>  
                             <area>  
                                 **<sham-link-remote>**  
                                     <name>*name*</name>   <!-- identifier -->  
                                     <metric>*metric*</metric>  
                                     <ipsec-sa>*ipsec-sa*</ipsec-sa>  
                                     <demand-circuit/>  
                                     <topology>...</topology>  
                                 **</sham-link-remote>**  
                             </area>  
                         </realm>  
                     </ospf3>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** Configure parameters for remote sham link endpoint.

**Contents** <demand-circuit>—Interface functions as a demand circuit.

<ipsec-sa>—IPSec security association name.

<metric>—Sham link metric.

<name>—Remote sham link endpoint address.

<topology>—Topology specific attributes.

**<sham-link-remote> (configuration/protocols/ospf/area)**

---

**Usage** <configuration>  
 <protocols>  
 <ospf>  
 <area>  
   **<sham-link-remote>**  
     <name>*name*</name>   <!-- identifier -->  
     <metric>*metric*</metric>  
     <ipsec-sa>*ipsec-sa*</ipsec-sa>  
     <demand-circuit/>  
     <topology>...</topology>  
   **</sham-link-remote>**  
 </area>  
</ospf>  
</protocols>  
</configuration>

**Description** Configure parameters for remote sham link endpoint.

**Contents** <demand-circuit>—Interface functions as a demand circuit.

<ipsec-sa>—IPSec security association name.

<metric>—Sham link metric.

<name>—Remote sham link endpoint address.

<topology>—Topology specific attributes.

**<sham-link-remote> (configuration/protocols/ospf3/area)**

---

**Usage** <configuration>  
           <protocols>  
           <ospf3>  
           <area>  
             **<sham-link-remote>**  
               <name>*name*</name>   <!-- identifier -->  
               <metric>*metric*</metric>  
               <ipsec-sa>*ipsec-sa*</ipsec-sa>  
               <demand-circuit/>  
               <topology>...</topology>  
             **</sham-link-remote>**  
           </area>  
         </ospf3>  
       </protocols>  
     </configuration>

**Description** Configure parameters for remote sham link endpoint.

**Contents** <demand-circuit>—Interface functions as a demand circuit.

<ipsec-sa>—IPSec security association name.

<metric>—Sham link metric.

<name>—Remote sham link endpoint address.

<topology>—Topology specific attributes.

**<sham-link-remote> (configuration/protocols/ospf3/realm/area)**

---

**Usage**

```

<configuration>
  <protocols>
    <ospf3>
      <realm>
        <area>
          <sham-link-remote>
            <name>name</name>    <!-- identifier -->
            <metric>metric</metric>
            <ipsec-sa>ipsec-sa</ipsec-sa>
            <demand-circuit/>
            <topology>...</topology>
          </sham-link-remote>
        </area>
      </realm>
    </ospf3>
  </protocols>
</configuration>

```

**Description** Configure parameters for remote sham link endpoint.

**Contents** <demand-circuit>—Interface functions as a demand circuit.

<ipsec-sa>—IPSec security association name.

<metric>—Sham link metric.

<name>—Remote sham link endpoint address.

<topology>—Topology specific attributes.



## **<sham-link-remote> (configuration/routing-instances/instance/protocols/ospf/area)**

---

**Usage** <configuration>  
           <routing-instances>  
             <instance>  
               <protocols>  
                 <ospf>  
                   <area>  
                     **<sham-link-remote>**  
                       <name>*name*</name>   <!-- identifier -->  
                       <metric>*metric*</metric>  
                       <ipsec-sa>*ipsec-sa*</ipsec-sa>  
                       <demand-circuit/>  
                       <topology>...</topology>  
                     **</sham-link-remote>**  
                   </area>  
                 </ospf>  
               </protocols>  
             </instance>  
           </routing-instances>  
         </configuration>

**Description** Configure parameters for remote sham link endpoint.

**Contents** <demand-circuit>—Interface functions as a demand circuit.

<ipsec-sa>—IPSec security association name.

<metric>—Sham link metric.

<name>—Remote sham link endpoint address.

<topology>—Topology specific attributes.

## **<sham-link-remote> (configuration/routing-instances/instance/protocols/ospf3/area)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <ospf3>  
           <area>  
               **<sham-link-remote>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <metric>*metric*</metric>  
                   <ipsec-sa>*ipsec-sa*</ipsec-sa>  
                   <demand-circuit/>  
                   <topology>...</topology>  
               **</sham-link-remote>**  
           </area>  
           </ospf3>  
           </protocols>  
           </instance>  
           </routing-instances>  
         </configuration>

**Description**   Configure parameters for remote sham link endpoint.

**Contents**   <demand-circuit>—Interface functions as a demand circuit.

          <ipsec-sa>—IPSec security association name.

          <metric>—Sham link metric.

          <name>—Remote sham link endpoint address.

          <topology>—Topology specific attributes.

## **<sham-link-remote> (configuration/routing-instances/instance/protocols/ospf3/realm/area)**

---

**Usage** <configuration>  
     <routing-instances>  
         <instance>  
             <protocols>  
                 <ospf3>  
                     <realm>  
                         <area>  
                             **<sham-link-remote>**  
                                 <name>*name*</name>   <!-- identifier -->  
                                 <metric>*metric*</metric>  
                                 <ipsec-sa>*ipsec-sa*</ipsec-sa>  
                                 <demand-circuit/>  
                                 <topology>...</topology>  
                             **</sham-link-remote>**  
                         </area>  
                     </realm>  
                 </ospf3>  
             </protocols>  
         </instance>  
     </routing-instances>  
</configuration>

**Description** Configure parameters for remote sham link endpoint.

**Contents** <demand-circuit>—Interface functions as a demand circuit.

<ipsec-sa>—IPSec security association name.

<metric>—Sham link metric.

<name>—Remote sham link endpoint address.

<topology>—Topology specific attributes.

## **<shaping> (configuration/dynamic-profiles/interfaces/interface/atm-options/vpi)**

---

**Usage**   <configuration>  
               <dynamic-profiles>  
               <interfaces>  
               <interface>  
               <atm-options>  
               <vpi>  
                   **<shaping>**  
                   <cbr>...</cbr>  
                   <vbr>...</vbr>  
                   <rtvbr>...</rtvbr>  
                   <queue-length>queue-length</queue-length>  
                   **</shaping>**  
               </vpi>  
               </atm-options>  
               </interface>  
               </interfaces>  
               </dynamic-profiles>  
               </configuration>

**Description**   Virtual path traffic-shaping options.

**Contents**   <cbr>—Constant bandwidth utilization.

              <queue-length>—Queue length.

              <rtvbr>—ATM2 real-time variable bandwidth utilization.

              <vbr>—Variable bandwidth utilization.

## **<shaping> (configuration/dynamic-profiles/interfaces/interface/unit)**

---

**Usage**   <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
           <unit>  
           **<shaping>**  
           <cbr>...</cbr>  
           <vbr>...</vbr>  
           <rtvbr>...</rtvbr>  
           <queue-length>*queue-length*</queue-length>  
           **</shaping>**  
           </unit>  
           </interface>  
           </interfaces>  
           </dynamic-profiles>  
           </configuration>

**Description**   Virtual circuit traffic-shaping options.

**Contents**   <cbr>—Constant bandwidth utilization.

          <queue-length>—Queue length.

          <rtvbr>—ATM2 real-time variable bandwidth utilization.

          <vbr>—Variable bandwidth utilization.

## **<shaping> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet/address/multipoint-destination)**

---

**Usage**

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <address>
                <multipoint-destination>
                  <shaping>
                    <cbr>...</cbr>
                    <vbr>...</vbr>
                    <rtvbr>...</rtvbr>
                    <queue-length>queue-length</queue-length>
                  </shaping>
                </multipoint-destination>
              </address>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

**Description** Virtual circuit traffic-shaping options.

**Contents** <cbr>—Constant bandwidth utilization.

<queue-length>—Queue length.

<rtvbr>—ATM2 real-time variable bandwidth utilization.

<vbr>—Variable bandwidth utilization.

**<shaping> (configuration/interfaces/interface/atm-options/vpi)**

---

**Usage**   <configuration>  
           <interfaces>  
           <interface>  
           <atm-options>  
           <vpi>  
             **<shaping>**  
               <cbr>...</cbr>  
               <vbr>...</vbr>  
               <rtvbr>...</rtvbr>  
               <queue-length>*queue-length*</queue-length>  
             **</shaping>**  
           </vpi>  
         </atm-options>  
       </interface>  
     </interfaces>  
 </configuration>

**Description**   Virtual path traffic-shaping options.

**Contents**   <cbr>—Constant bandwidth utilization.

          <queue-length>—Queue length.

          <rtvbr>—ATM2 real-time variable bandwidth utilization.

          <vbr>—Variable bandwidth utilization.

**<shaping> (configuration/interfaces/interface/unit)**

---

**Usage**   <configuration>  
          <interfaces>  
          <interface>  
          <unit>  
            **<shaping>**  
              <cbr>...</cbr>  
              <vbr>...</vbr>  
              <rtvbr>...</rtvbr>  
              <queue-length>*queue-length*</queue-length>  
            **</shaping>**  
          </unit>  
        </interface>  
      </interfaces>  
    </configuration>

**Description**   Virtual circuit traffic-shaping options.

**Contents**    <cbr>—Constant bandwidth utilization.

              <queue-length>—Queue length.

              <rtvbr>—ATM2 real-time variable bandwidth utilization.

              <vbr>—Variable bandwidth utilization.



## **<shaping> (configuration/interfaces/interface/unit/family/inet/address/multipoint-destination)**

---

**Usage**   <configuration>  
               <interfaces>  
               <interface>  
               <unit>  
               <family>  
               <inet>  
               <address>  
               <multipoint-destination>  
                   **<shaping>**  
                   <cbr>...</cbr>  
                   <vbr>...</vbr>  
                   <rtvbr>...</rtvbr>  
                   <queue-length>queue-length</queue-length>  
                   **</shaping>**  
               </multipoint-destination>  
               </address>  
               </inet>  
               </family>  
               </unit>  
               </interface>  
               </interfaces>  
               </configuration>

**Description**   Virtual circuit traffic-shaping options.

**Contents**   <cbr>—Constant bandwidth utilization.

              <queue-length>—Queue length.

              <rtvbr>—ATM2 real-time variable bandwidth utilization.

              <vbr>—Variable bandwidth utilization.

## <shaping> (configuration/logical-systems/interfaces/interface/unit)

---

**Usage**

```

<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <shaping>
            <cbr>...</cbr>
            <vbr>...</vbr>
            <rtvbr>...</rtvbr>
            <queue-length>queue-length</queue-length>
          </shaping>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>

```

**Description** Virtual circuit traffic-shaping options.

**Contents** <cbr>—Constant bandwidth utilization.

<queue-length>—Queue length.

<rtvbr>—ATM2 real-time variable bandwidth utilization.

<vbr>—Variable bandwidth utilization.

## **<shaping> (configuration/logical-systems/interfaces/interface/unit/family/inet/address/multipoint-destination)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <interfaces>  
               <interface>  
               <unit>  
               <family>  
               <inet>  
               <address>  
               <multipoint-destination>  
                   **<shaping>**  
                     <cbr>...</cbr>  
                     <vbr>...</vbr>  
                     <rtvbr>...</rtvbr>  
                     <queue-length>*queue-length*</queue-length>  
                   **</shaping>**  
               </multipoint-destination>  
               </address>  
               </inet>  
               </family>  
               </unit>  
               </interface>  
               </interfaces>  
               </logical-systems>  
               </configuration>

**Description**   Virtual circuit traffic-shaping options.

**Contents**   <cbr>—Constant bandwidth utilization.

              <queue-length>—Queue length.

              <rtvbr>—ATM2 real-time variable bandwidth utilization.

              <vbr>—Variable bandwidth utilization.

## <shaping-rate> (configuration/class-of-service/adaptive-shapers/trigger)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;class-of-service&gt;     &lt;adaptive-shapers&gt;       &lt;trigger&gt;         &lt;shaping-rate&gt;           &lt;absolute-rate&gt;<i>bits per second</i>&lt;/absolute-rate&gt;           &lt;percent&gt;<i>percent</i>&lt;/percent&gt;         &lt;/shaping-rate&gt;       &lt;/trigger&gt;     &lt;/adaptive-shapers&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Shaping rate for the trigger.
<b>Contents</b>	<p>&lt;absolute-rate&gt;—Shaping rate as an absolute rate.</p> <p>&lt;percent&gt;—Shaping rate as a percentage.</p>

## <shaping-rate> (configuration/class-of-service/interfaces/interface)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;class-of-service&gt;     &lt;interfaces&gt;       &lt;interface&gt;         &lt;shaping-rate&gt;           &lt;rate&gt;<i>bits per second</i>&lt;/rate&gt;         &lt;/shaping-rate&gt;       &lt;/interface&gt;     &lt;/interfaces&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Output shaping rate.
<b>Contents</b>	<rate>—Shaping rate as an absolute rate.

## **<shaping-rate> (configuration/class-of-service/interfaces/interface/unit)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;class-of-service&gt;     &lt;interfaces&gt;       &lt;interface&gt;         &lt;unit&gt;           &lt;shaping-rate&gt;             &lt;rate&gt;bits per second&lt;/rate&gt;             &lt;percent&gt;percent&lt;/percent&gt;           &lt;/shaping-rate&gt;         &lt;/unit&gt;       &lt;/interface&gt;     &lt;/interfaces&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Output shaping rate.
<b>Contents</b>	<p>&lt;percent&gt;—Shaping rate as a percentage.</p> <p>&lt;rate&gt;—Shaping rate as an absolute rate.</p>

## **<shaping-rate> (configuration/class-of-service/schedulers)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;class-of-service&gt;     &lt;schedulers&gt;       &lt;shaping-rate&gt;         &lt;rate&gt;bits per second&lt;/rate&gt;         &lt;percent&gt;percent&lt;/percent&gt;       &lt;/shaping-rate&gt;     &lt;/schedulers&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Shaping rate.
<b>Contents</b>	<p>&lt;percent&gt;—Shaping rate as a percentage.</p> <p>&lt;rate&gt;—Shaping rate as an absolute rate.</p>

## **<shaping-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;shaping-rate&gt;         &lt;rate&gt;bits per second&lt;/rate&gt;         &lt;percent&gt;percent&lt;/percent&gt;       &lt;/shaping-rate&gt;     &lt;/traffic-control-profiles&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Shaping rate.
<b>Contents</b>	<p>&lt;percent&gt;—Shaping rate as a percentage.</p> <p>&lt;rate&gt;—Shaping rate as an absolute rate.</p>

## **<shaping-rate> (configuration/class-of-service/virtual-channel-groups/channel)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;class-of-service&gt;     &lt;virtual-channel-groups&gt;       &lt;channel&gt;         &lt;shaping-rate&gt;           &lt;absolute-rate&gt;bits per second&lt;/absolute-rate&gt;           &lt;percent&gt;percent&lt;/percent&gt;         &lt;/shaping-rate&gt;       &lt;/channel&gt;     &lt;/virtual-channel-groups&gt;   &lt;/class-of-service&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Shaping rate for the trigger.
<b>Contents</b>	<p>&lt;absolute-rate&gt;—Adaptive shaping rate as an absolute rate.</p> <p>&lt;percent&gt;—Adaptive shaping rate as a percentage.</p>

## **<shaping-rate> (configuration/dynamic-profiles/class-of-service/adaptive-shapers/trigger)**

---

**Usage** <configuration>  
     <dynamic-profiles>  
         <class-of-service>  
             <adaptive-shapers>  
                 <trigger>  
                     **<shaping-rate>**  
                         <absolute-rate>*bits per second*</absolute-rate>  
                         <percent>*percent*</percent>  
                     **</shaping-rate>**  
                 </trigger>  
             </adaptive-shapers>  
         </class-of-service>  
     </dynamic-profiles>  
 </configuration>

**Description** Shaping rate for the trigger.

**Contents** <absolute-rate>—Shaping rate as an absolute rate.

<percent>—Shaping rate as a percentage.

## **<shaping-rate> (configuration/dynamic-profiles/class-of-service/interfaces/interface)**

---

**Usage** <configuration>  
     <dynamic-profiles>  
         <class-of-service>  
             <interfaces>  
                 <interface>  
                     **<shaping-rate>**  
                         <rate>*bits per second*</rate>  
                     **</shaping-rate>**  
                 </interface>  
             </interfaces>  
         </class-of-service>  
     </dynamic-profiles>  
 </configuration>

**Description** Output shaping rate.

**Contents** <rate>—Shaping rate as an absolute rate.

## **<shaping-rate> (configuration/dynamic-profiles/class-of-service/interfaces/interface/unit)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;class-of-service&gt;       &lt;interfaces&gt;         &lt;interface&gt;           &lt;unit&gt;             &lt;shaping-rate&gt;               &lt;rate&gt;bits per second&lt;/rate&gt;               &lt;percent&gt;percent&lt;/percent&gt;             &lt;/shaping-rate&gt;           &lt;/unit&gt;         &lt;/interface&gt;       &lt;/interfaces&gt;     &lt;/class-of-service&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Output shaping rate.
<b>Contents</b>	<p>&lt;percent&gt;—Shaping rate as a percentage.</p> <p>&lt;rate&gt;—Shaping rate as an absolute rate.</p>

## **<shaping-rate> (configuration/dynamic-profiles/class-of-service/schedulers)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;class-of-service&gt;       &lt;schedulers&gt;         &lt;shaping-rate&gt;           &lt;rate&gt;bits per second&lt;/rate&gt;           &lt;percent&gt;percent&lt;/percent&gt;         &lt;/shaping-rate&gt;       &lt;/schedulers&gt;     &lt;/class-of-service&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Shaping rate.
<b>Contents</b>	<p>&lt;percent&gt;—Shaping rate as a percentage.</p> <p>&lt;rate&gt;—Shaping rate as an absolute rate.</p>



## **<shaping-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;shaping-rate&gt;           &lt;rate&gt;bits per second&lt;/rate&gt;           &lt;percent&gt;percent&lt;/percent&gt;         &lt;/shaping-rate&gt;       &lt;/traffic-control-profiles&gt;     &lt;/class-of-service&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Shaping rate.
<b>Contents</b>	<p>&lt;percent&gt;—Shaping rate as a percentage.</p> <p>&lt;rate&gt;—Shaping rate as an absolute rate.</p>

## **<shaping-rate> (configuration/dynamic-profiles/class-of-service/virtual-channel-groups/channel)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;class-of-service&gt;       &lt;virtual-channel-groups&gt;         &lt;channel&gt;           &lt;shaping-rate&gt;             &lt;absolute-rate&gt;bits per second&lt;/absolute-rate&gt;             &lt;percent&gt;percent&lt;/percent&gt;           &lt;/shaping-rate&gt;         &lt;/channel&gt;       &lt;/virtual-channel-groups&gt;     &lt;/class-of-service&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Shaping rate for the trigger.
<b>Contents</b>	<p>&lt;absolute-rate&gt;—Adaptive shaping rate as an absolute rate.</p> <p>&lt;percent&gt;—Adaptive shaping rate as a percentage.</p>

**<shared-server> (configuration/services/ggsn/apn/dhcp)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <apn>  
                 <dhcp>  
                   <shared-server>  
                     <name>*name*</name>   <!-- identifier -->  
                   </shared-server>  
                 </dhcp>  
               </apn>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Shared DHCP server configuration.

**Contents** <name>—Shared DHCP server configuration.

**<shdsl> (configuration/chassis/fpc/pic)**

---

**Usage** <configuration>  
           <chassis>  
             <fpc>  
               <pic>  
                 <shdsl>  
                   <pic-mode>*pic-mode-choice*</pic-mode>  
                 </shdsl>  
               </pic>  
             </fpc>  
           </chassis>  
         </configuration>

**Description** SHDSL chassis configuration.

**Contents** <pic-mode>—PIC mode.

- 1-port-atm—Single port ATM, 4 wire mode.
- 2-port-atm—Two port ATM, 2 wire mode.

**<shdsl> (configuration/chassis/lcc/fpc/pic)**

---

**Usage**   <configuration>  
          <chassis>  
          <lcc>  
          <fpc>  
          <pic>  
            **<shdsl>**  
              <pic-mode>*pic-mode-choice*</pic-mode>  
            **</shdsl>**  
          </pic>  
        </fpc>  
      </lcc>  
    </chassis>  
  </configuration>

**Description**   SHDSL chassis configuration.

- Contents**   <pic-mode>—PIC mode.
- 1-port-atm—Single port ATM, 4 wire mode.
  - 2-port-atm—Two port ATM, 2 wire mode.

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

---

**Usage** <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
             <shdsl-options>  
               <annex>annex-choice</annex>  
               <line-rate>line-rate-choice</line-rate>  
               <loopback>loopback-choice</loopback>  
               <snr-margin>...</snr-margin>  
             </shdsl-options>  
           </interface>  
         </interfaces>  
       </dynamic-profiles>  
     </configuration>

**Description** SHDSL interface-specific options.

**Contents** <annex>—Type of SHDSL annex.

- annex-a—Annex-a PIC.

- annex-b—Annex-b PIC.

<line-rate>—SHDSL line rate.

- 1024—1024 Kbps.

- 1088—1088 Kbps (2-wire only).

- 1152—1152 Kbps.

- 1216—1216 Kbps (2-wire only).

- 1280—1280 Kbps.

- 1344—1344 Kbps (2-wire only).

- 1408—1408 Kbps.

- 1472—1472 Kbps (2-wire only).

- 1536—1536 Kbps.

- 1600—1600 Kbps (2-wire only).

- 1664—1664 Kbps.

- 1728—1728 Kbps (2-wire only).

- 1792—1792 Kbps.

- 1856—1856 Kbps (2-wire only).

- 192—192 Kbps (2-wire only).
- 1920—1920 Kbps.
- 1984—1984 Kbps (2-wire only).
- 2048—2048 Kbps.
- 2112—2112 Kbps (2-wire only).
- 2176—2176 Kbps.
- 2240—2240 Kbps (2-wire only).
- 2304—2304 Kbps.
- 2432—2432 Kbps (4-wire only).
- 256—256 Kbps (2-wire only).
- 2560—2560 Kbps (4-wire only).
- 2688—2688 Kbps (4-wire only).
- 2816—2816 Kbps (4-wire only).
- 2944—2944 Kbps (4-wire only).
- 3072—3072 Kbps (4-wire only).
- 320—320 Kbps (2-wire only).
- 3200—3200 Kbps (4-wire only).
- 3328—3328 Kbps (4-wire only).
- 3456—3456 Kbps (4-wire only).
- 3584—3584 Kbps (4-wire only).
- 3712—3712 Kbps (4-wire only).
- 384—384 Kbps.
- 3840—3840 Kbps (4-wire only).
- 3968—3968 Kbps (4-wire only).
- 4096—4096 Kbps (4-wire only).
- 4224—4224 Kbps (4-wire only).
- 4352—4352 Kbps (4-wire only).
- 448—448 Kbps (2-wire only).

- 4480—4480 Kbps (4-wire only).
- 4608—4608 Kbps (4-wire only).
- 512—512 Kbps.
- 576—576 Kbps (2-wire only).
- 640—640 Kbps.
- 704—704 Kbps (2-wire only).
- 768—768 Kbps.
- 832—832 Kbps (2-wire only).
- 896—896 Kbps.
- 960—960 Kbps (2-wire only).
- auto—Automatically select the line rate (2-wire only).

<loopback>—Loopback mode.

- local—Local loopback.
- remote—Remote loopback.

<snr-margin>—Signal to noise ratio margin.

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

---

**Usage** <configuration>  
           <interfaces>  
             <interface>  
               **<shdsl-options>**  
                 <annex>*annex-choice*</annex>  
                 <line-rate>*line-rate-choice*</line-rate>  
                 <loopback>*loopback-choice*</loopback>  
                 <snr-margin>...</snr-margin>  
               **</shdsl-options>**  
             </interface>  
           </interfaces>  
         </configuration>

**Description** SHDSL interface-specific options.

**Contents** <annex>—Type of SHDSL annex.

- annex-a—Annex-a PIC.
- annex-b—Annex-b PIC.

<line-rate>—SHDSL line rate.

- 1024—1024 Kbps.
- 1088—1088 Kbps (2-wire only).
- 1152—1152 Kbps.
- 1216—1216 Kbps (2-wire only).
- 1280—1280 Kbps.
- 1344—1344 Kbps (2-wire only).
- 1408—1408 Kbps.
- 1472—1472 Kbps (2-wire only).
- 1536—1536 Kbps.
- 1600—1600 Kbps (2-wire only).
- 1664—1664 Kbps.
- 1728—1728 Kbps (2-wire only).
- 1792—1792 Kbps.
- 1856—1856 Kbps (2-wire only).
- 192—192 Kbps (2-wire only).

- 1920—1920 Kbps.
- 1984—1984 Kbps (2-wire only).
- 2048—2048 Kbps.
- 2112—2112 Kbps (2-wire only).
- 2176—2176 Kbps.
- 2240—2240 Kbps (2-wire only).
- 2304—2304 Kbps.
- 2432—2432 Kbps (4-wire only).
- 256—256 Kbps (2-wire only).
- 2560—2560 Kbps (4-wire only).
- 2688—2688 Kbps (4-wire only).
- 2816—2816 Kbps (4-wire only).
- 2944—2944 Kbps (4-wire only).
- 3072—3072 Kbps (4-wire only).
- 320—320 Kbps (2-wire only).
- 3200—3200 Kbps (4-wire only).
- 3328—3328 Kbps (4-wire only).
- 3456—3456 Kbps (4-wire only).
- 3584—3584 Kbps (4-wire only).
- 3712—3712 Kbps (4-wire only).
- 384—384 Kbps.
- 3840—3840 Kbps (4-wire only).
- 3968—3968 Kbps (4-wire only).
- 4096—4096 Kbps (4-wire only).
- 4224—4224 Kbps (4-wire only).
- 4352—4352 Kbps (4-wire only).
- 448—448 Kbps (2-wire only).
- 4480—4480 Kbps (4-wire only).



- 4608—4608 Kbps (4-wire only).
- 512—512 Kbps.
- 576—576 Kbps (2-wire only).
- 640—640 Kbps.
- 704—704 Kbps (2-wire only).
- 768—768 Kbps.
- 832—832 Kbps (2-wire only).
- 896—896 Kbps.
- 960—960 Kbps (2-wire only).
- auto—Automatically select the line rate (2-wire only).

<loopback>—Loopback mode.

- local—Local loopback.
- remote—Remote loopback.

<snr-margin>—Signal to noise ratio margin.

## **<short> (configuration/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)**

---

**Usage**

```

<configuration>
  <access>
    <address-assignment>
      <pool>
        <family>
          <inet>
            <dhcp-attributes>
              <option>
                <array>
                  <short>
                    <name>name</name>    <!-- identifier -->
                  </short>
                </array>
              </option>
            </dhcp-attributes>
          </inet>
        </family>
      </pool>
    </address-assignment>
  </access>
</configuration>

```

**Description** Array of signed 16-bit numeric values.

**Contents** <name>—Array of signed 16-bit numeric values.

## **<short> (configuration/logical-systems/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <access>  
           <address-assignment>  
           <pool>  
           <family>  
           <inet>  
           <dhcp-attributes>  
           <option>  
           <array>  
             **<short>**  
               <name>*name*</name>   <!-- identifier -->  
             **</short>**  
           </array>  
           </option>  
           </dhcp-attributes>  
           </inet>  
           </family>  
           </pool>  
           </address-assignment>  
           </access>  
           </logical-systems>  
           </configuration>

**Description**   Array of signed 16-bit numeric values.

**Contents**      <name>—Array of signed 16-bit numeric values.

## **<short> (configuration/logical-systems/routing-instances/instance/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <access>
          <address-assignment>
            <pool>
              <family>
                <inet>
                  <dhcp-attributes>
                    <option>
                      <array>
                        <short>
                          <name>name</name>    <!-- identifier -->
                        </short>
                      </array>
                    </option>
                  </dhcp-attributes>
                </inet>
              </family>
            </pool>
          </address-assignment>
        </access>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Array of signed 16-bit numeric values.

**Contents** <name>—Array of signed 16-bit numeric values.

## **<short> (configuration/routing-instances/instance/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <access>  
           <address-assignment>  
           <pool>  
           <family>  
           <inet>  
           <dhcp-attributes>  
           <option>  
           <array>  
               **<short>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</short>**  
               </array>  
           </option>  
           </dhcp-attributes>  
           </inet>  
           </family>  
           </pool>  
           </address-assignment>  
           </access>  
           </instance>  
           </routing-instances>  
           </configuration>

**Description**   Array of signed 16-bit numeric values.

**Contents**      <name>—Array of signed 16-bit numeric values.

**<short> (configuration/system/services/dhcp/option/array)**

---

**Usage** <configuration>  
           <system>  
             <services>  
               <dhcp>  
                 <option>  
                   <array>  
                     **<short>**  
                       <name>*name*</name>   <!-- identifier -->  
                     **</short>**  
                   </array>  
                 </option>  
               </dhcp>  
             </services>  
           </system>  
   </configuration>

**Description** Array of signed 16-bit numeric values.

**Contents** <name>—Array of signed 16-bit numeric values.

**<short> (configuration/system/services/dhcp/pool/option/array)**

---

**Usage** <configuration>  
           <system>  
             <services>  
               <dhcp>  
                 <pool>  
                   <option>  
                     <array>  
                       **<short>**  
                       <name>*name*</name>   <!-- identifier -->  
                       **</short>**  
                     </array>  
                   </option>  
                 </pool>  
               </dhcp>  
             </services>  
           </system>  
   </configuration>

**Description** Array of signed 16-bit numeric values.

**Contents** <name>—Array of signed 16-bit numeric values.

## **<short> (configuration/system/services/dhcp/static-binding/option/array)**

---

**Usage** <configuration>  
           <system>  
             <services>  
               <dhcp>  
                 <static-binding>  
                   <option>  
                     <array>  
                       **<short>**  
                         <name>*name*</name>   <!-- identifier -->  
                       **</short>**  
                     </array>  
                   </option>  
                 </static-binding>  
               </dhcp>  
             </services>  
           </system>  
         </configuration>

**Description** Array of signed 16-bit numeric values.

**Contents** <name>—Array of signed 16-bit numeric values.

## **<shortcuts> (configuration/logical-systems/protocols/isis/traffic-engineering/family)**

---

**Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <isis>  
                 <traffic-engineering>  
                   <family>  
                     **<shortcuts>**  
                       <multicast-rpf-routes/>  
                     **</shortcuts>**  
                   </family>  
                 </traffic-engineering>  
               </isis>  
             </protocols>  
           </logical-systems>  
         </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <multicast-rpf-routes>—Install routes for multicast RPF checks into multicast RIB.

## **<shortcuts> (configuration/logical-systems/protocols/ospf/traffic-engineering)**

---

**Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <ospf>  
           <traffic-engineering>  
           **<shortcuts>**  
           <lsp-metric-into-summary/>  
           **</shortcuts>**  
           </traffic-engineering>  
           </ospf>  
           </protocols>  
           </logical-systems>  
           </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

## **<shortcuts> (configuration/logical-systems/protocols/ospf3/realm/traffic-engineering)**

---

**Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <ospf3>  
           <realm>  
           <traffic-engineering>  
           **<shortcuts>**  
           <lsp-metric-into-summary/>  
           **</shortcuts>**  
           </traffic-engineering>  
           </realm>  
           </ospf3>  
           </protocols>  
           </logical-systems>  
           </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.



## **<shortcuts> (configuration/logical-systems/protocols/ospf3/traffic-engineering)**

---

**Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <ospf3>  
           <traffic-engineering>  
           **<shortcuts>**  
           <lsp-metric-into-summary/>  
           **</shortcuts>**  
           </traffic-engineering>  
           </ospf3>  
           </protocols>  
           </logical-systems>  
           </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

## **<shortcuts> (configuration/logical-systems/routing-instances/instance/protocols/isis/traffic-engineering/family)**

---

**Usage** <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <isis>  
           <traffic-engineering>  
           <family>  
           **<shortcuts>**  
           <multicast-rpf-routes/>  
           **</shortcuts>**  
           </family>  
           </traffic-engineering>  
           </isis>  
           </protocols>  
           </instance>  
           </routing-instances>  
           </logical-systems>  
           </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <multicast-rpf-routes>—Install routes for multicast RPF checks into multicast RIB.

## **<shortcuts> (configuration/logical-systems/routing-instances/instance/protocols/ospf/traffic-engineering)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ospf>  
                         <traffic-engineering>  
                             **<shortcuts>**  
                                 <lsp-metric-into-summary/>  
                             **</shortcuts>**  
                         </traffic-engineering>  
                     </ospf>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

## **<shortcuts> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/realm/traffic-engineering)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ospf3>  
                         <realm>  
                             <traffic-engineering>  
                                 **<shortcuts>**  
                                     <lsp-metric-into-summary/>  
                                 **</shortcuts>**  
                             </traffic-engineering>  
                         </realm>  
                     </ospf3>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

## **<shortcuts> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/traffic-engineering)**

---

**Usage** <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <ospf3>  
           <traffic-engineering>  
           **<shortcuts>**  
           <lsp-metric-into-summary/>  
           **</shortcuts>**  
           </traffic-engineering>  
           </ospf3>  
           </protocols>  
           </instance>  
           </routing-instances>  
           </logical-systems>  
           </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

## **<shortcuts> (configuration/protocols/isis/traffic-engineering/family)**

---

**Usage** <configuration>  
           <protocols>  
           <isis>  
           <traffic-engineering>  
           <family>  
           **<shortcuts>**  
           <multicast-rpf-routes/>  
           **</shortcuts>**  
           </family>  
           </traffic-engineering>  
           </isis>  
           </protocols>  
           </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <multicast-rpf-routes>—Install routes for multicast RPF checks into multicast RIB.

**<shortcuts> (configuration/protocols/ospf/traffic-engineering)**

---

**Usage** <configuration>  
           <protocols>  
             <ospf>  
               <traffic-engineering>  
                 **<shortcuts>**  
                   <lsp-metric-into-summary/>  
                 **</shortcuts>**  
               </traffic-engineering>  
             </ospf>  
           </protocols>  
         </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

**<shortcuts> (configuration/protocols/ospf3/realms/traffic-engineering)**

---

**Usage** <configuration>  
           <protocols>  
             <ospf3>  
               <realms>  
                 <traffic-engineering>  
                   **<shortcuts>**  
                     <lsp-metric-into-summary/>  
                   **</shortcuts>**  
                 </traffic-engineering>  
               </realms>  
             </ospf3>  
           </protocols>  
         </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

**<shortcuts> (configuration/protocols/ospf3/traffic-engineering)**

---

**Usage** <configuration>  
           <protocols>  
           <ospf3>  
           <traffic-engineering>  
           **<shortcuts>**  
           <lsp-metric-into-summary/>  
           **</shortcuts>**  
           </traffic-engineering>  
           </ospf3>  
           </protocols>  
           </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

**<shortcuts> (configuration/routing-instances/instance/protocols/isis/traffic-engineering/family)**

---

**Usage** <configuration>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <isis>  
           <traffic-engineering>  
           <family>  
           **<shortcuts>**  
           <multicast-rpf-routes/>  
           **</shortcuts>**  
           </family>  
           </traffic-engineering>  
           </isis>  
           </protocols>  
           </instance>  
           </routing-instances>  
           </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <multicast-rpf-routes>—Install routes for multicast RPF checks into multicast RIB.

## **<shortcuts> (configuration/routing-instances/instance/protocols/ospf/traffic-engineering)**

---

**Usage** <configuration>  
           <routing-instances>  
             <instance>  
               <protocols>  
                 <ospf>  
                   <traffic-engineering>  
                     **<shortcuts>**  
                       <lsp-metric-into-summary/>  
                     **</shortcuts>**  
                   </traffic-engineering>  
                 </ospf>  
               </protocols>  
             </instance>  
           </routing-instances>  
         </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

## **<shortcuts> (configuration/routing-instances/instance/protocols/ospf3/realms/traffic-engineering)**

---

**Usage** <configuration>  
           <routing-instances>  
             <instance>  
               <protocols>  
                 <ospf3>  
                   <realms>  
                     <traffic-engineering>  
                       **<shortcuts>**  
                       <lsp-metric-into-summary/>  
                       **</shortcuts>**  
                     </traffic-engineering>  
                   </realms>  
                 </ospf3>  
               </protocols>  
             </instance>  
           </routing-instances>  
         </configuration>

**Description** Use label-switched paths as next hops, if possible.

**Contents** <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

## **<shortcuts> (configuration/routing-instances/instance/protocols/ospf3/traffic-engineering)**

---

**Usage**   <configuration>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <ospf3>  
               <traffic-engineering>  
               **<shortcuts>**  
               <lsp-metric-into-summary/>  
               **</shortcuts>**  
               </traffic-engineering>  
               </ospf3>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </configuration>

**Description**   Use label-switched paths as next hops, if possible.

**Contents**   <lsp-metric-into-summary>—Advertise LSP metric into summary LSAs.

## **<sib> (configuration/chassis)**

---

**Usage**   <configuration>  
               <chassis>  
               **<sib>**  
               <minimum>*minimum*</minimum>  
               **</sib>**  
               </chassis>  
               </configuration>

**Description**   Switch Interface Board parameters.

**Contents**   <minimum>—Minimum number of Switch Interface Boards required for normal operation.

## **<signaling> (configuration/logical-systems/protocols/bgp/family/inet-mvpn)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <protocols>  
          <bgp>  
          <family>  
          <inet-mvpn>  
          **<signaling>**  
          <prefix-limit>...</prefix-limit>  
          <accepted-prefix-limit>...</accepted-prefix-limit>  
          <rib-group>...</rib-group>  
          **</signaling>**  
          </inet-mvpn>  
          </family>  
          </bgp>  
          </protocols>  
          </logical-systems>  
          </configuration>

**Description**   Include IPv4 multicast VPN signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
              <prefix-limit>—Limit maximum number of prefixes from a peer.  
              <rib-group>—Routing table group.



## **<signaling> (configuration/logical-systems/protocols/bgp/family/inet6-mvpn)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <protocols>  
               <bgp>  
               <family>  
               <inet6-mvpn>  
               **<signaling>**  
                   <prefix-limit>...</prefix-limit>  
                   <accepted-prefix-limit>...</accepted-prefix-limit>  
                   <rib-group>...</rib-group>  
               **</signaling>**  
               </inet6-mvpn>  
               </family>  
               </bgp>  
               </protocols>  
               </logical-systems>  
               </configuration>

**Description**   Include IPv6 multicast VPN signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
               <prefix-limit>—Limit maximum number of prefixes from a peer.  
               <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/protocols/bgp/family/l2vpn)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <protocols>  
          <bgp>  
          <family>  
          <l2vpn>  
          **<signaling>**  
          <prefix-limit>...</prefix-limit>  
          <accepted-prefix-limit>...</accepted-prefix-limit>  
          <rib-group>...</rib-group>  
          **</signaling>**  
          </l2vpn>  
          </family>  
          </bgp>  
          </protocols>  
          </logical-systems>  
          </configuration>

**Description**   Include Layer 2 VPN and VPLS signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
              <prefix-limit>—Limit maximum number of prefixes from a peer.  
              <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/protocols/bgp/group/family/inet-mvpn)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <protocols>  
               <bgp>  
               <group>  
               <family>  
               <inet-mvpn>  
               **<signaling>**  
                   <prefix-limit>...</prefix-limit>  
                   <accepted-prefix-limit>...</accepted-prefix-limit>  
                   <rib-group>...</rib-group>  
               **</signaling>**  
               </inet-mvpn>  
               </family>  
               </group>  
               </bgp>  
               </protocols>  
               </logical-systems>  
               </configuration>

**Description**   Include IPv4 multicast VPN signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

                  <prefix-limit>—Limit maximum number of prefixes from a peer.

                  <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/protocols/bgp/group/family/inet6-mvpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <family>
            <inet6-mvpn>
              <signaling>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
              </signaling>
            </inet6-mvpn>
          </family>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>

```

**Description** Include IPv6 multicast VPN signaling NLRI.

**Contents**

- <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.
- <prefix-limit>—Limit maximum number of prefixes from a peer.
- <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/protocols/bgp/group/family/l2vpn)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <protocols>  
               <bgp>  
               <group>  
               <family>  
               <l2vpn>  
               **<signaling>**  
                   <prefix-limit>...</prefix-limit>  
                   <accepted-prefix-limit>...</accepted-prefix-limit>  
                   <rib-group>...</rib-group>  
               **</signaling>**  
               </l2vpn>  
               </family>  
               </group>  
               </bgp>  
               </protocols>  
               </logical-systems>  
               </configuration>

**Description**   Include Layer 2 VPN and VPLS signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
               <prefix-limit>—Limit maximum number of prefixes from a peer.  
               <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/protocols/bgp/group/neighbor/family/inet-mvpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <family>
              <inet-mvpn>
                <signaling>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </signaling>
              </inet-mvpn>
            </family>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>

```

**Description** Include IPv4 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/protocols/bgp/group/neighbor/family/inet6-mvpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <family>
              <inet6-mvpn>
                <signaling>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </signaling>
              </inet6-mvpn>
            </family>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>

```

**Description** Include IPv6 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/protocols/bgp/group/neighbor/family/l2vpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <family>
              <l2vpn>
                <signaling>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </signaling>
              </l2vpn>
            </family>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>

```

**Description** Include Layer 2 VPN and VPLS signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.



## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/family/inet-mvpn)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <bgp>  
               <family>  
               <inet-mvpn>  
               **<signaling>**  
                   <prefix-limit>...</prefix-limit>  
                   <accepted-prefix-limit>...</accepted-prefix-limit>  
                   <rib-group>...</rib-group>  
               **</signaling>**  
               </inet-mvpn>  
               </family>  
               </bgp>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </logical-systems>  
               </configuration>

**Description**   Include IPv4 multicast VPN signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

                  <prefix-limit>—Limit maximum number of prefixes from a peer.

                  <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/family/inet6-mvpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <family>
              <inet6-mvpn>
                <signaling>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </signaling>
              </inet6-mvpn>
            </family>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Include IPv6 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/family/l2vpn)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <bgp>  
               <family>  
               <l2vpn>  
               **<signaling>**  
                   <prefix-limit>...</prefix-limit>  
                   <accepted-prefix-limit>...</accepted-prefix-limit>  
                   <rib-group>...</rib-group>  
               **</signaling>**  
               </l2vpn>  
               </family>  
               </bgp>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </logical-systems>  
               </configuration>

**Description**   Include Layer 2 VPN and VPLS signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

                  <prefix-limit>—Limit maximum number of prefixes from a peer.

                  <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/group/family/inet-mvpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <family>
                <inet-mvpn>
                  <signaling>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                  </signaling>
                </inet-mvpn>
              </family>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Include IPv4 multicast VPN signaling NLRI.

**Contents**

- <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.
- <prefix-limit>—Limit maximum number of prefixes from a peer.
- <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/group/family/inet6-mvpn)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <bgp>  
               <group>  
               <family>  
               <inet6-mvpn>  
               **<signaling>**  
                   <prefix-limit>...</prefix-limit>  
                   <accepted-prefix-limit>...</accepted-prefix-limit>  
                   <rib-group>...</rib-group>  
               **</signaling>**  
               </inet6-mvpn>  
               </family>  
               </group>  
               </bgp>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </logical-systems>  
               </configuration>

**Description**   Include IPv6 multicast VPN signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
               <prefix-limit>—Limit maximum number of prefixes from a peer.  
               <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/group/family/l2vpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <family>
                <l2vpn>
                  <signaling>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                  </signaling>
                </l2vpn>
              </family>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Include Layer 2 VPN and VPLS signaling NLRI.

**Contents**

- <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.
- <prefix-limit>—Limit maximum number of prefixes from a peer.
- <rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-mvpn)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <bgp>  
                         <group>  
                             <neighbor>  
                                 <family>  
                                     <inet-mvpn>  
   **<signaling>**  
   <prefix-limit>...</prefix-limit>  
   <accepted-prefix-limit>...</accepted-prefix-limit>  
   <rib-group>...</rib-group>  
   **</signaling>**  
                                     </inet-mvpn>  
                                 </family>  
                             </neighbor>  
                         </group>  
                     </bgp>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** Include IPv4 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6-mvpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <family>
                  <inet6-mvpn>
                    <signaling>
                      <prefix-limit>...</prefix-limit>
                      <accepted-prefix-limit>...</accepted-prefix-limit>
                      <rib-group>...</rib-group>
                    </signaling>
                  </inet6-mvpn>
                </family>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Include IPv6 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.



## **<signaling> (configuration/logical-systems/routing-instances/instance/protocols/bgp/group/neighbor/family/l2vpn)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <family>
                  <l2vpn>
                    <signaling>
                      <prefix-limit>...</prefix-limit>
                      <accepted-prefix-limit>...</accepted-prefix-limit>
                      <rib-group>...</rib-group>
                    </signaling>
                  </l2vpn>
                </family>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Include Layer 2 VPN and VPLS signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

**<signaling> (configuration/protocols/bgp/family/inet-mvpn)**

---

**Usage** <configuration>  
           <protocols>  
             <bgp>  
               <family>  
                 <inet-mvpn>  
                   **<signaling>**  
                     <prefix-limit>...</prefix-limit>  
                     <accepted-prefix-limit>...</accepted-prefix-limit>  
                     <rib-group>...</rib-group>  
                   **</signaling>**  
                 </inet-mvpn>  
               </family>  
             </bgp>  
           </protocols>  
         </configuration>

**Description** Include IPv4 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
               <prefix-limit>—Limit maximum number of prefixes from a peer.  
               <rib-group>—Routing table group.

**<signaling> (configuration/protocols/bgp/family/inet6-mvpn)**

---

**Usage** <configuration>  
           <protocols>  
             <bgp>  
               <family>  
                 <inet6-mvpn>  
                   **<signaling>**  
                     <prefix-limit>...</prefix-limit>  
                     <accepted-prefix-limit>...</accepted-prefix-limit>  
                     <rib-group>...</rib-group>  
                   **</signaling>**  
                 </inet6-mvpn>  
               </family>  
             </bgp>  
           </protocols>  
         </configuration>

**Description** Include IPv6 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
               <prefix-limit>—Limit maximum number of prefixes from a peer.  
               <rib-group>—Routing table group.

**<signaling> (configuration/protocols/bgp/family/l2vpn)**

---

**Usage** <configuration>  
           <protocols>  
             <bgp>  
               <family>  
                 <l2vpn>  
                   **<signaling>**  
                     <prefix-limit>...</prefix-limit>  
                     <accepted-prefix-limit>...</accepted-prefix-limit>  
                     <rib-group>...</rib-group>  
                   **</signaling>**  
                 </l2vpn>  
               </family>  
             </bgp>  
           </protocols>  
         </configuration>

**Description** Include Layer 2 VPN and VPLS signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

**<signaling> (configuration/protocols/bgp/group/family/inet-mvpn)**

---

**Usage** <configuration>  
           <protocols>  
             <bgp>  
               <group>  
                 <family>  
                   <inet-mvpn>  
                     **<signaling>**  
                       <prefix-limit>...</prefix-limit>  
                       <accepted-prefix-limit>...</accepted-prefix-limit>  
                       <rib-group>...</rib-group>  
                     **</signaling>**  
                   </inet-mvpn>  
                 </family>  
               </group>  
             </bgp>  
           </protocols>  
         </configuration>

**Description** Include IPv4 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

**<signaling> (configuration/protocols/bgp/group/family/inet6-mvpn)**

---

**Usage** <configuration>  
    <protocols>  
        <bgp>  
            <group>  
                <family>  
                    <inet6-mvpn>  
                        **<signaling>**  
                            <prefix-limit>...</prefix-limit>  
                            <accepted-prefix-limit>...</accepted-prefix-limit>  
                            <rib-group>...</rib-group>  
                        **</signaling>**  
                    </inet6-mvpn>  
                </family>  
            </group>  
        </bgp>  
    </protocols>  
</configuration>

**Description** Include IPv6 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

**<signaling> (configuration/protocols/bgp/group/family/l2vpn)**

---

**Usage**   <configuration>  
          <protocols>  
          <bgp>  
          <group>  
          <family>  
          <l2vpn>  
          **<signaling>**  
          <prefix-limit>...</prefix-limit>  
          <accepted-prefix-limit>...</accepted-prefix-limit>  
          <rib-group>...</rib-group>  
          **</signaling>**  
          </l2vpn>  
          </family>  
          </group>  
          </bgp>  
          </protocols>  
          </configuration>

**Description**   Include Layer 2 VPN and VPLS signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

              <prefix-limit>—Limit maximum number of prefixes from a peer.

              <rib-group>—Routing table group.

## **<signaling> (configuration/protocols/bgp/group/neighbor/family/inet-mvpn)**

---

**Usage**

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-mvpn>
              <signaling>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
              </signaling>
            </inet-mvpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

**Description** Include IPv4 multicast VPN signaling NLRI.

**Contents**

- <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.
- <prefix-limit>—Limit maximum number of prefixes from a peer.
- <rib-group>—Routing table group.

## **<signaling> (configuration/protocols/bgp/group/neighbor/family/inet6-mvpn)**

---

**Usage**   <configuration>  
               <protocols>  
                   <bgp>  
                       <group>  
                           <neighbor>  
                               <family>  
                                   <inet6-mvpn>  
                                       **<signaling>**  
   <prefix-limit>...</prefix-limit>  
   <accepted-prefix-limit>...</accepted-prefix-limit>  
   <rib-group>...</rib-group>  
                                       **</signaling>**  
                                   </inet6-mvpn>  
                               </family>  
                           </neighbor>  
                       </group>  
                   </bgp>  
               </protocols>  
           </configuration>

**Description**   Include IPv6 multicast VPN signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
               <prefix-limit>—Limit maximum number of prefixes from a peer.  
               <rib-group>—Routing table group.

**<signaling> (configuration/protocols/bgp/group/neighbor/family/l2vpn)**

---

**Usage**

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <l2vpn>
              <signaling>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
              </signaling>
            </l2vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

**Description** Include Layer 2 VPN and VPLS signaling NLRI.

**Contents**

- <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.
- <prefix-limit>—Limit maximum number of prefixes from a peer.
- <rib-group>—Routing table group.



## **<signaling> (configuration/routing-instances/instance/protocols/bgp/family/inet-mvpn)**

---

**Usage**   <configuration>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <bgp>  
               <family>  
               <inet-mvpn>  
               **<signaling>**  
                   <prefix-limit>...</prefix-limit>  
                   <accepted-prefix-limit>...</accepted-prefix-limit>  
                   <rib-group>...</rib-group>  
               **</signaling>**  
               </inet-mvpn>  
               </family>  
               </bgp>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </configuration>

**Description**   Include IPv4 multicast VPN signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
               <prefix-limit>—Limit maximum number of prefixes from a peer.  
               <rib-group>—Routing table group.

## **<signaling> (configuration/routing-instances/instance/protocols/bgp/family/inet6-mvpn)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6-mvpn>
              <signaling>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
              </signaling>
            </inet6-mvpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Include IPv6 multicast VPN signaling NLRI.

**Contents**

- <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.
- <prefix-limit>—Limit maximum number of prefixes from a peer.
- <rib-group>—Routing table group.

## **<signaling> (configuration/routing-instances/instance/protocols/bgp/family/l2vpn)**

---

**Usage**   <configuration>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <bgp>  
               <family>  
               <l2vpn>  
               **<signaling>**  
                   <prefix-limit>...</prefix-limit>  
                   <accepted-prefix-limit>...</accepted-prefix-limit>  
                   <rib-group>...</rib-group>  
               **</signaling>**  
               </l2vpn>  
               </family>  
               </bgp>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </configuration>

**Description**   Include Layer 2 VPN and VPLS signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.  
               <prefix-limit>—Limit maximum number of prefixes from a peer.  
               <rib-group>—Routing table group.

## **<signaling> (configuration/routing-instances/instance/protocols/bgp/group/family/inet-mvpn)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-mvpn>
                <signaling>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </signaling>
              </inet-mvpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Include IPv4 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

## **<signaling> (configuration/routing-instances/instance/protocols/bgp/group/family/inet6-mvpn)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <protocols>  
                         <bgp>  
                           <group>  
                               <family>  
                                 <inet6-mvpn>  
                                   **<signaling>**  
                                     <prefix-limit>...</prefix-limit>  
                                     <accepted-prefix-limit>...</accepted-prefix-limit>  
                                     <rib-group>...</rib-group>  
                                   **</signaling>**  
                                 </inet6-mvpn>  
                               </family>  
                           </group>  
                         </bgp>  
                       </protocols>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Include IPv6 multicast VPN signaling NLRI.

**Contents**   <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

              <prefix-limit>—Limit maximum number of prefixes from a peer.

              <rib-group>—Routing table group.

## **<signaling> (configuration/routing-instances/instance/protocols/bgp/group/family/l2vpn)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <l2vpn>
                <signaling>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </signaling>
              </l2vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Include Layer 2 VPN and VPLS signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

## **<signaling> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet-mvpn)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-mvpn>
                  <signaling>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                  </signaling>
                </inet-mvpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Include IPv4 multicast VPN signaling NLRI.

**Contents** <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

## **<signaling> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/inet6-mvpn)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6-mvpn>
                  <signaling>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                  </signaling>
                </inet6-mvpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Include IPv6 multicast VPN signaling NLRI.

**Contents**

- <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.
- <prefix-limit>—Limit maximum number of prefixes from a peer.
- <rib-group>—Routing table group.



## **<signaling> (configuration/routing-instances/instance/protocols/bgp/group/neighbor/family/l2vpn)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <l2vpn>
                  <signaling>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                  </signaling>
                </l2vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Include Layer 2 VPN and VPLS signaling NLRI.

**Contents**

- <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.
- <prefix-limit>—Limit maximum number of prefixes from a peer.
- <rib-group>—Routing table group.

**<signaling> (configuration/services/ggsn/apn/pdp-context)**

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <pdp-context>
          <signaling>
            <ggsn-deletes-per-second>ggsn-deletes-per-second
            </ggsn-deletes-per-second>
            <ggsn-deletes-no-limit/>
            <sgsn-creates-per-second>sgsn-creates-per-second
            </sgsn-creates-per-second>
          </signaling>
        </pdp-context>
      </apn>
    </ggsn>
  </services>
</configuration>

```

**Description** PDP-Context signaling options for this APN.

**Contents** <ggsn-deletes-no-limit>—No limit for GGSN-initiated deletions.

<ggsn-deletes-per-second>—GGSN-initiated deletions per second per session controller.

<sgsn-creates-per-second>—Maximum SGSN creates per second per session controller.

**<signaling> (configuration/services/ggsn/pdp-context)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <pdp-context>  
                 **<signaling>**  
                   <ggsn-deletes-per-second>*ggsn-deletes-per-second*  
                     </ggsn-deletes-per-second>  
                   <sgsn-creates-per-second>*sgsn-creates-per-second*  
                     </sgsn-creates-per-second>  
                   <sgsn-create-request-window-size>*sgsn-create-request-window-size*  
                     </sgsn-create-request-window-size>  
                 **</signaling>**  
               </pdp-context>  
             </ggsn>  
           </services>  
         </configuration>

**Description** PDP context signaling settings.

**Contents** <ggsn-deletes-per-second>—GGSN-initiated deletions per second per session controller.

<sgsn-create-request-window-size>—Maximum number of outstanding create requests.

<sgsn-creates-per-second>—Maximum SGSN creates per second per session controller.

**<signaling-classification> (configuration/services/ggsn/service-set/service-identification)**

---

**Usage** <configuration>  
           <services>  
             <ggsn>  
               <service-set>  
                 <service-identification>  
                   **<signaling-classification>**  
                     <setup>...</setup>  
                     <teardown>...</teardown>  
                   **</signaling-classification>**  
                 </service-identification>  
               </service-set>  
             </ggsn>  
           </services>  
         </configuration>

**Description** Settings for classification of session set-up and tear-down.

**Contents** <setup>—Settings for connection set-up.

<teardown>—Settings for connection tear-down.

## **<simple-filter> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet)**

---

**Usage** <configuration>  
     <dynamic-profiles>  
         <interfaces>  
             <interface>  
                 <unit>  
                     <family>  
                         <inet>  
                             **<simple-filter>**  
                                 <input>*input*</input>  
                             **</simple-filter>**  
                         </inet>  
                     </family>  
                 </unit>  
             </interface>  
         </interfaces>  
     </dynamic-profiles>  
 </configuration>

**Description** Filter for doing multifield classification.

**Contents** <input>—Name of simple filter applied to received packets.

## **<simple-filter> (configuration/firewall/family/inet)**

---

**Usage** <configuration>  
     <firewall>  
         <family>  
             <inet>  
                 **<simple-filter>**  
                     <name>*name*</name>   <!-- identifier -->  
                     <term>...</term>  
                 **</simple-filter>**  
             </inet>  
         </family>  
     </firewall>  
 </configuration>

**Description** Define an IPv4 firewall simple filter.

**Contents** <name>—Name of simple filter.

<term>—One or more firewall terms.

## <simple-filter> (configuration/interfaces/interface/unit/family/inet)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;interfaces&gt;     &lt;interface&gt;       &lt;unit&gt;         &lt;family&gt;           &lt;inet&gt;             &lt;simple-filter&gt;               &lt;input&gt;input&lt;/input&gt;             &lt;/simple-filter&gt;           &lt;/inet&gt;         &lt;/family&gt;       &lt;/unit&gt;     &lt;/interface&gt;   &lt;/interfaces&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Filter for doing multifield classification.
<b>Contents</b>	<input>—Name of simple filter applied to received packets.

## <simple-filter> (configuration/logical-systems/firewall/family/inet)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;firewall&gt;       &lt;family&gt;         &lt;inet&gt;           &lt;simple-filter&gt;             &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;term&gt;...&lt;/term&gt;           &lt;/simple-filter&gt;         &lt;/inet&gt;       &lt;/family&gt;     &lt;/firewall&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define an IPv4 firewall simple filter.
<b>Contents</b>	<p>&lt;name&gt;—Name of simple filter.</p> <p>&lt;term&gt;—One or more firewall terms.</p>

## <simple-filter> (configuration/logical-systems/interfaces/interface/unit/family/inet)

---

**Usage** <configuration>  
     <logical-systems>  
         <interfaces>  
             <interface>  
                 <unit>  
                     <family>  
                         <inet>  
                             **<simple-filter>**  
                                 <input>*input*</input>  
                             **</simple-filter>**  
                         </inet>  
                     </family>  
                 </unit>  
             </interface>  
         </interfaces>  
     </logical-systems>  
 </configuration>

**Description** Filter for doing multifield classification.

**Contents** <input>—Name of simple filter applied to received packets.

## <single-rate> (configuration/firewall/three-color-policer)

---

**Usage** <configuration>  
     <firewall>  
         <three-color-policer>  
             **<single-rate>**  
                 <color-blind/>  
                 <color-aware/>  
                 <committed-information-rate>*bits per second*</committed-information-rate>  
                 <committed-burst-size>*bytes*</committed-burst-size>  
                 <excess-burst-size>*bytes*</excess-burst-size>  
             **</single-rate>**  
         </three-color-policer>  
     </firewall>  
 </configuration>

**Description** Single-rate policer.

**Contents** <color-aware>—Color-aware mode.

<color-blind>—Color-blind mode.

<committed-burst-size>—Burst size allowed for committed traffic.

<committed-information-rate>—Bandwidth allowed for committed traffic.

<excess-burst-size>—Burst size allowed for excess traffic.

## <single-rate> (configuration/logical-systems/firewall/three-color-policer)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;firewall&gt;       &lt;three-color-policer&gt;         &lt;single-rate&gt;           &lt;color-blind/&gt;           &lt;color-aware/&gt;           &lt;committed-information-rate&gt;<i>bits per second</i>             &lt;/committed-information-rate&gt;           &lt;committed-burst-size&gt;<i>bytes</i>&lt;/committed-burst-size&gt;           &lt;excess-burst-size&gt;<i>bytes</i>&lt;/excess-burst-size&gt;         &lt;/single-rate&gt;       &lt;/three-color-policer&gt;     &lt;/firewall&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Single-rate policer.
<b>Contents</b>	<p>&lt;color-aware&gt;—Color-aware mode.</p> <p>&lt;color-blind&gt;—Color-blind mode.</p> <p>&lt;committed-burst-size&gt;—Burst size allowed for committed traffic.</p> <p>&lt;committed-information-rate&gt;—Bandwidth allowed for committed traffic.</p> <p>&lt;excess-burst-size&gt;—Burst size allowed for excess traffic.</p>

## <sip> (configuration/services/cos/application-profile)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;cos&gt;       &lt;application-profile&gt;         &lt;sip&gt;           &lt;voice&gt;...&lt;/voice&gt;           &lt;video&gt;...&lt;/video&gt;         &lt;/sip&gt;       &lt;/application-profile&gt;     &lt;/cos&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	CoS treatment of Session Initiation Protocol data.
<b>Contents</b>	<p>&lt;video&gt;—CoS treatment of SIP video data.</p> <p>&lt;voice&gt;—CoS treatment of SIP voice data.</p>

## **<sip> (configuration/services/ggsn/service-identification/sip-rule/term/from)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;service-identification&gt;         &lt;sip-rule&gt;           &lt;term&gt;             &lt;from&gt;               <b>&lt;sip&gt;</b>                 &lt;request-uri&gt;...&lt;/request-uri&gt;                 &lt;response-code&gt;...&lt;/response-code&gt;                 &lt;via&gt;...&lt;/via&gt;               <b>&lt;/sip&gt;</b>             &lt;/from&gt;           &lt;/term&gt;         &lt;/sip-rule&gt;       &lt;/service-identification&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Match SIP sessions.
<b>Contents</b>	<p>&lt;request-uri&gt;—URI settings.</p> <p>&lt;response-code&gt;—Response code settings.</p> <p>&lt;via&gt;—Via settings.</p>

## **<sip-rule> (configuration/services/ggsn/service-identification)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;service-identification&gt;         <b>&lt;sip-rule&gt;</b>           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;           &lt;term&gt;...&lt;/term&gt;    &lt;!-- mandatory --&gt;         <b>&lt;/sip-rule&gt;</b>       &lt;/service-identification&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SIP rule.
<b>Contents</b>	<p>&lt;name&gt;—Rule name.</p> <p>&lt;term&gt;—Define a service identification term.</p>



## **<sip-rule-set> (configuration/services/ggsn/service-identification)**

---

**Usage**   <configuration>  
           <services>  
           <ggsn>  
           <service-identification>  
             **<sip-rule-set>**  
               <name>*name*</name>   <!-- identifier -->  
               <rule>...</rule>  
             **</sip-rule-set>**  
           </service-identification>  
         </ggsn>  
       </services>  
     </configuration>

**Description**   Define a set of SIP rules.

**Contents**   <name>—Name of the rule set.

              <rule>—Rule to be included in this rule set.

## <site> (configuration/logical-systems/routing-instances/instance/protocols/l2vpn)

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <l2vpn>
            <site>
              <name>name</name>    <!-- identifier -->
              <site-identifier>site-identifier</site-identifier>
              <automatic-site-id>...</automatic-site-id>
              <multi-homing/>
              <site-preference>site-preference-choice</site-preference>
              <mesh-group>...</mesh-group>
              <active-interface>...</active-interface>
              <interface>...</interface>
            </site>
          </l2vpn>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Sites connected to this provider equipment.

**Contents**

- <active-interface>—Configure interface to designate as active.
- <automatic-site-id>—Enable automatic assignment of site identifier.
- <interface>—Interface that connect this site to the VPN.
- <mesh-group>—Mesh-groups that are part of this site.
- <multi-homing>—Enable multi-homing functionality for this site.
- <name>—Name of Layer 2 VPN or VPLS site.
- <site-identifier>—Layer 2 VPN or VPLS site identifier (unique in the VPN).
- <site-preference>—Layer 2 VPN or VPLS site preference.
- backup—Default preference value for backup site interconnection.
- preference-value—Explicit preference value for site interconnection.
- primary—Default preference value for primary site interconnection.

## **<site> (configuration/logical-systems/routing-instances/instance/protocols/vpls)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <vpls>
            <site>
              <name>name</name>    <!-- identifier -->
              <site-identifier>site-identifier</site-identifier>
              <automatic-site-id>...</automatic-site-id>
              <multi-homing/>
              <site-preference>site-preference-choice</site-preference>
              <mesh-group>...</mesh-group>
              <active-interface>...</active-interface>
              <interface>...</interface>
            </site>
          </vpls>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Sites connected to this provider equipment.

**Contents**

- <active-interface>—Configure interface to designate as active.
- <automatic-site-id>—Enable automatic assignment of site identifier.
- <interface>—Interface that connect this site to the VPN.
- <mesh-group>—Mesh-groups that are part of this site.
- <multi-homing>—Enable multi-homing functionality for this site.
- <name>—Name of Layer 2 VPN or VPLS site.
- <site-identifier>—Layer 2 VPN or VPLS site identifier (unique in the VPN).
- <site-preference>—Layer 2 VPN or VPLS site preference.
- backup—Default preference value for backup site interconnection.
- preference-value—Explicit preference value for site interconnection.
- primary—Default preference value for primary site interconnection.

**<site> (configuration/routing-instances/instance/protocols/l2vpn)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <site>
            <name>name</name>    <!-- identifier -->
            <site-identifier>site-identifier</site-identifier>
            <automatic-site-id>...</automatic-site-id>
            <multi-homing/>
            <site-preference>site-preference-choice</site-preference>
            <mesh-group>...</mesh-group>
            <active-interface>...</active-interface>
            <interface>...</interface>
          </site>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Sites connected to this provider equipment.

**Contents**

- <active-interface>—Configure interface to designate as active.
- <automatic-site-id>—Enable automatic assignment of site identifier.
- <interface>—Interface that connect this site to the VPN.
- <mesh-group>—Mesh-groups that are part of this site.
- <multi-homing>—Enable multi-homing functionality for this site.
- <name>—Name of Layer 2 VPN or VPLS site.
- <site-identifier>—Layer 2 VPN or VPLS site identifier (unique in the VPN).
- <site-preference>—Layer 2 VPN or VPLS site preference.
- backup—Default preference value for backup site interconnection.
- preference-value—Explicit preference value for site interconnection.
- primary—Default preference value for primary site interconnection.

**<site> (configuration/routing-instances/instance/protocols/vpls)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <vpls>
          <site>
            <name>name</name>    <!-- identifier -->
            <site-identifier>site-identifier</site-identifier>
            <automatic-site-id>...</automatic-site-id>
            <multi-homing/>
            <site-preference>site-preference-choice</site-preference>
            <mesh-group>...</mesh-group>
            <active-interface>...</active-interface>
            <interface>...</interface>
          </site>
        </vpls>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Sites connected to this provider equipment.

**Contents**

- <active-interface>—Configure interface to designate as active.
- <automatic-site-id>—Enable automatic assignment of site identifier.
- <interface>—Interface that connect this site to the VPN.
- <mesh-group>—Mesh-groups that are part of this site.
- <multi-homing>—Enable multi-homing functionality for this site.
- <name>—Name of Layer 2 VPN or VPLS site.
- <site-identifier>—Layer 2 VPN or VPLS site identifier (unique in the VPN).
- <site-preference>—Layer 2 VPN or VPLS site preference.
- backup—Default preference value for backup site interconnection.
- preference-value—Explicit preference value for site interconnection.
- primary—Default preference value for primary site interconnection.

## **<smtp> (configuration/services/ggsn/service-identification/smtp-rule/term/from)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <service-identification>  
                 <smtp-rule>  
                     <term>  
                         <from>  
                             **<smtp>**  
                                 <sender>...</sender>  
                             **</smtp>**  
                         </from>  
                     </term>  
                 </smtp-rule>  
     </service-identification>  
     </ggsn>  
     </services>  
 </configuration>

**Description** Match SMTP sessions.

**Contents** <sender>—Match smtp sender.

## **<smtp-rule> (configuration/services/ggsn/service-identification)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <service-identification>  
                 **<smtp-rule>**  
                     <name>name</name>   <!-- identifier -->  
                     <term>...</term>   <!-- mandatory -->  
                 **</smtp-rule>**  
     </service-identification>  
     </ggsn>  
     </services>  
 </configuration>

**Description** SMTP rule.

**Contents** <name>—Rule name.

            <term>—Define a service identification term.

## **<smtp-rule-set> (configuration/services/ggsn/service-identification)**

---

**Usage**   <configuration>  
           <services>  
           <ggsn>  
           <service-identification>  
             **<smtp-rule-set>**  
               <name>name</name>   <!-- identifier -->  
               <rule>...</rule>  
             **</smtp-rule-set>**  
           </service-identification>  
         </ggsn>  
       </services>  
     </configuration>

**Description**   Define a set of SMTP rules.

**Contents**   <name>—Name of the rule set.

          <rule>—Rule to be included in this rule set.

**<snmp> (configuration)**

---

**Usage** <configuration>  
     **<snmp>**  
         <system-name>system-name</system-name>  
         <description>description</description>  
         <location>location</location>  
         <contact>contact</contact>  
         <interface>...</interface>  
         <filter-duplicates/>  
         <nonvolatile>...</nonvolatile>  
         <v3>...</v3>  
         <engine-id>...</engine-id>  
         <view>...</view>  
         <client-list>...</client-list>  
         <community>...</community>  
         <trap-options>...</trap-options>  
         <trap-group>...</trap-group>  
         <routing-instance-access>...</routing-instance-access>  
         <logical-system-trap-filter/>  
         <traceoptions>...</traceoptions>  
         <rmon>...</rmon>  
         <health-monitor>...</health-monitor>  
     **</snmp>**  
 </configuration>

**Description** Simple Network Management Protocol configuration.

**Contents** <client-list>—Client list.

<community>—Configure a community string.

<contact>—Contact information for administrator.

<description>—System description.

<engine-id>—SNMPv3 engine ID.

<filter-duplicates>—Filter requests with duplicate source address/port and request ID.

<health-monitor>—Health monitoring configuration.

<interface>—Restrict SNMP requests to interfaces.

<location>—Physical location of system.

<logical-system-trap-filter>—Allow only logical-system specific traps.

<nonvolatile>—Configure the handling of nonvolatile SNMP Set requests.

<rmon>—Remote Monitoring configuration.

<routing-instance-access>—SNMP routing-instance options.



<system-name>—System name override.

<traceoptions>—Trace options for SNMP.

<trap-group>—Configure traps and notifications.

<trap-options>—SNMP trap options.

<v3>—SNMPv3 configuration information.

<view>—Define MIB views.

## **<snmp-community> (configuration/snmp/v3)**

---

**Usage** <configuration>  
     <snmp>  
         <v3>  
             **<snmp-community>**  
                 <name>*name*</name>   <!-- identifier -->  
                 <community-name>*community-name*</community-name>  
                 <security-name>*security-name*</security-name>   <!-- mandatory -->  
                 <context>*context*</context>  
                 <tag>*tag*</tag>  
             **</snmp-community>**  
         </v3>  
     </snmp>  
</configuration>

**Description** SNMP community and view-based access control model configuration.

**Contents** <community-name>—SNMPv1/v2c community name (default is same as community-index).

<context>—Context used when performing access control.

<name>—Unique index value in this community table entry.

<security-name>—Security name used when performing access control.

<tag>—Tag identifier for set of targets allowed to use this community string.

## **<snr-margin> (configuration/dynamic-profiles/interfaces/interface/shdsl-options)**

---

**Usage**   <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
           <shdsl-options>  
           **<snr-margin>**  
           <current>current-choice</current>  
           <snext>snext-choice</snext>  
           **</snr-margin>**  
           </shdsl-options>  
           </interface>  
           </interfaces>  
           </dynamic-profiles>  
         </configuration>

**Description**   Signal to noise ratio margin.

**Contents**   <current>—Current signal to noise ratio margin.

- disable—Disable current signal to noise ratio margin.
- value—Value of current signal to noise ratio margin.

      <snext>—SNEXT signal to noise ratio margin.

- disable—Disable SNEXT signal to noise ratio margin.
- value—Value of SNEXT signal to noise ratio margin.

**<snr-margin> (configuration/interfaces/interface/shdsl-options)**

---

- Usage** <configuration>  
           <interfaces>  
             <interface>  
               <shdsl-options>  
                 **<snr-margin>**  
                   <current>*current-choice*</current>  
                   <snext>*snext-choice*</snext>  
                 **</snr-margin>**  
               </shdsl-options>  
             </interface>  
           </interfaces>  
         </configuration>
- Description** Signal to noise ratio margin.
- Contents** <current>—Current signal to noise ratio margin.
- disable—Disable current signal to noise ratio margin.
  - value—Value of current signal to noise ratio margin.
- <snext>—SNEXT signal to noise ratio margin.
- disable—Disable SNEXT signal to noise ratio margin.
  - value—Value of SNEXT signal to noise ratio margin.

**<soft-preemption> (configuration/logical-systems/protocols/rsvp/preemption)**

---

- Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <rsvp>  
                 <preemption>  
                   **<soft-preemption>**  
                     <cleanup-timer>*seconds*</cleanup-timer>  
                   **</soft-preemption>**  
                 </preemption>  
               </rsvp>  
             </protocols>  
           </logical-systems>  
         </configuration>
- Description** Options for establishing new path before tearing down a preempted LSP.
- Contents** <cleanup-timer>—Time a soft-preempted LSP will be maintained.

**<soft-preemption> (configuration/protocols/rsvp/preemption)**

---

**Usage** <configuration>  
           <protocols>  
             <rsvp>  
               <preemption>  
                 **<soft-preemption>**  
                   <cleanup-timer>*seconds*</cleanup-timer>  
                 **</soft-preemption>**  
               </preemption>  
             </rsvp>  
           </protocols>  
         </configuration>

**Description** Options for establishing new path before tearing down a preempted LSP.

**Contents** <cleanup-timer>—Time a soft-preempted LSP will be maintained.

**<sonet> (configuration/chassis/aggregated-devices)**

---

**Usage** <configuration>  
           <chassis>  
             <aggregated-devices>  
               **<sonet>**  
                 <device-count>*device-count*</device-count>  
               **</sonet>**  
             </aggregated-devices>  
           </chassis>  
         </configuration>

**Description** Aggregated device options for SONET.

**Contents** <device-count>—Number of aggregated SONET devices.

**<sonet> (configuration/chassis/alarm)**

---

**Usage** <configuration>  
           <chassis>  
           <alarm>  
           **<sonet>**  
             <lol>*lol-choice*</lol>  
             <pll>*pll-choice*</pll>  
             <lof>*lof-choice*</lof>  
             <los>*los-choice*</los>  
             <ais-l>*ais-l-choice*</ais-l>  
             <ais-p>*ais-p-choice*</ais-p>  
             <lop-p>*lop-p-choice*</lop-p>  
             <ber-sd>*ber-sd-choice*</ber-sd>  
             <ber-sf>*ber-sf-choice*</ber-sf>  
             <rfl-l>*rfl-l-choice*</rfl-l>  
             <rfl-p>*rfl-p-choice*</rfl-p>  
             <uneq-p>*uneq-p-choice*</uneq-p>  
             <locd>*locd-choice*</locd>  
             <plm-p>*plm-p-choice*</plm-p>  
           **</sonet>**  
           </alarm>  
         </chassis>  
       </configuration>

**Description** SONET alarms.

**Contents** <ais-l>—Line alarm indication signal, AIS-L failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ais-p>—Path alarm indication signal, AIS-P failure.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ber-sd>—Signal Degrade (SD), bit error rate > 1E-6.

- ignore—Do not assert any alarm signals.
- red—Assert red system alarm.
- yellow—Assert yellow system alarm.

<ber-sf>—Signal Fail (SF), bit error rate > 1E-3.

- ignore—Do not assert any alarm signals.

- **red**—Assert red system alarm.
  - **yellow**—Assert yellow system alarm.
- <locd>**—Loss of cell delineation (ATM only).
- **ignore**—Do not assert any alarm signals.
  - **red**—Assert red system alarm.
  - **yellow**—Assert yellow system alarm.
- <lof>**—Loss of framing, LOF failure.
- **ignore**—Do not assert any alarm signals.
  - **red**—Assert red system alarm.
  - **yellow**—Assert yellow system alarm.
- <lol>**—Loss of light.
- **ignore**—Do not assert any alarm signals.
  - **red**—Assert red system alarm.
  - **yellow**—Assert yellow system alarm.
- <lop-p>**—Loss of pointer, LOP-P failure.
- **ignore**—Do not assert any alarm signals.
  - **red**—Assert red system alarm.
  - **yellow**—Assert yellow system alarm.
- <los>**—Loss of signal, LOS failure.
- **ignore**—Do not assert any alarm signals.
  - **red**—Assert red system alarm.
  - **yellow**—Assert yellow system alarm.
- <pll>**—Phase locked loop out of lock.
- **ignore**—Do not assert any alarm signals.
  - **red**—Assert red system alarm.
  - **yellow**—Assert yellow system alarm.
- <plm-p>**—STS payload label (C2) mismatch, PLM-P failure.
- **ignore**—Do not assert any alarm signals.

- **red**—Assert red system alarm.

- **yellow**—Assert yellow system alarm.

**<rfl-l>**—Line remote failure indication, RFI-L, line FERF.

- **ignore**—Do not assert any alarm signals.

- **red**—Assert red system alarm.

- **yellow**—Assert yellow system alarm.

**<rfl-p>**—Path remote failure indication, RFI-P, STS path yellow.

- **ignore**—Do not assert any alarm signals.

- **red**—Assert red system alarm.

- **yellow**—Assert yellow system alarm.

**<uneq-p>**—STS Path (C2) unequipped, UNEQ-P failure.

- **ignore**—Do not assert any alarm signals.

- **red**—Assert red system alarm.

- **yellow**—Assert yellow system alarm.

## **<sonet> (configuration/dynamic-profiles/interfaces/interface/container-options/member-interface-type)**

---

**Usage**    <configuration>  
              <dynamic-profiles>  
              <interfaces>  
              <interface>  
              <container-options>  
              <member-interface-type>  
                 **<sonet>**  
                 <member-interface-speed>*member-interface-speed-choice*  
                 </member-interface-speed>    <!-- mandatory -->  
                 **</sonet>**  
              </member-interface-type>  
              </container-options>  
              </interface>  
              </interfaces>  
              </dynamic-profiles>  
              </configuration>

**Description**    No documentation is available yet.

**Contents**    <member-interface-speed>—Link speed of members of container.

- mixed—Links are of different speeds.
- oc12—Links are OC-12.
- oc192—Links are OC-192.
- oc3—Links are OC-3.
- oc48—Links are OC-48.
- oc768—Links are OC-768.



## **<sonet> (configuration/interfaces/interface/container-options/member-interface-type)**

---

**Usage**   <configuration>  
               <interfaces>  
                   <interface>  
                       <container-options>  
                           <member-interface-type>  
                               **<sonet>**  
                                   <member-interface-speed>*member-interface-speed-choice*  
                                       </member-interface-speed>   <!-- mandatory -->  
                               **</sonet>**  
                                   </member-interface-type>  
                       </container-options>  
                   </interface>  
               </interfaces>  
           </configuration>

**Description**   No documentation is available yet.

**Contents**   <member-interface-speed>—Link speed of members of container.

- mixed—Links are of different speeds.
- oc12—Links are OC-12.
- oc192—Links are OC-192.
- oc3—Links are OC-3.
- oc48—Links are OC-48.
- oc768—Links are OC-768.

**<sonet-alarms> (configuration/snmp/trap-group/categories)**

---

**Usage**

```

<configuration>
  <snmp>
    <trap-group>
      <categories>
        <sonet-alarms>
          <loss-of-light/>
          <pll-lock/>
          <loss-of-frame/>
          <loss-of-signal/>
          <severely-errored-frame/>
          <line-ais/>
          <path-ais/>
          <loss-of-pointer/>
          <ber-defect/>
          <ber-fault/>
          <line-remote-defect-indication/>
          <path-remote-defect-indication/>
          <remote-error-indication/>
          <unequipped/>
          <path-mismatch/>
          <loss-of-cell/>
          <vt-ais/>
          <vt-loss-of-pointer/>
          <vt-remote-defect-indication/>
          <vt-unequipped/>
          <vt-label-mismatch/>
          <vt-loss-of-cell/>
        </sonet-alarms>
      </categories>
    </trap-group>
  </snmp>
</configuration>

```

**Description** SONET alarm trap subcategories.

**Contents**

- <ber-defect>—Sonet bit error rate alarm defect notification.
- <ber-fault>—Sonet bit error rate alarm fault notification.
- <line-ais>—Line AIS alarm notification.
- <line-remote-defect-indication>—Line Remote Defect Indication alarm notification.
- <loss-of-cell>—Loss of Cell delineation alarm notification.
- <loss-of-frame>—Loss of frame alarm notification.
- <loss-of-light>—Loss of light alarm notification.
- <loss-of-pointer>—Loss of pointer alarm notification.
- <loss-of-signal>—Loss of signal alarm notification.

<path-ais>—Path AIS alarm notification.

<path-mismatch>—Path mismatch alarm notification.

<path-remote-defect-indication>—Path Remote Defect Indication alarm notification.

<pll-lock>—PLL lock alarm notification.

<remote-error-indication>—Remote Error Indication alarm notification.

<severely-errored-frame>—Severely errored frame alarm notification.

<unequipped>—Unequipped alarm notification.

<vt-ais>—VT AIS alarm notification.

<vt-label-mismatch>—VT label mismatch error notification.

<vt-loss-of-cell>—VT Loss of Cell delineation notification.

<vt-loss-of-pointer>—VT Loss Of Pointer alarm notification.

<vt-remote-defect-indication>—VT Remote Defect Indication alarm notification.

<vt-unequipped>—VT Unequipped alarm notification.

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

---

**Usage**

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <sonet-options>
          <vtmapping>vtmapping-choice</vtmapping>
          <fcs>fcs-choice</fcs>
          <path-trace>path-trace</path-trace>
          <loopback>loopback-choice</loopback>
          <trigger>...</trigger>
          <aps>...</aps>
          <payload-scrambler>payload-scrambler</payload-scrambler>
          <no-payload-scrambler/>
          <z0-increment/>
          <loop-timing/>
          <bytes>...</bytes>
          <rfc-2615/>
          <aggregate>aggregate</aggregate>
          <mpls>...</mpls>
        </sonet-options>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

**Description** SONET interface-specific options.

**Contents** <aggregate>—Join a SONET aggregate.

<aps>—Automatic Protection Switching.

<bytes>—Set SONET header bytes.

<fcs>—Frame checksum.

■ 16—16-bit mode.

■ 32—32-bit mode.

<loop-timing>—Set loop timing for STM-1.

<loopback>—Loopback mode.

■ local—Local loopback.

■ remote—Remote loopback.

<mpls>—MPLS options.

<no-payload-scrambler>—Do not enable payload scrambling.

<path-trace>—Path trace string.

<payload-scrambler>—Enable payload scrambling.

<rfc-2615>—RFC 2615 compliance.

<trigger>—Defect triggers.

<vtmapping>—VT mapping mode.

- itu-t—ITU-T mode.

- klm—KLM mode.

<z0-increment>—Increment Z0 in SDH mode.

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

---

**Usage** <configuration>  
 <interfaces>  
 <interface>  
   **<sonet-options>**  
     <vtmapping>vtmapping-choice</vtmapping>  
     <fcs>fcs-choice</fcs>  
     <path-trace>path-trace</path-trace>  
     <loopback>loopback-choice</loopback>  
     <trigger>...</trigger>  
     <aps>...</aps>  
     <payload-scrambler>payload-scrambler</payload-scrambler>  
     <no-payload-scrambler/>  
     <z0-increment/>  
     <loop-timing/>  
     <bytes>...</bytes>  
     <rfc-2615/>  
     <aggregate>aggregate</aggregate>  
     <mpls>...</mpls>  
   **</sonet-options>**  
 </interface>  
</interfaces>  
</configuration>

**Description** SONET interface-specific options.

**Contents** <aggregate>—Join a SONET aggregate.

<aps>—Automatic Protection Switching.

<bytes>—Set SONET header bytes.

<fcs>—Frame checksum.

- 16—16-bit mode.
- 32—32-bit mode.

<loop-timing>—Set loop timing for STM-1.

<loopback>—Loopback mode.

- local—Local loopback.
- remote—Remote loopback.

<mpls>—MPLS options.

<no-payload-scrambler>—Do not enable payload scrambling.

<path-trace>—Path trace string.

<payload-scrambler>—Enable payload scrambling.

- <rfc-2615>—RFC 2615 compliance.
- <trigger>—Defect triggers.
- <vtmapping>—VT mapping mode.
  - itu-t—ITU-T mode.
  - klm—KLM mode.
- <z0-increment>—Increment Z0 in SDH mode.

**<source> (configuration/atm-vpn-address-test)**

---

<b>Usage</b>	<configuration> <atm-vpn-address-test> <source> <name>name</name>    <!-- identifier --> </source> </atm-vpn-address-test> </configuration>
<b>Description</b>	No documentation is available yet.
<b>Contents</b>	<name>—No documentation is available yet.

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

---

<b>Usage</b>	<configuration> <bridge-domains> <domain> <protocols> <igmp-snooping> <interface> <static> <group> <source> <name>name</name>    <!-- identifier --> </source> </group> </static> </interface> </igmp-snooping> </protocols> </domain> </bridge-domains> </configuration>
<b>Description</b>	IP multicast source address.
<b>Contents</b>	<name>—Source address of IP multicast data.

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

---

**Usage**

```

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

```

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

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

---

**Usage**

```

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

```

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.



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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

**<source> (configuration/logical-systems/protocols/msdp)**

---

- Usage** `<configuration>  
     <logical-systems>  
         <protocols>  
             <msdp>  
                 <source>  
                     <name>name</name>   <!-- identifier -->  
                     <active-source-limit>...</active-source-limit>  
                 </source>  
             </msdp>  
         </protocols>  
     </logical-systems>  
</configuration>`
- Description** Configure parameters for each source.
- Contents** `<active-source-limit>`—Limit the number of active sources accepted.  
`<name>`—Source address or prefix.

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

---

- Usage** `<configuration>  
     <logical-systems>  
         <protocols>  
             <pim>  
                 <mdt>  
                     <threshold>  
                         <group>  
                             <source>  
                                 <name>name</name>   <!-- identifier -->  
                                 <rate>kilobits</rate>  
                             </source>  
                         </group>  
                     </threshold>  
                 </mdt>  
             </pim>  
         </protocols>  
     </logical-systems>  
</configuration>`
- Description** IP prefix of one or more multicast sources .
- Contents** `<name>`—IP prefix of source.  
`<rate>`—Data threshold to create new tunnel.

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

---

**Usage**

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

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

---

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

**Description**   IP multicast source address.

**Contents**    <name>—Source address of IP multicast data.

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

---

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

**Description**   IP multicast source address.

**Contents**     <name>—Source address of IP multicast data.

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

---

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

**Description**   IP multicast source address.

**Contents**   <name>—Source address of IP multicast data.

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

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <msdp>  
          **<source>**  
            <name>*name*</name>    <!-- identifier -->  
            <active-source-limit>...</active-source-limit>  
          **</source>**  
          </msdp>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Configure parameters for each source.

**Contents**   <active-source-limit>—Limit the number of active sources accepted.  
              <name>—Source address or prefix.



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

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <pim>  
           <mdt>  
           <threshold>  
           <group>  
             **<source>**  
               <name>*name*</name>   <!-- identifier -->  
               <rate>*kilobits*</rate>  
             **</source>**  
           </group>  
         </threshold>  
       </mdt>  
     </pim>  
 </protocols>  
</instance>  
</routing-instances>  
</logical-systems>  
</configuration>

**Description**   IP prefix of one or more multicast sources .

**Contents**   <name>—IP prefix of source.

          <rate>—Data threshold to create new tunnel.

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

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <provider-tunnel>
          <selective>
            <group>
              <source>
                <name>name</name>    <!-- identifier -->
                <rsvp-te>...</rsvp-te>
                <threshold-rate>kilobits</threshold-rate>
              </source>
            </group>
          </selective>
        </provider-tunnel>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** IP prefix of one or more multicast sources.

**Contents** <name>—IP prefix of source.

<rsvp-te>—RSVP-TE point-to-multipoint LSP for flooding.

<threshold-rate>—Data threshold to create new tunnel.

## **<source> (configuration/logical-systems/routing-instances/instance/routing-options/multicast/ssm-map)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <routing-options>  
                     <multicast>  
                         <ssm-map>  
                             **<source>**  
                                 <name>*name*</name>   <!-- identifier -->  
                             **</source>**  
                         </ssm-map>  
                     </multicast>  
                 </routing-options>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** One or more source addresses.

**Contents** <name>—One or more source addresses.

## **<source> (configuration/logical-systems/routing-options/multicast/ssm-map)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-options>  
             <multicast>  
                 <ssm-map>  
                     **<source>**  
                         <name>*name*</name>   <!-- identifier -->  
                     **</source>**  
                 </ssm-map>  
             </multicast>  
         </routing-options>  
     </logical-systems>  
</configuration>

**Description** One or more source addresses.

**Contents** <name>—One or more source addresses.

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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

**<source> (configuration/protocols/msdp)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;msdp&gt;       &lt;source&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;active-source-limit&gt;...&lt;/active-source-limit&gt;       &lt;/source&gt;     &lt;/msdp&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure parameters for each source.
<b>Contents</b>	<p>&lt;active-source-limit&gt;—Limit the number of active sources accepted.</p> <p>&lt;name&gt;—Source address or prefix.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;pim&gt;       &lt;mdt&gt;         &lt;threshold&gt;           &lt;group&gt;             &lt;source&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;rate&gt;kilobits&lt;/rate&gt;             &lt;/source&gt;           &lt;/group&gt;         &lt;/threshold&gt;       &lt;/mdt&gt;     &lt;/pim&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	IP prefix of one or more multicast sources .
<b>Contents</b>	<p>&lt;name&gt;—IP prefix of source.</p> <p>&lt;rate&gt;—Data threshold to create new tunnel.</p>

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

---

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

**Description**   IP multicast source address.

**Contents**      <name>—Source address of IP multicast data.

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

---

**Usage**

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.



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

---

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

**Description**   IP multicast source address.

**Contents**   <name>—Source address of IP multicast data.

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

---

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

**Description** IP multicast source address.

**Contents** <name>—Source address of IP multicast data.

## **<source> (configuration/routing-instances/instance/protocols/msdp)**

---

**Usage** `<configuration>  
   <routing-instances>  
     <instance>  
       <protocols>  
         <msdp>  
           <source>  
             <name>name</name>   <!-- identifier -->  
             <active-source-limit>...</active-source-limit>  
           </source>  
         </msdp>  
       </protocols>  
     </instance>  
   </routing-instances>  
</configuration>`

**Description** Configure parameters for each source.

**Contents** <active-source-limit>—Limit the number of active sources accepted.

<name>—Source address or prefix.

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

---

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

**Description**   IP prefix of one or more multicast sources .

**Contents**   <name>—IP prefix of source.  
               <rate>—Data threshold to create new tunnel.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;provider-tunnel&gt;         &lt;selective&gt;           &lt;group&gt;             &lt;source&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;rsvp-te&gt;...&lt;/rsvp-te&gt;               &lt;threshold-rate&gt;kilobits&lt;/threshold-rate&gt;             &lt;/source&gt;           &lt;/group&gt;         &lt;/selective&gt;       &lt;/provider-tunnel&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	IP prefix of one or more multicast sources.
<b>Contents</b>	<p>&lt;name&gt;—IP prefix of source.</p> <p>&lt;rsvp-te&gt;—RSVP-TE point-to-multipoint LSP for flooding.</p> <p>&lt;threshold-rate&gt;—Data threshold to create new tunnel.</p>

## **<source> (configuration/routing-instances/instance/routing-options/multicast/ssm-map)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;routing-options&gt;         &lt;multicast&gt;           &lt;ssm-map&gt;             &lt;source&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;/source&gt;           &lt;/ssm-map&gt;         &lt;/multicast&gt;       &lt;/routing-options&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	One or more source addresses.
<b>Contents</b>	<name>—One or more source addresses.

**<source> (configuration/routing-options/multicast/ssm-map)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-options&gt;     &lt;multicast&gt;       &lt;ssm-map&gt;         &lt;source&gt;           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;/source&gt;       &lt;/ssm-map&gt;     &lt;/multicast&gt;   &lt;/routing-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	One or more source addresses.
<b>Contents</b>	<name>—One or more source addresses.

**<source-address> (configuration/firewall/family/ethernet-switching/filter/term/from)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;firewall&gt;     &lt;family&gt;       &lt;ethernet-switching&gt;         &lt;filter&gt;           &lt;term&gt;             &lt;from&gt;               &lt;source-address&gt;                 &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;                 &lt;except/&gt;               &lt;/source-address&gt;             &lt;/from&gt;           &lt;/term&gt;         &lt;/filter&gt;       &lt;/ethernet-switching&gt;     &lt;/family&gt;   &lt;/firewall&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Match IP source address.
<b>Contents</b>	<except>—Match address not in this prefix. <name>—Prefix to match.

**<source-address> (configuration/firewall/family/inet/filter/term/from)**

---

**Usage**   <configuration>  
          <firewall>  
          <family>  
          <inet>  
          <filter>  
          <term>  
          <from>  
            **<source-address>**  
              <name>*name*</name>   <!-- identifier -->  
              <except/>  
            **</source-address>**  
          </from>  
          </term>  
          </filter>  
          </inet>  
          </family>  
          </firewall>  
          </configuration>

**Description**   Match IP source address.

**Contents**   <except>—Match address not in this prefix.

          <name>—Prefix to match.

## **<source-address> (configuration/firewall/family/inet/service-filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
           <family>  
           <inet>  
           <service-filter>  
           <term>  
           <from>  
               **<source-address>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <except/>  
               **</source-address>**  
           </from>  
           </term>  
           </service-filter>  
           </inet>  
           </family>  
           </firewall>  
         </configuration>

**Description** Match IP source address.

**Contents** <except>—Match address not in this prefix.

          <name>—Prefix to match.

## **<source-address> (configuration/firewall/family/inet/simple-filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
           <family>  
           <inet>  
           <simple-filter>  
           <term>  
           <from>  
               **<source-address>**  
                   <address>*address*</address>  
               **</source-address>**  
           </from>  
           </term>  
           </simple-filter>  
           </inet>  
           </family>  
           </firewall>  
         </configuration>

**Description** Source IP address.

**Contents** <address>—Prefix to match.

**<source-address> (configuration/firewall/family/inet6/filter/term/from)**

---

**Usage**   <configuration>  
          <firewall>  
          <family>  
          <inet6>  
          <filter>  
          <term>  
          <from>  
            **<source-address>**  
              <name>*name*</name>   <!-- identifier -->  
              <except/>  
            **</source-address>**  
          </from>  
          </term>  
          </filter>  
          </inet6>  
          </family>  
          </firewall>  
          </configuration>

**Description**   Match   source address.

**Contents**   <except>—Match address not in this prefix.

          <name>—Prefix to match.



## **<source-address> (configuration/firewall/family/inet6/service-filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
             <family>  
               <inet6>  
                 <service-filter>  
                   <term>  
                     <from>  
                       **<source-address>**  
                         <name>*name*</name>   <!-- identifier -->  
                         <except/>  
                       **</source-address>**  
                     </from>  
                   </term>  
                 </service-filter>  
               </inet6>  
             </family>  
           </firewall>  
         </configuration>

**Description** Match source address.

**Contents** <except>—Match address not in this prefix.  
               <name>—Prefix to match.

## **<source-address> (configuration/firewall/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
             <filter>  
               <term>  
                 <from>  
                   **<source-address>**  
                     <name>*name*</name>   <!-- identifier -->  
                     <except/>  
                   **</source-address>**  
                 </from>  
               </term>  
             </filter>  
           </firewall>  
         </configuration>

**Description** Match IP source address.

**Contents** <except>—Match address not in this prefix.  
               <name>—Prefix to match.

**<source-address> (configuration/logical-systems/firewall/family/ethernet-switching/filter/term/from)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <firewall>  
          <family>  
          <ethernet-switching>  
          <filter>  
          <term>  
          <from>  
            **<source-address>**  
              <name>name</name>    <!-- identifier -->  
              <except/>  
              **</source-address>**  
            </from>  
          </term>  
          </filter>  
          </ethernet-switching>  
          </family>  
          </firewall>  
          </logical-systems>  
          </configuration>

**Description**   Match IP source address.

**Contents**   <except>—Match address not in this prefix.  
              <name>—Prefix to match.

## **<source-address> (configuration/logical-systems/firewall/family/inet/filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <inet>  
           <filter>  
           <term>  
           <from>  
               **<source-address>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <except/>  
               **</source-address>**  
           </from>  
           </term>  
           </filter>  
           </inet>  
           </family>  
           </firewall>  
           </logical-systems>  
           </configuration>

**Description** Match IP source address.

**Contents** <except>—Match address not in this prefix.

<name>—Prefix to match.

**<source-address> (configuration/logical-systems/firewall/family/inet/service-filter/term/from)**

---

**Usage** <configuration>  
    <logical-systems>  
        <firewall>  
            <family>  
                <inet>  
                    <service-filter>  
                        <term>  
                            <from>  
                                **<source-address>**  
                                    <name>name</name>   <!-- identifier -->  
                                    <except/>  
                                **</source-address>**  
                            </from>  
                        </term>  
                    </service-filter>  
                </inet>  
            </family>  
        </firewall>  
    </logical-systems>  
</configuration>

**Description** Match IP source address.

**Contents** <except>—Match address not in this prefix.  
  
            <name>—Prefix to match.

**<source-address> (configuration/logical-systems/firewall/family/inet/simple-filter/term/from)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;logical-systems&gt;     &lt;firewall&gt;       &lt;family&gt;         &lt;inet&gt;           &lt;simple-filter&gt;             &lt;term&gt;               &lt;from&gt;                 <b>&lt;source-address&gt;</b>                   &lt;address&gt;address&lt;/address&gt;                 <b>&lt;/source-address&gt;</b>               &lt;/from&gt;             &lt;/term&gt;           &lt;/simple-filter&gt;         &lt;/inet&gt;       &lt;/family&gt;     &lt;/firewall&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	Source IP address.
<b>Contents</b>	<address>—Prefix to match.

**<source-address> (configuration/logical-systems/firewall/family/inet6/filter/term/from)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <firewall>  
          <family>  
          <inet6>  
          <filter>  
          <term>  
          <from>  
            **<source-address>**  
              <name>name</name>   <!-- identifier -->  
              <except/>  
              **</source-address>**  
            </from>  
          </term>  
          </filter>  
          </inet6>  
          </family>  
          </firewall>  
          </logical-systems>  
          </configuration>

**Description**   Match source address.

**Contents**   <except>—Match address not in this prefix.  
              <name>—Prefix to match.

## **<source-address> (configuration/logical-systems/firewall/family/inet6/service-filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <inet6>  
           <service-filter>  
           <term>  
           <from>  
             **<source-address>**  
               <name>*name*</name>   <!-- identifier -->  
               <except/>  
             **</source-address>**  
           </from>  
           </term>  
           </service-filter>  
           </inet6>  
           </family>  
           </firewall>  
           </logical-systems>  
           </configuration>

**Description** Match source address.

**Contents** <except>—Match address not in this prefix.

<name>—Prefix to match.

**<source-address> (configuration/logical-systems/firewall/filter/term/from)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <firewall>  
          <filter>  
          <term>  
          <from>  
            **<source-address>**  
              <name>name</name>   <!-- identifier -->  
              <except/>  
            **</source-address>**  
          </from>  
          </term>  
          </filter>  
          </firewall>  
          </logical-systems>  
          </configuration>

**Description**   Match IP source address.

**Contents**   <except>—Match address not in this prefix.

          <name>—Prefix to match.



**<source-address> (configuration/services/cos/rule/term/from)**

---

**Usage**   <configuration>  
          <services>  
          <cos>  
          <rule>  
          <term>  
          <from>  
              **<source-address>**  
              <name>*name*</name>   <!-- identifier -->  
              <except/>  
              **</source-address>**  
          </from>  
          </term>  
          </rule>  
          </cos>  
          </services>  
          </configuration>

**Description**   Match IP source address.

- Contents**   <except>—Match address not in this prefix.
- <name>—Match IP address.
- any-unicast—Match any unicast address.
  - prefix—Prefix to match.

**<source-address> (configuration/services/ids/rule/term/from)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ids&gt;       &lt;rule&gt;         &lt;term&gt;           &lt;from&gt;             &lt;source-address&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;except/&gt;           &lt;/source-address&gt;         &lt;/from&gt;       &lt;/term&gt;     &lt;/rule&gt;   &lt;/ids&gt; &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Match IP source address.
<b>Contents</b>	<p>&lt;except&gt;—Match address not in this prefix.</p> <p>&lt;name&gt;—Match IP address.</p> <ul style="list-style-type: none"> <li>■ any-unicast—Match any unicast address.</li> <li>■ prefix—Prefix to match.</li> </ul>

**<source-address> (configuration/services/ipsec-vpn/rule/term/from)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ipsec-vpn&gt;       &lt;rule&gt;         &lt;term&gt;           &lt;from&gt;             &lt;source-address&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;/source-address&gt;           &lt;/from&gt;         &lt;/term&gt;       &lt;/rule&gt;     &lt;/ipsec-vpn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Match IP source address.
<b>Contents</b>	<name>—Prefix to match.

**<source-address> (configuration/services/nat/rule/term/from)**

---

**Usage** <configuration>  
           <services>  
             <nat>  
               <rule>  
                 <term>  
                   <from>  
                     **<source-address>**  
                       <name>*name*</name>   <!-- identifier -->  
                       <except/>  
                     **</source-address>**  
                   </from>  
                 </term>  
               </rule>  
             </nat>  
           </services>  
         </configuration>

**Description** Match IP source address.

**Contents** <except>—Match address not in this prefix.

<name>—Match IP address.

- any-unicast—Match any unicast address.
- prefix—Prefix to match.

## <source-address> (configuration/services/stateful-firewall/rule/term/from)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;stateful-firewall&gt;       &lt;rule&gt;         &lt;term&gt;           &lt;from&gt;             &lt;source-address&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;except/&gt;             &lt;/source-address&gt;           &lt;/from&gt;         &lt;/term&gt;       &lt;/rule&gt;     &lt;/stateful-firewall&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Match IP source address.
<b>Contents</b>	<p>&lt;except&gt;—Match address not in this prefix.</p> <p>&lt;name&gt;—Match IP address.</p> <ul style="list-style-type: none"> <li>■ any-unicast—Match any unicast address.</li> <li>■ prefix—Prefix to match.</li> </ul>

## <source-address> (configuration/snmp/trap-options)

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;snmp&gt;     &lt;trap-options&gt;       &lt;source-address&gt;         &lt;lo0/&gt;         &lt;address&gt;address&lt;/address&gt;       &lt;/source-address&gt;     &lt;/trap-options&gt;   &lt;/snmp&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	IPv4 source address for trap PDUs.
<b>Contents</b>	<p>&lt;address&gt;—Use specified address.</p> <p>&lt;lo0&gt;—Use lowest address on loopback interface.</p>

## **<source-address> (configuration/snmp/trap-options/ logical-system/routing-instance)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;snmp&gt;     &lt;trap-options&gt;       &lt;logical-system&gt;         &lt;routing-instance&gt;           <b>&lt;source-address&gt;</b>             &lt;lo0/&gt;             &lt;address&gt;address&lt;/address&gt;           <b>&lt;/source-address&gt;</b>         &lt;/routing-instance&gt;       &lt;/logical-system&gt;     &lt;/trap-options&gt;   &lt;/snmp&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	IPv4 source address for trap PDUs.
<b>Contents</b>	<p>&lt;address&gt;—Use specified address.</p> <p>&lt;lo0&gt;—Use lowest address on loopback interface.</p>

## **<source-address> (configuration/snmp/trap-options/ routing-instance)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;snmp&gt;     &lt;trap-options&gt;       &lt;routing-instance&gt;         <b>&lt;source-address&gt;</b>           &lt;lo0/&gt;           &lt;address&gt;address&lt;/address&gt;         <b>&lt;/source-address&gt;</b>       &lt;/routing-instance&gt;     &lt;/trap-options&gt;   &lt;/snmp&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	IPv4 source address for trap PDUs.
<b>Contents</b>	<p>&lt;address&gt;—Use specified address.</p> <p>&lt;lo0&gt;—Use lowest address on loopback interface.</p>

## **<source-address-filter> (configuration/dynamic-profiles/interfaces/interface/aggregated-ether-options)**

---

**Usage**   <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
           <aggregated-ether-options>  
           **<source-address-filter>**  
           <name>*name*</name>   <!-- identifier -->  
           **</source-address-filter>**  
           </aggregated-ether-options>  
           </interface>  
           </interfaces>  
           </dynamic-profiles>  
         </configuration>

**Description**   Source address filters.

**Contents**    <name>—Remote MAC address.

## **<source-address-filter> (configuration/dynamic-profiles/interfaces/interface/fastether-options)**

---

**Usage**   <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
           <fastether-options>  
           **<source-address-filter>**  
           <name>*name*</name>   <!-- identifier -->  
           **</source-address-filter>**  
           </fastether-options>  
           </interface>  
           </interfaces>  
           </dynamic-profiles>  
         </configuration>

**Description**   Source address filters.

**Contents**    <name>—Remote MAC address.

## **<source-address-filter> (configuration/dynamic-profiles/ interfaces/interface/gigether-options)**

---

**Usage**   <configuration>  
          <dynamic-profiles>  
          <interfaces>  
          <interface>  
          <gigether-options>  
            **<source-address-filter>**  
              <name>*name*</name>   <!-- identifier -->  
            **</source-address-filter>**  
          </gigether-options>  
          </interface>  
          </interfaces>  
          </dynamic-profiles>  
          </configuration>

**Description**   Source address filters.

**Contents**    <name>—Remote MAC address.

## **<source-address-filter> (configuration/dynamic-profiles/ interfaces/interface/redundant-ether-options)**

---

**Usage**   <configuration>  
          <dynamic-profiles>  
          <interfaces>  
          <interface>  
          <redundant-ether-options>  
            **<source-address-filter>**  
              <name>*name*</name>   <!-- identifier -->  
            **</source-address-filter>**  
          </redundant-ether-options>  
          </interface>  
          </interfaces>  
          </dynamic-profiles>  
          </configuration>

**Description**   Source address filters.

**Contents**    <name>—Remote MAC address.

## **<source-address-filter> (configuration/interfaces/interface/aggregated-ether-options)**

---

**Usage**   <configuration>  
          <interfaces>  
          <interface>  
          <aggregated-ether-options>  
            **<source-address-filter>**  
              <name>name</name>   <!-- identifier -->  
            **</source-address-filter>**  
          </aggregated-ether-options>  
          </interface>  
          </interfaces>  
          </configuration>

**Description**   Source address filters.

**Contents**    <name>—Remote MAC address.

## **<source-address-filter> (configuration/interfaces/interface/fastether-options)**

---

**Usage**   <configuration>  
          <interfaces>  
          <interface>  
          <fastether-options>  
            **<source-address-filter>**  
              <name>name</name>   <!-- identifier -->  
            **</source-address-filter>**  
          </fastether-options>  
          </interface>  
          </interfaces>  
          </configuration>

**Description**   Source address filters.

**Contents**    <name>—Remote MAC address.



## **<source-address-filter> (configuration/interfaces/interface/gigether-options)**

---

**Usage**   <configuration>  
           <interfaces>  
           <interface>  
           <gigether-options>  
             **<source-address-filter>**  
               <name>name</name>   <!-- identifier -->  
             **</source-address-filter>**  
           </gigether-options>  
         </interface>  
       </interfaces>  
     </configuration>

**Description**   Source address filters.

**Contents**    <name>—Remote MAC address.

## **<source-address-filter> (configuration/interfaces/interface/redundant-ether-options)**

---

**Usage**   <configuration>  
           <interfaces>  
           <interface>  
           <redundant-ether-options>  
             **<source-address-filter>**  
               <name>name</name>   <!-- identifier -->  
             **</source-address-filter>**  
           </redundant-ether-options>  
         </interface>  
       </interfaces>  
     </configuration>

**Description**   Source address filters.

**Contents**    <name>—Remote MAC address.

## **<source-address-filter> (configuration/logical-systems/ policy-options/policy-statement/from)**

---

```

Usage  <configuration>
      <logical-systems>
      <policy-options>
      <policy-statement>
      <from>
        <source-address-filter>
          <address>address</address>    <!-- identifier -->
          <exact/>    <!-- identifier -->
          <longer/>    <!-- identifier -->
          <orlonger/>    <!-- identifier -->
          <upto>upto</upto>    <!-- identifier -->
          <through>through</through>    <!-- identifier -->
          <prefix-length-range>prefix-length-range
            </prefix-length-range> <!-- identifier -->
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <local-preference>...</local-preference>
          <priority>priority-choice</priority>
          <origin>origin-choice</origin>
          <community>...</community>
          <damping>damping</damping>
          <as-path-prepend>as-path-prepend</as-path-prepend>
          <as-path-expand>...</as-path-expand>
          <next-hop>...</next-hop>
          <install-nexthop>...</install-nexthop>
          <trace/>
          <external>...</external>
          <load-balance>...</load-balance>
          <class>class</class>
          <destination-class>destination-class</destination-class>
          <source-class>source-class</source-class>
          <forwarding-class>forwarding-class</forwarding-class>
          <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
          <default-action>default-action-choice</default-action>
          <next>next-choice</next>
          <accept/>
          <reject/>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</logical-systems>
</configuration>

```

**Description** List of source addresses to match.

**Contents** <accept>—Accept a route.

<address>—IP address or hostname.

<as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).

<as-path-prepend>—Prepend AS numbers to an AS path (BGP only).

<class>—Set class-of-service parameters.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community properties associated with a route.

<cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.

<damping>—Define BGP route flap damping parameters.

<default-action>—Set default policy action.

■ accept—Accept a route.

■ reject—Reject a route.

<destination-class>—Set destination class in forwarding table.

<exact>—Exactly match the prefix length.

<external>—External route.

<forwarding-class>—Set source or destination class in forwarding table.

<install-nexthop>—Choose the next hop to be used for forwarding.

<load-balance>—Type of load balancing in forwarding table.

<local-preference>—Local preference associated with a route.

<longer>—Mask is greater than the prefix length.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<next>—Skip to next policy or term.

■ policy—Skip to next policy filter.

- **term**—Skip to next term in a policy filter.

**<next-hop>**—Set the address of the next-hop router.

**<origin>**—BGP path origin.

- **egp**—Path originated in another AS.
  - **igp**—Path originated in the local IGP.
  - **incomplete**—Path was learned by some other means.
- <orlonger>**—Mask is greater than or equal to the prefix length.

**<preference>**—Preference value.

**<preference2>**—Preference value 2.

**<prefix-length-range>**—Mask falls between two prefix lengths.

**<priority>**—Set priority for route installation.

- **high**—Set priority to high.
- **low**—Set priority to low.
- **medium**—Set priority to medium.

**<reject>**—Reject a route.

**<source-class>**—Set source class in forwarding table.

**<tag>**—Tag string.

**<tag2>**—Tag string 2.

**<through>**—Route falls between two prefixes.

**<trace>**—Log matches to a trace file.

**<upto>**—Mask falls between two prefix lengths.

## **<source-address-filter> (configuration/logical-systems/ policy-options/policy-statement/term/from)**

---

```

Usage  <configuration>
      <logical-systems>
      <policy-options>
      <policy-statement>
      <term>
      <from>
        <source-address-filter>
          <address>address</address>    <!-- identifier -->
          <exact/>    <!-- identifier -->
          <longer/>    <!-- identifier -->
          <orlonger/>    <!-- identifier -->
          <upto>upto</upto>    <!-- identifier -->
          <through>through</through>    <!-- identifier -->
          <prefix-length-range>prefix-length-range
            </prefix-length-range>    <!-- identifier -->
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <local-preference>...</local-preference>
          <priority>priority-choice</priority>
          <origin>origin-choice</origin>
          <community>...</community>
          <damping>damping</damping>
          <as-path-prepend>as-path-prepend</as-path-prepend>
          <as-path-expand>...</as-path-expand>
          <next-hop>...</next-hop>
          <install-nexthop>...</install-nexthop>
          <trace/>
          <external>...</external>
          <load-balance>...</load-balance>
          <class>class</class>
          <destination-class>destination-class</destination-class>
          <source-class>source-class</source-class>
          <forwarding-class>forwarding-class</forwarding-class>
          <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
          <default-action>default-action-choice</default-action>
          <next>next-choice</next>
          <accept/>
          <reject/>
        </source-address-filter>
      </from>
    </term>
  </policy-statement>
</policy-options>

```

```

    </logical-systems>
  </configuration>

```

**Description** List of source addresses to match.

**Contents** <accept>—Accept a route.

<address>—IP address or hostname.

<as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).

<as-path-prepend>—Prepend AS numbers to an AS path (BGP only).

<class>—Set class-of-service parameters.

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community properties associated with a route.

<cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.

<damping>—Define BGP route flap damping parameters.

<default-action>—Set default policy action.

- accept—Accept a route.

- reject—Reject a route.

<destination-class>—Set destination class in forwarding table.

<exact>—Exactly match the prefix length.

<external>—External route.

<forwarding-class>—Set source or destination class in forwarding table.

<install-nexthop>—Choose the next hop to be used for forwarding.

<load-balance>—Type of load balancing in forwarding table.

<local-preference>—Local preference associated with a route.

<longer>—Mask is greater than the prefix length.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<next>—Skip to next policy or term.

- **policy**—Skip to next policy filter.
  - **term**—Skip to next term in a policy filter.
- <next-hop>**—Set the address of the next-hop router.
- <origin>**—BGP path origin.
- **egp**—Path originated in another AS.
  - **igp**—Path originated in the local IGP.
  - **incomplete**—Path was learned by some other means.
- <orlonger>**—Mask is greater than or equal to the prefix length.
- <preference>**—Preference value.
- <preference2>**—Preference value 2.
- <prefix-length-range>**—Mask falls between two prefix lengths.
- <priority>**—Set priority for route installation.
- **high**—Set priority to high.
  - **low**—Set priority to low.
  - **medium**—Set priority to medium.
- <reject>**—Reject a route.
- <source-class>**—Set source class in forwarding table.
- <tag>**—Tag string.
- <tag2>**—Tag string 2.
- <through>**—Route falls between two prefixes.
- <trace>**—Log matches to a trace file.
- <upto>**—Mask falls between two prefix lengths.

## <source-address-filter> (configuration/policy-options/ policy-statement/from)

---

**Usage**

```

<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <source-address-filter>
          <address>address</address>    <!-- identifier -->
          <exact/>    <!-- identifier -->
          <longer/>    <!-- identifier -->
          <orlonger/>    <!-- identifier -->
          <upto>upto</upto>    <!-- identifier -->
          <through>through</through>    <!-- identifier -->
          <prefix-length-range>prefix-length-range
            </prefix-length-range>    <!-- identifier -->
          <metric>...</metric>
          <metric2>...</metric2>
          <metric3>...</metric3>
          <metric4>...</metric4>
          <tag>...</tag>
          <tag2>...</tag2>
          <preference>...</preference>
          <preference2>...</preference2>
          <color>...</color>
          <color2>...</color2>
          <local-preference>...</local-preference>
          <priority>priority-choice</priority>
          <origin>origin-choice</origin>
          <community>...</community>
          <damping>damping</damping>
          <as-path-prepend>as-path-prepend</as-path-prepend>
          <as-path-expand>...</as-path-expand>
          <next-hop>...</next-hop>
          <install-nexthop>...</install-nexthop>
          <trace/>
          <external>...</external>
          <load-balance>...</load-balance>
          <class>class</class>
          <destination-class>destination-class</destination-class>
          <source-class>source-class</source-class>
          <forwarding-class>forwarding-class</forwarding-class>
          <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
          <default-action>default-action-choice</default-action>
          <next>next-choice</next>
          <accept/>
          <reject/>
        </source-address-filter>
      </from>
    </policy-statement>
  </policy-options>
</configuration>

```

**Description** List of source addresses to match.



- Contents**
- <accept>—Accept a route.
  - <address>—IP address or hostname.
  - <as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).
  - <as-path-prepend>—Prepend AS numbers to an AS path (BGP only).
  - <class>—Set class-of-service parameters.
  - <color>—Color (preference) value.
  - <color2>—Color (preference) value 2.
  - <community>—BGP community properties associated with a route.
  - <cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.
  - <damping>—Define BGP route flap damping parameters.
  - <default-action>—Set default policy action.
  - accept—Accept a route.
  - reject—Reject a route.
  - <destination-class>—Set destination class in forwarding table.
  - <exact>—Exactly match the prefix length.
  - <external>—External route.
  - <forwarding-class>—Set source or destination class in forwarding table.
  - <install-nexthop>—Choose the next hop to be used for forwarding.
  - <load-balance>—Type of load balancing in forwarding table.
  - <local-preference>—Local preference associated with a route.
  - <longer>—Mask is greater than the prefix length.
  - <metric>—Metric value.
  - <metric2>—Metric value 2.
  - <metric3>—Metric value 3.
  - <metric4>—Metric value 4.
  - <next>—Skip to next policy or term.
  - policy—Skip to next policy filter.
  - term—Skip to next term in a policy filter.

<next-hop>—Set the address of the next-hop router.

<origin>—BGP path origin.

- **egp**—Path originated in another AS.
- **igp**—Path originated in the local IGP.
- **incomplete**—Path was learned by some other means.

<orlonger>—Mask is greater than or equal to the prefix length.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-length-range>—Mask falls between two prefix lengths.

<priority>—Set priority for route installation.

- **high**—Set priority to high.
- **low**—Set priority to low.
- **medium**—Set priority to medium.

<reject>—Reject a route.

<source-class>—Set source class in forwarding table.

<tag>—Tag string.

<tag2>—Tag string 2.

<through>—Route falls between two prefixes.

<trace>—Log matches to a trace file.

<upto>—Mask falls between two prefix lengths.

## **<source-address-filter> (configuration/policy-options/ policy-statement/term/from)**

---

```

Usage  <configuration>
      <policy-options>
      <policy-statement>
      <term>
      <from>
        <source-address-filter>
        <address>address</address>    <!-- identifier -->
        <exact/>    <!-- identifier -->
        <longer/>    <!-- identifier -->
        <orlonger/>    <!-- identifier -->
        <upto>upto</upto>    <!-- identifier -->
        <through>through</through>    <!-- identifier -->
        <prefix-length-range>prefix-length-range
          </prefix-length-range>    <!-- identifier -->
        <metric>...</metric>
        <metric2>...</metric2>
        <metric3>...</metric3>
        <metric4>...</metric4>
        <tag>...</tag>
        <tag2>...</tag2>
        <preference>...</preference>
        <preference2>...</preference2>
        <color>...</color>
        <color2>...</color2>
        <local-preference>...</local-preference>
        <priority>priority-choice</priority>
        <origin>origin-choice</origin>
        <community>...</community>
        <damping>damping</damping>
        <as-path-prepend>as-path-prepend</as-path-prepend>
        <as-path-expand>...</as-path-expand>
        <next-hop>...</next-hop>
        <install-nexthop>...</install-nexthop>
        <trace/>
        <external>...</external>
        <load-balance>...</load-balance>
        <class>class</class>
        <destination-class>destination-class</destination-class>
        <source-class>source-class</source-class>
        <forwarding-class>forwarding-class</forwarding-class>
        <cos-next-hop-map>cos-next-hop-map</cos-next-hop-map>
        <default-action>default-action-choice</default-action>
        <next>next-choice</next>
        <accept/>
        <reject/>
        </source-address-filter>
      </from>
    </term>
  </policy-statement>
</policy-options>
</configuration>

```

**Description** List of source addresses to match.

**Contents**

- <accept>—Accept a route.
- <address>—IP address or hostname.
- <as-path-expand>—Prepend AS numbers prior to adding local-as (BGP only).
- <as-path-prepend>—Prepend AS numbers to an AS path (BGP only).
- <class>—Set class-of-service parameters.
- <color>—Color (preference) value.
- <color2>—Color (preference) value 2.
- <community>—BGP community properties associated with a route.
- <cos-next-hop-map>—Set CoS-based next-hop map in forwarding table.
- <damping>—Define BGP route flap damping parameters.
- <default-action>—Set default policy action.
- accept—Accept a route.
- reject—Reject a route.
- <destination-class>—Set destination class in forwarding table.
- <exact>—Exactly match the prefix length.
- <external>—External route.
- <forwarding-class>—Set source or destination class in forwarding table.
- <install-nexthop>—Choose the next hop to be used for forwarding.
- <load-balance>—Type of load balancing in forwarding table.
- <local-preference>—Local preference associated with a route.
- <longer>—Mask is greater than the prefix length.
- <metric>—Metric value.
- <metric2>—Metric value 2.
- <metric3>—Metric value 3.
- <metric4>—Metric value 4.
- <next>—Skip to next policy or term.
- policy—Skip to next policy filter.

- **term**—Skip to next term in a policy filter.

**<next-hop>**—Set the address of the next-hop router.

**<origin>**—BGP path origin.

- **egp**—Path originated in another AS.
- **igp**—Path originated in the local IGP.
- **incomplete**—Path was learned by some other means.

**<orlonger>**—Mask is greater than or equal to the prefix length.

**<preference>**—Preference value.

**<preference2>**—Preference value 2.

**<prefix-length-range>**—Mask falls between two prefix lengths.

**<priority>**—Set priority for route installation.

- **high**—Set priority to high.
- **low**—Set priority to low.
- **medium**—Set priority to medium.

**<reject>**—Reject a route.

**<source-class>**—Set source class in forwarding table.

**<tag>**—Tag string.

**<tag2>**—Tag string 2.

**<through>**—Route falls between two prefixes.

**<trace>**—Log matches to a trace file.

**<upto>**—Mask falls between two prefix lengths.

**<source-address-range> (configuration/services/cos/rule/term/ from)**

---

**Usage**   <configuration>  
          <services>  
          <cos>  
          <rule>  
          <term>  
          <from>  
            **<source-address-range>**  
              <low>*low*</low>   <!-- identifier -->  
              <high>*high*</high>   <!-- identifier -->  
              <except/>  
            **</source-address-range>**  
          </from>  
          </term>  
          </rule>  
          </cos>  
          </services>  
        </configuration>

**Description**   Match IP source address range.

**Contents**   <except>—Match address not in this prefix.

          <high>—Upper limit of address range.

          <low>—Lower limit of address range.

**<source-address-range> (configuration/services/ids/rule/term/ from)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;services&gt;     &lt;ids&gt;       &lt;rule&gt;         &lt;term&gt;           &lt;from&gt;             <b>&lt;source-address-range&gt;</b>               &lt;low&gt;<i>low</i>&lt;/low&gt;    &lt;!-- identifier --&gt;               &lt;high&gt;<i>high</i>&lt;/high&gt;  &lt;!-- identifier --&gt;               &lt;except/&gt;             <b>&lt;/source-address-range&gt;</b>           &lt;/from&gt;         &lt;/term&gt;       &lt;/rule&gt;     &lt;/ids&gt;   &lt;/services&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	Match IP source address range.
<b>Contents</b>	<p>&lt;except&gt;—Match address not in this prefix.</p> <p>&lt;high&gt;—Upper limit of address range.</p> <p>&lt;low&gt;—Lower limit of address range.</p>

**<source-address-range> (configuration/services/nat/rule/term/ from)**

---

**Usage**   <configuration>  
          <services>  
          <nat>  
          <rule>  
          <term>  
          <from>  
            **<source-address-range>**  
              <low>*low*</low>   <!-- identifier -->  
              <high>*high*</high>   <!-- identifier -->  
              <except/>  
            **</source-address-range>**  
          </from>  
          </term>  
          </rule>  
          </nat>  
          </services>  
        </configuration>

**Description**   Match IP source address range.

**Contents**   <except>—Match address not in this prefix.

          <high>—Upper limit of address range.

          <low>—Lower limit of address range.



## **<source-address-range> (configuration/services/stateful-firewall/rule/term/from)**

---

**Usage** `<configuration>  
     <services>  
         <stateful-firewall>  
             <rule>  
                 <term>  
                     <from>  
                         <source-address-range>  
                             <low>low</low>   <!-- identifier -->  
                             <high>high</high>   <!-- identifier -->  
                             <except/>  
                         </source-address-range>  
                     </from>  
                 </term>  
             </rule>  
         </stateful-firewall>  
     </services>  
</configuration>`

**Description** Match IP source address range.

**Contents** `<except>`—Match address not in this prefix.

`<high>`—Upper limit of address range.

`<low>`—Lower limit of address range.

## **<source-addresses> (configuration/services/dynamic-flow-capture/capture-group/control-source)**

---

**Usage** `<configuration>  
     <services>  
         <dynamic-flow-capture>  
             <capture-group>  
                 <control-source>  
                     <source-addresses>  
                         <name>name</name>   <!-- identifier -->  
                     </source-addresses>  
                 </control-source>  
             </capture-group>  
         </dynamic-flow-capture>  
     </services>  
</configuration>`

**Description** Allowed control source IP address list.

**Contents** `<name>`—Allowed control source IP address list.

## **<source-class> (configuration/firewall/family/inet/filter/term/from)**

---

**Usage** <configuration>  
    <firewall>  
        <family>  
            <inet>  
                <filter>  
                    <term>  
                        <from>  
                            **<source-class>**  
                                <name>name</name>   <!-- identifier -->  
                            **</source-class>**  
                        </from>  
                    </term>  
                </filter>  
            </inet>  
        </family>  
    </firewall>  
</configuration>

**Description** Match source class.

**Contents** <name>—String name.

## **<source-class> (configuration/firewall/family/inet6/filter/term/from)**

---

**Usage** <configuration>  
    <firewall>  
        <family>  
            <inet6>  
                <filter>  
                    <term>  
                        <from>  
                            **<source-class>**  
                                <name>name</name>   <!-- identifier -->  
                            **</source-class>**  
                        </from>  
                    </term>  
                </filter>  
            </inet6>  
        </family>  
    </firewall>  
</configuration>

**Description** Match source class.

**Contents** <name>—String name.

**<source-class> (configuration/firewall/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
             <filter>  
               <term>  
                 <from>  
                   **<source-class>**  
                     <name>*name*</name>   <!-- identifier -->  
                   **</source-class>**  
                 </from>  
               </term>  
             </filter>  
           </firewall>  
         </configuration>

**Description** Match source class.

**Contents** <name>—String name.

**<source-class> (configuration/logical-systems/firewall/family/inet/filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
             <firewall>  
               <family>  
                 <inet>  
                   <filter>  
                     <term>  
                       <from>  
                         **<source-class>**  
                           <name>*name*</name>   <!-- identifier -->  
                         **</source-class>**  
                       </from>  
                     </term>  
                   </filter>  
                 </inet>  
               </family>  
             </firewall>  
           </logical-systems>  
         </configuration>

**Description** Match source class.

**Contents** <name>—String name.

## **<source-class> (configuration/logical-systems/firewall/family/inet6/filter/term/from)**

---

**Usage** <configuration>  
     <logical-systems>  
         <firewall>  
             <family>  
                 <inet6>  
                     <filter>  
                         <term>  
                             <from>  
                                 **<source-class>**  
                                     <name>name</name>   <!-- identifier -->  
                                 **</source-class>**  
                             </from>  
                         </term>  
                     </filter>  
                 </inet6>  
             </family>  
         </firewall>  
     </logical-systems>  
 </configuration>

**Description** Match source class.

**Contents** <name>—String name.

## **<source-class> (configuration/logical-systems/firewall/filter/term/from)**

---

**Usage** <configuration>  
     <logical-systems>  
         <firewall>  
             <filter>  
                 <term>  
                     <from>  
                         **<source-class>**  
                             <name>name</name>   <!-- identifier -->  
                         **</source-class>**  
                     </from>  
                 </term>  
             </filter>  
         </firewall>  
     </logical-systems>  
 </configuration>

**Description** Match source class.

**Contents** <name>—String name.

## **<source-class-except> (configuration/firewall/family/inet/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
             <family>  
               <inet>  
                 <filter>  
                   <term>  
                     <from>  
                       **<source-class-except>**  
                         <name>*name*</name>   <!-- identifier -->  
                       **</source-class-except>**  
                     </from>  
                   </term>  
                 </filter>  
               </inet>  
             </family>  
           </firewall>  
         </configuration>

**Description** Do not match source class.

**Contents** <name>—String name.

## **<source-class-except> (configuration/firewall/family/inet6/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
             <family>  
               <inet6>  
                 <filter>  
                   <term>  
                     <from>  
                       **<source-class-except>**  
                         <name>*name*</name>   <!-- identifier -->  
                       **</source-class-except>**  
                     </from>  
                   </term>  
                 </filter>  
               </inet6>  
             </family>  
           </firewall>  
         </configuration>

**Description** Do not match source class.

**Contents** <name>—String name.

**<source-class-except> (configuration/firewall/filter/term/from)**

---

**Usage** `<configuration>  
     <firewall>  
         <filter>  
             <term>  
                 <from>  
                     <source-class-except>  
                         <name>name</name>   <!-- identifier -->  
                     </source-class-except>  
                 </from>  
             </term>  
         </filter>  
     </firewall>  
</configuration>`

**Description** Do not match source class.

**Contents** `<name>`—String name.

**<source-class-except> (configuration/logical-systems/firewall/family/inet/filter/term/from)**

---

**Usage** `<configuration>  
     <logical-systems>  
         <firewall>  
             <family>  
                 <inet>  
                     <filter>  
                         <term>  
                             <from>  
                                 <source-class-except>  
                                     <name>name</name>   <!-- identifier -->  
                                 </source-class-except>  
                             </from>  
                         </term>  
                     </filter>  
                 </inet>  
             </family>  
         </firewall>  
     </logical-systems>  
</configuration>`

**Description** Do not match source class.

**Contents** `<name>`—String name.

## **<source-class-except> (configuration/logical-systems/firewall/family/inet6/filter/term/from)**

---

**Usage** <configuration>  
     <logical-systems>  
         <firewall>  
             <family>  
                 <inet6>  
                     <filter>  
                         <term>  
                             <from>  
                                 **<source-class-except>**  
                                     <name>name</name>   <!-- identifier -->  
                                 **</source-class-except>**  
                             </from>  
                         </term>  
                     </filter>  
                 </inet6>  
             </family>  
         </firewall>  
     </logical-systems>  
 </configuration>

**Description** Do not match source class.

**Contents** <name>—String name.

## **<source-class-except> (configuration/logical-systems/firewall/filter/term/from)**

---

**Usage** <configuration>  
     <logical-systems>  
         <firewall>  
             <filter>  
                 <term>  
                     <from>  
                         **<source-class-except>**  
                             <name>name</name>   <!-- identifier -->  
                         **</source-class-except>**  
                     </from>  
                 </term>  
             </filter>  
         </firewall>  
     </logical-systems>  
 </configuration>

**Description** Do not match source class.

**Contents** <name>—String name.

## **<source-class-usage> (configuration/dynamic-profiles/interfaces/ interface/unit/family/inet/accounting)**

---

**Usage**   <configuration>  
          <dynamic-profiles>  
          <interfaces>  
          <interface>  
          <unit>  
          <family>  
          <inet>  
          <accounting>  
            **<source-class-usage>**  
            <input/>  
            <output/>  
            **</source-class-usage>**  
          </accounting>  
          </inet>  
          </family>  
          </unit>  
          </interface>  
          </interfaces>  
          </dynamic-profiles>  
          </configuration>

**Description**   Enable source class usage on this interface.

**Contents**   <input>—Specify this interface for source-class-usage input.  
              <output>—Specify this interface for source-class-usage output.



## **<source-class-usage> (configuration/dynamic-profiles/interfaces/ interface/unit/family/inet6/accounting)**

---

**Usage**   <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
           <unit>  
           <family>  
           <inet6>  
           <accounting>  
               **<source-class-usage>**  
               <input/>  
               <output/>  
               **</source-class-usage>**  
           </accounting>  
           </inet6>  
           </family>  
           </unit>  
           </interface>  
           </interfaces>  
           </dynamic-profiles>  
           </configuration>

**Description**   No documentation is available yet.

**Contents**   <input>—Interface for source-class-usage input.  
               <output>—Interface for source-class-usage output.

## **<source-class-usage> (configuration/interfaces/interface/unit/family/inet/accounting)**

---

**Usage**   <configuration>  
          <interfaces>  
          <interface>  
          <unit>  
          <family>  
          <inet>  
          <accounting>  
            **<source-class-usage>**  
            <input/>  
            <output/>  
            **</source-class-usage>**  
          </accounting>  
          </inet>  
          </family>  
          </unit>  
          </interface>  
          </interfaces>  
          </configuration>

**Description**   Enable source class usage on this interface.

**Contents**   <input>—Specify this interface for source-class-usage input.

          <output>—Specify this interface for source-class-usage output.

**<source-class-usage> (configuration/interfaces/interface/unit/  
family/inet6/accounting)**

---

**Usage**   <configuration>  
          <interfaces>  
          <interface>  
          <unit>  
          <family>  
          <inet6>  
          <accounting>  
              **<source-class-usage>**  
              <input/>  
              <output/>  
              **</source-class-usage>**  
          </accounting>  
          </inet6>  
          </family>  
          </unit>  
          </interface>  
          </interfaces>  
          </configuration>

**Description**   No documentation is available yet.

**Contents**    <input>—Interface for source-class-usage input.

              <output>—Interface for source-class-usage output.

## **<source-class-usage> (configuration/logical-systems/interfaces/ interface/unit/family/inet/accounting)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <accounting>
                <source-class-usage>
                  <input/>
                  <output/>
                </source-class-usage>
              </accounting>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>

```

**Description** Enable source class usage on this interface.

**Contents** <input>—Specify this interface for source-class-usage input.  
 <output>—Specify this interface for source-class-usage output.

## **<source-class-usage> (configuration/logical-systems/interfaces/interface/unit/family/inet6/accounting)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <interfaces>  
           <interface>  
           <unit>  
           <family>  
           <inet6>  
           <accounting>  
               **<source-class-usage>**  
               <input/>  
               <output/>  
               **</source-class-usage>**  
           </accounting>  
           </inet6>  
           </family>  
           </unit>  
           </interface>  
           </interfaces>  
           </logical-systems>  
           </configuration>

**Description**   No documentation is available yet.

**Contents**   <input>—Interface for source-class-usage input.  
               <output>—Interface for source-class-usage output.

## **<source-classes> (configuration/accounting-options/class-usage-profile)**

---

**Usage**   <configuration>  
           <accounting-options>  
           <class-usage-profile>  
               **<source-classes>**  
               <name>*name*</name>   <!-- identifier -->  
               **</source-classes>**  
           </class-usage-profile>  
           </accounting-options>  
           </configuration>

**Description**   Name of source class.

**Contents**   <name>—Class name.

## **<source-destination-prefix> (configuration/forwarding-options/accounting/output/cflowd/aggregation)**

---

**Usage** <configuration>  
           <forwarding-options>  
             <accounting>  
               <output>  
                 <cflowd>  
                   <aggregation>  
                     **<source-destination-prefix>**  
                       <caida-compliant/>  
                     **</source-destination-prefix>**  
                   </aggregation>  
                 </cflowd>  
               </output>  
             </accounting>  
           </forwarding-options>  
         </configuration>

**Description** Aggregate by source and destination prefix.

**Contents** <caida-compliant>—Compatible with Caida record format for prefix aggregation (v8).

## **<source-destination-prefix> (configuration/forwarding-options/sampling/output/cflowd/aggregation)**

---

**Usage** <configuration>  
           <forwarding-options>  
             <sampling>  
               <output>  
                 <cflowd>  
                   <aggregation>  
                     **<source-destination-prefix>**  
                       <caida-compliant/>  
                     **</source-destination-prefix>**  
                   </aggregation>  
                 </cflowd>  
               </output>  
             </sampling>  
           </forwarding-options>  
         </configuration>

**Description** Aggregate by source and destination prefix.

**Contents** <caida-compliant>—Compatible with Caida record format for prefix aggregation (v8).

## **<source-destination-prefix> (configuration/logical-systems/routing-instances/instance/forwarding-options/accounting/output/cflowd/aggregation)**

---

**Usage**   <configuration>  
               <logical-systems>  
                   <routing-instances>  
                       <instance>  
                         <forwarding-options>  
                           <accounting>  
                               <output>  
                                 <cflowd>  
                                   <aggregation>  
                                       **<source-destination-prefix>**  
   <caida-compliant/>  
                                       **</source-destination-prefix>**  
                                   </aggregation>  
                               </cflowd>  
                           </output>  
                       </accounting>  
                   </forwarding-options>  
               </instance>  
           </routing-instances>  
       </logical-systems>  
   </configuration>

**Description**   Aggregate by source and destination prefix.

**Contents**   <caida-compliant>—Compatible with Caida record format for prefix aggregation (v8).

## **<source-destination-prefix> (configuration/logical-systems/routing-instances/instance/forwarding-options/sampling/output/cflowd/aggregation)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <sampling>
            <output>
              <cflowd>
                <aggregation>
                  <source-destination-prefix>
                  <caida-compliant/>
                  </source-destination-prefix>
                </aggregation>
              </cflowd>
            </output>
          </sampling>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Aggregate by source and destination prefix.

**Contents** <caida-compliant>—Compatible with Caida record format for prefix aggregation (v8).



## **<source-destination-prefix> (configuration/routing-instances/instance/forwarding-options/accounting/output/cflowd/aggregation)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <forwarding-options>  
           <accounting>  
           <output>  
           <cflowd>  
           <aggregation>  
               **<source-destination-prefix>**  
               <caida-compliant/>  
               **</source-destination-prefix>**  
           </aggregation>  
           </cflowd>  
           </output>  
           </accounting>  
           </forwarding-options>  
           </instance>  
           </routing-instances>  
           </configuration>

**Description**   Aggregate by source and destination prefix.

**Contents**   <caida-compliant>—Compatible with Caida record format for prefix aggregation (v8).

**<source-destination-prefix> (configuration/routing-instances/instance/forwarding-options/sampling/output/cflowd/aggregation)**

---

**Usage**   <configuration>  
          <routing-instances>  
          <instance>  
          <forwarding-options>  
          <sampling>  
          <output>  
          <cflowd>  
          <aggregation>  
            **<source-destination-prefix>**  
            <caida-compliant/>  
            **</source-destination-prefix>**  
          </aggregation>  
          </cflowd>  
          </output>  
          </sampling>  
          </forwarding-options>  
          </instance>  
          </routing-instances>  
          </configuration>

**Description**   Aggregate by source and destination prefix.

**Contents**   <caida-compliant>—Compatible with Caida record format for prefix aggregation (v8).

## **<source-mac-address> (configuration/firewall/family/bridge/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
           <family>  
           <bridge>  
           <filter>  
           <term>  
           <from>  
               **<source-mac-address>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <except/>  
               **</source-mac-address>**  
           </from>  
           </term>  
           </filter>  
           </bridge>  
           </family>  
           </firewall>  
         </configuration>

**Description** Source MAC address.

**Contents** <except>—Match MAC address not in this range.  
               <name>—MAC address to match.

## **<source-mac-address> (configuration/firewall/family/ethernet-switching/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
           <family>  
           <ethernet-switching>  
           <filter>  
           <term>  
           <from>  
               **<source-mac-address>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-mac-address>**  
           </from>  
           </term>  
           </filter>  
           </ethernet-switching>  
           </family>  
           </firewall>  
         </configuration>

**Description** Match MAC source address.

**Contents** <name>—MAC address to match.

**<source-mac-address> (configuration/firewall/family/vpls/filter/term/from)**

---

**Usage**   <configuration>  
          <firewall>  
          <family>  
          <vpls>  
          <filter>  
          <term>  
          <from>  
              **<source-mac-address>**  
                  <name>*name*</name>   <!-- identifier -->  
                  <except/>  
              **</source-mac-address>**  
          </from>  
          </term>  
          </filter>  
          </vpls>  
          </family>  
          </firewall>  
          </configuration>

**Description**   Source MAC address.

**Contents**   <except>—Match MAC address not in this range.

          <name>—MAC address to match.

## **<source-mac-address> (configuration/logical-systems/firewall/family/bridge/filter/term/from)**

---

**Usage**   <configuration>  
               <logical-systems>  
                   <firewall>  
                       <family>  
                           <bridge>  
                               <filter>  
                                   <term>  
                                       <from>  
   **<source-mac-address>**  
   <name>*name*</name>   <!-- identifier -->  
   <except/>  
   **</source-mac-address>**  
                                       </from>  
                                   </term>  
                               </filter>  
                           </bridge>  
                       </family>  
                   </firewall>  
               </logical-systems>  
           </configuration>

**Description**   Source MAC address.

**Contents**   <except>—Match MAC address not in this range.  
               <name>—MAC address to match.

**<source-mac-address> (configuration/logical-systems/firewall/family/ethernet-switching/filter/term/from)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <firewall>  
          <family>  
          <ethernet-switching>  
          <filter>  
          <term>  
          <from>  
            **<source-mac-address>**  
              <name>name</name>   <!-- identifier -->  
            **</source-mac-address>**  
          </from>  
          </term>  
          </filter>  
          </ethernet-switching>  
          </family>  
          </firewall>  
          </logical-systems>  
          </configuration>

**Description**   Match MAC source address.

**Contents**   <name>—MAC address to match.

**<source-mac-address> (configuration/logical-systems/firewall/family/vpls/filter/term/from)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <firewall>  
          <family>  
          <vpls>  
          <filter>  
          <term>  
          <from>  
              **<source-mac-address>**  
              <name>name</name>   <!-- identifier -->  
              <except/>  
              **</source-mac-address>**  
          </from>  
          </term>  
          </filter>  
          </vpls>  
          </family>  
          </firewall>  
          </logical-systems>  
          </configuration>

**Description**   Source MAC address.

**Contents**   <except>—Match MAC address not in this range.  
  
              <name>—MAC address to match.

## <source-port> (configuration/firewall/family/bridge/filter/term/from)

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <bridge>
        <filter>
          <term>
            <from>
              <source-port>
                <name>name</name>    <!-- identifier -->
              </source-port>
            </from>
          </term>
        </filter>
      </bridge>
    </family>
  </firewall>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.



- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port> (configuration/firewall/family/ethernet-switching/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
           <family>  
           <ethernet-switching>  
           <filter>  
           <term>  
           <from>  
               **<source-port>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-port>**  
           </from>  
           </term>  
           </filter>  
           </ethernet-switching>  
           </family>  
           </firewall>  
         </configuration>

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## <source-port> (configuration/firewall/family/inet/filter/term/from)

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <source-port>
                <name>name</name>    <!-- identifier -->
              </source-port>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.



## **<source-port> (configuration/firewall/family/inet/service-filter/term/from)**

---

**Usage** <configuration>  
     <firewall>  
         <family>  
             <inet>  
                 <service-filter>  
                     <term>  
                         <from>  
                             **<source-port>**  
                                 <name>*name*</name>   <!-- identifier -->  
                             **</source-port>**  
                         </from>  
                     </term>  
                 </service-filter>  
             </inet>  
         </family>  
     </firewall>  
</configuration>

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- **range**—Range of values.
- **rip**—Routing Information Protocol.
- **rkinit**—Kerberos remote kinit.
- **smtp**—Simple Mail Transfer Protocol.
- **snmp**—Simple Network Management Protocol.
- **snmptrap**—SNMP traps.
- **snpp**—Simple paging protocol.
- **socks**—Socks.
- **ssh**—Secure shell.
- **sunrpc**—Sun Microsystems remote procedure call.
- **syslog**—System log.
- **tacacs**—TACACS or TACACS + .
- **tacacs-ds**—TACACS-DS.
- **talk**—UNIX Talk.
- **telnet**—Telnet.
- **tftp**—Trivial FTP.
- **timed**—UNIX time daemon.
- **who**—UNIX rwho.
- **xmcp**—X Display Manager Control Protocol.

## **<source-port> (configuration/firewall/family/inet/simple-filter/term/from)**

---

```

Usage  <configuration>
      <firewall>
      <family>
      <inet>
      <simple-filter>
      <term>
      <from>
        <source-port>
        <ftp-data/>
        <ftp/>
        <ssh/>
        <telnet/>
        <smtp/>
        <tacacs/>
        <tacacs-ds/>
        <domain/>
        <dhcp/>
        <bootps/>
        <bootpc/>
        <tftp/>
        <finger/>
        <http/>
        <kerberos-sec/>
        <pop3/>
        <sunrpc/>
        <ident/>
        <nntp/>
        <ntp/>
        <netbios-ns/>
        <netbios-dgm/>
        <netbios-ssn/>
        <imap/>
        <snmp/>
        <snmptrap/>
        <xdmcp/>
        <bgp/>
        <ldap/>
        <mobileip-agent/>
        <mobilip-mn/>
        <msdp/>
        <https/>
        <snpp/>
        <biff/>
        <exec/>
        <login/>
        <who/>
        <cmd/>
        <syslog/>
        <printer/>
        <talk/>
        <ntalk/>

```

```

<rip/>
<timed/>
<klogin/>
<kshell/>
<ldp/>
<krb-prop/>
<krbupdate/>
<kpasswd/>
<socks/>
<afs/>
<pptp/>
<radius/>
<radacct/>
<nfsd/>
<eklogin/>
<ekshell/>
<rkinit/>
<cvspserver/>
<range/>
</source-port>
</from>
</term>
</simple-filter>
</inet>
</family>
</firewall>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <afs>—AFS.

<bgp>—Border Gateway Protocol.

<biff>—Biff/Comsat.

<bootpc>—Bootstrap protocol client.

<bootps>—Bootstrap protocol server.

<cmd>—UNIX rsh.

<cvspserver>—CVS pserver.

<dhcp>—Dynamic Host Configuration Protocol.

<domain>—Domain Name System (DNS).

<eklogin>—Encrypted Kerberos rlogin.

<ekshell>—Encrypted Kerberos rsh.

<exec>—UNIX rexec.

<finger>—Finger.

<ftp>—FTP.

<ftp-data>—FTP data.

<http>—Hypertext Transfer Protocol.

<https>—Secure HTTP.

<ident>—Ident.

<imap>—Internet Message Access Protocol.

<kerberos-sec>—Kerberos Security.

<klogin>—Kerberos rlogin.

<kpasswd>—Kerberos passwd.

<krb-prop>—Kerberos database propagation.

<krbupdate>—Kerberos database update.

<kshell>—Kerberos rsh.

<ldap>—Lightweight Directory Access Protocol.

<ldp>—Label Distribution Protocol.

<login>—UNIX rlogin.

<mobileip-agent>—Mobile IP agent.

<mobilip-mn>—Mobile IP MN.

<msdp>—Multicast Source Discovery Protocol.

<netbios-dgm>—NetBIOS DGM.

<netbios-ns>—NetBIOS name service.

<netbios-ssn>—NetBIOS session service.

<nfsd>—Network File System.

<nntp>—Network News Transport Protocol.

<ntalk>—New Talk.

<ntp>—Network Time Protocol.

<pop3>—Post Office Protocol 3.

<pptp>—Point-to-Point Tunneling Protocol.

<printer>—Printer.

<radacct>—RADIUS accounting.  
 <radius>—RADIUS authentication.  
 <range>—Range of values.  
 <rip>—Routing Information Protocol.  
 <rkinit>—Kerberos remote kinit.  
 <smtp>—Simple Mail Transfer Protocol.  
 <snmp>—Simple Network Management Protocol.  
 <snmptrap>—SNMP traps.  
 <snpp>—Simple paging protocol.  
 <socks>—Socks.  
 <ssh>—Secure shell.  
 <sunrpc>—Sun Microsystems remote procedure call.  
 <syslog>—System log.  
 <tacacs>—TACACS or TACACS + .  
 <tacacs-ds>—TACACS-DS.  
 <talk>—UNIX Talk.  
 <telnet>—Telnet.  
 <tftp>—Trivial FTP.  
 <timed>—UNIX time daemon.  
 <who>—UNIX rwho.  
 <xdmcp>—X Display Manager Control Protocol.

## <source-port> (configuration/firewall/family/inet6/filter/term/from)

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <source-port>
                <name>name</name>    <!-- identifier -->
              </source-port>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.



- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port> (configuration/firewall/family/inet6/service-filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
             <family>  
               <inet6>  
                 <service-filter>  
                   <term>  
                     <from>  
                       **<source-port>**  
                         <name>*name*</name>   <!-- identifier -->  
                       **</source-port>**  
                     </from>  
                   </term>  
                 </service-filter>  
               </inet6>  
             </family>  
           </firewall>  
         </configuration>

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX `rwho`.
- `xmcp`—X Display Manager Control Protocol.

## <source-port> (configuration/firewall/family/vpls/filter/term/from)

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <vpls>
        <filter>
          <term>
            <from>
              <source-port>
                <name>name</name>    <!-- identifier -->
              </source-port>
            </from>
          </term>
        </filter>
      </vpls>
    </family>
  </firewall>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobilip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.



**<source-port> (configuration/firewall/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
           <filter>  
           <term>  
           <from>  
             **<source-port>**  
               <name>*name*</name>   <!-- identifier -->  
             **</source-port>**  
           </from>  
         </term>  
       </filter>  
     </firewall>  
 </configuration>

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.
- https—Secure HTTP.
- ident—Ident.

- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.
- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.

- **smtp**—Simple Mail Transfer Protocol.
- **snmp**—Simple Network Management Protocol.
- **snmptrap**—SNMP traps.
- **snpp**—Simple paging protocol.
- **socks**—Socks.
- **ssh**—Secure shell.
- **sunrpc**—Sun Microsystems remote procedure call.
- **syslog**—System log.
- **tacacs**—TACACS or TACACS + .
- **tacacs-ds**—TACACS-DS.
- **talk**—UNIX Talk.
- **telnet**—Telnet.
- **tftp**—Trivial FTP.
- **timed**—UNIX time daemon.
- **who**—UNIX rwho.
- **xmcp**—X Display Manager Control Protocol.

## <source-port> (configuration/logical-systems/firewall/family/bridge/filter/term/from)

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <bridge>
          <filter>
            <term>
              <from>
                <source-port>
                  <name>name</name>    <!-- identifier -->
                </source-port>
              </from>
            </term>
          </filter>
        </bridge>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.

- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port> (configuration/logical-systems/firewall/family/ethernet-switching/filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <ethernet-switching>  
           <filter>  
           <term>  
           <from>  
               **<source-port>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-port>**  
           </from>  
           </term>  
           </filter>  
           </ethernet-switching>  
           </family>  
           </firewall>  
           </logical-systems>  
           </configuration>

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.
- https—Secure HTTP.
- ident—Ident.
- imap—Internet Message Access Protocol.
- kerberos-sec—Kerberos Security.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos database propagation.
- krbupdate—Kerberos database update.
- kshell—Kerberos rsh.
- ldap—Lightweight Directory Access Protocol.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- netbios-dgm—NetBIOS DGM.
- netbios-ns—NetBIOS name service.
- netbios-ssn—NetBIOS session service.
- nfsd—Network File System.
- nntp—Network News Transport Protocol.
- ntalk—New Talk.
- ntp—Network Time Protocol.
- pop3—Post Office Protocol 3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.



- `radius`—RADIUS authentication.
- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port> (configuration/logical-systems/firewall/family/inet/filter/term/from)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <filter>
            <term>
              <from>
                <source-port>
                  <name>name</name>    <!-- identifier -->
                </source-port>
              </from>
            </term>
          </filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.

- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port> (configuration/logical-systems/firewall/family/inet/service-filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <inet>  
           <service-filter>  
           <term>  
           <from>  
               **<source-port>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-port>**  
           </from>  
           </term>  
           </service-filter>  
           </inet>  
           </family>  
           </firewall>  
           </logical-systems>  
         </configuration>

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.
- https—Secure HTTP.
- ident—Ident.
- imap—Internet Message Access Protocol.
- kerberos-sec—Kerberos Security.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos database propagation.
- krbupdate—Kerberos database update.
- kshell—Kerberos rsh.
- ldap—Lightweight Directory Access Protocol.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- netbios-dgm—NetBIOS DGM.
- netbios-ns—NetBIOS name service.
- netbios-ssn—NetBIOS session service.
- nfsd—Network File System.
- nntp—Network News Transport Protocol.
- ntalk—New Talk.
- ntp—Network Time Protocol.
- pop3—Post Office Protocol 3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.

- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port> (configuration/logical-systems/firewall/family/inet/simple-filter/term/from)**

---

```

Usage  <configuration>
      <logical-systems>
      <firewall>
      <family>
      <inet>
      <simple-filter>
      <term>
      <from>
      <source-port>
      <ftp-data/>
      <ftp/>
      <ssh/>
      <telnet/>
      <smtp/>
      <tacacs/>
      <tacacs-ds/>
      <domain/>
      <dhcp/>
      <bootps/>
      <bootpc/>
      <tftp/>
      <finger/>
      <http/>
      <kerberos-sec/>
      <pop3/>
      <sunrpc/>
      <ident/>
      <nntp/>
      <ntp/>
      <netbios-ns/>
      <netbios-dgm/>
      <netbios-ssn/>
      <imap/>
      <snmp/>
      <snmptrap/>
      <xdmcp/>
      <bgp/>
      <ldap/>
      <mobileip-agent/>
      <mobileip-mn/>
      <msdp/>
      <https/>
      <snpp/>
      <biff/>
      <exec/>
      <login/>
      <who/>
      <cmd/>
      <syslog/>
      <printer/>
      <talk/>

```



```

<ntalk/>
<rip/>
<timed/>
<klogin/>
<kshell/>
<ldp/>
<krb-prop/>
<krbupdate/>
<kpasswd/>
<socks/>
<afs/>
<pptp/>
<radius/>
<radacct/>
<nfsd/>
<eklogin/>
<ekshell/>
<rkinit/>
<cvspserver/>
<range/>
</source-port>
</from>
</term>
</simple-filter>
</inet>
</family>
</firewall>
</logical-systems>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <afs>—AFS.

<bgp>—Border Gateway Protocol.

<biff>—Biff/Comsat.

<bootpc>—Bootstrap protocol client.

<bootps>—Bootstrap protocol server.

<cmd>—UNIX rsh.

<cvspserver>—CVS pserver.

<dhcp>—Dynamic Host Configuration Protocol.

<domain>—Domain Name System (DNS).

<eklogin>—Encrypted Kerberos rlogin.

<ekshell>—Encrypted Kerberos rsh.

<exec>—UNIX rexec.

<finger>—Finger.

<ftp>—FTP.

<ftp-data>—FTP data.

<http>—Hypertext Transfer Protocol.

<https>—Secure HTTP.

<ident>—Ident.

<imap>—Internet Message Access Protocol.

<kerberos-sec>—Kerberos Security.

<klogin>—Kerberos rlogin.

<kpasswd>—Kerberos passwd.

<krb-prop>—Kerberos database propagation.

<krbupdate>—Kerberos database update.

<kshell>—Kerberos rsh.

<ldap>—Lightweight Directory Access Protocol.

<ldp>—Label Distribution Protocol.

<login>—UNIX rlogin.

<mobileip-agent>—Mobile IP agent.

<mobilip-mn>—Mobile IP MN.

<msdp>—Multicast Source Discovery Protocol.

<netbios-dgm>—NetBIOS DGM.

<netbios-ns>—NetBIOS name service.

<netbios-ssn>—NetBIOS session service.

<nfsd>—Network File System.

<nntp>—Network News Transport Protocol.

<ntalk>—New Talk.

<ntp>—Network Time Protocol.

<pop3>—Post Office Protocol 3.

<pptp>—Point-to-Point Tunneling Protocol.

<printer>—Printer.

<radacct>—RADIUS accounting.

<radius>—RADIUS authentication.

<range>—Range of values.

<rip>—Routing Information Protocol.

<rkinit>—Kerberos remote kinit.

<smtp>—Simple Mail Transfer Protocol.

<snmp>—Simple Network Management Protocol.

<snmptrap>—SNMP traps.

<snpp>—Simple paging protocol.

<socks>—Socks.

<ssh>—Secure shell.

<sunrpc>—Sun Microsystems remote procedure call.

<syslog>—System log.

<tacacs>—TACACS or TACACS + .

<tacacs-ds>—TACACS-DS.

<talk>—UNIX Talk.

<telnet>—Telnet.

<tftp>—Trivial FTP.

<timed>—UNIX time daemon.

<who>—UNIX rwho.

<xdmcp>—X Display Manager Control Protocol.

## <source-port> (configuration/logical-systems/firewall/family/inet6/filter/term/from)

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet6>
          <filter>
            <term>
              <from>
                <source-port>
                  <name>name</name>    <!-- identifier -->
                </source-port>
              </from>
            </term>
          </filter>
        </inet6>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.

- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port> (configuration/logical-systems/firewall/family/inet6/service-filter/term/from)**

---

**Usage** <configuration>  
     <logical-systems>  
         <firewall>  
             <family>  
                 <inet6>  
                     <service-filter>  
                         <term>  
                             <from>  
                                 **<source-port>**  
                                     <name>*name*</name>   <!-- identifier -->  
                                 **</source-port>**  
                             </from>  
                         </term>  
                     </service-filter>  
                 </inet6>  
             </family>  
         </firewall>  
     </logical-systems>  
 </configuration>

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.
- https—Secure HTTP.
- ident—Ident.
- imap—Internet Message Access Protocol.
- kerberos-sec—Kerberos Security.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos database propagation.
- krbupdate—Kerberos database update.
- kshell—Kerberos rsh.
- ldap—Lightweight Directory Access Protocol.
- ldp—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- netbios-dgm—NetBIOS DGM.
- netbios-ns—NetBIOS name service.
- netbios-ssn—NetBIOS session service.
- nfsd—Network File System.
- nntp—Network News Transport Protocol.
- ntalk—New Talk.
- ntp—Network Time Protocol.
- pop3—Post Office Protocol 3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.



- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## <source-port> (configuration/logical-systems/firewall/family/vpls/filter/term/from)

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <vpls>
          <filter>
            <term>
              <from>
                <source-port>
                  <name>name</name>    <!-- identifier -->
                </source-port>
              </from>
            </term>
          </filter>
        </vpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.

- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port> (configuration/logical-systems/firewall/filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
           <firewall>  
           <filter>  
           <term>  
           <from>  
               **<source-port>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-port>**  
           </from>  
           </term>  
           </filter>  
           </firewall>  
           </logical-systems>  
         </configuration>

**Description** Match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.

- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobilip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.
- `range`—Range of values.

- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX `rwho`.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port> (configuration/logical-systems/routing-instances/instance/routing-options/flow/route/match)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <flow>
            <route>
              <match>
                <source-port>
                  <name>name</name>    <!-- identifier -->
                </source-port>
              </match>
            </route>
          </flow>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Source TCP/UDP port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- expression—No documentation is available yet.
- finger—Finger.



- `ftp`—FTP.
- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.

- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port> (configuration/logical-systems/routing-options/flow/route/match)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-options>  
           <flow>  
           <route>  
           <match>  
               **<source-port>**  
                   <name>name</name>   <!-- identifier -->  
               **</source-port>**  
           </match>  
         </route>  
       </flow>  
     </routing-options>  
 </logical-systems>  
</configuration>

**Description**   Source TCP/UDP port.

**Contents**   <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- expression—No documentation is available yet.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX `rwho`.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port> (configuration/routing-instances/instance/routing-options/flow/route/match)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <routing-options>  
           <flow>  
           <route>  
           <match>  
               **<source-port>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-port>**  
           </match>  
           </route>  
           </flow>  
           </routing-options>  
           </instance>  
           </routing-instances>  
         </configuration>

**Description**   Source TCP/UDP port.

**Contents**   <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- expression—No documentation is available yet.
- finger—Finger.
- ftp—FTP.

- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.

- radius—RADIUS authentication.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.



**<source-port> (configuration/routing-options/flow/route/match)**

---

**Usage** <configuration>  
           <routing-options>  
             <flow>  
               <route>  
                 <match>  
                   **<source-port>**  
                     <name>*name*</name>   <!-- identifier -->  
                   **</source-port>**  
                 </match>  
               </route>  
             </flow>  
           </routing-options>  
         </configuration>

**Description** Source TCP/UDP port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- expression—No documentation is available yet.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.
- https—Secure HTTP.

- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.

- **smtp**—Simple Mail Transfer Protocol.
- **snmp**—Simple Network Management Protocol.
- **snmptrap**—SNMP traps.
- **snpp**—Simple paging protocol.
- **socks**—Socks.
- **ssh**—Secure shell.
- **sunrpc**—Sun Microsystems remote procedure call.
- **syslog**—System log.
- **tacacs**—TACACS or TACACS + .
- **tacacs-ds**—TACACS-DS.
- **talk**—UNIX Talk.
- **telnet**—Telnet.
- **tftp**—Trivial FTP.
- **timed**—UNIX time daemon.
- **who**—UNIX rwho.
- **xmcp**—X Display Manager Control Protocol.

### **<source-port> (configuration/system/internet-options)**

---

**Usage**   <configuration>  
           <system>  
           <internet-options>  
           **<source-port>**  
           <upper-limit>*upper-limit*</upper-limit>  
           **</source-port>**  
           </internet-options>  
           </system>  
           </configuration>

**Description**   Source port selection parameters.

**Contents**   <upper-limit>—Specify upper limit of source port selection range.

## **<source-port-except> (configuration/firewall/family/bridge/filter/term/from)**

---

**Usage**   <configuration>  
           <firewall>  
           <family>  
           <bridge>  
           <filter>  
           <term>  
           <from>  
               **<source-port-except>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-port-except>**  
           </from>  
           </term>  
           </filter>  
           </bridge>  
           </family>  
           </firewall>  
         </configuration>

**Description**   Do not match TCP/UDP source port.

**Contents**   <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port-except> (configuration/firewall/family/ethernet-switching/filter/term/from)**

---

**Usage** <configuration>  
     <firewall>  
         <family>  
             <ethernet-switching>  
                 <filter>  
                     <term>  
                         <from>  
                             **<source-port-except>**  
                                 <name>*name*</name>   <!-- identifier -->  
                             **</source-port-except>**  
                         </from>  
                     </term>  
                 </filter>  
             </ethernet-switching>  
         </family>  
     </firewall>  
</configuration>

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
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- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.



- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX `rwho`.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port-except> (configuration/firewall/family/inet/filter/term/from)**

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <source-port-except>
                <name>name</name>    <!-- identifier -->
              </source-port-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>

```

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
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- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
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- **range**—Range of values.
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- **snpp**—Simple paging protocol.
- **socks**—Socks.
- **ssh**—Secure shell.
- **sunrpc**—Sun Microsystems remote procedure call.
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- **tacacs-ds**—TACACS-DS.
- **talk**—UNIX Talk.
- **telnet**—Telnet.
- **tftp**—Trivial FTP.
- **timed**—UNIX time daemon.
- **who**—UNIX rwho.
- **xmcp**—X Display Manager Control Protocol.

## **<source-port-except> (configuration/firewall/family/inet/service-filter/term/from)**

---

**Usage** <configuration>  
     <firewall>  
         <family>  
             <inet>  
                 <service-filter>  
                     <term>  
                         <from>  
                             **<source-port-except>**  
                                 <name>*name*</name>   <!-- identifier -->  
                             **</source-port-except>**  
                         </from>  
                     </term>  
                 </service-filter>  
             </inet>  
         </family>  
     </firewall>  
</configuration>

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
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- ftp-data—FTP data.

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- `https`—Secure HTTP.
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- `klogin`—Kerberos rlogin.
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- `krbupdate`—Kerberos database update.
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- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
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- `netbios-ssn`—NetBIOS session service.
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- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
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- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
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- `tacacs`—TACACS or TACACS + .
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- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX `rwho`.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port-except> (configuration/firewall/family/inet6/filter/term/from)**

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <source-port-except>
                <name>name</name>    <!-- identifier -->
              </source-port-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>

```

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.



- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port-except> (configuration/firewall/family/inet6/service-filter/term/from)**

---

**Usage** <configuration>  
     <firewall>  
         <family>  
             <inet6>  
                 <service-filter>  
                     <term>  
                         <from>  
                             **<source-port-except>**  
                                 <name>*name*</name>   <!-- identifier -->  
                             **</source-port-except>**  
                         </from>  
                     </term>  
                 </service-filter>  
             </inet6>  
         </family>  
     </firewall>  
</configuration>

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX `rwho`.
- `xmcp`—X Display Manager Control Protocol.

## <source-port-except> (configuration/firewall/family/vpls/filter/term/from)

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <vpls>
        <filter>
          <term>
            <from>
              <source-port-except>
                <name>name</name>    <!-- identifier -->
              </source-port-except>
            </from>
          </term>
        </filter>
      </vpls>
    </family>
  </firewall>
</configuration>

```

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
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- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.

- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.

- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.



**<source-port-except> (configuration/firewall/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
           <filter>  
           <term>  
           <from>  
               **<source-port-except>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-port-except>**  
           </from>  
           </term>  
           </filter>  
           </firewall>  
         </configuration>

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.
- https—Secure HTTP.
- ident—Ident.

- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.
- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.

- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port-except> (configuration/logical-systems/firewall/family/bridge/filter/term/from)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <bridge>
          <filter>
            <term>
              <from>
                <source-port-except>
                  <name>name</name>    <!-- identifier -->
                </source-port-except>
              </from>
            </term>
          </filter>
        </bridge>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
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- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.

- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port-except> (configuration/logical-systems/firewall/family/ethernet-switching/filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <ethernet-switching>  
           <filter>  
           <term>  
           <from>  
               **<source-port-except>**  
                   <name>name</name>   <!-- identifier -->  
               **</source-port-except>**  
           </from>  
           </term>  
           </filter>  
           </ethernet-switching>  
           </family>  
           </firewall>  
           </logical-systems>  
           </configuration>

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
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- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.



- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port-except> (configuration/logical-systems/firewall/family/inet/filter/term/from)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <filter>
            <term>
              <from>
                <source-port-except>
                  <name>name</name>    <!-- identifier -->
                </source-port-except>
              </from>
            </term>
          </filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
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- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
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- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
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- `krb-prop`—Kerberos database propagation.
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- snpp—Simple paging protocol.
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- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port-except> (configuration/logical-systems/firewall/family/inet/service-filter/term/from)**

---

**Usage** <configuration>  
     <logical-systems>  
         <firewall>  
             <family>  
                 <inet>  
                     <service-filter>  
                         <term>  
                             <from>  
                                 **<source-port-except>**  
                                     <name>name</name>   <!-- identifier -->  
                                 **</source-port-except>**  
                             </from>  
                         </term>  
                     </service-filter>  
                 </inet>  
             </family>  
         </firewall>  
     </logical-systems>  
</configuration>

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

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- bgp—Border Gateway Protocol.
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- krbupdate—Kerberos database update.
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- printer—Printer.
- radacct—RADIUS accounting.

- `radius`—RADIUS authentication.
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- `socks`—Socks.
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- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
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- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port-except> (configuration/logical-systems/firewall/family/inet6/filter/term/from)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet6>
          <filter>
            <term>
              <from>
                <source-port-except>
                  <name>name</name>    <!-- identifier -->
                </source-port-except>
              </from>
            </term>
          </filter>
        </inet6>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.



- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.

- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.

## **<source-port-except> (configuration/logical-systems/firewall/family/inet6/service-filter/term/from)**

---

**Usage** <configuration>  
     <logical-systems>  
         <firewall>  
             <family>  
                 <inet6>  
                     <service-filter>  
                         <term>  
                             <from>  
                                 **<source-port-except>**  
                                     <name>name</name>   <!-- identifier -->  
                                 **</source-port-except>**  
                             </from>  
                         </term>  
                     </service-filter>  
                 </inet6>  
             </family>  
         </firewall>  
     </logical-systems>  
 </configuration>

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.
- https—Secure HTTP.
- ident—Ident.
- imap—Internet Message Access Protocol.
- kerberos-sec—Kerberos Security.
- klogin—Kerberos rlogin.
- kpasswd—Kerberos passwd.
- krb-prop—Kerberos database propagation.
- krbupdate—Kerberos database update.
- kshell—Kerberos rsh.
- ldap—Lightweight Directory Access Protocol.
- ldap—Label Distribution Protocol.
- login—UNIX rlogin.
- mobileip-agent—Mobile IP agent.
- mobilip-mn—Mobile IP MN.
- msdp—Multicast Source Discovery Protocol.
- netbios-dgm—NetBIOS DGM.
- netbios-ns—NetBIOS name service.
- netbios-ssn—NetBIOS session service.
- nfsd—Network File System.
- nntp—Network News Transport Protocol.
- ntalk—New Talk.
- ntp—Network Time Protocol.
- pop3—Post Office Protocol 3.
- pptp—Point-to-Point Tunneling Protocol.
- printer—Printer.
- radacct—RADIUS accounting.

- `radius`—RADIUS authentication.
- `range`—Range of values.
- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX rwho.
- `xmcp`—X Display Manager Control Protocol.

## **<source-port-except> (configuration/logical-systems/firewall/family/vpls/filter/term/from)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <vpls>
          <filter>
            <term>
              <from>
                <source-port-except>
                  <name>name</name>    <!-- identifier -->
                </source-port-except>
              </from>
            </term>
          </filter>
        </vpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.

- `ftp-data`—FTP data.
- `http`—Hypertext Transfer Protocol.
- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobileip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.

- radius—RADIUS authentication.
- range—Range of values.
- rip—Routing Information Protocol.
- rkinit—Kerberos remote kinit.
- smtp—Simple Mail Transfer Protocol.
- snmp—Simple Network Management Protocol.
- snmptrap—SNMP traps.
- snpp—Simple paging protocol.
- socks—Socks.
- ssh—Secure shell.
- sunrpc—Sun Microsystems remote procedure call.
- syslog—System log.
- tacacs—TACACS or TACACS + .
- tacacs-ds—TACACS-DS.
- talk—UNIX Talk.
- telnet—Telnet.
- tftp—Trivial FTP.
- timed—UNIX time daemon.
- who—UNIX rwho.
- xdmcp—X Display Manager Control Protocol.



## **<source-port-except> (configuration/logical-systems/firewall/filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
           <firewall>  
           <filter>  
           <term>  
           <from>  
               **<source-port-except>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</source-port-except>**  
           </from>  
           </term>  
           </filter>  
           </firewall>  
           </logical-systems>  
         </configuration>

**Description** Do not match TCP/UDP source port.

**Contents** <name>—No documentation is available yet.

- afs—AFS.
- bgp—Border Gateway Protocol.
- biff—Biff/Comsat.
- bootpc—Bootstrap protocol client.
- bootps—Bootstrap protocol server.
- cmd—UNIX rsh.
- cvspserver—CVS pserver.
- dhcp—Dynamic Host Configuration Protocol.
- domain—Domain Name System (DNS).
- eklogin—Encrypted Kerberos rlogin.
- ekshell—Encrypted Kerberos rsh.
- exec—UNIX rexec.
- finger—Finger.
- ftp—FTP.
- ftp-data—FTP data.
- http—Hypertext Transfer Protocol.

- `https`—Secure HTTP.
- `ident`—Ident.
- `imap`—Internet Message Access Protocol.
- `kerberos-sec`—Kerberos Security.
- `klogin`—Kerberos rlogin.
- `kpasswd`—Kerberos passwd.
- `krb-prop`—Kerberos database propagation.
- `krbupdate`—Kerberos database update.
- `kshell`—Kerberos rsh.
- `ldap`—Lightweight Directory Access Protocol.
- `ldp`—Label Distribution Protocol.
- `login`—UNIX rlogin.
- `mobileip-agent`—Mobile IP agent.
- `mobilip-mn`—Mobile IP MN.
- `msdp`—Multicast Source Discovery Protocol.
- `netbios-dgm`—NetBIOS DGM.
- `netbios-ns`—NetBIOS name service.
- `netbios-ssn`—NetBIOS session service.
- `nfsd`—Network File System.
- `nntp`—Network News Transport Protocol.
- `ntalk`—New Talk.
- `ntp`—Network Time Protocol.
- `pop3`—Post Office Protocol 3.
- `pptp`—Point-to-Point Tunneling Protocol.
- `printer`—Printer.
- `radacct`—RADIUS accounting.
- `radius`—RADIUS authentication.
- `range`—Range of values.

- `rip`—Routing Information Protocol.
- `rkinit`—Kerberos remote kinit.
- `smtp`—Simple Mail Transfer Protocol.
- `snmp`—Simple Network Management Protocol.
- `snmptrap`—SNMP traps.
- `snpp`—Simple paging protocol.
- `socks`—Socks.
- `ssh`—Secure shell.
- `sunrpc`—Sun Microsystems remote procedure call.
- `syslog`—System log.
- `tacacs`—TACACS or TACACS + .
- `tacacs-ds`—TACACS-DS.
- `talk`—UNIX Talk.
- `telnet`—Telnet.
- `tftp`—Trivial FTP.
- `timed`—UNIX time daemon.
- `who`—UNIX `rwho`.
- `xmcp`—X Display Manager Control Protocol.

## <source-prefix-list> (configuration/firewall/family/inet/filter/term/from)

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <source-prefix-list>
                <name>name</name>    <!-- identifier -->
                <except/>
              </source-prefix-list>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>

```

**Description** Match IP source prefixes in named list.

**Contents** <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

## **<source-prefix-list> (configuration/firewall/family/inet/service-filter/term/from)**

---

**Usage**   <configuration>  
           <firewall>  
           <family>  
           <inet>  
           <service-filter>  
           <term>  
           <from>  
               **<source-prefix-list>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <except/>  
                   **</source-prefix-list>**  
               </from>  
           </term>  
         </service-filter>  
       </inet>  
     </family>  
 </firewall>  
</configuration>

**Description**   Match IP source prefixes in named list.

**Contents**   <except>—Match addresses not in this prefix list.

          <name>—Prefix list to match.

## **<source-prefix-list> (configuration/firewall/family/inet6/filter/term/from)**

---

**Usage**

```

<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <source-prefix-list>
                <name>name</name>    <!-- identifier -->
                <except/>
              </source-prefix-list>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>

```

**Description** Match source prefixes in named list.

**Contents** <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

## **<source-prefix-list> (configuration/firewall/family/inet6/service-filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
             <family>  
               <inet6>  
                 <service-filter>  
                   <term>  
                     <from>  
                       **<source-prefix-list>**  
                         <name>*name*</name>   <!-- identifier -->  
                         <except/>  
                       **</source-prefix-list>**  
                     </from>  
                   </term>  
                 </service-filter>  
               </inet6>  
             </family>  
           </firewall>  
         </configuration>

**Description** Match source prefixes in named list.

**Contents** <except>—Match addresses not in this prefix list.

          <name>—Prefix list to match.

## **<source-prefix-list> (configuration/firewall/filter/term/from)**

---

**Usage** <configuration>  
           <firewall>  
             <filter>  
               <term>  
                 <from>  
                   **<source-prefix-list>**  
                     <name>*name*</name>   <!-- identifier -->  
                     <except/>  
                   **</source-prefix-list>**  
                 </from>  
               </term>  
             </filter>  
           </firewall>  
         </configuration>

**Description** Match IP source prefixes in named list.

**Contents** <except>—Match addresses not in this prefix list.

          <name>—Prefix list to match.

## **<source-prefix-list> (configuration/logical-systems/firewall/family/inet/filter/term/from)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <inet>  
           <filter>  
           <term>  
           <from>  
               **<source-prefix-list>**  
                   <name>name</name>   <!-- identifier -->  
                   <except/>  
                   **</source-prefix-list>**  
               </from>  
           </term>  
           </filter>  
           </inet>  
           </family>  
           </firewall>  
           </logical-systems>  
         </configuration>

**Description**   Match IP source prefixes in named list.

**Contents**   <except>—Match addresses not in this prefix list.  
               <name>—Prefix list to match.



## **<source-prefix-list> (configuration/logical-systems/firewall/family/inet/service-filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <inet>  
           <service-filter>  
           <term>  
           <from>  
             **<source-prefix-list>**  
               <name>*name*</name>   <!-- identifier -->  
               <except/>  
             **</source-prefix-list>**  
           </from>  
           </term>  
           </service-filter>  
           </inet>  
           </family>  
           </firewall>  
           </logical-systems>  
           </configuration>

**Description** Match IP source prefixes in named list.

**Contents** <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

## **<source-prefix-list> (configuration/logical-systems/firewall/family/inet6/filter/term/from)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet6>
          <filter>
            <term>
              <from>
                <source-prefix-list>
                  <name>name</name>    <!-- identifier -->
                  <except/>
                </source-prefix-list>
              </from>
            </term>
          </filter>
        </inet6>
      </family>
    </firewall>
  </logical-systems>
</configuration>

```

**Description** Match source prefixes in named list.

**Contents** <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

## **<source-prefix-list> (configuration/logical-systems/firewall/family/inet6/service-filter/term/from)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <firewall>  
           <family>  
           <inet6>  
           <service-filter>  
           <term>  
           <from>  
               **<source-prefix-list>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <except/>  
                   **</source-prefix-list>**  
               </from>  
           </term>  
           </service-filter>  
           </inet6>  
           </family>  
           </firewall>  
           </logical-systems>  
           </configuration>

**Description**   Match source prefixes in named list.

**Contents**   <except>—Match addresses not in this prefix list.

          <name>—Prefix list to match.

## **<source-prefix-list> (configuration/logical-systems/firewall/filter/term/from)**

---

**Usage** <configuration>  
           <logical-systems>  
             <firewall>  
               <filter>  
                 <term>  
                   <from>  
                     **<source-prefix-list>**  
                       <name>name</name>   <!-- identifier -->  
                       <except/>  
                     **</source-prefix-list>**  
                   </from>  
                 </term>  
               </filter>  
             </firewall>  
           </logical-systems>  
         </configuration>

**Description** Match IP source prefixes in named list.

**Contents** <except>—Match addresses not in this prefix list.

<name>—Prefix list to match.

## **<source-prefix-list> (configuration/services/cos/rule/term/from)**

---

**Usage** <configuration>  
           <services>  
             <cos>  
               <rule>  
                 <term>  
                   <from>  
                     **<source-prefix-list>**  
                       <name>name</name>   <!-- identifier -->  
                       <except/>  
                     **</source-prefix-list>**  
                   </from>  
                 </term>  
               </rule>  
             </cos>  
           </services>  
         </configuration>

**Description** One or more named lists of source prefixes to match.

**Contents** <except>—Name of prefix list not to match against.

<name>—Name of prefix list to match against.

**<source-prefix-list> (configuration/services/ids/rule/term/from)**

---

**Usage** <configuration>  
           <services>  
             <ids>  
               <rule>  
                 <term>  
                   <from>  
                     **<source-prefix-list>**  
                       <name>*name*</name>   <!-- identifier -->  
                       <except/>  
                     **</source-prefix-list>**  
                   </from>  
                 </term>  
               </rule>  
             </ids>  
           </services>  
         </configuration>

**Description** One or more named lists of source prefixes to match.

**Contents** <except>—Name of prefix list not to match against.  
               <name>—Name of prefix list to match against.

**<source-prefix-list> (configuration/services/nat/rule/term/from)**

---

**Usage** <configuration>  
           <services>  
             <nat>  
               <rule>  
                 <term>  
                   <from>  
                     **<source-prefix-list>**  
                       <name>*name*</name>   <!-- identifier -->  
                       <except/>  
                     **</source-prefix-list>**  
                   </from>  
                 </term>  
               </rule>  
             </nat>  
           </services>  
         </configuration>

**Description** One or more named lists of source prefixes to match.

**Contents** <except>—Name of prefix list not to match against.  
               <name>—Name of prefix list to match against.

## **<source-prefix-list> (configuration/services/stateful-firewall/rule/term/from)**

---

**Usage** <configuration>  
           <services>  
             <stateful-firewall>  
               <rule>  
                 <term>  
                   <from>  
                     **<source-prefix-list>**  
                       <name>name</name>   <!-- identifier -->  
                       <except/>  
                     **</source-prefix-list>**  
                   </from>  
                 </term>  
               </rule>  
             </stateful-firewall>  
           </services>  
         </configuration>

**Description** One or more named lists of source prefixes to match.

**Contents** <except>—Name of prefix list not to match against.

          <name>—Name of prefix list to match against.

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

---

**Usage** <configuration>  
           <logical-systems>  
             <routing-instances>  
               <instance>  
                 <routing-options>  
                   **<source-routing>**  
                     <ip/>  
                     <ipv6/>  
                   **</source-routing>**  
                 </routing-options>  
               </instance>  
             </routing-instances>  
           </logical-systems>  
         </configuration>

**Description** Source-routing options.

**Contents** <ip>—Enable IP Source Routing.

          <ipv6>—Enable Type 0 RouteHeader processing.

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

---

- Usage** <configuration>  
           <logical-systems>  
           <routing-options>  
             **<source-routing>**  
               <ip/>  
               <ipv6/>  
             **</source-routing>**  
           </routing-options>  
         </logical-systems>  
       </configuration>
- Description** Source-routing options.
- Contents** <ip>—Enable IP Source Routing.  
               <ipv6>—Enable Type 0 RouteHeader processing.

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

---

- Usage** <configuration>  
           <routing-instances>  
           <instance>  
           <routing-options>  
             **<source-routing>**  
               <ip/>  
               <ipv6/>  
             **</source-routing>**  
           </routing-options>  
         </instance>  
       </routing-instances>  
       </configuration>
- Description** Source-routing options.
- Contents** <ip>—Enable IP Source Routing.  
               <ipv6>—Enable Type 0 RouteHeader processing.

**<source-routing> (configuration/routing-options)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-options&gt;     &lt;source-routing&gt;       &lt;ip/&gt;       &lt;ipv6/&gt;     &lt;/source-routing&gt;   &lt;/routing-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Source-routing options.
<b>Contents</b>	<p>&lt;ip&gt;—Enable IP Source Routing.</p> <p>&lt;ipv6&gt;—Enable Type 0 RouteHeader processing.</p>

**<speed> (configuration/dynamic-profiles/interfaces/interface/ether-options)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;interfaces&gt;       &lt;interface&gt;         &lt;ether-options&gt;           &lt;speed&gt;             &lt;auto-negotiation&gt;...&lt;/auto-negotiation&gt;             &lt;ethernet-10m/&gt;             &lt;ethernet-100m/&gt;             &lt;ethernet-1g/&gt;           &lt;/speed&gt;         &lt;/ether-options&gt;       &lt;/interface&gt;     &lt;/interfaces&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Specify speed.
<b>Contents</b>	<p>&lt;auto-negotiation&gt;—Enable auto-negotiation.</p> <p>&lt;ethernet-100m&gt;—100Mbps.</p> <p>&lt;ethernet-10m&gt;—10Mbps.</p> <p>&lt;ethernet-1g&gt;—1 Gbps.</p>



**<speed> (configuration/interfaces/interface/ether-options)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;interfaces&gt;     &lt;interface&gt;       &lt;ether-options&gt;         &lt;speed&gt;           &lt;auto-negotiation&gt;...&lt;/auto-negotiation&gt;           &lt;ethernet-10m/&gt;           &lt;ethernet-100m/&gt;           &lt;ethernet-1g/&gt;         &lt;/speed&gt;       &lt;/ether-options&gt;     &lt;/interface&gt;   &lt;/interfaces&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Specify speed.
<b>Contents</b>	<pre> &lt;auto-negotiation&gt;—Enable auto-negotiation.  &lt;ethernet-100m&gt;—100Mbps.  &lt;ethernet-10m&gt;—10Mbps.  &lt;ethernet-1g&gt;—1 Gbps. </pre>

**<spf-options> (configuration/logical-systems/protocols/isis)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;isis&gt;         &lt;spf-options&gt;           &lt;delay&gt;milliseconds&lt;/delay&gt;           &lt;holddown&gt;milliseconds&lt;/holddown&gt;           &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;         &lt;/spf-options&gt;       &lt;/isis&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure SPF attributes.
<b>Contents</b>	<pre> &lt;delay&gt;—Time to wait before running an SPF.  &lt;holddown&gt;—Time to hold down before running an SPF.  &lt;rapid-runs&gt;—Number of rapid SPF runs before SPF holddown. </pre>

**<spf-options> (configuration/logical-systems/protocols/ospf)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;ospf&gt;         &lt;spf-options&gt;           &lt;delay&gt;milliseconds&lt;/delay&gt;           &lt;holddown&gt;milliseconds&lt;/holddown&gt;           &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;         &lt;/spf-options&gt;       &lt;/ospf&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure options for SPF.
<b>Contents</b>	<p>&lt;delay&gt;—Time to wait before running an SPF.</p> <p>&lt;holddown&gt;—Time to hold down before running an SPF.</p> <p>&lt;rapid-runs&gt;—Number of maximum rapid SPF runs before holddown.</p>

**<spf-options> (configuration/logical-systems/protocols/ospf/topology)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;ospf&gt;         &lt;topology&gt;           &lt;spf-options&gt;             &lt;delay&gt;milliseconds&lt;/delay&gt;             &lt;holddown&gt;milliseconds&lt;/holddown&gt;             &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;           &lt;/spf-options&gt;         &lt;/topology&gt;       &lt;/ospf&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure options for SPF.
<b>Contents</b>	<p>&lt;delay&gt;—Time to wait before running an SPF.</p> <p>&lt;holddown&gt;—Time to hold down before running an SPF.</p> <p>&lt;rapid-runs&gt;—Number of maximum rapid SPF runs before holddown.</p>

**<spf-options> (configuration/logical-systems/protocols/ospf3)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;ospf3&gt;         &lt;spf-options&gt;           &lt;delay&gt;milliseconds&lt;/delay&gt;           &lt;holddown&gt;milliseconds&lt;/holddown&gt;           &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;         &lt;/spf-options&gt;       &lt;/ospf3&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure options for SPF.
<b>Contents</b>	<p>&lt;delay&gt;—Time to wait before running an SPF.</p> <p>&lt;holddown&gt;—Time to hold down before running an SPF.</p> <p>&lt;rapid-runs&gt;—Number of maximum rapid SPF runs before holddown.</p>

**<spf-options> (configuration/logical-systems/protocols/ospf3/realm)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;ospf3&gt;         &lt;realm&gt;           &lt;spf-options&gt;             &lt;delay&gt;milliseconds&lt;/delay&gt;             &lt;holddown&gt;milliseconds&lt;/holddown&gt;             &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;           &lt;/spf-options&gt;         &lt;/realm&gt;       &lt;/ospf3&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure options for SPF.
<b>Contents</b>	<p>&lt;delay&gt;—Time to wait before running an SPF.</p> <p>&lt;holddown&gt;—Time to hold down before running an SPF.</p> <p>&lt;rapid-runs&gt;—Number of maximum rapid SPF runs before holddown.</p>

## **<spf-options> (configuration/logical-systems/protocols/ospf3/ realm/topology)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <protocols>  
          <ospf3>  
          <realm>  
          <topology>  
          **<spf-options>**  
          <delay>*milliseconds*</delay>  
          <holddown>*milliseconds*</holddown>  
          <rapid-runs>*rapid-runs*</rapid-runs>  
          **</spf-options>**  
          </topology>  
          </realm>  
          </ospf3>  
          </protocols>  
          </logical-systems>  
          </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.  
              <holddown>—Time to hold down before running an SPF.  
              <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/logical-systems/protocols/ospf3/topology)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <protocols>  
               <ospf3>  
               <topology>  
               **<spf-options>**  
               <delay>*milliseconds*</delay>  
               <holddown>*milliseconds*</holddown>  
               <rapid-runs>*rapid-runs*</rapid-runs>  
               **</spf-options>**  
               </topology>  
               </ospf3>  
               </protocols>  
               </logical-systems>  
               </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.  
               <holddown>—Time to hold down before running an SPF.  
               <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/logical-systems/routing-instances/instance/protocols/isis)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <isis>  
            **<spf-options>**  
            <delay>*milliseconds*</delay>  
            <holddown>*milliseconds*</holddown>  
            <rapid-runs>*rapid-runs*</rapid-runs>  
            **</spf-options>**  
          </isis>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Configure SPF attributes.

**Contents**   <delay>—Time to wait before running an SPF.  
              <holddown>—Time to hold down before running an SPF.  
              <rapid-runs>—Number of rapid SPF runs before SPF holddown.

## **<spf-options> (configuration/logical-systems/routing-instances/instance/protocols/ospf)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <ospf>  
                   **<spf-options>**  
                   <delay>*milliseconds*</delay>  
                   <holddown>*milliseconds*</holddown>  
                   <rapid-runs>*rapid-runs*</rapid-runs>  
                   **</spf-options>**  
               </ospf>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </logical-systems>  
               </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.

                  <holddown>—Time to hold down before running an SPF.

                  <rapid-runs>—Number of maximum rapid SPF runs before holddown.

**<spf-options> (configuration/logical-systems/routing-instances/  
instance/protocols/ospf/topology)**

---

**Usage** <configuration>  
    <logical-systems>  
        <routing-instances>  
            <instance>  
                <protocols>  
                    <ospf>  
                        <topology>  
                            **<spf-options>**  
                                <delay>*milliseconds*</delay>  
                                <holddown>*milliseconds*</holddown>  
                                <rapid-runs>*rapid-runs*</rapid-runs>  
                            **</spf-options>**  
                        </topology>  
                    </ospf>  
                </protocols>  
            </instance>  
        </routing-instances>  
    </logical-systems>  
</configuration>

**Description** Configure options for SPF.

**Contents** <delay>—Time to wait before running an SPF.

<holddown>—Time to hold down before running an SPF.

<rapid-runs>—Number of maximum rapid SPF runs before holddown.



## **<spf-options> (configuration/logical-systems/routing-instances/instance/protocols/ospf3)**

---

**Usage**   <configuration>  
               <logical-systems>  
                   <routing-instances>  
                       <instance>  
                         <protocols>  
                           <ospf3>  
                               **<spf-options>**  
                                 <delay>*milliseconds*</delay>  
                                 <holddown>*milliseconds*</holddown>  
                                 <rapid-runs>*rapid-runs*</rapid-runs>  
                               **</spf-options>**  
                           </ospf3>  
                         </protocols>  
                       </instance>  
                   </routing-instances>  
               </logical-systems>  
           </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.  
               <holddown>—Time to hold down before running an SPF.  
               <rapid-runs>—Number of maximum rapid SPF runs before holddown.

**<spf-options> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/realm)**

---

**Usage** <configuration>  
    <logical-systems>  
        <routing-instances>  
            <instance>  
                <protocols>  
                    <ospf3>  
                        <realm>  
                            **<spf-options>**  
                                <delay>*milliseconds*</delay>  
                                <holddown>*milliseconds*</holddown>  
                                <rapid-runs>*rapid-runs*</rapid-runs>  
                            **</spf-options>**  
                        </realm>  
                    </ospf3>  
                </protocols>  
            </instance>  
        </routing-instances>  
    </logical-systems>  
</configuration>

**Description** Configure options for SPF.

**Contents** <delay>—Time to wait before running an SPF.

<holddown>—Time to hold down before running an SPF.

<rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/realm/topology)**

---

**Usage**   <configuration>  
               <logical-systems>  
               <routing-instances>  
               <instance>  
               <protocols>  
               <ospf3>  
               <realm>  
               <topology>  
                   **<spf-options>**  
                   <delay>*milliseconds*</delay>  
                   <holddown>*milliseconds*</holddown>  
                   <rapid-runs>*rapid-runs*</rapid-runs>  
                   **</spf-options>**  
               </topology>  
               </realm>  
               </ospf3>  
               </protocols>  
               </instance>  
               </routing-instances>  
               </logical-systems>  
               </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.

                  <holddown>—Time to hold down before running an SPF.

                  <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/topology)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ospf3>  
                         <topology>  
                             **<spf-options>**  
                                 <delay>*milliseconds*</delay>  
                                 <holddown>*milliseconds*</holddown>  
                                 <rapid-runs>*rapid-runs*</rapid-runs>  
                             **</spf-options>**  
                         </topology>  
                     </ospf3>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** Configure options for SPF.

**Contents** <delay>—Time to wait before running an SPF.  
             <holddown>—Time to hold down before running an SPF.  
             <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/protocols/isis)**

---

**Usage** <configuration>  
     <protocols>  
         <isis>  
             **<spf-options>**  
                 <delay>*milliseconds*</delay>  
                 <holddown>*milliseconds*</holddown>  
                 <rapid-runs>*rapid-runs*</rapid-runs>  
             **</spf-options>**  
         </isis>  
     </protocols>  
</configuration>

**Description** Configure SPF attributes.

**Contents** <delay>—Time to wait before running an SPF.  
             <holddown>—Time to hold down before running an SPF.  
             <rapid-runs>—Number of rapid SPF runs before SPF holddown.

**<spf-options> (configuration/protocols/ospf)**

---

- Usage** <configuration>  
           <protocols>  
           <ospf>  
             **<spf-options>**  
               <delay>*milliseconds*</delay>  
               <holddown>*milliseconds*</holddown>  
               <rapid-runs>*rapid-runs*</rapid-runs>  
             **</spf-options>**  
           </ospf>  
         </protocols>  
       </configuration>
- Description** Configure options for SPF.
- Contents** <delay>—Time to wait before running an SPF.  
               <holddown>—Time to hold down before running an SPF.  
               <rapid-runs>—Number of maximum rapid SPF runs before holddown.

**<spf-options> (configuration/protocols/ospf/topology)**

---

- Usage** <configuration>  
           <protocols>  
           <ospf>  
             <topology>  
               **<spf-options>**  
               <delay>*milliseconds*</delay>  
               <holddown>*milliseconds*</holddown>  
               <rapid-runs>*rapid-runs*</rapid-runs>  
             **</spf-options>**  
           </topology>  
         </ospf>  
       </protocols>  
       </configuration>
- Description** Configure options for SPF.
- Contents** <delay>—Time to wait before running an SPF.  
               <holddown>—Time to hold down before running an SPF.  
               <rapid-runs>—Number of maximum rapid SPF runs before holddown.

**<spf-options> (configuration/protocols/ospf3)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;ospf3&gt;       &lt;spf-options&gt;         &lt;delay&gt;milliseconds&lt;/delay&gt;         &lt;holddown&gt;milliseconds&lt;/holddown&gt;         &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;       &lt;/spf-options&gt;     &lt;/ospf3&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure options for SPF.
<b>Contents</b>	<p>&lt;delay&gt;—Time to wait before running an SPF.</p> <p>&lt;holddown&gt;—Time to hold down before running an SPF.</p> <p>&lt;rapid-runs&gt;—Number of maximum rapid SPF runs before holddown.</p>

**<spf-options> (configuration/protocols/ospf3/realm)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;ospf3&gt;       &lt;realm&gt;         &lt;spf-options&gt;           &lt;delay&gt;milliseconds&lt;/delay&gt;           &lt;holddown&gt;milliseconds&lt;/holddown&gt;           &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;         &lt;/spf-options&gt;       &lt;/realm&gt;     &lt;/ospf3&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure options for SPF.
<b>Contents</b>	<p>&lt;delay&gt;—Time to wait before running an SPF.</p> <p>&lt;holddown&gt;—Time to hold down before running an SPF.</p> <p>&lt;rapid-runs&gt;—Number of maximum rapid SPF runs before holddown.</p>

**<spf-options> (configuration/protocols/ospf3/realm/topology)**

---

- Usage** <configuration>  
           <protocols>  
             <ospf3>  
               <realm>  
                 <topology>  
                   **<spf-options>**  
                     <delay>*milliseconds*</delay>  
                     <holddown>*milliseconds*</holddown>  
                     <rapid-runs>*rapid-runs*</rapid-runs>  
                   **</spf-options>**  
                 </topology>  
               </realm>  
             </ospf3>  
           </protocols>  
         </configuration>
- Description** Configure options for SPF.
- Contents** <delay>—Time to wait before running an SPF.  
               <holddown>—Time to hold down before running an SPF.  
               <rapid-runs>—Number of maximum rapid SPF runs before holddown.

**<spf-options> (configuration/protocols/ospf3/topology)**

---

- Usage** <configuration>  
           <protocols>  
             <ospf3>  
               <topology>  
                 **<spf-options>**  
                   <delay>*milliseconds*</delay>  
                   <holddown>*milliseconds*</holddown>  
                   <rapid-runs>*rapid-runs*</rapid-runs>  
                 **</spf-options>**  
               </topology>  
             </ospf3>  
           </protocols>  
         </configuration>
- Description** Configure options for SPF.
- Contents** <delay>—Time to wait before running an SPF.  
               <holddown>—Time to hold down before running an SPF.  
               <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/routing-instances/instance/protocols/isis)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;isis&gt;           &lt;spf-options&gt;             &lt;delay&gt;milliseconds&lt;/delay&gt;             &lt;holddown&gt;milliseconds&lt;/holddown&gt;             &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;           &lt;/spf-options&gt;         &lt;/isis&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure SPF attributes.
<b>Contents</b>	<p>&lt;delay&gt;—Time to wait before running an SPF.</p> <p>&lt;holddown&gt;—Time to hold down before running an SPF.</p> <p>&lt;rapid-runs&gt;—Number of rapid SPF runs before SPF holddown.</p>

## **<spf-options> (configuration/routing-instances/instance/protocols/ospf)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;ospf&gt;           &lt;spf-options&gt;             &lt;delay&gt;milliseconds&lt;/delay&gt;             &lt;holddown&gt;milliseconds&lt;/holddown&gt;             &lt;rapid-runs&gt;rapid-runs&lt;/rapid-runs&gt;           &lt;/spf-options&gt;         &lt;/ospf&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure options for SPF.
<b>Contents</b>	<p>&lt;delay&gt;—Time to wait before running an SPF.</p> <p>&lt;holddown&gt;—Time to hold down before running an SPF.</p> <p>&lt;rapid-runs&gt;—Number of maximum rapid SPF runs before holddown.</p>



## **<spf-options> (configuration/routing-instances/instance/protocols/ospf/topology)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <protocols>  
                         <ospf>  
                           <topology>  
                               **<spf-options>**  
                                 <delay>*milliseconds*</delay>  
                                 <holddown>*milliseconds*</holddown>  
                                 <rapid-runs>*rapid-runs*</rapid-runs>  
                               **</spf-options>**  
                           </topology>  
                         </ospf>  
                       </protocols>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.  
                   <holddown>—Time to hold down before running an SPF.  
                   <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/routing-instances/instance/protocols/ospf3)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                     <protocols>  
                       <ospf3>  
                         **<spf-options>**  
                           <delay>*milliseconds*</delay>  
                           <holddown>*milliseconds*</holddown>  
                           <rapid-runs>*rapid-runs*</rapid-runs>  
                         **</spf-options>**  
                       </ospf3>  
                     </protocols>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.  
               <holddown>—Time to hold down before running an SPF.  
               <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/routing-instances/instance/protocols/ospf3/realn)**

---

**Usage**   <configuration>  
              <routing-instances>  
              <instance>  
              <protocols>  
              <ospf3>  
              <realn>  
              **<spf-options>**  
                  <delay>*milliseconds*</delay>  
                  <holddown>*milliseconds*</holddown>  
                  <rapid-runs>*rapid-runs*</rapid-runs>  
              **</spf-options>**  
              </realn>  
              </ospf3>  
              </protocols>  
              </instance>  
              </routing-instances>  
          </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.

                 <holddown>—Time to hold down before running an SPF.

                 <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/routing-instances/instance/protocols/ospf3/realms/topology)**

---

**Usage**

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf3>
          <realm>
            <topology>
              <spf-options>
                <delay>milliseconds</delay>
                <holddown>milliseconds</holddown>
                <rapid-runs>rapid-runs</rapid-runs>
              </spf-options>
            </topology>
          </realm>
        </ospf3>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

**Description** Configure options for SPF.

**Contents**

- <delay>—Time to wait before running an SPF.
- <holddown>—Time to hold down before running an SPF.
- <rapid-runs>—Number of maximum rapid SPF runs before holddown.

## **<spf-options> (configuration/routing-instances/instance/protocols/ospf3/topology)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <protocols>  
                         <ospf3>  
                           <topology>  
                               **<spf-options>**  
                                 <delay>*milliseconds*</delay>  
                                 <holddown>*milliseconds*</holddown>  
                                 <rapid-runs>*rapid-runs*</rapid-runs>  
                               **</spf-options>**  
                           </topology>  
                         </ospf3>  
                       </protocols>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Configure options for SPF.

**Contents**   <delay>—Time to wait before running an SPF.  
                   <holddown>—Time to hold down before running an SPF.  
                   <rapid-runs>—Number of maximum rapid SPF runs before holddown.

**<spi> (configuration/services/mobile-ip/peer/ip-address)**

---

**Usage** <configuration>  
           <services>  
             <mobile-ip>  
               <peer>  
                 <ip-address>  
                   **<spi>**  
                     <name>*name*</name>   <!-- identifier -->  
                     <entity-type>...</entity-type>   <!-- mandatory -->  
                     <algorithm>...</algorithm>  
                     <key>...</key>   <!-- mandatory -->  
                     <replay-method>...</replay-method>  
                   **</spi>**  
                 </ip-address>  
               </peer>  
             </mobile-ip>  
           </services>  
         </configuration>

**Description** Security parameter index.

**Contents** <algorithm>—Algorithm type.

          <entity-type>—Entity type.

          <key>—Secret key.

          <name>—SPI value (100-FFFFFFFF).

          <replay-method>—Replay protection method.

**<spi> (configuration/services/mobile-ip/peer/nai)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;mobile-ip&gt;       &lt;peer&gt;         &lt;nai&gt;           &lt;spi&gt;             &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;entity-type&gt;...&lt;/entity-type&gt;    &lt;!-- mandatory --&gt;             &lt;algorithm&gt;...&lt;/algorithm&gt;             &lt;key&gt;...&lt;/key&gt;    &lt;!-- mandatory --&gt;             &lt;replay-method&gt;...&lt;/replay-method&gt;           &lt;/spi&gt;         &lt;/nai&gt;       &lt;/peer&gt;     &lt;/mobile-ip&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Security parameter index.
<b>Contents</b>	<p>&lt;algorithm&gt;—Algorithm type.</p> <p>&lt;entity-type&gt;—Entity type.</p> <p>&lt;key&gt;—Secret key.</p> <p>&lt;name&gt;—SPI value (100-FFFFFFFF).</p> <p>&lt;replay-method&gt;—Replay protection method.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;pim&gt;         &lt;spt-threshold&gt;           &lt;infinity&gt;...&lt;/infinity&gt;         &lt;/spt-threshold&gt;       &lt;/pim&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Set shortest-path-tree threshold policy.
<b>Contents</b>	<infinity>—Apply policy to always remain on shared tree.

## **<spt-threshold> (configuration/logical-systems/routing-instances/instance/protocols/pim)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <pim>  
            **<spt-threshold>**  
            <infinity>...</infinity>  
            **</spt-threshold>**  
          </pim>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Set shortest-path-tree threshold policy.

**Contents**   <infinity>—Apply policy to always remain on shared tree.

## **<spt-threshold> (configuration/protocols/pim)**

---

**Usage**   <configuration>  
          <protocols>  
          <pim>  
            **<spt-threshold>**  
            <infinity>...</infinity>  
            **</spt-threshold>**  
          </pim>  
          </protocols>  
          </configuration>

**Description**   Set shortest-path-tree threshold policy.

**Contents**   <infinity>—Apply policy to always remain on shared tree.



## **<spt-threshold> (configuration/routing-instances/instance/protocols/pim)**

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <protocols>  
                         <pim>  
                           **<spt-threshold>**  
                               <infinity>...</infinity>  
                           **</spt-threshold>**  
                         </pim>  
                       </protocols>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Set shortest-path-tree threshold policy.

**Contents**    <infinity>—Apply policy to always remain on shared tree.

## **<:ssb> (configuration/chassis/redundancy)**

---

**Usage**   <configuration>  
               <chassis>  
                   <redundancy>  
                       **<:ssb>**  
                           <name>*name*</name>   <!-- identifier -->  
                           <always/>  
                           <preferred/>  
                       **</ssb>**  
                   </redundancy>  
               </chassis>  
           </configuration>

**Description**   Redundancy options for System Switch Boards.

**Contents**    <always>—Sole device.

              <name>—SSB slot number.

              <preferred>—Preferred device.

**<ssh> (configuration/system/services)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;system&gt;     &lt;services&gt;       &lt;ssh&gt;         &lt;root-login&gt;root-login-choice&lt;/root-login&gt;         &lt;protocol-version&gt;...&lt;/protocol-version&gt;         &lt;connection-limit&gt;connection-limit&lt;/connection-limit&gt;         &lt;rate-limit&gt;rate-limit&lt;/rate-limit&gt;       &lt;/ssh&gt;     &lt;/services&gt;   &lt;/system&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Allow ssh access.
<b>Contents</b>	<p>&lt;connection-limit&gt;—Maximum number of allowed connections.</p> <p>&lt;protocol-version&gt;—Specify ssh protocol versions supported.</p> <p>&lt;rate-limit&gt;—Maximum number of connections per minute.</p> <p>&lt;root-login&gt;—Configure root access via ssh.</p> <ul style="list-style-type: none"> <li>■ allow—Allow root access via ssh.</li> <li>■ deny—Do not allow root access via ssh.</li> <li>■ deny-password—Allow for non-password-based authentication methods only.</li> </ul>

**<ssh> (configuration/system/services/flow-tap-dtcp)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;system&gt;     &lt;services&gt;       &lt;flow-tap-dtcp&gt;         &lt;ssh&gt;           &lt;connection-limit&gt;connection-limit&lt;/connection-limit&gt;           &lt;rate-limit&gt;rate-limit&lt;/rate-limit&gt;         &lt;/ssh&gt;       &lt;/flow-tap-dtcp&gt;     &lt;/services&gt;   &lt;/system&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Allow flow-tap-dtcp service over SSH.
<b>Contents</b>	<p>&lt;connection-limit&gt;—Maximum number of allowed connections.</p> <p>&lt;rate-limit&gt;—Maximum number of connections per minute.</p>

**<ssh> (configuration/system/services/netconf)**

---

- Usage** `<configuration>`  
     `<system>`  
         `<services>`  
             `<netconf>`  
                 **<ssh>**  
                     `<connection-limit>`*connection-limit*`</connection-limit>`  
                     `<rate-limit>`*rate-limit*`</rate-limit>`  
                 **</ssh>**  
             `</netconf>`  
         `</services>`  
     `</system>`  
`</configuration>`
- Description** Allow NETCONF over SSH.
- Contents** `<connection-limit>`—Maximum number of allowed connections.  
     `<rate-limit>`—Maximum number of connections per minute.

**<ssh-dsa> (configuration/system/login/user/authentication)**

---

- Usage** `<configuration>`  
     `<system>`  
         `<login>`  
             `<user>`  
                 `<authentication>`  
                     **<ssh-dsa>**  
                         `<name>`*name*`</name>`   <!-- identifier -->  
                         `<from>`*from*`</from>`  
                     **</ssh-dsa>**  
                 `</authentication>`  
             `</user>`  
         `</login>`  
     `</system>`  
`</configuration>`
- Description** Secure shell (ssh) DSA public key string.
- Contents** `<from>`—Pattern-list of allowed hosts.  
     `<name>`—Secure shell (ssh) DSA public key string.

## <ssh-dsa> (configuration/system/root-authentication)

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;system&gt;     &lt;root-authentication&gt;       &lt;ssh-dsa&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;from&gt;from&lt;/from&gt;       &lt;/ssh-dsa&gt;     &lt;/root-authentication&gt;   &lt;/system&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	Secure shell (ssh) DSA public key string.
<b>Contents</b>	<p>&lt;from&gt;—Pattern-list of allowed hosts.</p> <p>&lt;name&gt;—Secure shell (ssh) DSA public key string.</p>

## <ssh-known-hosts> (configuration/security)

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;security&gt;     &lt;ssh-known-hosts&gt;       &lt;host&gt;...&lt;/host&gt;     &lt;/ssh-known-hosts&gt;   &lt;/security&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	SSH known host list.
<b>Contents</b>	<host>—SSH known host entry.

**<ssh-rsa> (configuration/system/login/user/authentication)**

---

**Usage** <configuration>  
           <system>  
             <login>  
               <user>  
                 <authentication>  
                   **<ssh-rsa>**  
                     <name>*name*</name>   <!-- identifier -->  
                     <from>*from*</from>  
                   **</ssh-rsa>**  
                 </authentication>  
               </user>  
             </login>  
           </system>  
         </configuration>

**Description** Secure shell (ssh) RSA public key string.

**Contents** <from>—Pattern-list of allowed hosts.

<name>—Secure shell (ssh) RSA public key string.

**<ssh-rsa> (configuration/system/root-authentication)**

---

**Usage** <configuration>  
           <system>  
             <root-authentication>  
               **<ssh-rsa>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <from>*from*</from>  
               **</ssh-rsa>**  
             </root-authentication>  
           </system>  
         </configuration>

**Description** Secure shell (ssh) RSA public key string.

**Contents** <from>—Pattern-list of allowed hosts.

<name>—Secure shell (ssh) RSA public key string.

## **<ssm-groups> (configuration/logical-systems/routing-instances/instance/routing-options/multicast)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <routing-options>  
           <multicast>  
             **<ssm-groups>**  
               <name>name</name>   <!-- identifier -->  
             **</ssm-groups>**  
           </multicast>  
         </routing-options>  
       </instance>  
     </routing-instances>  
 </logical-systems>  
</configuration>

**Description**   Source-specific multicast group ranges.

**Contents**    <name>—Source-specific multicast group ranges.

## **<ssm-groups> (configuration/logical-systems/routing-options/multicast)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-options>  
           <multicast>  
             **<ssm-groups>**  
               <name>name</name>   <!-- identifier -->  
             **</ssm-groups>**  
           </multicast>  
         </routing-options>  
       </logical-systems>  
 </configuration>

**Description**   Source-specific multicast group ranges.

**Contents**    <name>—Source-specific multicast group ranges.

## **<ssm-groups> (configuration/routing-instances/instance/routing-options/multicast)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <routing-options>  
           <multicast>  
             **<ssm-groups>**  
               <name>*name*</name>   <!-- identifier -->  
             **</ssm-groups>**  
           </multicast>  
         </routing-options>  
       </instance>  
     </routing-instances>  
 </configuration>

**Description**   Source-specific multicast group ranges.

**Contents**    <name>—Source-specific multicast group ranges.

## **<ssm-groups> (configuration/routing-options/multicast)**

---

**Usage**   <configuration>  
           <routing-options>  
           <multicast>  
             **<ssm-groups>**  
               <name>*name*</name>   <!-- identifier -->  
             **</ssm-groups>**  
           </multicast>  
         </routing-options>  
 </configuration>

**Description**   Source-specific multicast group ranges.

**Contents**    <name>—Source-specific multicast group ranges.

## **<ssm-map> (configuration/logical-systems/routing-instances/instance/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-instances&gt;       &lt;instance&gt;         &lt;routing-options&gt;           &lt;multicast&gt;             &lt;ssm-map&gt;               &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;               &lt;policy&gt;...&lt;/policy&gt; &lt;!-- mandatory --&gt;               &lt;source&gt;...&lt;/source&gt; &lt;!-- mandatory --&gt;             &lt;/ssm-map&gt;           &lt;/multicast&gt;         &lt;/routing-options&gt;       &lt;/instance&gt;     &lt;/routing-instances&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SSM map definitions.
<b>Contents</b>	<p>&lt;name&gt;—SSM map name.</p> <p>&lt;policy&gt;—Policy for matching group.</p> <p>&lt;source&gt;—One or more source addresses.</p>

## **<ssm-map> (configuration/logical-systems/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-options&gt;       &lt;multicast&gt;         &lt;ssm-map&gt;           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;           &lt;policy&gt;...&lt;/policy&gt; &lt;!-- mandatory --&gt;           &lt;source&gt;...&lt;/source&gt; &lt;!-- mandatory --&gt;         &lt;/ssm-map&gt;       &lt;/multicast&gt;     &lt;/routing-options&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SSM map definitions.
<b>Contents</b>	<p>&lt;name&gt;—SSM map name.</p> <p>&lt;policy&gt;—Policy for matching group.</p> <p>&lt;source&gt;—One or more source addresses.</p>



## **<ssm-map> (configuration/routing-instances/instance/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;routing-options&gt;         &lt;multicast&gt;           &lt;ssm-map&gt;             &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;policy&gt;...&lt;/policy&gt;  &lt;!-- mandatory --&gt;             &lt;source&gt;...&lt;/source&gt;  &lt;!-- mandatory --&gt;           &lt;/ssm-map&gt;         &lt;/multicast&gt;       &lt;/routing-options&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SSM map definitions.
<b>Contents</b>	<p>&lt;name&gt;—SSM map name.</p> <p>&lt;policy&gt;—Policy for matching group.</p> <p>&lt;source&gt;—One or more source addresses.</p>

## **<ssm-map> (configuration/routing-options/multicast)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-options&gt;     &lt;multicast&gt;       &lt;ssm-map&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;         &lt;policy&gt;...&lt;/policy&gt;  &lt;!-- mandatory --&gt;         &lt;source&gt;...&lt;/source&gt;  &lt;!-- mandatory --&gt;       &lt;/ssm-map&gt;     &lt;/multicast&gt;   &lt;/routing-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SSM map definitions.
<b>Contents</b>	<p>&lt;name&gt;—SSM map name.</p> <p>&lt;policy&gt;—Policy for matching group.</p> <p>&lt;source&gt;—One or more source addresses.</p>

**<starts-with> (configuration/bridge-domains/domain/forwarding-options/dhcp-relay/group/relay-option-60/vendor-option)**

---

**Usage**   <configuration>  
          <bridge-domains>  
          <domain>  
          <forwarding-options>  
          <dhcp-relay>  
          <group>  
          <relay-option-60>  
          <vendor-option>  
          **<starts-with>**  
          <ascii>...</ascii>  
          <hexadecimal>...</hexadecimal>  
          **</starts-with>**  
          </vendor-option>  
          </relay-option-60>  
          </group>  
          </dhcp-relay>  
          </forwarding-options>  
          </domain>  
          </bridge-domains>  
          </configuration>

**Description**   Option 60 starts with.

**Contents**   <ascii>—ASCII string.  
              <hexadecimal>—Hexadecimal string.

## **<starts-with> (configuration/bridge-domains/domain/forwarding-options/dhcp-relay/relay-option-60/vendor-option)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;bridge-domains&gt;     &lt;domain&gt;       &lt;forwarding-options&gt;         &lt;dhcp-relay&gt;           &lt;relay-option-60&gt;             &lt;vendor-option&gt;               &lt;starts-with&gt;                 &lt;ascii&gt;...&lt;/ascii&gt;                 &lt;hexadecimal&gt;...&lt;/hexadecimal&gt;               &lt;/starts-with&gt;             &lt;/vendor-option&gt;           &lt;/relay-option-60&gt;         &lt;/dhcp-relay&gt;       &lt;/forwarding-options&gt;     &lt;/domain&gt;   &lt;/bridge-domains&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Option 60 starts with.
<b>Contents</b>	<p>&lt;ascii&gt;—ASCII string.</p> <p>&lt;hexadecimal&gt;—Hexadecimal string.</p>

## **<starts-with> (configuration/forwarding-options/dhcp-relay/group/relay-option-60/vendor-option)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;dhcp-relay&gt;       &lt;group&gt;         &lt;relay-option-60&gt;           &lt;vendor-option&gt;             &lt;starts-with&gt;               &lt;ascii&gt;...&lt;/ascii&gt;               &lt;hexadecimal&gt;...&lt;/hexadecimal&gt;             &lt;/starts-with&gt;           &lt;/vendor-option&gt;         &lt;/relay-option-60&gt;       &lt;/group&gt;     &lt;/dhcp-relay&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Option 60 starts with.
<b>Contents</b>	<p>&lt;ascii&gt;—ASCII string.</p> <p>&lt;hexadecimal&gt;—Hexadecimal string.</p>

## **<starts-with> (configuration/forwarding-options/dhcp-relay/relay-option-60/vendor-option)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;forwarding-options&gt;     &lt;dhcp-relay&gt;       &lt;relay-option-60&gt;         &lt;vendor-option&gt;           &lt;starts-with&gt;             &lt;ascii&gt;...&lt;/ascii&gt;             &lt;hexadecimal&gt;...&lt;/hexadecimal&gt;           &lt;/starts-with&gt;         &lt;/vendor-option&gt;       &lt;/relay-option-60&gt;     &lt;/dhcp-relay&gt;   &lt;/forwarding-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Option 60 starts with.
<b>Contents</b>	<p>&lt;ascii&gt;—ASCII string.</p> <p>&lt;hexadecimal&gt;—Hexadecimal string.</p>

## **<starts-with> (configuration/logical-systems/forwarding-options/dhcp-relay/group/relay-option-60/vendor-option)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;forwarding-options&gt;       &lt;dhcp-relay&gt;         &lt;group&gt;           &lt;relay-option-60&gt;             &lt;vendor-option&gt;               &lt;starts-with&gt;                 &lt;ascii&gt;...&lt;/ascii&gt;                 &lt;hexadecimal&gt;...&lt;/hexadecimal&gt;               &lt;/starts-with&gt;             &lt;/vendor-option&gt;           &lt;/relay-option-60&gt;         &lt;/group&gt;       &lt;/dhcp-relay&gt;     &lt;/forwarding-options&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Option 60 starts with.
<b>Contents</b>	<p>&lt;ascii&gt;—ASCII string.</p> <p>&lt;hexadecimal&gt;—Hexadecimal string.</p>

## **<starts-with> (configuration/logical-systems/forwarding-options/dhcp-relay/relay-option-60/vendor-option)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;forwarding-options&gt;       &lt;dhcp-relay&gt;         &lt;relay-option-60&gt;           &lt;vendor-option&gt;             <b>&lt;starts-with&gt;</b>               &lt;ascii&gt;...&lt;/ascii&gt;               &lt;hexadecimal&gt;...&lt;/hexadecimal&gt;             <b>&lt;/starts-with&gt;</b>           &lt;/vendor-option&gt;         &lt;/relay-option-60&gt;       &lt;/dhcp-relay&gt;     &lt;/forwarding-options&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Option 60 starts with.
<b>Contents</b>	<p>&lt;ascii&gt;—ASCII string.</p> <p>&lt;hexadecimal&gt;—Hexadecimal string.</p>

## **<starts-with> (configuration/logical-systems/routing-instances/instance/bridge-domains/domain/forwarding-options/dhcp-relay/group/relay-option-60/vendor-option)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <forwarding-options>
              <dhcp-relay>
                <group>
                  <relay-option-60>
                    <vendor-option>
                      <starts-with>
                        <ascii>...</ascii>
                        <hexadecimal>...</hexadecimal>
                      </starts-with>
                    </vendor-option>
                  </relay-option-60>
                </group>
              </dhcp-relay>
            </forwarding-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Option 60 starts with.

**Contents** <ascii>—ASCII string.

<hexadecimal>—Hexadecimal string.

## **<starts-with> (configuration/logical-systems/routing-instances/instance/bridge-domains/domain/forwarding-options/dhcp-relay/relay-option-60/vendor-option)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <forwarding-options>
              <dhcp-relay>
                <relay-option-60>
                  <vendor-option>
                    <starts-with>
                      <ascii>...</ascii>
                      <hexadecimal>...</hexadecimal>
                    </starts-with>
                  </vendor-option>
                </relay-option-60>
              </dhcp-relay>
            </forwarding-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Option 60 starts with.

**Contents** <ascii>—ASCII string.

<hexadecimal>—Hexadecimal string.

**<starts-with> (configuration/logical-systems/routing-instances/instance/forwarding-options/dhcp-relay/group/relay-option-60/vendor-option)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <forwarding-options>  
          <dhcp-relay>  
          <group>  
          <relay-option-60>  
          <vendor-option>  
            **<starts-with>**  
              <ascii>...</ascii>  
              <hexadecimal>...</hexadecimal>  
            **</starts-with>**  
          </vendor-option>  
          </relay-option-60>  
          </group>  
          </dhcp-relay>  
          </forwarding-options>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Option 60 starts with.

**Contents**   <ascii>—ASCII string.  
              <hexadecimal>—Hexadecimal string.



## **<starts-with> (configuration/logical-systems/routing-instances/instance/forwarding-options/dhcp-relay/relay-option-60/vendor-option)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <forwarding-options>  
           <dhcp-relay>  
           <relay-option-60>  
           <vendor-option>  
               **<starts-with>**  
                   <ascii>...</ascii>  
                   <hexadecimal>...</hexadecimal>  
               **</starts-with>**  
               </vendor-option>  
           </relay-option-60>  
           </dhcp-relay>  
           </forwarding-options>  
           </instance>  
           </routing-instances>  
           </logical-systems>  
         </configuration>

**Description**   Option 60 starts with.

**Contents**    <ascii>—ASCII string.  
               <hexadecimal>—Hexadecimal string.

**<starts-with> (configuration/routing-instances/instance/bridge-domains/domain/forwarding-options/dhcp-relay/group/relay-option-60/vendor-option)**

---

**Usage**

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <forwarding-options>
            <dhcp-relay>
              <group>
                <relay-option-60>
                  <vendor-option>
                    <starts-with>
                      <ascii>...</ascii>
                      <hexadecimal>...</hexadecimal>
                    </starts-with>
                  </vendor-option>
                </relay-option-60>
              </group>
            </dhcp-relay>
          </forwarding-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

**Description** Option 60 starts with.

**Contents** <ascii>—ASCII string.

<hexadecimal>—Hexadecimal string.

**<starts-with> (configuration/routing-instances/instance/bridge-domains/domain/forwarding-options/dhcp-relay/relay-option-60/vendor-option)**

---

**Usage**   <configuration>  
          <routing-instances>  
          <instance>  
          <bridge-domains>  
          <domain>  
          <forwarding-options>  
          <dhcp-relay>  
          <relay-option-60>  
          <vendor-option>  
          **<starts-with>**  
          <ascii>...</ascii>  
          <hexadecimal>...</hexadecimal>  
          **</starts-with>**  
          </vendor-option>  
          </relay-option-60>  
          </dhcp-relay>  
          </forwarding-options>  
          </domain>  
          </bridge-domains>  
          </instance>  
          </routing-instances>  
          </configuration>

**Description**   Option 60 starts with.

**Contents**     <ascii>—ASCII string.

                  <hexadecimal>—Hexadecimal string.

**<starts-with> (configuration/routing-instances/instance/forwarding-options/dhcp-relay/group/relay-option-60/vendor-option)**

---

**Usage**   <configuration>  
          <routing-instances>  
          <instance>  
          <forwarding-options>  
          <dhcp-relay>  
          <group>  
          <relay-option-60>  
          <vendor-option>  
          **<starts-with>**  
          <ascii>...</ascii>  
          <hexadecimal>...</hexadecimal>  
          **</starts-with>**  
          </vendor-option>  
          </relay-option-60>  
          </group>  
          </dhcp-relay>  
          </forwarding-options>  
          </instance>  
          </routing-instances>  
          </configuration>

**Description**   Option 60 starts with.

**Contents**   <ascii>—ASCII string.  
              <hexadecimal>—Hexadecimal string.

## **<starts-with> (configuration/routing-instances/instance/forwarding-options/dhcp-relay/relay-option-60/vendor-option)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;forwarding-options&gt;         &lt;dhcp-relay&gt;           &lt;relay-option-60&gt;             &lt;vendor-option&gt;               <b>&lt;starts-with&gt;</b>                 &lt;ascii&gt;...&lt;/ascii&gt;                 &lt;hexadecimal&gt;...&lt;/hexadecimal&gt;               <b>&lt;/starts-with&gt;</b>             &lt;/vendor-option&gt;           &lt;/relay-option-60&gt;         &lt;/dhcp-relay&gt;       &lt;/forwarding-options&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Option 60 starts with.
<b>Contents</b>	<p>&lt;ascii&gt;—ASCII string.</p> <p>&lt;hexadecimal&gt;—Hexadecimal string.</p>

## **<stateful-firewall> (configuration/services)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     <b>&lt;stateful-firewall&gt;</b>       &lt;rule&gt;...&lt;/rule&gt;       &lt;rule-set&gt;...&lt;/rule-set&gt;     <b>&lt;/stateful-firewall&gt;</b>   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure stateful firewall services.
<b>Contents</b>	<p>&lt;rule&gt;—Define a stateful firewall rule.</p> <p>&lt;rule-set&gt;—Define a set of stateful firewall rules.</p>

## **<stateful-firewall-rule-sets> (configuration/services/service-set)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;services&gt;     &lt;service-set&gt;       &lt;stateful-firewall-rule-sets&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;       &lt;/stateful-firewall-rule-sets&gt;     &lt;/service-set&gt;   &lt;/services&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	List of stateful firewall rule sets.
<b>Contents</b>	<name>—No documentation is available yet.

## **<stateful-firewall-rules> (configuration/services/service-set)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;services&gt;     &lt;service-set&gt;       &lt;stateful-firewall-rules&gt;         &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;       &lt;/stateful-firewall-rules&gt;     &lt;/service-set&gt;   &lt;/services&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	List of stateful firewall rules.
<b>Contents</b>	<name>—No documentation is available yet.

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

---

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

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

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

---

**Usage** <configuration>  
           <bridge-domains>  
           <domain>  
           <protocols>  
           <igmp-snooping>  
           <vlan>  
           <interface>  
           **<static>**  
             <group>...</group>  
           **</static>**  
           </interface>  
           </vlan>  
           </igmp-snooping>  
           </protocols>  
           </domain>  
           </bridge-domains>  
           </configuration>

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;dynamic-profiles&gt;     &lt;protocols&gt;       &lt;igmp&gt;         &lt;interface&gt;           &lt;static&gt;             &lt;group&gt;...&lt;/group&gt;           &lt;/static&gt;         &lt;/interface&gt;       &lt;/igmp&gt;     &lt;/protocols&gt;   &lt;/dynamic-profiles&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static group or source membership.
<b>Contents</b>	<group>—IP multicast group address.

## **<static> (configuration/logical-systems/protocols/dot1x/authenticator)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;dot1x&gt;         &lt;authenticator&gt;           &lt;static&gt;             &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;             &lt;vlan-assignment&gt;vlan-assignment&lt;/vlan-assignment&gt;             &lt;interface&gt;interface&lt;/interface&gt;           &lt;/static&gt;         &lt;/authenticator&gt;       &lt;/dot1x&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static MAC configuration needed to bypass 802.1X.
<b>Contents</b>	<p>&lt;interface&gt;—Interface on which authentication is bypassed.</p> <p>&lt;name&gt;—MAC addresses to bypass authentication.</p> <p>&lt;vlan-assignment&gt;—VLAN name or 802.1q tag for the MAC address.</p>



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

---

**Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <igmp>  
           <interface>  
             **<static>**  
               <group>...</group>  
             **</static>**  
           </interface>  
         </igmp>  
       </protocols>  
     </logical-systems>  
 </configuration>

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

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

---

**Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <mld>  
           <interface>  
             **<static>**  
               <group>...</group>  
             **</static>**  
           </interface>  
         </mld>  
       </protocols>  
     </logical-systems>  
 </configuration>

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

**<static> (configuration/logical-systems/protocols/pim/rp)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;protocols&gt;       &lt;pim&gt;         &lt;rp&gt;           &lt;static&gt;             &lt;address&gt;...&lt;/address&gt;           &lt;/static&gt;         &lt;/rp&gt;       &lt;/pim&gt;     &lt;/protocols&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure static PIM RPs.
<b>Contents</b>	<address>—RP address.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-instances&gt;       &lt;instance&gt;         &lt;bridge-domains&gt;           &lt;domain&gt;             &lt;protocols&gt;               &lt;igmp-snooping&gt;                 &lt;interface&gt;                   &lt;static&gt;                     &lt;group&gt;...&lt;/group&gt;                   &lt;/static&gt;                 &lt;/interface&gt;               &lt;/igmp-snooping&gt;             &lt;/protocols&gt;           &lt;/domain&gt;         &lt;/bridge-domains&gt;       &lt;/instance&gt;     &lt;/routing-instances&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static group or source membership.
<b>Contents</b>	<group>—IP multicast group address.

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

---

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

**Description**   Static group or source membership.

**Contents**    <group>—IP multicast group address.

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

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <igmp-snooping>  
                         <interface>  
                             **<static>**  
                                 <group>...</group>  
                             **</static>**  
                         </interface>  
                     </igmp-snooping>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

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

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <igmp-snooping>  
                         <vlan>  
                             <interface>  
                                 **<static>**  
                                     <group>...</group>  
                                 **</static>**  
                             </interface>  
                         </vlan>  
                     </igmp-snooping>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

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

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-instances&gt;       &lt;instance&gt;         &lt;protocols&gt;           &lt;pim&gt;             &lt;rp&gt;               <b>&lt;static&gt;</b>                 &lt;address&gt;...&lt;/address&gt;               <b>&lt;/static&gt;</b>             &lt;/rp&gt;           &lt;/pim&gt;         &lt;/protocols&gt;       &lt;/instance&gt;     &lt;/routing-instances&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	Configure static PIM RPs.
<b>Contents</b>	<address>—RP address.

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

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <routing-options>  
          **<static>**  
          <rib-group>*rib-group*</rib-group>  
          <defaults>...</defaults>  
          <route>...</route>  
          <iso-route>...</iso-route>  
          **</static>**  
          </routing-options>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Static routes.

**Contents**   <defaults>—Global route options.  
  
              <iso-route>—ISO family static route.  
  
              <rib-group>—Routing table group.  
  
              <route>—Static route.

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

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <routing-options>  
          <rib>  
          **<static>**  
          <rib-group>*rib-group*</rib-group>  
          <defaults>...</defaults>  
          <route>...</route>  
          <iso-route>...</iso-route>  
          **</static>**  
          </rib>  
          </routing-options>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Static routes.

- Contents**   <defaults>—Global route options.
- <iso-route>—ISO family static route.
- <rib-group>—Routing table group.
- <route>—Static route.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-options&gt;       &lt;static&gt;         &lt;rib-group&gt;rib-group&lt;/rib-group&gt;         &lt;defaults&gt;...&lt;/defaults&gt;         &lt;route&gt;...&lt;/route&gt;         &lt;iso-route&gt;...&lt;/iso-route&gt;       &lt;/static&gt;     &lt;/routing-options&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static routes.
<b>Contents</b>	<p>&lt;defaults&gt;—Global route options.</p> <p>&lt;iso-route&gt;—ISO family static route.</p> <p>&lt;rib-group&gt;—Routing table group.</p> <p>&lt;route&gt;—Static route.</p>

**<static> (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;static&gt;           &lt;rib-group&gt;rib-group&lt;/rib-group&gt;           &lt;defaults&gt;...&lt;/defaults&gt;           &lt;route&gt;...&lt;/route&gt;           &lt;iso-route&gt;...&lt;/iso-route&gt;         &lt;/static&gt;       &lt;/rib&gt;     &lt;/routing-options&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static routes.
<b>Contents</b>	<p>&lt;defaults&gt;—Global route options.</p> <p>&lt;iso-route&gt;—ISO family static route.</p> <p>&lt;rib-group&gt;—Routing table group.</p> <p>&lt;route&gt;—Static route.</p>



**<static> (configuration/protocols/dot1x/authenticator)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;dot1x&gt;       &lt;authenticator&gt;         &lt;static&gt;           &lt;name&gt;name&lt;/name&gt;    &lt;!-- identifier --&gt;           &lt;vlan-assignment&gt;vlan-assignment&lt;/vlan-assignment&gt;           &lt;interface&gt;interface&lt;/interface&gt;         &lt;/static&gt;       &lt;/authenticator&gt;     &lt;/dot1x&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static MAC configuration needed to bypass 802.1X.
<b>Contents</b>	<p>&lt;interface&gt;—Interface on which authentication is bypassed.</p> <p>&lt;name&gt;—MAC addresses to bypass authentication.</p> <p>&lt;vlan-assignment&gt;—VLAN name or 802.1q tag for the MAC address.</p>

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;igmp&gt;       &lt;interface&gt;         &lt;static&gt;           &lt;group&gt;...&lt;/group&gt;         &lt;/static&gt;       &lt;/interface&gt;     &lt;/igmp&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static group or source membership.
<b>Contents</b>	<group>—IP multicast group address.

## **<static> (configuration/protocols/mld/interface)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;protocols&gt;     &lt;mld&gt;       &lt;interface&gt;         &lt;static&gt;           &lt;group&gt;...&lt;/group&gt;         &lt;/static&gt;       &lt;/interface&gt;     &lt;/mld&gt;   &lt;/protocols&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	Static group or source membership.
<b>Contents</b>	<group>—IP multicast group address.

## **<static> (configuration/protocols/pim/rp)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;protocols&gt;     &lt;pim&gt;       &lt;rp&gt;         &lt;static&gt;           &lt;address&gt;...&lt;/address&gt;         &lt;/static&gt;       &lt;/rp&gt;     &lt;/pim&gt;   &lt;/protocols&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	Configure static PIM RPs.
<b>Contents</b>	<address>—RP address.

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

---

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

**Description**   Static group or source membership.

**Contents**    <group>—IP multicast group address.

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

---

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

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

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

---

**Usage** <configuration>  
 <routing-instances>  
 <instance>  
 <protocols>  
 <igmp-snooping>  
 <interface>  
**<static>**  
 <group>...</group>  
**</static>**  
 </interface>  
 </igmp-snooping>  
 </protocols>  
 </instance>  
 </routing-instances>  
 </configuration>

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

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

---

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

**Description** Static group or source membership.

**Contents** <group>—IP multicast group address.

## **<static> (configuration/routing-instances/instance/protocols/pim/rp)**

---

**Usage** <configuration>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <pim>  
           <rp>  
           **<static>**  
           <address>...</address>  
           **</static>**  
           </rp>  
           </pim>  
           </protocols>  
           </instance>  
           </routing-instances>  
           </configuration>

**Description** Configure static PIM RPs.

**Contents** <address>—RP address.

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

---

**Usage**    <configuration>  
            <routing-instances>  
            <instance>  
            <routing-options>  
            **<static>**  
            <rib-group>*rib-group*</rib-group>  
            <defaults>...</defaults>  
            <route>...</route>  
            <iso-route>...</iso-route>  
            **</static>**  
            </routing-options>  
            </instance>  
            </routing-instances>  
          </configuration>

**Description**    Static routes.

**Contents**    <defaults>—Global route options.  
  
                <iso-route>—ISO family static route.  
  
                <rib-group>—Routing table group.  
  
                <route>—Static route.

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

---

**Usage** <configuration>  
           <routing-instances>  
             <instance>  
               <routing-options>  
                 <rib>  
                   **<static>**  
                     <rib-group>*rib-group*</rib-group>  
                     <defaults>...</defaults>  
                     <route>...</route>  
                     <iso-route>...</iso-route>  
                   **</static>**  
                 </rib>  
               </routing-options>  
             </instance>  
           </routing-instances>  
         </configuration>

**Description** Static routes.

**Contents** <defaults>—Global route options.  
               <iso-route>—ISO family static route.  
               <rib-group>—Routing table group.  
               <route>—Static route.

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

---

**Usage** <configuration>  
           <routing-options>  
             **<static>**  
               <rib-group>*rib-group*</rib-group>  
               <defaults>...</defaults>  
               <route>...</route>  
               <iso-route>...</iso-route>  
             **</static>**  
           </routing-options>  
         </configuration>

**Description** Static routes.

**Contents** <defaults>—Global route options.  
               <iso-route>—ISO family static route.  
               <rib-group>—Routing table group.  
               <route>—Static route.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-options&gt;     &lt;rib&gt;       &lt;static&gt;         &lt;rib-group&gt;rib-group&lt;/rib-group&gt;         &lt;defaults&gt;...&lt;/defaults&gt;         &lt;route&gt;...&lt;/route&gt;         &lt;iso-route&gt;...&lt;/iso-route&gt;       &lt;/static&gt;     &lt;/rib&gt;   &lt;/routing-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static routes.
<b>Contents</b>	<p>&lt;defaults&gt;—Global route options.</p> <p>&lt;iso-route&gt;—ISO family static route.</p> <p>&lt;rib-group&gt;—Routing table group.</p> <p>&lt;route&gt;—Static route.</p>

**<static> (configuration/services/ggsn/apn/service-based-charging/policy-control)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;apn&gt;         &lt;service-based-charging&gt;           &lt;policy-control&gt;             &lt;static&gt;               &lt;profile&gt;...&lt;/profile&gt;             &lt;/static&gt;           &lt;/policy-control&gt;         &lt;/service-based-charging&gt;       &lt;/apn&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Static policy control.
<b>Contents</b>	<profile>—Policy control static profile.



**<static-binding> (configuration/system/services/dhcp)**

---

**Usage** <configuration>  
           <system>  
             <services>  
               <dhcp>  
                 **<static-binding>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <fixed-address>...</fixed-address>   <!-- mandatory -->  
                   <host-name>*host-name*</host-name>  
                   <client-identifier>...</client-identifier>  
                   <domain-name>*domain-name*</domain-name>  
                   <name-server>...</name-server>  
                   <domain-search>...</domain-search>  
                   <wins-server>...</wins-server>  
                   <router>...</router>  
                   <boot-file>*boot-file*</boot-file>  
                   <boot-server>*boot-server*</boot-server>  
                   <next-server>*next-server*</next-server>  
                   <server-identifier>*server-identifier*</server-identifier>  
                   <option>...</option>  
                 **</static-binding>**  
               </dhcp>  
             </services>  
           </system>  
   </configuration>

**Description** DHCP client's hardware address.

**Contents** <boot-file>—Boot filename advertised to clients.  
           <boot-server>—Boot server advertised to clients.  
           <client-identifier>—Client identifier option.  
           <domain-name>—Domain name advertised to clients.  
           <domain-search>—Domain search list used to resolve hostnames.  
           <fixed-address>—Possible IP addresses to assign to host.  
           <host-name>—Hostname for this client.  
           <name>—Ethernet hardware address belonging to host.  
           <name-server>—Domain name servers available to the client.  
           <next-server>—Next server that clients need to contact.  
           <option>—DHCP option.  
           <router>—Routers advertised to clients.  
           <server-identifier>—DHCP server identifier advertised to clients.

<wins-server>—NetBIOS name servers.

## <static-host-mapping> (configuration/system)

---

**Usage** <configuration>  
           <system>  
             <static-host-mapping>  
               <name>name</name>   <!-- identifier -->  
               <inet>...</inet>  
               <inet6>...</inet6>  
               <sysid>sysid</sysid>  
               <alias>...</alias>  
             </static-host-mapping>  
           </system>  
         </configuration>

**Description** Static hostname database mapping.

**Contents** <alias>—Hostname alias.

<inet>—IP address.

<inet6>—IPv6 address.

<name>—Fully qualified name of system.

<sysid>—ISO/IS-IS system identifier.

## <static-mac> (configuration/bridge-domains/domain/bridge-options/interface)

---

**Usage** <configuration>  
           <bridge-domains>  
             <domain>  
               <bridge-options>  
                 <interface>  
                   <static-mac>  
                     <name>name</name>   <!-- identifier -->  
                     <vlan-id>...</vlan-id>  
                   </static-mac>  
                 </interface>  
               </bridge-options>  
             </domain>  
           </bridge-domains>  
         </configuration>

**Description** Static MAC addresses assigned to this interface.

**Contents** <name>—MAC address.

<vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/logical-systems/routing-instances/instance/bridge-domains/domain/bridge-options/interface)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <bridge-domains>  
           <domain>  
           <bridge-options>  
           <interface>  
             **<static-mac>**  
               <name>*name*</name>   <!-- identifier -->  
               <vlan-id>...</vlan-id>  
             **</static-mac>**  
           </interface>  
           </bridge-options>  
           </domain>  
           </bridge-domains>  
           </instance>  
           </routing-instances>  
           </logical-systems>  
           </configuration>

**Description**   Static MAC addresses assigned to this interface.

**Contents**   <name>—MAC address.  
               <vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/logical-systems/routing-instances/instance/protocols/l2vpn/interface)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <l2vpn>  
          <interface>  
            **<static-mac>**  
              <name>*name*</name>   <!-- identifier -->  
              <vlan-id>...</vlan-id>  
            **</static-mac>**  
          </interface>  
          </l2vpn>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Static MAC addresses assigned to this interface.

**Contents**   <name>—MAC address.  
              <vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/logical-systems/routing-instances/instance/protocols/l2vpn/site/interface)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <l2vpn>  
           <site>  
           <interface>  
             **<static-mac>**  
               <name>*name*</name>   <!-- identifier -->  
               <vlan-id>...</vlan-id>  
             **</static-mac>**  
           </interface>  
         </site>  
       </l2vpn>  
     </protocols>  
 </instance>  
</routing-instances>  
</logical-systems>  
</configuration>

**Description**   Static MAC addresses assigned to this interface.

**Contents**   <name>—MAC address.

              <vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/logical-systems/routing-instances/instance/protocols/vpls/interface)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <vpls>  
          <interface>  
            **<static-mac>**  
              <name>*name*</name>    <!-- identifier -->  
              <vlan-id>...</vlan-id>  
            **</static-mac>**  
          </interface>  
          </vpls>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Static MAC addresses assigned to this interface.

**Contents**   <name>—MAC address.  
              <vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/logical-systems/routing-instances/instance/protocols/vpls/site/interface)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <vpls>  
           <site>  
           <interface>  
             **<static-mac>**  
               <name>*name*</name>   <!-- identifier -->  
               <vlan-id>...</vlan-id>  
             **</static-mac>**  
           </interface>  
         </site>  
       </vpls>  
     </protocols>  
 </instance>  
</routing-instances>  
</logical-systems>  
</configuration>

**Description**   Static MAC addresses assigned to this interface.

**Contents**   <name>—MAC address.

              <vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/logical-systems/routing-instances/instance/switch-options/interface)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <switch-options>  
                     <interface>  
                         **<static-mac>**  
                             <name>name</name>   <!-- identifier -->  
                             <vlan-id>...</vlan-id>  
                         **</static-mac>**  
                     </interface>  
                 </switch-options>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Static MAC addresses assigned to this interface.

**Contents** <name>—MAC address.  
             <vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/routing-instances/instance/bridge-domains/domain/bridge-options/interface)**

---

**Usage** <configuration>  
     <routing-instances>  
         <instance>  
             <bridge-domains>  
                 <domain>  
                     <bridge-options>  
                         <interface>  
                             **<static-mac>**  
                                 <name>name</name>   <!-- identifier -->  
                                 <vlan-id>...</vlan-id>  
                             **</static-mac>**  
                         </interface>  
                     </bridge-options>  
                 </domain>  
             </bridge-domains>  
         </instance>  
     </routing-instances>  
 </configuration>

**Description** Static MAC addresses assigned to this interface.

**Contents** <name>—MAC address.  
             <vlan-id>—VLAN ID of learning VLAN.



## **<static-mac> (configuration/routing-instances/instance/protocols/l2vpn/interface)**

---

**Usage** <configuration>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <l2vpn>  
           <interface>  
             **<static-mac>**  
               <name>name</name>   <!-- identifier -->  
               <vlan-id>...</vlan-id>  
             **</static-mac>**  
           </interface>  
           </l2vpn>  
           </protocols>  
           </instance>  
           </routing-instances>  
         </configuration>

**Description** Static MAC addresses assigned to this interface.

**Contents** <name>—MAC address.  
               <vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/routing-instances/instance/protocols/l2vpn/site/interface)**

---

**Usage** <configuration>  
           <routing-instances>  
           <instance>  
           <protocols>  
           <l2vpn>  
           <site>  
           <interface>  
             **<static-mac>**  
               <name>name</name>   <!-- identifier -->  
               <vlan-id>...</vlan-id>  
             **</static-mac>**  
           </interface>  
           </site>  
           </l2vpn>  
           </protocols>  
           </instance>  
           </routing-instances>  
         </configuration>

**Description** Static MAC addresses assigned to this interface.

**Contents** <name>—MAC address.  
               <vlan-id>—VLAN ID of learning VLAN.

## <static-mac> (configuration/routing-instances/instance/protocols/vpls/interface)

---

**Usage** <configuration>  
     <routing-instances>  
         <instance>  
             <protocols>  
                 <vpls>  
                     <interface>  
                         <static-mac>  
                             <name>name</name>   <!-- identifier -->  
                             <vlan-id>...</vlan-id>  
                         </static-mac>  
                     </interface>  
                 </vpls>  
             </protocols>  
         </instance>  
     </routing-instances>  
 </configuration>

**Description** Static MAC addresses assigned to this interface.

**Contents** <name>—MAC address.

<vlan-id>—VLAN ID of learning VLAN.

## <static-mac> (configuration/routing-instances/instance/protocols/vpls/site/interface)

---

**Usage** <configuration>  
     <routing-instances>  
         <instance>  
             <protocols>  
                 <vpls>  
                     <site>  
                         <interface>  
                             <static-mac>  
                                 <name>name</name>   <!-- identifier -->  
                                 <vlan-id>...</vlan-id>  
                             </static-mac>  
                         </interface>  
                     </site>  
                 </vpls>  
             </protocols>  
         </instance>  
     </routing-instances>  
 </configuration>

**Description** Static MAC addresses assigned to this interface.

**Contents** <name>—MAC address.

<vlan-id>—VLAN ID of learning VLAN.

## **<static-mac> (configuration/routing-instances/instance/switch-options/interface)**

---

**Usage** `<configuration>  
     <routing-instances>  
         <instance>  
             <switch-options>  
                 <interface>  
                     <static-mac>  
                         <name>name</name>   <!-- identifier -->  
                         <vlan-id>...</vlan-id>  
                     </static-mac>  
                 </interface>  
             </switch-options>  
         </instance>  
     </routing-instances>  
</configuration>`

**Description** Static MAC addresses assigned to this interface.

**Contents** `<name>`—MAC address.  
             `<vlan-id>`—VLAN ID of learning VLAN.

## **<static-path> (configuration/logical-systems/protocols/mpls)**

---

**Usage** `<configuration>  
     <logical-systems>  
         <protocols>  
             <mpls>  
                 <static-path>  
                     <name>name</name>   <!-- identifier -->  
                     <path>...</path>  
                 </static-path>  
             </mpls>  
         </protocols>  
     </logical-systems>  
</configuration>`

**Description** Static label-switched path.

**Contents** `<name>`—No documentation is available yet.

- `inet`—IP version 4.

`<path>`—Name of static label-switched path.

**<static-path> (configuration/protocols/mps)**

---

**Usage** <configuration>  
           <protocols>  
           <mps>  
             **<static-path>**  
               <name>*name*</name>   <!-- identifier -->  
               <path>...</path>  
             **</static-path>**  
           </mps>  
         </protocols>  
       </configuration>

**Description** Static label-switched path.

**Contents** <name>—No documentation is available yet.

■ inet—IP version 4.

<path>—Name of static label-switched path.

**<static-pics> (configuration/services/ggsn/pic-allocation)**

---

**Usage** <configuration>  
           <services>  
           <ggsn>  
             <pic-allocation>  
               **<static-pics>**  
                 <number-of-ggsnc>*number-of-ggsnc*</number-of-ggsnc>  
                 <number-of-ggsnu>*number-of-ggsnu*</number-of-ggsnu>  
                 <number-of-ggsnt>*number-of-ggsnt*</number-of-ggsnt>  
               **</static-pics>**  
             </pic-allocation>  
           </ggsn>  
         </services>  
       </configuration>

**Description** PICs with static roles.

**Contents** <number-of-ggsnc>—Number of GGSN-C PICs.

<number-of-ggsnt>—Number of GGSN-T PICs.

<number-of-ggsnu>—Number of GGSN-U PICs.

**<statistics> (configuration/logical-systems/protocols/mpls)**

---

- Usage** <configuration>  
           <logical-systems>  
           <protocols>  
           <mpls>  
             **<statistics>**  
               <file>...</file>   <!-- mandatory -->  
               <interval>interval</interval>  
               <auto-bandwidth/>  
             **</statistics>**  
           </mpls>  
         </protocols>  
       </logical-systems>  
     </configuration>
- Description** Collect statistics for signaled label-switched paths.
- Contents** <auto-bandwidth>—Enable auto bandwidth allocation.
- <file>—Statistics file options.
- <interval>—Time to collect statistics (seconds).

**<statistics> (configuration/protocols/mpls)**

---

- Usage** <configuration>  
           <protocols>  
           <mpls>  
             **<statistics>**  
               <file>...</file>   <!-- mandatory -->  
               <interval>interval</interval>  
               <auto-bandwidth/>  
             **</statistics>**  
           </mpls>  
         </protocols>  
       </configuration>
- Description** Collect statistics for signaled label-switched paths.
- Contents** <auto-bandwidth>—Enable auto bandwidth allocation.
- <file>—Statistics file options.
- <interval>—Time to collect statistics (seconds).

## **<streaming> (configuration/services/ggsn/apn/service-based-charging/credit-control/profile/request-quota)**

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <credit-control>
            <profile>
              <request-quota>
                <streaming>
                  <base-quota>base-quota</base-quota>
                  <bandwidth-factor>bandwidth-factor</bandwidth-factor>
                </streaming>
              </request-quota>
            </profile>
          </credit-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

**Description** Quota settings for streaming traffic.

**Contents** <bandwidth-factor>—Bandwidth scaling factor.

<base-quota>—Requested base quota.

## <streaming-1> (configuration/services/ggsn/apn/uplink-dscp-remapping)

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <uplink-dscp-remapping>  
                     **<streaming-1>**  
                         <low-drop-precedence>*low-drop-precedence-choice*  
                             </low-drop-precedence>  
                         <medium-drop-precedence>*medium-drop-precedence-choice*  
                             </medium-drop-precedence>  
                         <high-drop-precedence>*high-drop-precedence-choice*  
                             </high-drop-precedence>  
                     **</streaming-1>**  
                 </uplink-dscp-remapping>  
             </apn>  
         </ggsn>  
     </services>  
</configuration>

**Description** DSCP name for streaming class 1 traffic.

**Contents** <high-drop-precedence>—SDU error ratio =  $(10^{-1} \mid 10^{-2})$ .

- 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.

<low-drop-precedence>—SDU error ratio =  $(10^{-4} \mid 10^{-5} \mid 10^{-6})$ .

- 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.

<medium-drop-precedence>—SDU error ratio =  $(7 * 10^{-3} \mid 10^{-3})$ .

- 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.

## <streaming-1> (configuration/services/ggsn/gtp/downlink-dscp-remapping)

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <gtp>  
                 <downlink-dscp-remapping>  
                     **<streaming-1>**  
                         <low-drop-precedence>*low-drp-prcdnce-choice*</low-drop-precedence>  
                         <medium-drop-precedence>*medium-drp-prcdnce-choice*  
                             </medium-drop-precedence>  
                         <high-drop-precedence>*high-drp-prcdnce-choice*</high-drop-precedence>  
                     **</streaming-1>**  
                 </downlink-dscp-remapping>  
             </gtp>  
         </ggsn>  
     </services>  
</configuration>

**Description** DSCP name for streaming class 1 traffic.

**Contents** <high-drop-precedence>—SDU error ratio =  $(10^{-1} \mid 10^{-2})$ .

- 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.

<low-drop-precedence>—SDU error ratio =  $(10^{-4} \mid 10^{-5} \mid 10^{-6})$ .

- 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.

<medium-drop-precedence>—SDU error ratio =  $(7 \cdot 10^{-3} \mid 10^{-3})$ .

- 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.

## <streaming-2> (configuration/services/ggsn/apn/uplink-dscp-remapping)

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <uplink-dscp-remapping>  
                     **<streaming-2>**  
                         <low-drop-precedence>*low-drp-prcdnce-choice*</low-drop-precedence>  
                         <medium-drop-precedence>*med-drp-prcdnce-choice*  
                             </medium-drop-precedence>  
                         <high-drop-precedence>*high-drp-prcdnce-choice*</high-drop-precedence>  
                     **</streaming-2>**  
                 </uplink-dscp-remapping>  
             </apn>  
         </ggsn>  
     </services>  
 </configuration>

**Description** DSCP name for streaming class 2 traffic.

**Contents** <high-drop-precedence>—SDU error ratio =  $(10^{-1} \mid 10^{-2})$ .

- 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.

<low-drop-precedence>—SDU error ratio =  $(10^{-4} \mid 10^{-5} \mid 10^{-6})$ .

- 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.

<medium-drop-precedence>—SDU error ratio =  $(7 \cdot 10^{-3} \mid 10^{-3})$ .

- 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.

## <streaming-2> (configuration/services/ggsn/gtp/downlink-dscp-remapping)

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <gtp>  
                 <downlink-dscp-remapping>  
                     **<streaming-2>**  
                         <low-drop-precedence>*low-drp-prcdnce-choice*</low-drop-precedence>  
                         <medium-drop-precedence>*medium-drop-precedence-choice*  
                             </medium-drop-precedence>  
                         <high-drop-precedence>*high-drp-prcdnce-choice*</high-drop-precedence>  
                     **</streaming-2>**  
                 </downlink-dscp-remapping>  
             </gtp>  
         </ggsn>  
     </services>  
</configuration>

**Description** DSCP name for streaming class 2 traffic.

**Contents** <high-drop-precedence>—SDU error ratio =  $(10^{-1} \mid 10^{-2})$ .

- 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.

<low-drop-precedence>—SDU error ratio =  $(10^{-4} \mid 10^{-5} \mid 10^{-6})$ .

- 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.

<medium-drop-precedence>—SDU error ratio =  $(7 \cdot 10^{-3} \mid 10^{-3})$ .

- 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.

## **<string> (configuration/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)**

---

**Usage**

```

<configuration>
  <access>
    <address-assignment>
      <pool>
        <family>
          <inet>
            <dhcp-attributes>
              <option>
                <array>
                  <string>
                    <name>name</name>    <!-- identifier -->
                  </string>
                </array>
              </option>
            </dhcp-attributes>
          </inet>
        </family>
      </pool>
    </address-assignment>
  </access>
</configuration>

```

**Description** Array of character string values.

**Contents** <name>—Array of character string values.



## **<string> (configuration/logical-systems/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)**

---

**Usage**   <configuration>  
           <logical-systems>  
           <access>  
           <address-assignment>  
           <pool>  
           <family>  
           <inet>  
           <dhcp-attributes>  
           <option>  
           <array>  
             **<string>**  
               <name>*name*</name>   <!-- identifier -->  
             **</string>**  
           </array>  
           </option>  
           </dhcp-attributes>  
           </inet>  
           </family>  
           </pool>  
           </address-assignment>  
           </access>  
           </logical-systems>  
           </configuration>

**Description**   Array of character string values.

**Contents**      <name>—Array of character string values.

## **<string> (configuration/logical-systems/routing-instances/instance/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)**

---

**Usage**

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <access>
          <address-assignment>
            <pool>
              <family>
                <inet>
                  <dhcp-attributes>
                    <option>
                      <array>
                        <string>
                          <name>name</name>    <!-- identifier -->
                        </string>
                      </array>
                    </option>
                  </dhcp-attributes>
                </inet>
              </family>
            </pool>
          </address-assignment>
        </access>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

**Description** Array of character string values.

**Contents** <name>—Array of character string values.

## **<string> (configuration/routing-instances/instance/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)**

---

**Usage**   <configuration>  
           <routing-instances>  
           <instance>  
           <access>  
           <address-assignment>  
           <pool>  
           <family>  
           <inet>  
           <dhcp-attributes>  
           <option>  
           <array>  
               **<string>**  
                   <name>*name*</name>   <!-- identifier -->  
               **</string>**  
               </array>  
           </option>  
           </dhcp-attributes>  
           </inet>  
           </family>  
           </pool>  
           </address-assignment>  
           </access>  
           </instance>  
           </routing-instances>  
           </configuration>

**Description**   Array of character string values.

**Contents**       <name>—Array of character string values.

**<string> (configuration/system/services/dhcp/option/array)**

---

**Usage** <configuration>  
           <system>  
             <services>  
               <dhcp>  
                 <option>  
                   <array>  
                     **<string>**  
                       <name>name</name>   <!-- identifier -->  
                     **</string>**  
                   </array>  
                 </option>  
               </dhcp>  
             </services>  
           </system>  
         </configuration>

**Description** Array of character string values.

**Contents** <name>—Array of character string values.

**<string> (configuration/system/services/dhcp/pool/option/array)**

---

**Usage** <configuration>  
           <system>  
             <services>  
               <dhcp>  
                 <pool>  
                   <option>  
                     <array>  
                       **<string>**  
                       <name>name</name>   <!-- identifier -->  
                       **</string>**  
                     </array>  
                   </option>  
                 </pool>  
               </dhcp>  
             </services>  
           </system>  
         </configuration>

**Description** Array of character string values.

**Contents** <name>—Array of character string values.

## **<string> (configuration/system/services/dhcp/static-binding/option/array)**

---

**Usage** <configuration>  
           <system>  
             <services>  
               <dhcp>  
                 <static-binding>  
                   <option>  
                     <array>  
                       **<string>**  
                         <name>*name*</name>   <!-- identifier -->  
                       **</string>**  
                     </array>  
                   </option>  
                 </static-binding>  
               </dhcp>  
             </services>  
           </system>  
         </configuration>

**Description** Array of character string values.

**Contents** <name>—Array of character string values.

## **<structured-data> (configuration/system/syslog/file)**

---

**Usage** <configuration>  
           <system>  
             <syslog>  
               <file>  
                 **<structured-data>**  
                   <brief/>  
                 **</structured-data>**  
               </file>  
             </syslog>  
           </system>  
         </configuration>

**Description** Log system message in structured format.

**Contents** <brief>—Omit English-language text from end of logged message.

**<stub> (configuration/logical-systems/protocols/ospf/area)**

---

**Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <ospf>  
                 <area>  
                   **<stub>**  
                     <default-metric>*default-metric*</default-metric>  
                     <summaries/>  
                   **</stub>**  
                 </area>  
               </ospf>  
             </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure a stub area.

**Contents** <default-metric>—Metric for the default route in this stub area.  
               <summaries>—Flood summary LSAs into this stub area.

**<stub> (configuration/logical-systems/protocols/ospf3/area)**

---

**Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <ospf3>  
                 <area>  
                   **<stub>**  
                     <default-metric>*default-metric*</default-metric>  
                     <summaries/>  
                   **</stub>**  
                 </area>  
               </ospf3>  
             </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure a stub area.

**Contents** <default-metric>—Metric for the default route in this stub area.  
               <summaries>—Flood summary LSAs into this stub area.

**<stub> (configuration/logical-systems/protocols/ospf3/realm/area)**

---

**Usage** <configuration>  
           <logical-systems>  
             <protocols>  
               <ospf3>  
                 <realm>  
                   <area>  
                     **<stub>**  
                       <default-metric>*default-metric*</default-metric>  
                       <summaries/>  
                     **</stub>**  
                   </area>  
                 </realm>  
               </ospf3>  
             </protocols>  
           </logical-systems>  
         </configuration>

**Description** Configure a stub area.

**Contents** <default-metric>—Metric for the default route in this stub area.  
               <summaries>—Flood summary LSAs into this stub area.

**<stub> (configuration/logical-systems/routing-instances/instance/protocols/ospf/area)**

---

**Usage** <configuration>  
           <logical-systems>  
             <routing-instances>  
               <instance>  
                 <protocols>  
                   <ospf>  
                     <area>  
                       **<stub>**  
                       <default-metric>*default-metric*</default-metric>  
                       <summaries/>  
                     **</stub>**  
                   </area>  
                 </ospf>  
               </protocols>  
             </instance>  
           </routing-instances>  
         </logical-systems>  
       </configuration>

**Description** Configure a stub area.

**Contents** <default-metric>—Metric for the default route in this stub area.  
               <summaries>—Flood summary LSAs into this stub area.

**<stub> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/area)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <ospf3>  
          <area>  
            **<stub>**  
              <default-metric>*default-metric*</default-metric>  
              <summaries/>  
            **</stub>**  
          </area>  
          </ospf3>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </logical-systems>  
          </configuration>

**Description**   Configure a stub area.

**Contents**   <default-metric>—Metric for the default route in this stub area.

          <summaries>—Flood summary LSAs into this stub area.



## **<stub> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/realm/area)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <protocols>  
                     <ospf3>  
                         <realm>  
                             <area>  
                                 **<stub>**  
                                     <default-metric>default-metric</default-metric>  
                                     <summaries/>  
                                 **</stub>**  
                             </area>  
                         </realm>  
                     </ospf3>  
                 </protocols>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Configure a stub area.

**Contents** <default-metric>—Metric for the default route in this stub area.  
             <summaries>—Flood summary LSAs into this stub area.

## **<stub> (configuration/protocols/ospf/area)**

---

**Usage** <configuration>  
     <protocols>  
         <ospf>  
             <area>  
                 **<stub>**  
                     <default-metric>default-metric</default-metric>  
                     <summaries/>  
                 **</stub>**  
             </area>  
         </ospf>  
     </protocols>  
 </configuration>

**Description** Configure a stub area.

**Contents** <default-metric>—Metric for the default route in this stub area.  
             <summaries>—Flood summary LSAs into this stub area.

**<stub> (configuration/protocols/ospf3/area)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;ospf3&gt;       &lt;area&gt;         &lt;stub&gt;           &lt;default-metric&gt;default-metric&lt;/default-metric&gt;           &lt;summaries/&gt;         &lt;/stub&gt;       &lt;/area&gt;     &lt;/ospf3&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure a stub area.
<b>Contents</b>	<p>&lt;default-metric&gt;—Metric for the default route in this stub area.</p> <p>&lt;summaries&gt;—Flood summary LSAs into this stub area.</p>

**<stub> (configuration/protocols/ospf3/realm/area)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;protocols&gt;     &lt;ospf3&gt;       &lt;realm&gt;         &lt;area&gt;           &lt;stub&gt;             &lt;default-metric&gt;default-metric&lt;/default-metric&gt;             &lt;summaries/&gt;           &lt;/stub&gt;         &lt;/area&gt;       &lt;/realm&gt;     &lt;/ospf3&gt;   &lt;/protocols&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure a stub area.
<b>Contents</b>	<p>&lt;default-metric&gt;—Metric for the default route in this stub area.</p> <p>&lt;summaries&gt;—Flood summary LSAs into this stub area.</p>

## **<stub> (configuration/routing-instances/instance/protocols/ospf/area)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;ospf&gt;           &lt;area&gt;             <b>&lt;stub&gt;</b>               &lt;default-metric&gt;default-metric&lt;/default-metric&gt;               &lt;summaries/&gt;             <b>&lt;/stub&gt;</b>           &lt;/area&gt;         &lt;/ospf&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure a stub area.
<b>Contents</b>	<p>&lt;default-metric&gt;—Metric for the default route in this stub area.</p> <p>&lt;summaries&gt;—Flood summary LSAs into this stub area.</p>

## **<stub> (configuration/routing-instances/instance/protocols/ospf3/area)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;protocols&gt;         &lt;ospf3&gt;           &lt;area&gt;             <b>&lt;stub&gt;</b>               &lt;default-metric&gt;default-metric&lt;/default-metric&gt;               &lt;summaries/&gt;             <b>&lt;/stub&gt;</b>           &lt;/area&gt;         &lt;/ospf3&gt;       &lt;/protocols&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Configure a stub area.
<b>Contents</b>	<p>&lt;default-metric&gt;—Metric for the default route in this stub area.</p> <p>&lt;summaries&gt;—Flood summary LSAs into this stub area.</p>

**<stub> (configuration/routing-instances/instance/protocols/ospf3/realm/area)**

---

**Usage**   <configuration>  
          <routing-instances>  
          <instance>  
          <protocols>  
          <ospf3>  
          <realm>  
          <area>  
          **<stub>**  
          <default-metric>*default-metric*</default-metric>  
          <summaries/>  
          **</stub>**  
          </area>  
          </realm>  
          </ospf3>  
          </protocols>  
          </instance>  
          </routing-instances>  
          </configuration>

**Description**   Configure a stub area.

**Contents**   <default-metric>—Metric for the default route in this stub area.

          <summaries>—Flood summary LSAs into this stub area.

**<subscription> (configuration/logical-systems/protocols/rsvp/  
interface)**

---

**Usage**   <configuration>  
          <logical-systems>  
          <protocols>  
          <rsvp>  
          <interface>  
          **<subscription>**  
          <link-subscription>*link-subscription*</link-subscription>  
          <ct0>ct0</ct0>  
          <ct1>ct1</ct1>  
          <ct2>ct2</ct2>  
          <ct3>ct3</ct3>  
          **</subscription>**  
          </interface>  
          </rsvp>  
          </protocols>  
          </logical-systems>  
          </configuration>

**Description**   Link bandwidth percentage for RSVP reservation.

**Contents**   <ct0>—Subscription percentage for traffic class 0.  
              <ct1>—Subscription percentage for traffic class 1.  
              <ct2>—Subscription percentage for traffic class 2.  
              <ct3>—Subscription percentage for traffic class 3.  
              <link-subscription>—Link bandwidth percentage for RSVP reservation.

## <subscription> (configuration/protocols/rsvp/interface)

---

**Usage**   <configuration>  
          <protocols>  
          <rsvp>  
          <interface>  
            **<subscription>**  
              <link-subscription>*link-subscription*</link-subscription>  
              <ct0>*ct0*</ct0>  
              <ct1>*ct1*</ct1>  
              <ct2>*ct2*</ct2>  
              <ct3>*ct3*</ct3>  
            **</subscription>**  
          </interface>  
        </rsvp>  
      </protocols>  
  </configuration>

**Description**   Link bandwidth percentage for RSVP reservation.

**Contents**   <ct0>—Subscription percentage for traffic class 0.  
              <ct1>—Subscription percentage for traffic class 1.  
              <ct2>—Subscription percentage for traffic class 2.  
              <ct3>—Subscription percentage for traffic class 3.  
              <link-subscription>—Link bandwidth percentage for RSVP reservation.

## **<subscription-id> (configuration/services/ggsn/apn/service-based-charging/credit-control/profile)**

---

**Usage** <configuration>  
     <services>  
         <ggsn>  
             <apn>  
                 <service-based-charging>  
                     <credit-control>  
                         <profile>  
                             **<subscription-id>**  
                                 <name>*name*</name>   <!-- identifier -->  
                             **</subscription-id>**  
                         </profile>  
                     </credit-control>  
                 </service-based-charging>  
             </apn>  
         </ggsn>  
     </services>  
</configuration>

**Description** Subscription identifier.

**Contents** <name>—Subscription identifier.

- address—Use mobile address as subscription identifier.
- imsi—Use IMSI as subscription identifier.
- msisdn—Use MSISDN as subscription identifier.
- nai—Use NAI as subscription identifier.

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

---

**Usage**

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <policy-control>
            <dynamic>
              <gx-profile>
                <subscription-id>
                  <name>name</name>    <!-- identifier -->
                </subscription-id>
              </gx-profile>
            </dynamic>
          </policy-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

**Description** Subscription identifier.

**Contents** <name>—Subscription identifier.

- imsi—Use IMSI as subscription identifier.
- msisdn—Use MSISDN as subscription identifier.
- nai—Use NAI as subscription identifier.



## **<subscription-id> (configuration/services/ggsn/apn/service-based-charging/policy-control/dynamic/profile)**

---

**Usage**   <configuration>  
               <services>  
                   <ggsn>  
                     <apn>  
                       <service-based-charging>  
                         <policy-control>  
                           <dynamic>  
                             <profile>  
                               **<subscription-id>**  
                                 <name>name</name>   <!-- identifier -->  
                               **</subscription-id>**  
                             </profile>  
                           </dynamic>  
                         </policy-control>  
                       </service-based-charging>  
                     </apn>  
                   </ggsn>  
               </services>  
             </configuration>

**Description**   Subscription identifier.

**Contents**   <name>—Subscription identifier.

- address—Use mobile address as subscription identifier.
- imsi—Use IMSI as subscription identifier.
- msisdn—Use MSISDN as subscription identifier.
- nai—Use NAI as subscription identifier.

## **<subscription-update-nodes> (configuration/services/ggsn/service-based-charging)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;ggsn&gt;       &lt;service-based-charging&gt;         &lt;subscription-update-nodes&gt;           &lt;peer&gt;...&lt;/peer&gt;           &lt;encryption&gt;...&lt;/encryption&gt;         &lt;/subscription-update-nodes&gt;       &lt;/service-based-charging&gt;     &lt;/ggsn&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	External subscriber update server settings.
<b>Contents</b>	<p>&lt;encryption&gt;—External update encryption configuration.</p> <p>&lt;peer&gt;—External update node configuration.</p>

## **<sustained-data-rate> (configuration/services/pgcp/gateway/h248-properties/traffic-management)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;pgcp&gt;       &lt;gateway&gt;         &lt;h248-properties&gt;           &lt;traffic-management&gt;             &lt;sustained-data-rate&gt;               &lt;default&gt;bytes-per-second&lt;/default&gt;               &lt;rtcp&gt;...&lt;/rtcp&gt;             &lt;/sustained-data-rate&gt;           &lt;/traffic-management&gt;         &lt;/h248-properties&gt;       &lt;/gateway&gt;     &lt;/pgcp&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	SDR permitted for the stream.
<b>Contents</b>	<p>&lt;default&gt;—Default rate value.</p> <p>&lt;rtcp&gt;—Default rtcp rate.</p>

**<switch-options> (configuration)**

---

- Usage** `<configuration>`  
     **<switch-options>**  
         `<mac-table-size>...</mac-table-size>`  
         `<interface-mac-limit>...</interface-mac-limit>`  
         `<mac-table-aging-time>seconds</mac-table-aging-time>`  
         `<no-mac-learning/>`  
         `<mac-statistics/>`  
         `<interface>...</interface>`  
     **</switch-options>**  
`</configuration>`
- Description** Options for default routing-instance of type virtual-switch.
- Contents** `<interface>`—Interface for configuring bridge-options.
- `<interface-mac-limit>`—Maximum MAC address learned per interface.
- `<mac-statistics>`—Enable MAC address statistics.
- `<mac-table-aging-time>`—Delay for discarding MAC address if no updates are received.
- `<mac-table-size>`—Size of MAC address forwarding table.
- `<no-mac-learning>`—Disable dynamic MAC address learning.

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

---

- Usage** `<configuration>`  
     `<dynamic-profiles>`  
         `<interfaces>`  
             `<interface>`  
                 **<switch-options>**  
                     `<switch-port>...</switch-port>`  
                 **</switch-options>**  
             `</interface>`  
         `</interfaces>`  
     `</dynamic-profiles>`  
`</configuration>`
- Description** Front end ports configuration.
- Contents** `<switch-port>`—No documentation is available yet.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;interfaces&gt;     &lt;interface&gt;       &lt;switch-options&gt;         &lt;switch-port&gt;...&lt;/switch-port&gt;       &lt;/switch-options&gt;     &lt;/interface&gt;   &lt;/interfaces&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Front end ports configuration.
<b>Contents</b>	<switch-port>—No documentation is available yet.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-instances&gt;       &lt;instance&gt;         &lt;switch-options&gt;           &lt;mac-table-size&gt;...&lt;/mac-table-size&gt;           &lt;interface-mac-limit&gt;...&lt;/interface-mac-limit&gt;           &lt;mac-table-aging-time&gt;seconds&lt;/mac-table-aging-time&gt;           &lt;no-mac-learning/&gt;           &lt;mac-statistics/&gt;           &lt;interface&gt;...&lt;/interface&gt;         &lt;/switch-options&gt;       &lt;/instance&gt;     &lt;/routing-instances&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	L2 options for routing-instance of type virtual-switch.
<b>Contents</b>	<p>&lt;interface&gt;—Interface that connect this site to the VPN.</p> <p>&lt;interface-mac-limit&gt;—Maximum MAC address learned per interface.</p> <p>&lt;mac-statistics&gt;—Enable MAC address statistics.</p> <p>&lt;mac-table-aging-time&gt;—Delay for discarding MAC address if no updates are received.</p> <p>&lt;mac-table-size&gt;—Size of MAC address forwarding table.</p> <p>&lt;no-mac-learning&gt;—Disable dynamic MAC address learning.</p>

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

---

**Usage** <configuration>  
           <routing-instances>  
           <instance>  
             **<switch-options>**  
               <mac-table-size>...</mac-table-size>  
               <interface-mac-limit>...</interface-mac-limit>  
               <mac-table-aging-time>seconds</mac-table-aging-time>  
               <no-mac-learning/>  
               <mac-statistics/>  
               <interface>...</interface>  
             **</switch-options>**  
           </instance>  
         </routing-instances>  
       </configuration>

**Description** L2 options for routing-instance of type virtual-switch.

**Contents** <interface>—Interface that connect this site to the VPN.

<interface-mac-limit>—Maximum MAC address learned per interface.

<mac-statistics>—Enable MAC address statistics.

<mac-table-aging-time>—Delay for discarding MAC address if no updates are received.

<mac-table-size>—Size of MAC address forwarding table.

<no-mac-learning>—Disable dynamic MAC address learning.

## **<switch-port> (configuration/dynamic-profiles/interfaces/interface/switch-options)**

---

**Usage** <configuration>  
           <dynamic-profiles>  
           <interfaces>  
           <interface>  
           <switch-options>  
           **<switch-port>**  
             <name>*name*</name>   <!-- identifier -->  
             <auto-negotiation/>  
             <link-mode>*link-mode-choice*</link-mode>  
             <speed>*speed-choice*</speed>  
             <vlan-id>*vlan-id*</vlan-id>  
             <cascade-port/>  
           **</switch-port>**  
           </switch-options>  
           </interface>  
           </interfaces>  
           </dynamic-profiles>  
         </configuration>

**Description** No documentation is available yet.

**Contents** <auto-negotiation>—Disable auto-negotiation.

<cascade-port>—Port externally connected to another cascade port.

<link-mode>—Link operational mode.

■ full-duplex—Full-duplex operation.

■ half-duplex—Half-duplex operation.

<name>—Front end port number.

<speed>—Link speed.

■ 100m—No documentation is available yet.

■ 10m—No documentation is available yet.

■ 1g—No documentation is available yet.

<vlan-id>—VLAN ID for this port.

**<switch-port> (configuration/interfaces/interface/switch-options)**

---

**Usage** <configuration>  
           <interfaces>  
             <interface>  
               <switch-options>  
                 **<switch-port>**  
                   <name>*name*</name>   <!-- identifier -->  
                   <auto-negotiation/>  
                   <link-mode>*link-mode-choice*</link-mode>  
                   <speed>*speed-choice*</speed>  
                   <vlan-id>*vlan-id*</vlan-id>  
                   <cascade-port/>  
                 **</switch-port>**  
               </switch-options>  
             </interface>  
           </interfaces>  
         </configuration>

**Description** No documentation is available yet.

**Contents** <auto-negotiation>—Disable auto-negotiation.

<cascade-port>—Port externally connected to another cascade port.

<link-mode>—Link operational mode.

■ full-duplex—Full-duplex operation.

■ half-duplex—Half-duplex operation.

<name>—Front end port number.

<speed>—Link speed.

■ 100m—No documentation is available yet.

■ 10m—No documentation is available yet.

■ 1g—No documentation is available yet.

<vlan-id>—VLAN ID for this port.

**<syn-cookie> (configuration/services/ids/rule/term/then)**

---

**Usage** <configuration>  
     <services>  
         <ids>  
             <rule>  
                 <term>  
                     <then>  
                         **<syn-cookie>**  
                             <threshold>*threshold*</threshold>   <!-- mandatory -->  
                             <mss>*mss*</mss>   <!-- mandatory -->  
                         **</syn-cookie>**  
                     </then>  
                 </term>  
             </rule>  
         </ids>  
     </services>  
</configuration>

**Description** Define SYN cookie parameters.

**Contents** <mss>—MSS value for TCP delayed binding.

<threshold>—Threshold above which SYN cookies are enabled.



**<synchronization> (configuration/chassis)**

---

**Usage** <configuration>  
           <chassis>  
             **<synchronization>**  
               <switching-mode>*switching-mode-choice*</switching-mode>  
               <validation-interval>*seconds*</validation-interval>  
               <y-cable-line-termination/>  
               <transmitter-enable/>  
               <signal-type>*signal-type-choice*</signal-type>  
               <primary>...</primary>  
               <secondary>...</secondary>  
             **</synchronization>**  
           </chassis>  
         </configuration>

**Description** Clock synchronization options.

**Contents** <primary>—Best choice synchronization reference source list.

<secondary>—Alternative choice synchronization reference source list.

<signal-type>—Frequency for provided reference clocks.

■ e1—E1-coded 2048 Khz signal on 120 ohm balanced line.

■ t1—T1-coded 1.544 Mhz signal on 100 ohm balanced line.

<switching-mode>—Should system revert to higher priority valid source.

■ non-revertive—System uses current source as long as it is valid.

■ revertive—Automatically switch to higher priority valid source.

<transmitter-enable>—Control whether diagnostic timing signal is transmitted.

<validation-interval>—Time between frequency measurements.

<y-cable-line-termination>—A single signal is wired to both CBs via Y-cable.

**<synchronization> (configuration/chassis/fpc/pic)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;chassis&gt;     &lt;fpc&gt;       &lt;pic&gt;         &lt;synchronization&gt;           &lt;port&gt;port&lt;/port&gt;         &lt;/synchronization&gt;       &lt;/pic&gt;     &lt;/fpc&gt;   &lt;/chassis&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	PIC synchronization source.
<b>Contents</b>	<port>—Port Number.

**<synchronization> (configuration/chassis/lcc/fpc/pic)**

---

<b>Usage</b>	<pre>&lt;configuration&gt;   &lt;chassis&gt;     &lt;lcc&gt;       &lt;fpc&gt;         &lt;pic&gt;           &lt;synchronization&gt;             &lt;port&gt;port&lt;/port&gt;           &lt;/synchronization&gt;         &lt;/pic&gt;       &lt;/fpc&gt;     &lt;/lcc&gt;   &lt;/chassis&gt; &lt;/configuration&gt;</pre>
<b>Description</b>	PIC synchronization source.
<b>Contents</b>	<port>—Port Number.

## **<syslog> (configuration/bridge-domains/domain/multicast-snooping-options/options)**

---

**Usage**   <configuration>  
           <bridge-domains>  
           <domain>  
           <multicast-snooping-options>  
           <options>  
           **<syslog>**  
           <level>...</level>  
           <upto>*upto-choice*</upto>  
           <mark>*seconds*</mark>  
           **</syslog>**  
           </options>  
           </multicast-snooping-options>  
           </domain>  
           </bridge-domains>  
           </configuration>

**Description**   Set system logging level.

**Contents**   <level>—Logging level.

              <mark>—Periodically mark the trace file.

              <upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

## <syslog> (configuration/chassis/fpc/pic/adaptive-services/service-package/extension-provider)

---

**Usage**

```

<configuration>
  <chassis>
    <fpc>
      <pic>
        <adaptive-services>
          <service-package>
            <extension-provider>
              <syslog>
                <name>name</name>    <!-- identifier -->
                <any/>
                <emergency/>
                <alert/>
                <critical/>
                <error/>
                <warning/>
                <notice/>
                <info/>
                <none/>
              </syslog>
            </extension-provider>
          </service-package>
        </adaptive-services>
      </pic>
    </fpc>
  </chassis>
</configuration>

```

**Description** System logging facility.

**Contents** <alert>—Conditions that should be corrected immediately.

<any>—All levels.

<critical>—Critical conditions.

<emergency>—Panic conditions.

<error>—Error conditions.

<info>—Informational messages.

<name>—Facility type.

■ external—Local external applications.

■ pfe—Packet Forwarding Engine.

<none>—No messages.

<notice>—Conditions that should be handled specially.

<warning>—Warning messages.

## <syslog> (configuration/chassis/lcc/fpc/pic/adaptive-services/ service-package/extension-provider)

---

**Usage**

```

<configuration>
  <chassis>
    <lcc>
      <fpc>
        <pic>
          <adaptive-services>
            <service-package>
              <extension-provider>
                <syslog>
                  <name>name</name>    <!-- identifier -->
                  <any/>
                  <emergency/>
                  <alert/>
                  <critical/>
                  <error/>
                  <warning/>
                  <notice/>
                  <info/>
                  <none/>
                </syslog>
              </extension-provider>
            </service-package>
          </adaptive-services>
        </pic>
      </fpc>
    </lcc>
  </chassis>
</configuration>

```

**Description** System logging facility.

**Contents** <alert>—Conditions that should be corrected immediately.

<any>—All levels.

<critical>—Critical conditions.

<emergency>—Panic conditions.

<error>—Error conditions.

<info>—Informational messages.

<name>—Facility type.

■ external—Local external applications.

■ pfe—Packet Forwarding Engine.

<none>—No messages.

<notice>—Conditions that should be handled specially.

<warning>—Warning messages.

## **<syslog> (configuration/dynamic-profiles/interfaces/interface/services-options)**

---

**Usage** <configuration>  
           <dynamic-profiles>  
             <interfaces>  
               <interface>  
                 <services-options>  
                   **<syslog>**  
                     <host>...</host>  
                   **</syslog>**  
                 </services-options>  
               </interface>  
             </interfaces>  
           </dynamic-profiles>  
         </configuration>

**Description** Define system log parameters.

**Contents** <host>—No documentation is available yet.

## **<syslog> (configuration/interfaces/interface/services-options)**

---

**Usage** <configuration>  
           <interfaces>  
             <interface>  
               <services-options>  
                 **<syslog>**  
                   <host>...</host>  
                 **</syslog>**  
               </services-options>  
             </interface>  
           </interfaces>  
         </configuration>

**Description** Define system log parameters.

**Contents** <host>—No documentation is available yet.

## **<syslog> (configuration/logical-systems/routing-instances/instance/bridge-domains/domain/multicast-snooping-options/options)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <bridge-domains>  
                     <domain>  
                         <multicast-snooping-options>  
                             <options>  
                                 **<syslog>**  
                                     <level>...</level>  
                                     <upto>*upto-choice*</upto>  
                                     <mark>*seconds*</mark>  
                                 **</syslog>**  
                             </options>  
                         </multicast-snooping-options>  
                     </domain>  
                 </bridge-domains>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** Set system logging level.

**Contents** <level>—Logging level.

<mark>—Periodically mark the trace file.

<upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

## **<syslog> (configuration/logical-systems/routing-instances/instance/multicast-snooping-options/options)**

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <multicast-snooping-options>  
                     <options>  
                         **<syslog>**  
                             <level>...</level>  
                             <upto>upto-choice</upto>  
                             <mark>seconds</mark>  
                         **</syslog>**  
                     </options>  
                 </multicast-snooping-options>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
</configuration>

**Description** Set system logging level.

**Contents** <level>—Logging level.

<mark>—Periodically mark the trace file.

<upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.



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

---

**Usage** <configuration>  
     <logical-systems>  
         <routing-instances>  
             <instance>  
                 <routing-options>  
                     <options>  
                         **<syslog>**  
                             <level>...</level>  
                             <upto>upto-choice</upto>  
                         **</syslog>**  
                     </options>  
                 </routing-options>  
             </instance>  
         </routing-instances>  
     </logical-systems>  
 </configuration>

**Description** Set system logging level.

**Contents** <level>—Logging level.

<upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

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

---

**Usage** <configuration>  
    <logical-systems>  
        <routing-options>  
            <options>  
                <syslog>  
                    <level>...</level>  
                    <upto>*upto-choice*</upto>  
                </syslog>  
            </options>  
        </routing-options>  
    </logical-systems>  
</configuration>

**Description** Set system logging level.

**Contents** <level>—Logging level.

<upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

**<syslog> (configuration/multicast-snooping-options/options)**

---

**Usage** <configuration>  
           <multicast-snooping-options>  
           <options>  
           **<syslog>**  
             <level>...</level>  
             <upto>*upto-choice*</upto>  
             <mark>*seconds*</mark>  
           **</syslog>**  
           </options>  
         </multicast-snooping-options>  
       </configuration>

**Description** Set system logging level.

**Contents** <level>—Logging level.

<mark>—Periodically mark the trace file.

<upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

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

---

**Usage** <configuration>  
 <routing-instances>  
 <instance>  
 <bridge-domains>  
 <domain>  
 <multicast-snooping-options>  
 <options>  
 <syslog>  
 <level>...</level>  
 <upto>upto-choice</upto>  
 <mark>seconds</mark>  
 </syslog>  
 </options>  
 </multicast-snooping-options>  
 </domain>  
 </bridge-domains>  
 </instance>  
 </routing-instances>  
 </configuration>

**Description** Set system logging level.

**Contents** <level>—Logging level.

<mark>—Periodically mark the trace file.

<upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

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

---

**Usage**   <configuration>  
               <routing-instances>  
                   <instance>  
                       <multicast-snooping-options>  
                           <options>  
                               **<syslog>**  
                                   <level>...</level>  
                                   <upto>*upto-choice*</upto>  
                                   <mark>*seconds*</mark>  
                               **</syslog>**  
                           </options>  
                       </multicast-snooping-options>  
                   </instance>  
               </routing-instances>  
           </configuration>

**Description**   Set system logging level.

**Contents**   <level>—Logging level.

              <mark>—Periodically mark the trace file.

              <upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

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

---

**Usage** <configuration>  
           <routing-instances>  
             <instance>  
               <routing-options>  
                 <options>  
                   **<syslog>**  
                     <level>...</level>  
                     <upto>*upto-choice*</upto>  
                   **</syslog>**  
                 </options>  
               </routing-options>  
             </instance>  
           </routing-instances>  
         </configuration>

**Description** Set system logging level.

**Contents** <level>—Logging level.  
           <upto>—Log up to a particular logging level.

- alert—Alert level.
- critical—Critical level.
- debug—Debugging level.
- emergency—Emergency level.
- error—Error level.
- info—Informational level.
- notice—Notice level.
- warning—Warning level.

**<syslog> (configuration/routing-options/options)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-options&gt;     &lt;options&gt;       &lt;syslog&gt;         &lt;level&gt;...&lt;/level&gt;         &lt;upto&gt;upto-choice&lt;/upto&gt;       &lt;/syslog&gt;     &lt;/options&gt;   &lt;/routing-options&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Set system logging level.
<b>Contents</b>	<p>&lt;level&gt;—Logging level.</p> <p>&lt;upto&gt;—Log up to a particular logging level.</p> <ul style="list-style-type: none"> <li>■ alert—Alert level.</li> <li>■ critical—Critical level.</li> <li>■ debug—Debugging level.</li> <li>■ emergency—Emergency level.</li> <li>■ error—Error level.</li> <li>■ info—Informational level.</li> <li>■ notice—Notice level.</li> <li>■ warning—Warning level.</li> </ul>

**<syslog> (configuration/services/l2tp/tunnel-group)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;l2tp&gt;       &lt;tunnel-group&gt;         &lt;syslog&gt;           &lt;host&gt;...&lt;/host&gt;         &lt;/syslog&gt;       &lt;/tunnel-group&gt;     &lt;/l2tp&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define system logging parameters.
<b>Contents</b>	<host>—No documentation is available yet.

**<syslog> (configuration/services/service-set)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;services&gt;     &lt;service-set&gt;       &lt;syslog&gt;         &lt;host&gt;...&lt;/host&gt;       &lt;/syslog&gt;     &lt;/service-set&gt;   &lt;/services&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	Define system logging parameters.
<b>Contents</b>	<host>—No documentation is available yet.

**<syslog> (configuration/system)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;system&gt;     &lt;syslog&gt;       &lt;archive&gt;...&lt;/archive&gt;       &lt;user&gt;...&lt;/user&gt;       &lt;host&gt;...&lt;/host&gt;       &lt;file&gt;...&lt;/file&gt;       &lt;console&gt;...&lt;/console&gt;       &lt;time-format&gt;...&lt;/time-format&gt;       &lt;source-address&gt;source-address&lt;/source-address&gt;     &lt;/syslog&gt;   &lt;/system&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	System logging facility.
<b>Contents</b>	<p>&lt;archive&gt;—Archive file information.</p> <p>&lt;console&gt;—Console logging.</p> <p>&lt;file&gt;—File in which to log data.</p> <p>&lt;host&gt;—Host to be notified.</p> <p>&lt;source-address&gt;—Use specified address as source address.</p> <p>&lt;time-format&gt;—Additional information to include in system log timestamp.</p> <p>&lt;user&gt;—Notify a user of the event.</p>



**<syslog> (configuration/system/tracing/destination-override)**

---

**Usage** <configuration>  
           <system>  
             <tracing>  
               <destination-override>  
                 **<syslog>**  
                   <host>*host*</host>   <!-- mandatory -->  
                 **</syslog>**  
               </destination-override>  
             </tracing>  
           </system>  
         </configuration>

**Description** Send trace messages to remote syslog server.

**Contents** <host>—IPv4 address of remote syslog server.

**<system> (configuration)**

**Usage** <configuration>

```

<system>
  <autoinstallation>autoinstallation</autoinstallation>
  <host-name>host-name</host-name>
  <domain-name>domain-name</domain-name>
  <domain-search>...</domain-search>
  <backup-router>...</backup-router>
  <inet6-backup-router>...</inet6-backup-router>
  <time-zone><continent>/<major-city> or <time-zone></time-zone>
  <use-imported-time-zones/>
  <default-address-selection/>
  <no-multicast-echo/>
  <no-redirects/>
  <dump-device>dump-device-choice</dump-device>
  <arp>...</arp>
  <saved-core-files>saved-core-files</saved-core-files>
  <saved-core-context/>
  <kernel-replication>kernel-replication</kernel-replication>
  <mirror-flash-on-disk/>
  <internet-options>...</internet-options>
  <authentication-order>...</authentication-order>
  <location>...</location>
  <ports>...</ports>
  <diag-port-authentication>...</diag-port-authentication>
  <pic-console-authentication>...</pic-console-authentication>
  <root-authentication>...</root-authentication>
  <name-server>...</name-server>
  <radius-server>...</radius-server>
  <tacplus-server>...</tacplus-server>
  <radius-options>...</radius-options>
  <tacplus-options>...</tacplus-options>
  <accounting>...</accounting>
  <scripts>...</scripts>
  <login>...</login>
  <static-host-mapping>...</static-host-mapping>
  <services>...</services>
  <syslog>...</syslog>
  <tracing>...</tracing>
  <encrypt-configuration-files/>
  <compress-configuration-files/>
  <max-configurations-on-flash>max-configurations-on-flash
    </max-configurations-on-flash>
  <archival>...</archival>
  <extensions>...</extensions>
  <license>...</license>
  <commit>...</commit>
  <processes>...</processes>
  <ntp>...</ntp>
</system>
</configuration>

```

**Description** System parameters.

- Contents**
- <accounting>—System accounting configuration.
  - <archival>—System archival management.
  - <arp>—No documentation is available yet.
  - <authentication-order>—Order in which authentication methods are invoked.
  - <autoinstallation>—No documentation is available yet.
  - <backup-router>—IPv4 router to use while booting.
  - <commit>—Configuration commit management.
  - <compress-configuration-files>—Compress the router configuration files.
  - <default-address-selection>—Use system address for locally originated traffic.
  - <diag-port-authentication>—Authentication for the diagnostic port.
  - <domain-name>—Domain name for this router.
  - <domain-search>—List of domain names to search.
  - <dump-device>—Device to record memory snapshots on operating system failure.
    - boot-device—Use boot device for software failure memory snapshots.
    - compact-flash—Use the compact flash for software failure memory snapshots.
    - removable-compact-flash—Use the removable compact flash for software failure memory snapshots.
    - usb—Use device connected to USB port for software failure memory snapshots.
  - <encrypt-configuration-files>—Encrypt the router configuration files.
  - <extensions>—Configuration for extensions to JUNOS.
  - <host-name>—Hostname for this router.
  - <inet6-backup-router>—IPv6 router to use while booting.
  - <internet-options>—Tunable options for Internet operation.
  - <kernel-replication>—No documentation is available yet.
  - <license>—License information for the router.
  - <location>—Location of the system, in various forms.
  - <login>—Names, login classes, and passwords for users.
  - <max-configurations-on-flash>—Number of configuration files stored on flash.
  - <mirror-flash-on-disk>—Mirror contents of the flash drive onto hard drive.

<name-server>—DNS name servers.

<no-multicast-echo>—Disable ICMP echo on multicast addresses.

<no-redirects>—Disable ICMP redirects.

<ntp>—Network Time Protocol services.

<pic-console-authentication>—Authentication for the console port on PICs.

<ports>—Craft interface RS-232 ports.

<processes>—Process control.

<radius-options>—RADIUS options.

<radius-server>—RADIUS server configuration.

<root-authentication>—Authentication information for the root login.

<saved-core-context>—Save context information for core files.

<saved-core-files>—Number of saved core files per executable.

<scripts>—Scripting mechanisms.

<services>—System services.

<static-host-mapping>—Static hostname database mapping.

<syslog>—System logging facility.

<tacplus-options>—TACACS+ options.

<tacplus-server>—TACACS+ server configuration.

<time-zone>—Time zone name or POSIX-compliant time zone string.

<tracing>—System wide option for remote tracing.

<use-imported-time-zones>—Use locally generated time-zone database.

**<system> (configuration/logical-systems)**

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;system&gt;       &lt;services&gt;...&lt;/services&gt;     &lt;/system&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	System parameters.
<b>Contents</b>	<services>—System services.

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

---

<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;logical-systems&gt;     &lt;routing-instances&gt;       &lt;instance&gt;         &lt;system&gt;           &lt;services&gt;...&lt;/services&gt;         &lt;/system&gt;       &lt;/instance&gt;     &lt;/routing-instances&gt;   &lt;/logical-systems&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	System parameters.
<b>Contents</b>	<services>—System services.

**<system> (configuration/routing-instances/instance)**

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<b>Usage</b>	<pre> &lt;configuration&gt;   &lt;routing-instances&gt;     &lt;instance&gt;       &lt;system&gt;         &lt;services&gt;...&lt;/services&gt;       &lt;/system&gt;     &lt;/instance&gt;   &lt;/routing-instances&gt; &lt;/configuration&gt; </pre>
<b>Description</b>	System parameters.
<b>Contents</b>	<services>—System services.

## <system-domains> (configuration/chassis)

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**Usage** <configuration>  
    <chassis>  
        <system-domains>  
            <root-domain-id>*root-domain-id*</root-domain-id>   <!-- mandatory -->  
            <protected-system-domains>...</protected-system-domains>  
            <traceoptions>...</traceoptions>  
        </system-domains>  
    </chassis>  
</configuration>

**Description** Root and protected system domain configuration.

**Contents** <protected-system-domains>—Protected system domain configuration.

<root-domain-id>—Root domain identifier.

<traceoptions>—Protected system domain traceoptions.