

Chapter 17

Tag Elements Beginning with Q

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

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



NOTE: Every tag element in this chapter optionally accepts the `<apply-groups>` or `<apply-groups-except>` tag element and the `<apply-macro>` tag element as children. For brevity, the reference entries do not list these tag elements as children. For information about these tag elements, see `<apply-groups>` on page 631, `<apply-groups-except>` on page 631, and `<apply-macro>` on page 632.

<q-pic-large-buffer> (configuration/chassis/fpc/pic)

Usage	<pre><configuration> <chassis> <fpc> <pic> <q-pic-large-buffer> <small-scale/> <large-scale/> </q-pic-large-buffer> </pic> </fpc> </chassis> </configuration></pre>
Description	Run in large delay buffer mode.
Contents	<p><code><large-scale></code>—Supports large number of interfaces.</p> <p><code><small-scale></code>—Supports less number of interfaces.</p>

<q-pic-large-buffer> (configuration/chassis/lcc/fpc/pic)

Usage <configuration>
 <chassis>
 <lcc>
 <fpc>
 <pic>
 <q-pic-large-buffer>
 <small-scale/>
 <large-scale/>
 </q-pic-large-buffer>
 </pic>
 </fpc>
 </lcc>
 </chassis>
 </configuration>

Description Run in large delay buffer mode.

Contents <large-scale>—Supports large number of interfaces.
 <small-scale>—Supports less number of interfaces.

<qos-control> (configuration/services/ggsn/apn)

Usage <configuration>
 <services>
 <ggsn>
 <apn>
 <qos-control>
 <profile>...</profile>
 </qos-control>
 </apn>
 </ggsn>
 </services>
 </configuration>

Description QoS control.

Contents <profile>—QoS control profile.

<qualified-next-hop> (configuration/logical-systems/ routing-instances/instance/routing-options/rib/static/iso-route)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <routing-options>
 <rib>
 <static>
 <iso-route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </rib>
 </routing-options>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Next hop with qualifiers.

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

 <interface>—Interface of qualified next hop.

 <metric>—Metric of qualified next hop.

 <name>—Next hop to destination.

 <preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/logical-systems/ routing-instances/instance/routing-options/rib/static/route)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <rib>
            <static>
              <route>
                <qualified-next-hop>
                  <name>name</name>    <!-- identifier -->
                  <preference>preference</preference>
                  <metric>metric</metric>
                  <interface>interface</interface>
                  <bfd-liveness-detection>...</bfd-liveness-detection>
                </qualified-next-hop>
              </route>
            </static>
          </rib>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/logical-systems/ routing-instances/instance/routing-options/static/iso-route)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <routing-options>
 <static>
 <iso-route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </routing-options>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Next hop with qualifiers.

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

 <interface>—Interface of qualified next hop.

 <metric>—Metric of qualified next hop.

 <name>—Next hop to destination.

 <preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/logical-systems/ routing-instances/instance/routing-options/static/route)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <static>
            <route>
              <qualified-next-hop>
                <name>name</name>    <!-- identifier -->
                <preference>preference</preference>
                <metric>metric</metric>
                <interface>interface</interface>
                <bfd-liveness-detection>...</bfd-liveness-detection>
              </qualified-next-hop>
            </route>
          </static>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/logical-systems/ routing-options/rib/static/iso-route)

Usage <configuration>
 <logical-systems>
 <routing-options>
 <rib>
 <static>
 <iso-route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </rib>
 </routing-options>
 </logical-systems>
 </configuration>

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/logical-systems/ routing-options/rib/static/route)

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <rib>
        <static>
          <route>
            <qualified-next-hop>
              <name>name</name>    <!-- identifier -->
              <preference>preference</preference>
              <metric>metric</metric>
              <interface>interface</interface>
              <bfd-liveness-detection>...</bfd-liveness-detection>
            </qualified-next-hop>
          </route>
        </static>
      </rib>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/logical-systems/ routing-options/static/iso-route)

Usage <configuration>
 <logical-systems>
 <routing-options>
 <static>
 <iso-route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </routing-options>
 </logical-systems>
 </configuration>

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/logical-systems/ routing-options/static/route)

Usage <configuration>
 <logical-systems>
 <routing-options>
 <static>
 <route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </route>
 </static>
 </routing-options>
 </logical-systems>
 </configuration>

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-instances/instance/routing-options/rib/static/iso-route)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <rib>
 <static>
 <iso-route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </rib>
 </routing-options>
 </instance>
 </routing-instances>
</configuration>

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <rib>
          <static>
            <route>
              <qualified-next-hop>
                <name>name</name>    <!-- identifier -->
                <preference>preference</preference>
                <metric>metric</metric>
                <interface>interface</interface>
                <bfd-liveness-detection>...</bfd-liveness-detection>
              </qualified-next-hop>
            </route>
          </static>
        </rib>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>

```

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-instances/instance/ routing-options/static/iso-route)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <static>
 <iso-route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </routing-options>
 </instance>
 </routing-instances>
</configuration>

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-instances/instance/routing-options/static/route)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <static>
 <route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </route>
 </static>
 </routing-options>
 </instance>
 </routing-instances>
 </configuration>

Description Next hop with qualifiers.

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

 <interface>—Interface of qualified next hop.

 <metric>—Metric of qualified next hop.

 <name>—Next hop to destination.

 <preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-options/rib/static/iso-route)

Usage <configuration>
 <routing-options>
 <rib>
 <static>
 <iso-route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </rib>
 </routing-options>
 </configuration>

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-options/rib/static/route)

Usage <configuration>
 <routing-options>
 <rib>
 <static>
 <route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </route>
 </static>
 </rib>
 </routing-options>
 </configuration>

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-options/static/iso-route)

Usage <configuration>
 <routing-options>
 <static>
 <iso-route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </routing-options>
 </configuration>

Description Next hop with qualifiers.

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

 <interface>—Interface of qualified next hop.

 <metric>—Metric of qualified next hop.

 <name>—Next hop to destination.

 <preference>—Preference of qualified next hop.

<qualified-next-hop> (configuration/routing-options/static/route)

Usage <configuration>
 <routing-options>
 <static>
 <route>
 <qualified-next-hop>
 <name>*name*</name> <!-- identifier -->
 <preference>*preference*</preference>
 <metric>*metric*</metric>
 <interface>*interface*</interface>
 <bfd-liveness-detection>...</bfd-liveness-detection>
 </qualified-next-hop>
 </route>
 </static>
 </routing-options>
 </configuration>

Description Next hop with qualifiers.

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

<interface>—Interface of qualified next hop.

<metric>—Metric of qualified next hop.

<name>—Next hop to destination.

<preference>—Preference of qualified next hop.

<quality-of-service> (configuration/services/ggsn/apn/qos-control/profile/default)

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <qos-control>
          <profile>
            <default>
              <quality-of-service>
                <name>name</name>    <!-- identifier -->
                <traffic-class>traffic-class-choice</traffic-class>
                <policy>policy-choice</policy>
                <maximum-bit-rate-uplink>kilobits</maximum-bit-rate-uplink>
                <maximum-bit-rate-downlink>kilobits</maximum-bit-rate-downlink>
                <guaranteed-bit-rate-uplink>kilobits</guaranteed-bit-rate-uplink>
                <guaranteed-bit-rate-downlink>kilobits</guaranteed-bit-rate-downlink>
                <transfer-delay>milliseconds</transfer-delay>
              </quality-of-service>
            </default>
          </profile>
        </qos-control>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Quality of service.

Contents <guaranteed-bit-rate-downlink>—Guaranteed downlink bit rate.

<guaranteed-bit-rate-uplink>—Guaranteed uplink bit rate.

<maximum-bit-rate-downlink>—Maximum downlink bit rate.

<maximum-bit-rate-uplink>—Maximum uplink bit rate.

<name>—Quality of service.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<policy>—QoS policy.

- max-allowed—Maximum QoS allowed.

- `min-required`—Minimum QoS required.
- `must`—Exact QoS required.

`<traffic-class>`—Traffic class.

- `background`—Background quality of service.
- `conversational`—Conversational quality of service.
- `interactive-1`—Interactive priority 1 quality of service.
- `interactive-2`—Interactive priority 2 quality of service.
- `interactive-3`—Interactive priority 3 quality of service.
- `streaming`—Streaming quality of service.

`<transfer-delay>`—Transfer delay.

<quality-of-service> (configuration/services/ggsn/apn/qos-control/profile/roaming-class)

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <qos-control>
          <profile>
            <roaming-class>
              <quality-of-service>
                <name>name</name>    <!-- identifier -->
                <traffic-class>traffic-class-choice</traffic-class>
                <policy>policy-choice</policy>
                <maximum-bit-rate-uplink>kilobits</maximum-bit-rate-uplink>
                <maximum-bit-rate-downlink>kilobits</maximum-bit-rate-downlink>
                <guaranteed-bit-rate-uplink>kilobits</guaranteed-bit-rate-uplink>
                <guaranteed-bit-rate-downlink>kilobits</guaranteed-bit-rate-downlink>
                <transfer-delay>milliseconds</transfer-delay>
              </quality-of-service>
            </roaming-class>
          </profile>
        </qos-control>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Quality of service.

Contents <guaranteed-bit-rate-downlink>—Guaranteed downlink bit rate.

<guaranteed-bit-rate-uplink>—Guaranteed uplink bit rate.

<maximum-bit-rate-downlink>—Maximum downlink bit rate.

<maximum-bit-rate-uplink>—Maximum uplink bit rate.

<name>—Quality of service.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<policy>—QoS policy.

- max-allowed—Maximum QoS allowed.

- `min-required`—Minimum QoS required.
- `must`—Exact QoS required.

`<traffic-class>`—Traffic class.

- `background`—Background quality of service.
- `conversational`—Conversational quality of service.
- `interactive-1`—Interactive priority 1 quality of service.
- `interactive-2`—Interactive priority 2 quality of service.
- `interactive-3`—Interactive priority 3 quality of service.
- `streaming`—Streaming quality of service.

`<transfer-delay>`—Transfer delay.

<quality-of-service> (configuration/services/ggsn/apn/qos-control/profile/sgsn-class)

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <qos-control>
          <profile>
            <sgsn-class>
              <quality-of-service>
                <name>name</name>    <!-- identifier -->
                <traffic-class>traffic-class-choice</traffic-class>
                <policy>policy-choice</policy>
                <maximum-bit-rate-uplink>kilobits</maximum-bit-rate-uplink>
                <maximum-bit-rate-downlink>kilobits</maximum-bit-rate-downlink>
                <guaranteed-bit-rate-uplink>kilobits</guaranteed-bit-rate-uplink>
                <guaranteed-bit-rate-downlink>kilobits</guaranteed-bit-rate-downlink>
                <transfer-delay>milliseconds</transfer-delay>
              </quality-of-service>
            </sgsn-class>
          </profile>
        </qos-control>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Quality of service.

Contents <guaranteed-bit-rate-downlink>—Guaranteed downlink bit rate.

<guaranteed-bit-rate-uplink>—Guaranteed uplink bit rate.

<maximum-bit-rate-downlink>—Maximum downlink bit rate.

<maximum-bit-rate-uplink>—Maximum uplink bit rate.

<name>—Quality of service.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<policy>—QoS policy.

- max-allowed—Maximum QoS allowed.

- `min-required`—Minimum QoS required.

- `must`—Exact QoS required.

`<traffic-class>`—Traffic class.

- `background`—Background quality of service.

- `conversational`—Conversational quality of service.

- `interactive-1`—Interactive priority 1 quality of service.

- `interactive-2`—Interactive priority 2 quality of service.

- `interactive-3`—Interactive priority 3 quality of service.

- `streaming`—Streaming quality of service.

`<transfer-delay>`—Transfer delay.

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

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <policy-control>
            <static>
              <profile>
                <activation-time>
                  <default-roaming-class>
                    <quality-of-service>
                      <name>name</name>    <!-- identifier -->
                      <service-class>...</service-class>
                      <block-rate>block-rate</block-rate>
                    </quality-of-service>
                  </default-roaming-class>
                </activation-time>
              </profile>
            </static>
          </policy-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Quality of service for rates.

Contents <block-rate>—Rate per block for volume-based and duration-time-based block charging.

<name>—Quality of service.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<service-class>—Service class.

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

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <policy-control>
            <static>
              <profile>
                <activation-time>
                  <roaming-class>
                    <quality-of-service>
                      <name>name</name>    <!-- identifier -->
                      <service-class>...</service-class>
                      <block-rate>block-rate</block-rate>
                    </quality-of-service>
                  </roaming-class>
                </activation-time>
              </profile>
            </static>
          </policy-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Quality of service for rates.

Contents <block-rate>—Rate per block for volume-based and duration-time-based block charging.

<name>—Quality of service.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<service-class>—Service class.

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

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <policy-control>
            <static>
              <profile>
                <all-time>
                  <default-roaming-class>
                    <quality-of-service>
                      <name>name</name>    <!-- identifier -->
                      <service-class>...</service-class>
                      <block-rate>block-rate</block-rate>
                    </quality-of-service>
                  </default-roaming-class>
                </all-time>
              </profile>
            </static>
          </policy-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Quality of service for rates.

Contents <block-rate>—Rate per block for volume-based and duration-time-based block charging.

<name>—Quality of service.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<service-class>—Service class.

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

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <policy-control>
            <static>
              <profile>
                <all-time>
                  <roaming-class>
                    <quality-of-service>
                      <name>name</name>    <!-- identifier -->
                      <service-class>...</service-class>
                      <block-rate>block-rate</block-rate>
                    </quality-of-service>
                  </roaming-class>
                </all-time>
              </profile>
            </static>
          </policy-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Quality of service for rates.

Contents <block-rate>—Rate per block for volume-based and duration-time-based block charging.

<name>—Quality of service.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<service-class>—Service class.

<quality-of-service> (configuration/services/ggsn/rule-space/local-policy-control/activation-time/default-roaming-class)

Usage <configuration>
 <services>
 <ggsn>
 <rule-space>
 <local-policy-control>
 <activation-time>
 <default-roaming-class>
 <quality-of-service>
 <name>*name*</name> <!-- identifier -->
 <access-control-rule>...</access-control-rule>
 <access-control-group>...</access-control-group>
 </quality-of-service>
 </default-roaming-class>
 </activation-time>
 </local-policy-control>
 </rule-space>
 </ggsn>
 </services>
</configuration>

Description Authorization settings for quality of service.

Contents <access-control-group>—Authorization settings for access control group.
 <access-control-rule>—Authorization settings for access control rule identifier.
 <name>—Authorized traffic class.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<quality-of-service> (configuration/services/ggsn/rule-space/local-policy-control/activation-time/roaming-class)

Usage

```

<configuration>
  <services>
    <ggsn>
      <rule-space>
        <local-policy-control>
          <activation-time>
            <roaming-class>
              <quality-of-service>
                <name>name</name>    <!-- identifier -->
                <access-control-rule>...</access-control-rule>
                <access-control-group>...</access-control-group>
              </quality-of-service>
            </roaming-class>
          </activation-time>
        </local-policy-control>
      </rule-space>
    </ggsn>
  </services>
</configuration>

```

Description Authorization settings for quality of service.

Contents

- <access-control-group>—Authorization settings for access control group.
- <access-control-rule>—Authorization settings for access control rule identifier.
- <name>—Authorized traffic class.
- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<quality-of-service> (configuration/services/ggsn/rule-space/local-policy-control/all-time/default-roaming-class)

Usage <configuration>
 <services>
 <ggsn>
 <rule-space>
 <local-policy-control>
 <all-time>
 <default-roaming-class>
 <quality-of-service>
 <name>*name*</name> <!-- identifier -->
 <access-control-rule>...</access-control-rule>
 <access-control-group>...</access-control-group>
 </quality-of-service>
 </default-roaming-class>
 </all-time>
 </local-policy-control>
 </rule-space>
 </ggsn>
 </services>
</configuration>

Description Authorization settings for quality of service.

Contents <access-control-group>—Authorization settings for access control group.
 <access-control-rule>—Authorization settings for access control rule identifier.
 <name>—Authorized traffic class.

- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<quality-of-service> (configuration/services/ggsn/rule-space/local-policy-control/all-time/roaming-class)

Usage

```

<configuration>
  <services>
    <ggsn>
      <rule-space>
        <local-policy-control>
          <all-time>
            <roaming-class>
              <quality-of-service>
                <name>name</name>    <!-- identifier -->
                <access-control-rule>...</access-control-rule>
                <access-control-group>...</access-control-group>
              </quality-of-service>
            </roaming-class>
          </all-time>
        </local-policy-control>
      </rule-space>
    </ggsn>
  </services>
</configuration>

```

Description Authorization settings for quality of service.

Contents

- <access-control-group>—Authorization settings for access control group.
- <access-control-rule>—Authorization settings for access control rule identifier.
- <name>—Authorized traffic class.
- background—Background quality of service.
- conversational—Conversational quality of service.
- interactive-1—Interactive priority 1 quality of service.
- interactive-2—Interactive priority 2 quality of service.
- interactive-3—Interactive priority 3 quality of service.
- streaming—Streaming quality of service.

<query-cc-as> (configuration/services/ggsn/apn/service-based-charging/credit-control)

Usage <configuration>
 <services>
 <ggsn>
 <apn>
 <service-based-charging>
 <credit-control>
 <query-cc-as>
 <credit-control-user>...</credit-control-user> <!-- mandatory -->
 <no-credit-control-user>...</no-credit-control-user> <!-- mandatory -->
 </query-cc-as>
 </credit-control>
 </service-based-charging>
 </apn>
 </ggsn>
 </services>
 </configuration>

Description Credit Control Application System (CC-AS) user query.

Contents <credit-control-user>—Ask CC-AS whether to use credit control.

 <no-credit-control-user>—Settings to use if CC-AS forbids use credit control.

<query-name> (configuration/services/ggsn/service-identification/dns-rule/term/from/dns)

Usage

```

<configuration>
  <services>
    <ggsn>
      <service-identification>
        <dns-rule>
          <term>
            <from>
              <dns>
                <query-name>
                  <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>
                </query-name>
              </dns>
            </from>
          </term>
        </dns-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>

```

Description Match query name.

Contents <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.

<query-ocs> (configuration/services/ggsn/apn/service-based-charging/credit-control)

Usage <configuration>
 <services>
 <ggsn>
 <apn>
 <service-based-charging>
 <credit-control>
 <query-ocs>
 <credit-control-user>...</credit-control-user>
 <no-credit-control-user>...</no-credit-control-user>
 <no-valid-answer>...</no-valid-answer>
 </query-ocs>
 </credit-control>
 </service-based-charging>
 </apn>
 </ggsn>
 </services>
 </configuration>

Description OCS user query.

Contents <credit-control-user>—Settings to use if OCS enables credit control for the user.
 <no-credit-control-user>—Settings to use if OCS disables credit control for the user.
 <no-valid-answer>—Settings to use if no valid answer is received from the OCS.

<queue> (configuration/class-of-service/forwarding-classes)

Usage <configuration>
 <class-of-service>
 <forwarding-classes>
 <queue>
 <name>*name*</name> <!-- identifier -->
 <class-name>*class-name*</class-name> <!-- mandatory -->
 <priority>*priority-choice*</priority>
 </queue>
 </forwarding-classes>
 </class-of-service>
 </configuration>

Description Queue number to map to forwarding class.

Contents <class-name>—Forwarding class name.

<name>—Queue number.

<priority>—Fabric priority.

- high—Fabric priority high.
- low—Fabric priority low.

<queue> (configuration/dynamic-profiles/class-of-service/forwarding-classes)

Usage <configuration>
 <dynamic-profiles>
 <class-of-service>
 <forwarding-classes>
 <queue>
 <name>name</name> <!-- identifier -->
 <class-name>class-name</class-name> <!-- mandatory -->
 <priority>priority-choice</priority>
 </queue>
 </forwarding-classes>
 </class-of-service>
 </dynamic-profiles>
 </configuration>

Description Queue number to map to forwarding class.

Contents <class-name>—Forwarding class name.

 <name>—Queue number.

 <priority>—Fabric priority.

- high—Fabric priority high.
- low—Fabric priority low.

<queues> (configuration/dynamic-profiles/interfaces/interface/unit/compression/rtp)

Usage <configuration>
 <dynamic-profiles>
 <interfaces>
 <interface>
 <unit>
 <compression>
 <rtp>
 <queues>
 <name>*name*</name> <!-- identifier -->
 </queues>
 </rtp>
 </compression>
 </unit>
 </interface>
 </interfaces>
 </dynamic-profiles>
 </configuration>

Description Queue holding RTP packets. Default is queue 1.

Contents <name>—Queue holding RTP packets. Default is queue 1.

- q0—RTP packets assigned to queue 0.
- q1—RTP packets assigned to queue 1.
- q2—RTP packets assigned to queue 2.
- q3—RTP packets assigned to queue 3.

<queues> (configuration/interfaces/interface/unit/compression/rtp)

Usage <configuration>
 <interfaces>
 <interface>
 <unit>
 <compression>
 <rtp>
 <queues>
 <name>name</name> <!-- identifier -->
 </queues>
 </rtp>
 </compression>
 </unit>
 </interface>
 </interfaces>
 </configuration>

Description Queue holding RTP packets. Default is queue 1.

Contents <name>—Queue holding RTP packets. Default is queue 1.

- q0—RTP packets assigned to queue 0.
- q1—RTP packets assigned to queue 1.
- q2—RTP packets assigned to queue 2.
- q3—RTP packets assigned to queue 3.

<queues> (configuration/logical-systems/interfaces/interface/unit/compression/rtp)

Usage <configuration>
 <logical-systems>
 <interfaces>
 <interface>
 <unit>
 <compression>
 <rtp>
 <queues>
 <name>*name*</name> <!-- identifier -->
 </queues>
 </rtp>
 </compression>
 </unit>
 </interface>
 </interfaces>
 </logical-systems>
 </configuration>

Description Queue holding RTP packets. Default is queue 1.

Contents <name>—Queue holding RTP packets. Default is queue 1.

- q0—RTP packets assigned to queue 0.
- q1—RTP packets assigned to queue 1.
- q2—RTP packets assigned to queue 2.
- q3—RTP packets assigned to queue 3.

<quota-denied-action> (configuration/services/ggsn/apn/service-based-charging/credit-control/profile)

Usage

```

<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <credit-control>
            <profile>
              <quota-denied-action>
                <terminate-context/>
                <free-services/>
                <allow-service-class>...</allow-service-class>
              </quota-denied-action>
            </profile>
          </credit-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Action to take when user quota is empty.

Contents

- <allow-service-class>—Allow access to service class.
- <free-services>—Allow context to access free services.
- <terminate-context>—Terminate the PDP context.

<quota-handling> (configuration/services/ggsn/rule-space)

Usage <configuration>
 <services>
 <ggsn>
 <rule-space>
 <quota-handling>
 <holding-time-period>seconds</holding-time-period>
 <holding-time-infinity/>
 <no-quota-handling>...</no-quota-handling>
 <user-denied-time>seconds</user-denied-time>
 <re-authorization-triggers>...</re-authorization-triggers>
 </quota-handling>
 </rule-space>
 </ggsn>
 </services>
 </configuration>

Description Quota handling preferences.

Contents <holding-time-infinity>—Infinite holding time.

<holding-time-period>—Period of inactivity after which to report the quota.

<no-quota-handling>—Rating group for which quota shall not be requested.

<re-authorization-triggers>—Default triggers for quota re-authorization.

<user-denied-time>—Time to wait before requesting new quota after a request has been denied.