

Chapter 2

Tag Elements Beginning with B

This chapter lists the configuration tag elements that have names beginning with the letter *b*. 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.

<background> (configuration/services/ggsn/apn/uplink-dscp-remapping)

Usage <configuration>
 <services>
 <ggsn>
 <apn>
 <uplink-dscp-remapping>
 <background>
 <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>
 </background>
 </uplink-dscp-remapping>
 </apn>
 </ggsn>
 </services>
</configuration>

Description DSCP name for background 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.

<background> (configuration/services/ggsn/gtp/downlink-dscp-remapping)

Usage <configuration>
 <services>
 <ggsn>
 <gtp>
 <downlink-dscp-remapping>
 <background>
 <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>
 </background>
 </downlink-dscp-remapping>
 </gtp>
 </ggsn>
 </services>
</configuration>

Description DSCP name for background 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.

<backup-neighbor> (configuration/logical-systems/protocols/l2circuit/neighbor/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <l2circuit>
 <neighbor>
 <interface>
 <backup-neighbor>
 <name>*name*</name> <!-- identifier -->
 <virtual-circuit-id>*virtual-circuit-id*</virtual-circuit-id>
 <community>*community*</community>
 <psn-tunnel-endpoint>*psn-tunnel-endpoint*</psn-tunnel-endpoint>
 <standby/>
 </backup-neighbor>
 </interface>
 </neighbor>
 </l2circuit>
 </protocols>
 </logical-systems>
</configuration>

Description Configuration of redundant l2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

<name>—Neighbor ID.

<psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

<standby>—Keep backup pseudowire in continuous standby.

<virtual-circuit-id>—Identifier for this Layer 2 circuit.

<backup-neighbor> (configuration/logical-systems/ routing-instances/instance/protocols/l2vpn/mesh-group/neighbor)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <l2vpn>
            <mesh-group>
              <neighbor>
                <backup-neighbor>
                  <name>name</name>    <!-- identifier -->
                  <community>community</community>
                  <psn-tunnel-endpoint>psn-tunnel-endpoint</psn-tunnel-endpoint>
                  <standby/>
                </backup-neighbor>
              </neighbor>
            </mesh-group>
          </l2vpn>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Configuration of redundant l2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

<name>—Neighbor ID.

<psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

<standby>—Keep backup pseudowire in continuous standby.

<backup-neighbor> (configuration/logical-systems/ routing-instances/instance/protocols/l2vpn/neighbor)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <l2vpn>
 <neighbor>
 <backup-neighbor>
 <name>*name*</name> <!-- identifier -->
 <community>*community*</community>
 <psn-tunnel-endpoint>*psn-tunnel-endpoint*</psn-tunnel-endpoint>
 <standby/>
 </backup-neighbor>
 </neighbor>
 </l2vpn>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Configuration of redundant l2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

 <name>—Neighbor ID.

 <psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

 <standby>—Keep backup pseudowire in continuous standby.

<backup-neighbor> (configuration/logical-systems/ routing-instances/instance/protocols/vpls/mesh-group/neighbor)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <vpls>
 <mesh-group>
 <neighbor>
 <backup-neighbor>
 <name>*name*</name> <!-- identifier -->
 <community>*community*</community>
 <psn-tunnel-endpoint>*psn-tunnel-endpoint*</psn-tunnel-endpoint>
 <standby/>
 </backup-neighbor>
 </neighbor>
 </mesh-group>
 </vpls>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Configuration of redundant I2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

<name>—Neighbor ID.

<psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

<standby>—Keep backup pseudowire in continuous standby.

<backup-neighbor> (configuration/logical-systems/ routing-instances/instance/protocols/vpls/neighbor)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <vpls>
 <neighbor>
 <backup-neighbor>
 <name>*name*</name> <!-- identifier -->
 <community>*community*</community>
 <psn-tunnel-endpoint>*psn-tunnel-endpoint*</psn-tunnel-endpoint>
 <standby/>
 </backup-neighbor>
 </neighbor>
 </vpls>
 </protocols>
 </instance>
 </routing-instances>
</logical-systems>
</configuration>

Description Configuration of redundant I2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

 <name>—Neighbor ID.

 <psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

 <standby>—Keep backup pseudowire in continuous standby.

<backup-neighbor> (configuration/protocols/l2circuit/neighbor/interface)

Usage

```

<configuration>
  <protocols>
    <l2circuit>
      <neighbor>
        <interface>
          <backup-neighbor>
            <name>name</name>    <!-- identifier -->
            <virtual-circuit-id>virtual-circuit-id</virtual-circuit-id>
            <community>community</community>
            <psn-tunnel-endpoint>psn-tunnel-endpoint</psn-tunnel-endpoint>
            <standby/>
          </backup-neighbor>
        </interface>
      </neighbor>
    </l2circuit>
  </protocols>
</configuration>

```

Description Configuration of redundant l2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

<name>—Neighbor ID.

<psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

<standby>—Keep backup pseudowire in continuous standby.

<virtual-circuit-id>—Identifier for this Layer 2 circuit.

<backup-neighbor> (configuration/routing-instances/instance/protocols/l2vpn/mesh-group/neighbor)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <l2vpn>
 <mesh-group>
 <neighbor>
 <backup-neighbor>
 <name>*name*</name> <!-- identifier -->
 <community>*community*</community>
 <psn-tunnel-endpoint>*psn-tunnel-endpoint*</psn-tunnel-endpoint>
 <standby/>
 </backup-neighbor>
 </neighbor>
 </mesh-group>
 </l2vpn>
 </protocols>
 </instance>
</routing-instances>
</configuration>

Description Configuration of redundant l2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

 <name>—Neighbor ID.

 <psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

 <standby>—Keep backup pseudowire in continuous standby.

<backup-neighbor> (configuration/routing-instances/instance/protocols/l2vpn/neighbor)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <neighbor>
            <backup-neighbor>
              <name>name</name>    <!-- identifier -->
              <community>community</community>
              <psn-tunnel-endpoint>psn-tunnel-endpoint</psn-tunnel-endpoint>
              <standby/>
            </backup-neighbor>
          </neighbor>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Configuration of redundant l2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

<name>—Neighbor ID.

<psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

<standby>—Keep backup pseudowire in continuous standby.

<backup-neighbor> (configuration/routing-instances/instance/protocols/vpls/mesh-group/neighbor)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <vpls>
 <mesh-group>
 <neighbor>
 <backup-neighbor>
 <name>*name*</name> <!-- identifier -->
 <community>*community*</community>
 <psn-tunnel-endpoint>*psn-tunnel-endpoint*</psn-tunnel-endpoint>
 <standby/>
 </backup-neighbor>
 </neighbor>
 </mesh-group>
 </vpls>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Configuration of redundant I2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

 <name>—Neighbor ID.

 <psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

 <standby>—Keep backup pseudowire in continuous standby.

<backup-neighbor> (configuration/routing-instances/instance/protocols/vpls/neighbor)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <vpls>
          <neighbor>
            <backup-neighbor>
              <name>name</name>    <!-- identifier -->
              <community>community</community>
              <psn-tunnel-endpoint>psn-tunnel-endpoint</psn-tunnel-endpoint>
              <standby/>
            </backup-neighbor>
          </neighbor>
        </vpls>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Configuration of redundant l2circuit.

Contents <community>—Community associated with this Layer 2 circuit.

<name>—Neighbor ID.

<psn-tunnel-endpoint>—Endpoint of the transport tunnel on the remote PE.

<standby>—Keep backup pseudowire in continuous standby.

<backup-pe-group> (configuration/logical-systems/routing-instances/instance/routing-options/multicast)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <routing-options>
 <multicast>
 <backup-pe-group>
 <name>*name*</name> <!-- identifier -->
 <backups>...</backups> <!-- mandatory -->
 <local-address>*local-address*</local-address> <!-- mandatory -->
 </backup-pe-group>
 </multicast>
 </routing-options>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Backup PE group definitions.

Contents <backups>—One or more IP addresses.

<local-address>—Address to be used as local-address for this group.

<name>—PE group name.

<backup-pe-group> (configuration/logical-systems/routing-options/multicast)

Usage <configuration>
 <logical-systems>
 <routing-options>
 <multicast>
 <backup-pe-group>
 <name>*name*</name> <!-- identifier -->
 <backups>...</backups> <!-- mandatory -->
 <local-address>*local-address*</local-address> <!-- mandatory -->
 </backup-pe-group>
 </multicast>
 </routing-options>
 </logical-systems>
 </configuration>

Description Backup PE group definitions.

Contents <backups>—One or more IP addresses.

<local-address>—Address to be used as local-address for this group.

<name>—PE group name.

<backup-pe-group> (configuration/routing-instances/instance/routing-options/multicast)

Usage `<configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <multicast>
 <backup-pe-group>
 <name>name</name> <!-- identifier -->
 <backups>...</backups> <!-- mandatory -->
 <local-address>local-address</local-address> <!-- mandatory -->
 </backup-pe-group>
 </multicast>
 </routing-options>
 </instance>
 </routing-instances>
</configuration>`

Description Backup PE group definitions.

Contents `<backups>`—One or more IP addresses.

`<local-address>`—Address to be used as local-address for this group.

`<name>`—PE group name.

<backup-pe-group> (configuration/routing-options/multicast)

Usage `<configuration>
 <routing-options>
 <multicast>
 <backup-pe-group>
 <name>name</name> <!-- identifier -->
 <backups>...</backups> <!-- mandatory -->
 <local-address>local-address</local-address> <!-- mandatory -->
 </backup-pe-group>
 </multicast>
 </routing-options>
</configuration>`

Description Backup PE group definitions.

Contents `<backups>`—One or more IP addresses.

`<local-address>`—Address to be used as local-address for this group.

`<name>`—PE group name.

<backup-router> (configuration/system)

- Usage** `<configuration>`
 `<system>`
 <backup-router>
 `<address>address</address>` <!-- mandatory -->
 `<destination>...</destination>`
 </backup-router>
 `</system>`
`</configuration>`
- Description** IPv4 router to use while booting.
- Contents** `<address>`—Address of router to use while booting.
 `<destination>`—Destination network reachable through the router.

<backups> (configuration/logical-systems/routing-instances/instance/routing-options/multicast/backup-pe-group)

- Usage** `<configuration>`
 `<logical-systems>`
 `<routing-instances>`
 `<instance>`
 `<routing-options>`
 `<multicast>`
 `<backup-pe-group>`
 <backups>
 `<name>name</name>` <!-- identifier -->
 </backups>
 `</backup-pe-group>`
 `</multicast>`
 `</routing-options>`
 `</instance>`
 `</routing-instances>`
 `</logical-systems>`
`</configuration>`
- Description** One or more IP addresses.
- Contents** `<name>`—One or more IP addresses.

<backups> (configuration/logical-systems/routing-options/multicast/backup-pe-group)

Usage <configuration>
 <logical-systems>
 <routing-options>
 <multicast>
 <backup-pe-group>
 <backups>
 <name>name</name> <!-- identifier -->
 </backups>
 </backup-pe-group>
 </multicast>
 </routing-options>
 </logical-systems>
 </configuration>

Description One or more IP addresses.

Contents <name>—One or more IP addresses.

<backups> (configuration/routing-instances/instance/routing-options/multicast/backup-pe-group)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <multicast>
 <backup-pe-group>
 <backups>
 <name>name</name> <!-- identifier -->
 </backups>
 </backup-pe-group>
 </multicast>
 </routing-options>
 </instance>
 </routing-instances>
 </configuration>

Description One or more IP addresses.

Contents <name>—One or more IP addresses.

<backups> (configuration/routing-options/multicast/backup-pe-group)

Usage	<pre> <configuration> <routing-options> <multicast> <backup-pe-group> <backups> <name>name</name> <!-- identifier --> </backups> </backup-pe-group> </multicast> </routing-options> </configuration> </pre>
Description	One or more IP addresses.
Contents	<name>—One or more IP addresses.

<bandwidth> (configuration/logical-systems/protocols/l2circuit/neighbor/interface)

Usage	<pre> <configuration> <logical-systems> <protocols> <l2circuit> <neighbor> <interface> <bandwidth> <per-traffic-class-bandwidth>bps</per-traffic-class-bandwidth> <ct0>bps</ct0> <ct1>bps</ct1> <ct2>bps</ct2> <ct3>bps</ct3> </bandwidth> </interface> </neighbor> </l2circuit> </protocols> </logical-systems> </configuration> </pre>
Description	Bandwidth to reserve (bps).
Contents	<p><ct0>—Bandwidth from traffic class 0.</p> <p><ct1>—Bandwidth from traffic class 1.</p> <p><ct2>—Bandwidth from traffic class 2.</p> <p><ct3>—Bandwidth from traffic class 3.</p> <p><per-traffic-class-bandwidth>—Bandwidth to reserve.</p>

<bandwidth> (configuration/logical-systems/protocols/mpls)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mpls>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </mpls>
 </protocols>
 </logical-systems>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

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

Usage <configuration>
 <logical-systems>
 <protocols>
 <mpls>
 <label-switched-path>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </label-switched-path>
 </mpls>
 </protocols>
 </logical-systems>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/logical-systems/protocols/mpls/label-switched-path/primary)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mpls>
 <label-switched-path>
 <primary>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </primary>
 </label-switched-path>
 </mpls>
 </protocols>
 </logical-systems>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

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

Usage <configuration>
 <logical-systems>
 <protocols>
 <mpls>
 <label-switched-path>
 <secondary>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </secondary>
 </label-switched-path>
 </mpls>
 </protocols>
 </logical-systems>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/logical-systems/protocols/rsvp/interface/link-protection)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <rsvp>
        <interface>
          <link-protection>
            <bandwidth>
              <per-traffic-class-bandwidth>bps</per-traffic-class-bandwidth>
              <ct0>bps</ct0>
              <ct1>bps</ct1>
              <ct2>bps</ct2>
              <ct3>bps</ct3>
            </bandwidth>
          </link-protection>
        </interface>
      </rsvp>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bandwidth for each bypass.

Contents

- <ct0>—Bandwidth from traffic class 0.
- <ct1>—Bandwidth from traffic class 1.
- <ct2>—Bandwidth from traffic class 2.
- <ct3>—Bandwidth from traffic class 3.
- <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/logical-systems/protocols/rsvp/ interface/link-protection/bypass)

Usage <configuration>
 <logical-systems>
 <protocols>
 <rsvp>
 <interface>
 <link-protection>
 <bypass>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </bypass>
 </link-protection>
 </interface>
 </rsvp>
 </protocols>
 </logical-systems>
 </configuration>

Description Bandwidth for each bypass.

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/logical-systems/routing-instances/instance/routing-options/multicast/flow-map)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <routing-options>
 <multicast>
 <flow-map>
 <bandwidth>
 <bandwidth-value>*bps*</bandwidth-value>
 <adaptive/>
 </bandwidth>
 </flow-map>
 </multicast>
 </routing-options>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bandwidth properties for matched flows.

Contents <adaptive>—Auto-sense bandwidth for matched flows.

<bandwidth-value>—Static or default bandwidth for the matched flows.

<bandwidth> (configuration/logical-systems/routing-options/multicast/flow-map)

Usage <configuration>
 <logical-systems>
 <routing-options>
 <multicast>
 <flow-map>
 <bandwidth>
 <bandwidth-value>*bps*</bandwidth-value>
 <adaptive/>
 </bandwidth>
 </flow-map>
 </multicast>
 </routing-options>
 </logical-systems>
</configuration>

Description Bandwidth properties for matched flows.

Contents <adaptive>—Auto-sense bandwidth for matched flows.

<bandwidth-value>—Static or default bandwidth for the matched flows.

<bandwidth> (configuration/protocols/l2circuit/neighbor/ interface)

Usage <configuration>
 <protocols>
 <l2circuit>
 <neighbor>
 <interface>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </interface>
 </neighbor>
 </l2circuit>
 </protocols>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/protocols/mpls)

Usage <configuration>
 <protocols>
 <mpls>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </mpls>
 </protocols>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.

 <ct1>—Bandwidth from traffic class 1.

 <ct2>—Bandwidth from traffic class 2.

 <ct3>—Bandwidth from traffic class 3.

 <per-traffic-class-bandwidth>—Bandwidth to reserve.

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

Usage <configuration>
 <protocols>
 <mpls>
 <label-switched-path>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </label-switched-path>
 </mpls>
 </protocols>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/protocols/mpls/label-switched-path/primary)

Usage <configuration>
 <protocols>
 <mpls>
 <label-switched-path>
 <primary>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </primary>
 </label-switched-path>
 </mpls>
 </protocols>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

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

Usage <configuration>
 <protocols>
 <mpls>
 <label-switched-path>
 <secondary>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </secondary>
 </label-switched-path>
 </mpls>
 </protocols>
 </configuration>

Description Bandwidth to reserve (bps).

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/protocols/rsvp/interface/link-protection)

Usage <configuration>
 <protocols>
 <rsvp>
 <interface>
 <link-protection>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </link-protection>
 </interface>
 </rsvp>
 </protocols>
 </configuration>

Description Bandwidth for each bypass.

Contents <ct0>—Bandwidth from traffic class 0.

 <ct1>—Bandwidth from traffic class 1.

 <ct2>—Bandwidth from traffic class 2.

 <ct3>—Bandwidth from traffic class 3.

 <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/protocols/rsvp/interface/link-protection/bypass)

Usage <configuration>
 <protocols>
 <rsvp>
 <interface>
 <link-protection>
 <bypass>
 <bandwidth>
 <per-traffic-class-bandwidth>*bps*</per-traffic-class-bandwidth>
 <ct0>*bps*</ct0>
 <ct1>*bps*</ct1>
 <ct2>*bps*</ct2>
 <ct3>*bps*</ct3>
 </bandwidth>
 </bypass>
 </link-protection>
 </interface>
 </rsvp>
 </protocols>
 </configuration>

Description Bandwidth for each bypass.

Contents <ct0>—Bandwidth from traffic class 0.
 <ct1>—Bandwidth from traffic class 1.
 <ct2>—Bandwidth from traffic class 2.
 <ct3>—Bandwidth from traffic class 3.
 <per-traffic-class-bandwidth>—Bandwidth to reserve.

<bandwidth> (configuration/routing-instances/instance/routing-options/multicast/flow-map)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <multicast>
 <flow-map>
 <bandwidth>
 <bandwidth-value>*bps*</bandwidth-value>
 <adaptive/>
 </bandwidth>
 </flow-map>
 </multicast>
 </routing-options>
 </instance>
 </routing-instances>
 </configuration>

Description Bandwidth properties for matched flows.

Contents <adaptive>—Auto-sense bandwidth for matched flows.

<bandwidth-value>—Static or default bandwidth for the matched flows.

<bandwidth> (configuration/routing-options/multicast/flow-map)

Usage <configuration>
 <routing-options>
 <multicast>
 <flow-map>
 <bandwidth>
 <bandwidth-value>*bps*</bandwidth-value>
 <adaptive/>
 </bandwidth>
 </flow-map>
 </multicast>
 </routing-options>
 </configuration>

Description Bandwidth properties for matched flows.

Contents <adaptive>—Auto-sense bandwidth for matched flows.

<bandwidth-value>—Static or default bandwidth for the matched flows.

<bandwidth-constraint> (configuration/services/ggsn/apn)

Usage	<pre> <configuration> <services> <ggsn> <apn> <bandwidth-constraint> <name>name</name> <!-- identifier --> <limit>kilobits</limit> <!-- mandatory --> </bandwidth-constraint> </apn> </ggsn> </services> </configuration> </pre>
Description	APN bandwidth constraints.
Contents	<p><limit>—Limit for traffic.</p> <p><name>—Type of traffic to limit.</p> <ul style="list-style-type: none"> ■ af1—Assured forwarding class 1. ■ af2—Assured forwarding class 2. ■ ef—Expedited forwarding.

<bandwidth-constraint> (configuration/services/ggsn/gtp)

Usage	<pre> <configuration> <services> <ggsn> <gtp> <bandwidth-constraint> <name>name</name> <!-- identifier --> <limit>kilobits</limit> <!-- mandatory --> </bandwidth-constraint> </gtp> </ggsn> </services> </configuration> </pre>
Description	SGSN-GGSN bandwidth constraints.
Contents	<p><limit>—Limit for traffic.</p> <p><name>—Type of traffic to limit.</p> <ul style="list-style-type: none"> ■ af1—Assured forwarding class 1. ■ af2—Assured forwarding class 2. ■ ef—Expedited forwarding.

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

Usage <configuration>
 <services>
 <ggsn>
 <apn>
 <service-based-charging>
 <bandwidth-control>
 <throughput-limitation>...</throughput-limitation>
 </bandwidth-control>
 </service-based-charging>
 </apn>
 </ggsn>
 </services>
 </configuration>

Description Bandwidth control settings.

Contents <throughput-limitation>—Throughput limitation per context and service-id.

<bandwidth-control> (configuration/services/ggsn/rule-space)

Usage <configuration>
 <services>
 <ggsn>
 <rule-space>
 <bandwidth-control>
 <throughput-limitation>...</throughput-limitation>
 </bandwidth-control>
 </rule-space>
 </ggsn>
 </services>
 </configuration>

Description Bandwidth control settings.

Contents <throughput-limitation>—Throughput limitation per context and service-id.

<bandwidth-threshold> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet/address/vrrp-group/track/interface)

Usage

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <address>
                <vrrp-group>
                  <track>
                    <interface>
                      <bandwidth-threshold>
                        <name>bits per second
                        </name>    <!-- identifier -->
                        <priority-cost>priority-cost
                        </priority-cost>    <!-- mandatory -->
                      </bandwidth-threshold>
                    </interface>
                  </track>
                </vrrp-group>
              </address>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

Description Track bandwidth of interface.

Contents <name>—Interface speed below which priority cost is incurred.

<priority-cost>—Value subtracted from priority when bandwidth is below threshold.

<bandwidth-threshold> (configuration/dynamic-profiles/interfaces/interface/unit/family/inet6/address/vrrp-inet6-group/track/interface)

Usage

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet6>
              <address>
                <vrrp-inet6-group>
                  <track>
                    <interface>
                      <bandwidth-threshold>
                        <name>bits per second</name> <!-- identifier -->
                        <priority-cost>priority-cost
                          </priority-cost> <!-- mandatory -->
                      </bandwidth-threshold>
                    </interface>
                  </track>
                </vrrp-inet6-group>
              </address>
            </inet6>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

Description Track bandwidth of interface.

Contents

- <name>—Interface speed below which priority cost is incurred.
- <priority-cost>—Value subtracted from priority when bandwidth is below threshold.

<bandwidth-threshold> (configuration/interfaces/interface/unit/family/inet/address/vrrp-group/track/interface)

Usage

```

<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <address>
              <vrrp-group>
                <track>
                  <interface>
                    <bandwidth-threshold>
                      <name>bits per second</name>    <!-- identifier -->
                      <priority-cost>priority-cost</priority-cost>    <!-- mandatory -->
                    </bandwidth-threshold>
                  </interface>
                </track>
              </vrrp-group>
            </address>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>

```

Description Track bandwidth of interface.

Contents <name>—Interface speed below which priority cost is incurred.

<priority-cost>—Value subtracted from priority when bandwidth is below threshold.

<bandwidth-threshold> (configuration/interfaces/interface/unit/family/inet6/address/vrrp-inet6-group/track/interface)

Usage

```

<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <address>
              <vrrp-inet6-group>
                <track>
                  <interface>
                    <bandwidth-threshold>
                      <name>bits per second</name>    <!-- identifier -->
                      <priority-cost>priority-cost</priority-cost>    <!-- mandatory -->
                    </bandwidth-threshold>
                  </interface>
                </track>
              </vrrp-inet6-group>
            </address>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>

```

Description Track bandwidth of interface.

Contents

- <name>—Interface speed below which priority cost is incurred.
- <priority-cost>—Value subtracted from priority when bandwidth is below threshold.

<bandwidth-threshold> (configuration/logical-systems/interfaces/ interface/unit/family/inet/address/vrrp-group/track/interface)

Usage <configuration>
 <logical-systems>
 <interfaces>
 <interface>
 <unit>
 <family>
 <inet>
 <address>
 <vrrp-group>
 <track>
 <interface>
 <bandwidth-threshold>
 <name>*bits per second*</name> <!-- identifier -->
 <priority-cost>*priority-cost*</priority-cost> <!-- mandatory -->
 </bandwidth-threshold>
 </interface>
 </track>
 </vrrp-group>
 </address>
 </inet>
 </family>
 </unit>
 </interface>
 </interfaces>
 </logical-systems>
 </configuration>

Description Track bandwidth of interface.

Contents <name>—Interface speed below which priority cost is incurred.

 <priority-cost>—Value subtracted from priority when bandwidth is below threshold.

<bandwidth-threshold> (configuration/logical-systems/interfaces/interface/unit/family/inet6/address/vrrp-inet6-group/track/interface)

Usage

```

<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet6>
              <address>
                <vrrp-inet6-group>
                  <track>
                    <interface>
                      <bandwidth-threshold>
                        <name>bits per second</name>    <!-- identifier -->
                        <priority-cost>priority-cost</priority-cost> <!-- mandatory -->
                      </bandwidth-threshold>
                    </interface>
                  </track>
                </vrrp-inet6-group>
              </address>
            </inet6>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>

```

Description Track bandwidth of interface.

Contents <name>—Interface speed below which priority cost is incurred.

<priority-cost>—Value subtracted from priority when bandwidth is below threshold.

<bas-ctn> (configuration/load-update-test)

Usage

```

<configuration>
  <load-update-test>
    <bas-ctn>
      <name>name</name>    <!-- identifier -->
    </bas-ctn>
  </load-update-test>
</configuration>

```

Description No documentation is available yet.

Contents <name>—No documentation is available yet.

<base-root> (configuration/services/pgcp/gateway/h248-properties)

Usage <configuration>
 <services>
 <pgcp>
 <gateway>
 <h248-properties>
 <base-root>
 <normal-mg-execution-time>...</normal-mg-execution-time>
 <mg-provisional-response-timer-value>...
 </mg-provisional-response-timer-value>
 <mg-originated-pending-limit>...</mg-originated-pending-limit>
 <normal-mgc-execution-time>...</normal-mgc-execution-time>
 <mgc-provisional-response-timer-value>...
 </mgc-provisional-response-timer-value>
 <mgc-originated-pending-limit>...</mgc-originated-pending-limit>
 </base-root>
 </h248-properties>
 </gateway>
 </pgcp>
 </services>
 </configuration>

Description Setting H248 mg-mgc transaction time values.

Contents <mg-originated-pending-limit>—Max MG TransactionPendings num recieved.

<mg-provisional-response-timer-value>—MG pending response time upon incomplete transaction.

<mgc-originated-pending-limit>—Max MGC TransactionPendings num recieved.

<mgc-provisional-response-timer-value>—MGC pending response time upon incomplete transaction.

<normal-mg-execution-time>—MG transaction response time expected by MGC.

<normal-mgc-execution-time>—MGC transaction response time expected by MG.

<ber-sd> (configuration/dynamic-profiles/interfaces/interface/sonet-options/trigger)

Usage	<pre> <configuration> <dynamic-profiles> <interfaces> <interface> <sonet-options> <trigger> <ber-sd> <ignore/> <hold-time>...</hold-time> </ber-sd> </trigger> </sonet-options> </interface> </interfaces> </dynamic-profiles> </configuration> </pre>
Description	BER-SD defect trigger.
Contents	<p><hold-time>—Delay before marking interface up or down for defect.</p> <p><ignore>—Ignore the defect.</p>

<ber-sd> (configuration/interfaces/interface/sonet-options/trigger)

Usage	<pre> <configuration> <interfaces> <interface> <sonet-options> <trigger> <ber-sd> <ignore/> <hold-time>...</hold-time> </ber-sd> </trigger> </sonet-options> </interface> </interfaces> </configuration> </pre>
Description	BER-SD defect trigger.
Contents	<p><hold-time>—Delay before marking interface up or down for defect.</p> <p><ignore>—Ignore the defect.</p>

<ber-sf> (configuration/dynamic-profiles/interfaces/interface/sonet-options/trigger)

Usage <configuration>
 <dynamic-profiles>
 <interfaces>
 <interface>
 <sonet-options>
 <trigger>
 <ber-sf>
 <ignore/>
 <hold-time>...</hold-time>
 </ber-sf>
 </trigger>
 </sonet-options>
 </interface>
 </interfaces>
 </dynamic-profiles>
 </configuration>

Description BER-SF defect trigger.

Contents <hold-time>—Delay before marking interface up or down for defect.
 <ignore>—Ignore the defect.

<ber-sf> (configuration/interfaces/interface/sonet-options/trigger)

Usage <configuration>
 <interfaces>
 <interface>
 <sonet-options>
 <trigger>
 <ber-sf>
 <ignore/>
 <hold-time>...</hold-time>
 </ber-sf>
 </trigger>
 </sonet-options>
 </interface>
 </interfaces>
 </configuration>

Description BER-SF defect trigger.

Contents <hold-time>—Delay before marking interface up or down for defect.
 <ignore>—Ignore the defect.

<best-effort> (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>
                <best-effort>
                  <base-quota>base-quota</base-quota>
                  <bandwidth-factor>bandwidth-factor</bandwidth-factor>
                </best-effort>
              </request-quota>
            </profile>
          </credit-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>

```

Description Quota settings for best effort traffic.

Contents <bandwidth-factor>—Bandwidth scaling factor.

<base-quota>—Requested base quota.

<bfd> (configuration/logical-systems/protocols)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <bfd>
        <traceoptions>...</traceoptions>
        <no-issu-timer-negotiation/>
      </bfd>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <no-issu-timer-negotiation>—Disable ISSU timer negotiation.

<traceoptions>—Trace options for BFD.

<bfd> (configuration/protocols)

Usage <configuration>
 <protocols>
 <bfd>
 <traceoptions>...</traceoptions>
 <no-issu-timer-negotiation/>
 </bfd>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <no-issu-timer-negotiation>—Disable ISSU timer negotiation.

 <traceoptions>—Trace options for BFD.

<bfd-liveness-detection> (configuration/logical-systems/protocols/bgp)

Usage <configuration>
 <logical-systems>
 <protocols>
 <bgp>
 <bfd-liveness-detection>
 <version>version-choice</version>
 <minimum-interval>milliseconds</minimum-interval>
 <minimum-receive-interval>milliseconds</minimum-receive-interval>
 <multiplier>multiplier</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <holddown-interval>milliseconds</holddown-interval>
 </bfd-liveness-detection>
 </bgp>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage <configuration>
 <logical-systems>
 <protocols>
 <bgp>
 <group>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <holddown-interval>*milliseconds*</holddown-interval>
 </bfd-liveness-detection>
 </group>
 </bgp>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/bgp/group/neighbor)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <holddown-interval>milliseconds</holddown-interval>
            </bfd-liveness-detection>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/isis/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <isis>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </isis>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/ldp/oam)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <oam>
          <bfd-liveness-detection>
            <version>version-choice</version>
            <minimum-interval>milliseconds</minimum-interval>
            <minimum-receive-interval>milliseconds</minimum-receive-interval>
            <multiplier>multiplier</multiplier>
            <no-adaptation/>
            <transmit-interval>...</transmit-interval>
            <detection-time>...</detection-time>
            <ecmp/>
          </bfd-liveness-detection>
        </oam>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<ecmp>—Enable equal cost multipath (ECMP) support for BFD.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/ldp/oam/fec)

Usage <configuration>
 <logical-systems>
 <protocols>
 <ldp>
 <oam>
 <fec>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <ecmp/>
 </bfd-liveness-detection>
 </fec>
 </oam>
 </ldp>
 </protocols>
 </logical-systems>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<ecmp>—Enable equal cost multipath (ECMP) support for BFD.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/mpls/label-switched-path/oam)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <oam>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <failure-action>...</failure-action>
            </bfd-liveness-detection>
          </oam>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<failure-action>—Action to take when BFD session goes down.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/mpls/label-switched-path/primary/oam)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mpls>
 <label-switched-path>
 <primary>
 <oam>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <failure-action>...</failure-action>
 </bfd-liveness-detection>
 </oam>
 </primary>
 </label-switched-path>
 </mpls>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<failure-action>—Action to take when BFD session goes down.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/mpls/label-switched-path/secondary/oam)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <secondary>
            <oam>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
                <failure-action>...</failure-action>
              </bfd-liveness-detection>
            </oam>
          </secondary>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<failure-action>—Action to take when BFD session goes down.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/mpls/oam)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mpls>
 <oam>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <failure-action>...</failure-action>
 </bfd-liveness-detection>
 </oam>
 </mpls>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<failure-action>—Action to take when BFD session goes down.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/ospf/area/interface)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <ospf>
        <area>
          <interface>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
            </bfd-liveness-detection>
          </interface>
        </area>
      </ospf>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/ospf3/area/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <ospf3>
 <area>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </area>
 </ospf3>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/ospf3/realm/area/interface)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <ospf3>
        <realm>
          <area>
            <interface>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
              </bfd-liveness-detection>
            </interface>
          </area>
        </realm>
      </ospf3>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/pim/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <pim>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </pim>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage <configuration>
 <logical-systems>
 <protocols>
 <rip>
 <group>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </group>
 </rip>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/protocols/rip/group/neighbor)

Usage <configuration>
 <logical-systems>
 <protocols>
 <rip>
 <group>
 <neighbor>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </neighbor>
 </group>
 </rip>
 </protocols>
 </logical-systems>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/protocols/bgp)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <holddown-interval>milliseconds</holddown-interval>
            </bfd-liveness-detection>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <group>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <holddown-interval>*milliseconds*</holddown-interval>
 </bfd-liveness-detection>
 </group>
 </bgp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/ routing-instances/instance/protocols/bgp/group/neighbor)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <bfd-liveness-detection>
                  <version>version-choice</version>
                  <minimum-interval>milliseconds
                    </minimum-interval>
                  <minimum-receive-interval>milliseconds
                    </minimum-receive-interval>
                  <multiplier>multiplier</multiplier>
                  <no-adaptation/>
                  <transmit-interval>...</transmit-interval>
                  <detection-time>...</detection-time>
                  <holddown-interval>milliseconds</holddown-interval>
                </bfd-liveness-detection>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents

- <detection-time>—Detection-time options.
- <holddown-interval>—Time to hold the session-UP notification to the client.
- <minimum-interval>—Minimum transmit and receive interval.
- <minimum-receive-interval>—Minimum receive interval.
- <multiplier>—Detection time multiplier.
- <no-adaptation>—Disable adaptation.
- <transmit-interval>—Transmit-interval options.
- <version>—BFD protocol version number.
 - 0—BFD version 0 (deprecated).
 - 1—BFD version 1.
 - automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/protocols/isis/interface)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <isis>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </isis>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/protocols/ldp/oam)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <oam>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
                <ecmp/>
              </bfd-liveness-detection>
            </oam>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents

- <detection-time>—Detection-time options.
- <ecmp>—Enable equal cost multipath (ECMP) support for BFD.
- <minimum-interval>—Minimum transmit and receive interval.
- <minimum-receive-interval>—Minimum receive interval.
- <multiplier>—Detection time multiplier.
- <no-adaptation>—Disable adaptation.
- <transmit-interval>—Transmit-interval options.
- <version>—BFD protocol version number.
 - 0—BFD version 0 (deprecated).
 - 1—BFD version 1.
 - automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/protocols/ldp/oam/fec)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <ldp>
 <oam>
 <fec>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*
 </minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <ecmp/>
 </bfd-liveness-detection>
 </fec>
 </oam>
 </ldp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<ecmp>—Enable equal cost multipath (ECMP) support for BFD.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/protocols/ospf/area/interface)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf>
            <area>
              <interface>
                <bfd-liveness-detection>
                  <version>version-choice</version>
                  <minimum-interval>milliseconds</minimum-interval>
                  <minimum-receive-interval>milliseconds
                    </minimum-receive-interval>
                  <multiplier>multiplier</multiplier>
                  <no-adaptation/>
                  <transmit-interval>...</transmit-interval>
                  <detect-time>...</detect-time>
                </bfd-liveness-detection>
              </interface>
            </area>
          </ospf>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents

- <detect-time>—Detection-time options.
- <minimum-interval>—Minimum transmit and receive interval.
- <minimum-receive-interval>—Minimum receive interval.
- <multiplier>—Detection time multiplier.
- <no-adaptation>—Disable adaptation.
- <transmit-interval>—Transmit-interval options.
- <version>—BFD protocol version number.
 - 0—BFD version 0 (deprecated).
 - 1—BFD version 1.
 - automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/ routing-instances/instance/protocols/ospf3/area/interface)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <ospf3>
 <area>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*
 </minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detect-time>...</detect-time>
 </bfd-liveness-detection>
 </interface>
 </area>
 </ospf3>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detect-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- *automatic*—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/protocols/ospf3/realm/area/interface)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf3>
            <realm>
              <area>
                <interface>
                  <bfd-liveness-detection>
                    <version>version-choice</version>
                    <minimum-interval>milliseconds</minimum-interval>
                    <minimum-receive-interval>milliseconds
                      </minimum-receive-interval>
                    <multiplier>multiplier</multiplier>
                    <no-adaptation/>
                    <transmit-interval>...</transmit-interval>
                    <detection-time>...</detection-time>
                  </bfd-liveness-detection>
                </interface>
              </area>
            </realm>
          </ospf3>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/protocols/pim/interface)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <rip>
            <group>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
              </bfd-liveness-detection>
            </group>
          </rip>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/ routing-instances/instance/protocols/rip/group/neighbor)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <rip>
 <group>
 <neighbor>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*
 </minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detect-time>...</detect-time>
 </bfd-liveness-detection>
 </neighbor>
 </group>
 </rip>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detect-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (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>
                <bfd-liveness-detection>
                  <version>version-choice</version>
                  <minimum-interval>milliseconds</minimum-interval>
                  <minimum-receive-interval>milliseconds
                    </minimum-receive-interval>
                  <multiplier>multiplier</multiplier>
                  <no-adaptation/>
                  <transmit-interval>...</transmit-interval>
                  <detection-time>...</detection-time>
                  <neighbor>neighbor</neighbor>
                  <local-address>local-address</local-address>
                  <holddown-interval>milliseconds</holddown-interval>
                  <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
                </bfd-liveness-detection>
              </iso-route>
            </static>
          </rib>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <rib>
            <static>
              <iso-route>
                <qualified-next-hop>
                  <bfd-liveness-detection>
                    <version>version-choice</version>
                    <minimum-interval>milliseconds</minimum-interval>
                    <minimum-receive-interval>milliseconds
                      </minimum-receive-interval>
                    <multiplier>multiplier</multiplier>
                    <no-adaptation/>
                    <transmit-interval>...</transmit-interval>
                    <detection-time>...</detection-time>
                    <neighbor>neighbor</neighbor>
                    <local-address>local-address</local-address>
                    <holddown-interval>milliseconds</holddown-interval>
                    <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
                  </bfd-liveness-detection>
                </qualified-next-hop>
              </iso-route>
            </static>
          </rib>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/routing-options/rib/static/route)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <rib>
            <static>
              <route>
                <bfd-liveness-detection>
                  <version>version-choice</version>
                  <minimum-interval>milliseconds</minimum-interval>
                  <minimum-receive-interval>milliseconds
                    </minimum-receive-interval>
                  <multiplier>multiplier</multiplier>
                  <no-adaptation/>
                  <transmit-interval>...</transmit-interval>
                  <detection-time>...</detection-time>
                  <neighbor>neighbor</neighbor>
                  <local-address>local-address</local-address>
                  <holddown-interval>milliseconds</holddown-interval>
                  <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
                </bfd-liveness-detection>
              </route>
            </static>
          </rib>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <rib>
            <static>
              <route>
                <qualified-next-hop>
                  <bfd-liveness-detection>
                    <version>version-choice</version>
                    <minimum-interval>milliseconds</minimum-interval>
                    <minimum-receive-interval>milliseconds
                      </minimum-receive-interval>
                    <multiplier>multiplier</multiplier>
                    <no-adaptation/>
                    <transmit-interval>...</transmit-interval>
                    <detection-time>...</detection-time>
                    <neighbor>neighbor</neighbor>
                    <local-address>local-address</local-address>
                    <holddown-interval>milliseconds</holddown-interval>
                    <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
                  </bfd-liveness-detection>
                </qualified-next-hop>
              </route>
            </static>
          </rib>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/ routing-instances/instance/routing-options/static/iso-route)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <routing-options>
 <static>
 <iso-route>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </iso-route>
 </static>
 </routing-options>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <static>
            <iso-route>
              <qualified-next-hop>
                <bfd-liveness-detection>
                  <version>version-choice</version>
                  <minimum-interval>milliseconds</minimum-interval>
                  <minimum-receive-interval>milliseconds
                    </minimum-receive-interval>
                  <multiplier>multiplier</multiplier>
                  <no-adaptation/>
                  <transmit-interval>...</transmit-interval>
                  <detection-time>...</detection-time>
                  <neighbor>neighbor</neighbor>
                  <local-address>local-address</local-address>
                  <holddown-interval>milliseconds</holddown-interval>
                  <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
                </bfd-liveness-detection>
              </qualified-next-hop>
            </iso-route>
          </static>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-instances/instance/routing-options/static/route)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <static>
            <route>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
                <neighbor>neighbor</neighbor>
                <local-address>local-address</local-address>
                <holddown-interval>milliseconds</holddown-interval>
                <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
              </bfd-liveness-detection>
            </route>
          </static>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents

- <detection-time>—Detection-time options.
- <holddown-interval>—Time to hold the session-UP notification to the client.
- <local-address>—BFD local address (for multihop only).
- <minimum-interval>—Minimum transmit and receive interval.
- <minimum-receive-interval>—Minimum receive interval.
- <minimum-receive-ttl>—Minimum receive TTL below which to drop.
- <multiplier>—Detection time multiplier.
- <neighbor>—BFD neighbor address.
- <no-adaptation>—Disable adaptation.
- <transmit-interval>—Transmit-interval options.
- <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- **automatic**—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <static>
            <route>
              <qualified-next-hop>
                <bfd-liveness-detection>
                  <version>version-choice</version>
                  <minimum-interval>milliseconds</minimum-interval>
                  <minimum-receive-interval>milliseconds
                    </minimum-receive-interval>
                  <multiplier>multiplier</multiplier>
                  <no-adaptation/>
                  <transmit-interval>...</transmit-interval>
                  <detection-time>...</detection-time>
                  <neighbor>neighbor</neighbor>
                  <local-address>local-address</local-address>
                  <holddown-interval>milliseconds</holddown-interval>
                  <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
                </bfd-liveness-detection>
              </qualified-next-hop>
            </route>
          </static>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-options/rib/static/iso-route)

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <rib>
        <static>
          <iso-route>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <neighbor>neighbor</neighbor>
              <local-address>local-address</local-address>
              <holddown-interval>milliseconds</holddown-interval>
              <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
            </bfd-liveness-detection>
          </iso-route>
        </static>
      </rib>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).

- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <rib>
        <static>
          <iso-route>
            <qualified-next-hop>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
                <neighbor>neighbor</neighbor>
                <local-address>local-address</local-address>
                <holddown-interval>milliseconds</holddown-interval>
                <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
              </bfd-liveness-detection>
            </qualified-next-hop>
          </iso-route>
        </static>
      </rib>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents

- <detection-time>—Detection-time options.
- <holddown-interval>—Time to hold the session-UP notification to the client.
- <local-address>—BFD local address (for multihop only).
- <minimum-interval>—Minimum transmit and receive interval.
- <minimum-receive-interval>—Minimum receive interval.
- <minimum-receive-ttl>—Minimum receive TTL below which to drop.
- <multiplier>—Detection time multiplier.
- <neighbor>—BFD neighbor address.
- <no-adaptation>—Disable adaptation.
- <transmit-interval>—Transmit-interval options.
- <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- **automatic**—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-options/rib/static/route)

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <rib>
        <static>
          <route>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <neighbor>neighbor</neighbor>
              <local-address>local-address</local-address>
              <holddown-interval>milliseconds</holddown-interval>
              <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
            </bfd-liveness-detection>
          </route>
        </static>
      </rib>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- **automatic**—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <rib>
        <static>
          <route>
            <qualified-next-hop>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
                <neighbor>neighbor</neighbor>
                <local-address>local-address</local-address>
                <holddown-interval>milliseconds</holddown-interval>
                <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
              </bfd-liveness-detection>
            </qualified-next-hop>
          </route>
        </static>
      </rib>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents

- <detection-time>—Detection-time options.
- <holddown-interval>—Time to hold the session-UP notification to the client.
- <local-address>—BFD local address (for multihop only).
- <minimum-interval>—Minimum transmit and receive interval.
- <minimum-receive-interval>—Minimum receive interval.
- <minimum-receive-ttl>—Minimum receive TTL below which to drop.
- <multiplier>—Detection time multiplier.
- <neighbor>—BFD neighbor address.
- <no-adaptation>—Disable adaptation.
- <transmit-interval>—Transmit-interval options.
- <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- **automatic**—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-options/static/iso-route)

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <static>
        <iso-route>
          <bfd-liveness-detection>
            <version>version-choice</version>
            <minimum-interval>milliseconds</minimum-interval>
            <minimum-receive-interval>milliseconds</minimum-receive-interval>
            <multiplier>multiplier</multiplier>
            <no-adaptation/>
            <transmit-interval>...</transmit-interval>
            <detection-time>...</detection-time>
            <neighbor>neighbor</neighbor>
            <local-address>local-address</local-address>
            <holddown-interval>milliseconds</holddown-interval>
            <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
          </bfd-liveness-detection>
        </iso-route>
      </static>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- **automatic**—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <static>
        <iso-route>
          <qualified-next-hop>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <neighbor>neighbor</neighbor>
              <local-address>local-address</local-address>
              <holddown-interval>milliseconds</holddown-interval>
              <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
            </bfd-liveness-detection>
          </qualified-next-hop>
        </iso-route>
      </static>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/logical-systems/routing-options/static/route)

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <static>
        <route>
          <bfd-liveness-detection>
            <version>version-choice</version>
            <minimum-interval>milliseconds</minimum-interval>
            <minimum-receive-interval>milliseconds</minimum-receive-interval>
            <multiplier>multiplier</multiplier>
            <no-adaptation/>
            <transmit-interval>...</transmit-interval>
            <detection-time>...</detection-time>
            <neighbor>neighbor</neighbor>
            <local-address>local-address</local-address>
            <holddown-interval>milliseconds</holddown-interval>
            <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
          </bfd-liveness-detection>
        </route>
      </static>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- **automatic**—Choose BFD version automatically.

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

Usage

```

<configuration>
  <logical-systems>
    <routing-options>
      <static>
        <route>
          <qualified-next-hop>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <neighbor>neighbor</neighbor>
              <local-address>local-address</local-address>
              <holddown-interval>milliseconds</holddown-interval>
              <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
            </bfd-liveness-detection>
          </qualified-next-hop>
        </route>
      </static>
    </routing-options>
  </logical-systems>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents

- <detection-time>—Detection-time options.
- <holddown-interval>—Time to hold the session-UP notification to the client.
- <local-address>—BFD local address (for multihop only).
- <minimum-interval>—Minimum transmit and receive interval.
- <minimum-receive-interval>—Minimum receive interval.
- <minimum-receive-ttl>—Minimum receive TTL below which to drop.
- <multiplier>—Detection time multiplier.
- <neighbor>—BFD neighbor address.
- <no-adaptation>—Disable adaptation.
- <transmit-interval>—Transmit-interval options.
- <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/bgp)

Usage <configuration>
 <protocols>
 <bgp>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <holddown-interval>*milliseconds*</holddown-interval>
 </bfd-liveness-detection>
 </bgp>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/bgp/group)

Usage <configuration>
 <protocols>
 <bgp>
 <group>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <holddown-interval>*milliseconds*</holddown-interval>
 </bfd-liveness-detection>
 </group>
 </bgp>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/bgp/group/neighbor)

Usage <configuration>
 <protocols>
 <bgp>
 <group>
 <neighbor>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <holddown-interval>*milliseconds*</holddown-interval>
 </bfd-liveness-detection>
 </neighbor>
 </group>
 </bgp>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

 <holddown-interval>—Time to hold the session-UP notification to the client.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/isis/interface)

Usage <configuration>
 <protocols>
 <isis>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
</isis>
</protocols>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/ldp/oam)

Usage <configuration>
 <protocols>
 <ldp>
 <oam>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <ecmp/>
 </bfd-liveness-detection>
 </oam>
 </ldp>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<ecmp>—Enable equal cost multipath (ECMP) support for BFD.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/ldp/oam/fec)

Usage

```

<configuration>
  <protocols>
    <ldp>
      <oam>
        <fec>
          <bfd-liveness-detection>
            <version>version-choice</version>
            <minimum-interval>milliseconds</minimum-interval>
            <minimum-receive-interval>milliseconds</minimum-receive-interval>
            <multiplier>multiplier</multiplier>
            <no-adaptation/>
            <transmit-interval>...</transmit-interval>
            <detection-time>...</detection-time>
            <ecmp/>
          </bfd-liveness-detection>
        </fec>
      </oam>
    </ldp>
  </protocols>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<ecmp>—Enable equal cost multipath (ECMP) support for BFD.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/mpls/label-switched-path/oam)

Usage <configuration>
 <protocols>
 <mpls>
 <label-switched-path>
 <oam>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <failure-action>...</failure-action>
 </bfd-liveness-detection>
 </oam>
 </label-switched-path>
 </mpls>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <failure-action>—Action to take when BFD session goes down.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/mpls/label-switched-path/primary/oam)

Usage

```

<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <primary>
          <oam>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <failure-action>...</failure-action>
            </bfd-liveness-detection>
          </oam>
        </primary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<failure-action>—Action to take when BFD session goes down.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/mpls/label-switched-path/secondary/oam)

Usage <configuration>
 <protocols>
 <mpls>
 <label-switched-path>
 <secondary>
 <oam>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <failure-action>...</failure-action>
 </bfd-liveness-detection>
 </oam>
 </secondary>
 </label-switched-path>
 </mpls>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<failure-action>—Action to take when BFD session goes down.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/mpls/oam)

Usage <configuration>
 <protocols>
 <mpls>
 <oam>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <failure-action>...</failure-action>
 </bfd-liveness-detection>
 </oam>
 </mpls>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<failure-action>—Action to take when BFD session goes down.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/ospf/area/ interface)

Usage <configuration>
 <protocols>
 <ospf>
 <area>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </area>
 </ospf>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/ospf3/area/ interface)

Usage <configuration>
 <protocols>
 <ospf3>
 <area>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </area>
 </ospf3>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/ospf3/realm/area/interface)

Usage <configuration>
 <protocols>
 <ospf3>
 <realm>
 <area>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </area>
 </realm>
 </ospf3>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/pim/interface)

Usage <configuration>
 <protocols>
 <pim>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detect-time>...</detect-time>
 </bfd-liveness-detection>
 </interface>
</pim>
</protocols>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detect-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/rip/group)

Usage <configuration>
 <protocols>
 <rip>
 <group>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detect-time>...</detect-time>
 </bfd-liveness-detection>
 </group>
 </rip>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detect-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/protocols/rip/group/neighbor)

Usage <configuration>
 <protocols>
 <rip>
 <group>
 <neighbor>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detect-time>...</detect-time>
 </bfd-liveness-detection>
 </neighbor>
 </group>
 </rip>
 </protocols>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detect-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/bgp)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <holddown-interval>*milliseconds*</holddown-interval>
 </bfd-liveness-detection>
 </bgp>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
              <holddown-interval>milliseconds</holddown-interval>
            </bfd-liveness-detection>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/bgp/group/neighbor)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <bgp>
 <group>
 <neighbor>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <holddown-interval>*milliseconds*</holddown-interval>
 </bfd-liveness-detection>
 </neighbor>
 </group>
 </bgp>
 </protocols>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/isis/interface)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <interface>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
            </bfd-liveness-detection>
          </interface>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/ldp/oam)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <ldp>
 <oam>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <ecmp/>
 </bfd-liveness-detection>
 </oam>
 </ldp>
 </protocols>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<ecmp>—Enable equal cost multipath (ECMP) support for BFD.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/ldp/oam/fec)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <oam>
            <fec>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
                <ecmp/>
              </bfd-liveness-detection>
            </fec>
          </oam>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Bidirectional Forwarding Detection (BFD) options.

Contents

- <detection-time>—Detection-time options.
- <ecmp>—Enable equal cost multipath (ECMP) support for BFD.
- <minimum-interval>—Minimum transmit and receive interval.
- <minimum-receive-interval>—Minimum receive interval.
- <multiplier>—Detection time multiplier.
- <no-adaptation>—Disable adaptation.
- <transmit-interval>—Transmit-interval options.
- <version>—BFD protocol version number.
 - 0—BFD version 0 (deprecated).
 - 1—BFD version 1.
 - automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/ospf/area/interface)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <ospf>
 <area>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </area>
 </ospf>
 </protocols>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/ospf3/area/interface)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <ospf3>
 <area>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </interface>
 </area>
 </ospf3>
 </protocols>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/ospf3/realm/area/interface)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <ospf3>
 <realm>
 <area>
 <interface>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*
 </minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detect-time>...</detect-time>
 </bfd-liveness-detection>
 </interface>
 </area>
 </realm>
 </ospf3>
 </protocols>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection options.

Contents <detect-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/pim/interface)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <interface>
            <bfd-liveness-detection>
              <version>version-choice</version>
              <minimum-interval>milliseconds</minimum-interval>
              <minimum-receive-interval>milliseconds</minimum-receive-interval>
              <multiplier>multiplier</multiplier>
              <no-adaptation/>
              <transmit-interval>...</transmit-interval>
              <detection-time>...</detection-time>
            </bfd-liveness-detection>
          </interface>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <rip>
 <group>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 </bfd-liveness-detection>
 </group>
 </rip>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

 <minimum-interval>—Minimum transmit and receive interval.

 <minimum-receive-interval>—Minimum receive interval.

 <multiplier>—Detection time multiplier.

 <no-adaptation>—Disable adaptation.

 <transmit-interval>—Transmit-interval options.

 <version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/protocols/rip/group/neighbor)

Usage

```

<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <group>
            <neighbor>
              <bfd-liveness-detection>
                <version>version-choice</version>
                <minimum-interval>milliseconds</minimum-interval>
                <minimum-receive-interval>milliseconds</minimum-receive-interval>
                <multiplier>multiplier</multiplier>
                <no-adaptation/>
                <transmit-interval>...</transmit-interval>
                <detection-time>...</detection-time>
              </bfd-liveness-detection>
            </neighbor>
          </group>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>

```

Description Bidirectional Forwarding Detection options.

Contents <detection-time>—Detection-time options.

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<multiplier>—Detection time multiplier.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/routing-options/rib/static/iso-route)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <rib>
 <static>
 <iso-route>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </iso-route>
 </static>
 </rib>
 </routing-options>
 </instance>
</routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <rib>
 <static>
 <iso-route>
 <qualified-next-hop>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*
 </minimum-interval>
 <minimum-receive-interval>*milliseconds*
 </minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detect-time>...</detect-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </rib>
 </routing-options>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detect-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/routing-options/rib/static/route)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <rib>
 <static>
 <route>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </route>
 </static>
 </rib>
 </routing-options>
 </instance>
</routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <rib>
 <static>
 <route>
 <qualified-next-hop>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*
 </minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </qualified-next-hop>
 </route>
 </static>
 </rib>
 </routing-options>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/routing-options/static/iso-route)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <static>
 <iso-route>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </iso-route>
 </static>
 </routing-options>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <static>
 <iso-route>
 <qualified-next-hop>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </routing-options>
 </instance>
</routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-instances/instance/routing-options/static/route)

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <static>
 <route>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </route>
 </static>
 </routing-options>
 </instance>
 </routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

Usage <configuration>
 <routing-instances>
 <instance>
 <routing-options>
 <static>
 <route>
 <qualified-next-hop>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </qualified-next-hop>
 </route>
 </static>
 </routing-options>
 </instance>
</routing-instances>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-options/rib/static/iso-route)

Usage <configuration>
 <routing-options>
 <rib>
 <static>
 <iso-route>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </iso-route>
 </static>
 </rib>
 </routing-options>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

Usage <configuration>
 <routing-options>
 <rib>
 <static>
 <iso-route>
 <qualified-next-hop>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </rib>
 </routing-options>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-options/rib/static/route)

Usage <configuration>
 <routing-options>
 <rib>
 <static>
 <route>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </route>
 </static>
 </rib>
 </routing-options>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

Usage <configuration>
 <routing-options>
 <rib>
 <static>
 <route>
 <qualified-next-hop>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </qualified-next-hop>
 </route>
 </static>
 </rib>
 </routing-options>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-options/static/iso-route)

Usage <configuration>
 <routing-options>
 <static>
 <iso-route>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </iso-route>
 </static>
 </routing-options>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage <configuration>
 <routing-options>
 <static>
 <iso-route>
 <qualified-next-hop>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </qualified-next-hop>
 </iso-route>
 </static>
 </routing-options>
</configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

<bfd-liveness-detection> (configuration/routing-options/static/route)

Usage

```
<configuration>
  <routing-options>
    <static>
      <route>
        <bfd-liveness-detection>
          <version>version-choice</version>
          <minimum-interval>milliseconds</minimum-interval>
          <minimum-receive-interval>milliseconds</minimum-receive-interval>
          <multiplier>multiplier</multiplier>
          <no-adaptation/>
          <transmit-interval>...</transmit-interval>
          <detection-time>...</detection-time>
          <neighbor>neighbor</neighbor>
          <local-address>local-address</local-address>
          <holddown-interval>milliseconds</holddown-interval>
          <minimum-receive-ttl>minimum-receive-ttl</minimum-receive-ttl>
        </bfd-liveness-detection>
      </route>
    </static>
  </routing-options>
</configuration>
```

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- automatic—Choose BFD version automatically.

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

Usage <configuration>
 <routing-options>
 <static>
 <route>
 <qualified-next-hop>
 <bfd-liveness-detection>
 <version>*version-choice*</version>
 <minimum-interval>*milliseconds*</minimum-interval>
 <minimum-receive-interval>*milliseconds*</minimum-receive-interval>
 <multiplier>*multiplier*</multiplier>
 <no-adaptation/>
 <transmit-interval>...</transmit-interval>
 <detection-time>...</detection-time>
 <neighbor>*neighbor*</neighbor>
 <local-address>*local-address*</local-address>
 <holddown-interval>*milliseconds*</holddown-interval>
 <minimum-receive-ttl>*minimum-receive-ttl*</minimum-receive-ttl>
 </bfd-liveness-detection>
 </qualified-next-hop>
 </route>
 </static>
 </routing-options>
 </configuration>

Description Bidirectional Forwarding Detection (BFD) options.

Contents <detection-time>—Detection-time options.

<holddown-interval>—Time to hold the session-UP notification to the client.

<local-address>—BFD local address (for multihop only).

<minimum-interval>—Minimum transmit and receive interval.

<minimum-receive-interval>—Minimum receive interval.

<minimum-receive-ttl>—Minimum receive TTL below which to drop.

<multiplier>—Detection time multiplier.

<neighbor>—BFD neighbor address.

<no-adaptation>—Disable adaptation.

<transmit-interval>—Transmit-interval options.

<version>—BFD protocol version number.

- 0—BFD version 0 (deprecated).
- 1—BFD version 1.
- `automatic`—Choose BFD version automatically.

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

```

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

```

Description BGP options.

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

<advertise-external>—Advertise best external routes.

<advertise-inactive>—Advertise inactive routes.

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

<authentication-algorithm>—Authentication algorithm name.

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

<authentication-key>—MD5 authentication key.

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

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

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<disable>—Disable BGP.

<export>—Export policy.

<family>—Protocol family for NLRI in updates.

<graceful-restart>—BGP graceful restart options.

<group>—Define a peer group.

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

<import>—Import policy.

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

<ipsec-sa>—IPSec SA name.

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

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

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

<local-as>—Local autonomous system number.

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

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

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

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

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

<multihop>—Configure an EBGp multihop session.

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

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

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

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

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

<path-selection>—Configure path selection strategy.

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

<preference>—Preference value.

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

<tcp-mss>—Maximum TCP segment size.

<traceoptions>—Trace options for BGP.

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

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

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

```

    </instance>
  </routing-instances>
</logical-systems>
</configuration>

```

Description BGP options.

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

<advertise-external>—Advertise best external routes.

<advertise-inactive>—Advertise inactive routes.

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

<authentication-algorithm>—Authentication algorithm name.

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

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

- md5—Message Digest 5.

<authentication-key>—MD5 authentication key.

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

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

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<disable>—Disable BGP.

<export>—Export policy.

<family>—Protocol family for NLRI in updates.

<graceful-restart>—BGP graceful restart options.

<group>—Define a peer group.

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

<import>—Import policy.

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

<ipsec-sa>—IPSec SA name.

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

- **all**—Retain all routes.

- **none**—Retain no routes.

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

<local-as>—Local autonomous system number.

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

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

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

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

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

<multihop>—Configure an EBGp multihop session.

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

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

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

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

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

<path-selection>—Configure path selection strategy.

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

<preference>—Preference value.

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

<tcp-mss>—Maximum TCP segment size.

<traceoptions>—Trace options for BGP.

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

<bgp> (configuration/protocols)

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

Description BGP options.

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

next-hop.

<advertise-external>—Advertise best external routes.

<advertise-inactive>—Advertise inactive routes.

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

<authentication-algorithm>—Authentication algorithm name.

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

<authentication-key>—MD5 authentication key.

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

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

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<disable>—Disable BGP.

<export>—Export policy.

<family>—Protocol family for NLRIs in updates.

<graceful-restart>—BGP graceful restart options.

<group>—Define a peer group.

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

<import>—Import policy.

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

<ipsec-sa>—IPSec SA name.

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

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

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

<local-as>—Local autonomous system number.

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

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

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

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

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

<multihop>—Configure an EBGp multihop session.

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

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

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

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

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

<path-selection>—Configure path selection strategy.

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

<preference>—Preference value.

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

<tcp-mss>—Maximum TCP segment size.

<traceoptions>—Trace options for BGP.

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

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

```

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

```


</configuration>

Description BGP options.

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

<advertise-external>—Advertise best external routes.

<advertise-inactive>—Advertise inactive routes.

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

<authentication-algorithm>—Authentication algorithm name.

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

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

- md5—Message Digest 5.

<authentication-key>—MD5 authentication key.

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

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

<cluster>—Cluster identifier.

<damping>—Enable route flap damping.

<description>—Text description.

<disable>—Disable BGP.

<export>—Export policy.

<family>—Protocol family for NLRI in updates.

<graceful-restart>—BGP graceful restart options.

<group>—Define a peer group.

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

<import>—Import policy.

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

<ipsec-sa>—IPSec SA name.

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

- all—Retain all routes.

- none—Retain no routes.

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

<local-as>—Local autonomous system number.

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

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

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

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

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

<multihop>—Configure an EBGp multihop session.

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

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

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

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

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

<path-selection>—Configure path selection strategy.

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

<preference>—Preference value.

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

<tcp-mss>—Maximum TCP segment size.

<traceoptions>—Trace options for BGP.

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

<bgp> (configuration/services/rpm)

Usage <configuration>
 <services>
 <rpm>
 <bgp>
 <probe-type>*probe-type-choice*</probe-type>
 <probe-count>*probe-count*</probe-count>
 <probe-interval>*seconds*</probe-interval>
 <test-interval>*seconds*</test-interval>
 <destination-port>*destination-port*</destination-port>
 <history-size>*history-size*</history-size>
 <moving-average-size>*moving-average-size*</moving-average-size>
 <data-size>*data-size*</data-size>
 <data-fill>*data-fill*</data-fill>
 <logical-system>...</logical-system>
 <routing-instances>...</routing-instances>
 </bgp>
 </rpm>
 </services>
 </configuration>

Description BGP options for real-time performance monitoring.

Contents <data-fill>—Define contents of the data portion of the probes.

<data-size>—Size of the data portion of the probes.

<destination-port>—TCP/UDP port number 7, 49160 through 65535.

<history-size>—Number of stored history entries.

<logical-system>—Logical systems.

<moving-average-size>—Number of samples used for moving average.

<probe-count>—Total number of probes per test.

<probe-interval>—Delay between probes.

<probe-type>—RPM-BGP probe request type.

- icmp-ping—Send ICMP echo request to target address.
- icmp-ping-timestamp—Send ICMP timestamp request to target address.
- tcp-ping—Send TCP packets to target.
- udp-ping—Send UDP packets to target.
- udp-ping-timestamp—Send UDP packets with timestamp to target.

<routing-instances>—Routing instances.

<test-interval>—Delay between tests.

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

Description Include number of blocks.

Contents <include-rate>—Include block-based rate.

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

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

Usage <configuration>
 <services>
 <ggsn>
 <apn>
 <service-based-charging>
 <block-based-charging>
 <profile>...</profile>
 </block-based-charging>
 </service-based-charging>
 </apn>
 </ggsn>
 </services>
</configuration>

Description Block-based charging.

Contents <profile>—Block-based charging profile.

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

Usage <configuration>
 <forwarding-options>
 <helpers>
 <bootp>
 <relay-agent-option/>
 <dhcp-option82>...</dhcp-option82>
 <description>*description*</description>
 <server>...</server>
 <maximum-hop-count>*maximum-hop-count*</maximum-hop-count>
 <minimum-wait-time>*minimum-wait-time*</minimum-wait-time>
 <client-response-ttl>*client-response-ttl*</client-response-ttl>
 <vpn/>
 <interface>...</interface>
 </bootp>
 </helpers>
 </forwarding-options>
 </configuration>

Description Incoming BOOTP/DHCP request forwarding configuration.

Contents <client-response-ttl>—IP time-to-live value to set in responses to client.

<description>—Text description of servers.

<dhcp-option82>—Configure DHCP option 82.

<interface>—Incoming BOOTP/DHCP request forwarding interface configuration.

<maximum-hop-count>—Maximum number of hops per packet.

<minimum-wait-time>—Minimum number of seconds before requests are forwarded.

<relay-agent-option>—Use DHCP Relay Agent option in relayed BOOTP/DHCP messages.

<server>—Server information.

<vpn>—Enable vpn encryption .

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

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <helpers>
            <bootp>
              <relay-agent-option/>
              <dhcp-option82>...</dhcp-option82>
              <description>description</description>
              <server>...</server>
              <maximum-hop-count>maximum-hop-count</maximum-hop-count>
              <minimum-wait-time>minimum-wait-time</minimum-wait-time>
              <client-response-ttl>client-response-ttl</client-response-ttl>
              <vpn/>
              <interface>...</interface>
            </bootp>
          </helpers>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Incoming BOOTP/DHCP request forwarding configuration.

Contents <client-response-ttl>—IP time-to-live value to set in responses to client.

<description>—Text description of servers.

<dhcp-option82>—Configure DHCP option 82.

<interface>—Incoming BOOTP/DHCP request forwarding interface configuration.

<maximum-hop-count>—Maximum number of hops per packet.

<minimum-wait-time>—Minimum number of seconds before requests are forwarded.

<relay-agent-option>—Use DHCP Relay Agent option in relayed BOOTP/DHCP messages.

<server>—Server information.

<vpn>—Enable vpn encryption .

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

Usage <configuration>
 <routing-instances>
 <instance>
 <forwarding-options>
 <helpers>
 <bootp>
 <relay-agent-option/>
 <dhcp-option82>...</dhcp-option82>
 <description>*description*</description>
 <server>...</server>
 <maximum-hop-count>*maximum-hop-count*</maximum-hop-count>
 <minimum-wait-time>*minimum-wait-time*</minimum-wait-time>
 <client-response-ttl>*client-response-ttl*</client-response-ttl>
 <vpn/>
 <interface>...</interface>
 </bootp>
 </helpers>
 </forwarding-options>
 </instance>
 </routing-instances>
</configuration>

Description Incoming BOOTP/DHCP request forwarding configuration.

Contents <client-response-ttl>—IP time-to-live value to set in responses to client.

<description>—Text description of servers.

<dhcp-option82>—Configure DHCP option 82.

<interface>—Incoming BOOTP/DHCP request forwarding interface configuration.

<maximum-hop-count>—Maximum number of hops per packet.

<minimum-wait-time>—Minimum number of seconds before requests are forwarded.

<relay-agent-option>—Use DHCP Relay Agent option in relayed BOOTP/DHCP messages.

<server>—Server information.

<vpn>—Enable vpn encryption .

<bootstrap> (configuration/logical-systems/protocols/pim/rp)

Usage <configuration>
 <logical-systems>
 <protocols>
 <pim>
 <rp>
 <bootstrap>
 <family>...</family>
 </bootstrap>
 </rp>
 </pim>
 </protocols>
 </logical-systems>
</configuration>

Description Bootstrap properties.

Contents <family>—Bootstrap address family.

<bootstrap> (configuration/logical-systems/routing-instances/instance/protocols/pim/rp)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <bootstrap>
 <family>...</family>
 </bootstrap>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>

Description Bootstrap properties.

Contents <family>—Bootstrap address family.

<bootstrap> (configuration/protocols/pim/rp)

Usage <configuration>
 <protocols>
 <pim>
 <rp>
 <bootstrap>
 <family>...</family>
 </bootstrap>
 </rp>
 </pim>
 </protocols>
 </configuration>

Description Bootstrap properties.

Contents <family>—Bootstrap address family.

<bootstrap> (configuration/routing-instances/instance/protocols/pim/rp)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <bootstrap>
 <family>...</family>
 </bootstrap>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Bootstrap properties.

Contents <family>—Bootstrap address family.

<bootstrap-export> (configuration/logical-systems/protocols/pim/rp)

Usage <configuration>
 <logical-systems>
 <protocols>
 <pim>
 <rp>
 <bootstrap-export>
 <name>*name*</name> <!-- identifier -->
 </bootstrap-export>
 </rp>
 </pim>
 </protocols>
 </logical-systems>
 </configuration>

Description Bootstrap export policy (IPv4 only).

Contents <name>—Bootstrap export policy (IPv4 only).

<bootstrap-export> (configuration/logical-systems/routing-instances/instance/protocols/pim/rp)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <bootstrap-export>
 <name>*name*</name> <!-- identifier -->
 </bootstrap-export>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
</logical-systems>
</configuration>

Description Bootstrap export policy (IPv4 only).

Contents <name>—Bootstrap export policy (IPv4 only).

<bootstrap-export> (configuration/protocols/pim/rp)

Usage <configuration>
 <protocols>
 <pim>
 <rp>
 <bootstrap-export>
 <name>name</name> <!-- identifier -->
 </bootstrap-export>
 </rp>
</pim>
</protocols>
</configuration>

Description Bootstrap export policy (IPv4 only).

Contents <name>—Bootstrap export policy (IPv4 only).

<bootstrap-export> (configuration/routing-instances/instance/protocols/pim/rp)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <bootstrap-export>
 <name>name</name> <!-- identifier -->
 </bootstrap-export>
 </rp>
</pim>
</protocols>
</instance>
</routing-instances>
</configuration>

Description Bootstrap export policy (IPv4 only).

Contents <name>—Bootstrap export policy (IPv4 only).

<bootstrap-import> (configuration/logical-systems/protocols/pim/rp)

Usage `<configuration>
 <logical-systems>
 <protocols>
 <pim>
 <rp>
 <bootstrap-import>
 <name>name</name> <!-- identifier -->
 </bootstrap-import>
 </rp>
 </pim>
 </protocols>
 </logical-systems>
</configuration>`

Description Bootstrap import policy (IPv4 only).

Contents <name>—Bootstrap import policy (IPv4 only).

<bootstrap-import> (configuration/logical-systems/routing-instances/instance/protocols/pim/rp)

Usage `<configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <bootstrap-import>
 <name>name</name> <!-- identifier -->
 </bootstrap-import>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
</configuration>`

Description Bootstrap import policy (IPv4 only).

Contents <name>—Bootstrap import policy (IPv4 only).

<bootstrap-import> (configuration/protocols/pim/rp)

Usage <configuration>
 <protocols>
 <pim>
 <rp>
 <bootstrap-import>
 <name>name</name> <!-- identifier -->
 </bootstrap-import>
 </rp>
 </pim>
 </protocols>
 </configuration>

Description Bootstrap import policy (IPv4 only).

Contents <name>—Bootstrap import policy (IPv4 only).

<bootstrap-import> (configuration/routing-instances/instance/protocols/pim/rp)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <pim>
 <rp>
 <bootstrap-import>
 <name>name</name> <!-- identifier -->
 </bootstrap-import>
 </rp>
 </pim>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Bootstrap import policy (IPv4 only).

Contents <name>—Bootstrap import policy (IPv4 only).

<bpdtimeout-action> (configuration/logical-systems/protocols/mstp/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mstp>
 <interface>
 <bpdtimeout-action>
 <block/>
 <alarm/>
 </bpdtimeout-action>
 </interface>
 </mstp>
 </protocols>
 </logical-systems>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdtimeout-action> (configuration/logical-systems/protocols/mstp/msti/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <mstp>
 <msti>
 <interface>
 <bpdtimeout-action>
 <block/>
 <alarm/>
 </bpdtimeout-action>
 </interface>
 </msti>
 </mstp>
 </protocols>
 </logical-systems>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/logical-systems/protocols/rstp/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <rstp>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </rstp>
 </protocols>
 </logical-systems>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/logical-systems/protocols/vstp/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <vstp>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </vstp>
 </protocols>
 </logical-systems>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/logical-systems/protocols/vstp/vlan/interface)

Usage <configuration>
 <logical-systems>
 <protocols>
 <vstp>
 <vlan>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </vlan>
 </vstp>
 </protocols>
 </logical-systems>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/logical-systems/routing-instances/instance/protocols/mstp/interface)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <mstp>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </mstp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/logical-systems/ routing-instances/instance/protocols/mstp/msti/interface)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <mstp>
 <msti>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </msti>
 </mstp>
 </protocols>
 </instance>
</routing-instances>
</logical-systems>
</configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.
 <block>—Block the interface.

**<bpdu-timeout-action> (configuration/logical-systems/
routing-instances/instance/protocols/rstp/interface)**

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <rstp>
 <interface>
 <bpdu-timeout-action>
 <block/>
 <alarm/>
 </bpdu-timeout-action>
 </interface>
 </rstp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

 <block>—Block the interface.

<bpdutimeout-action> (configuration/logical-systems/routing-instances/instance/protocols/vstp/interface)

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <protocols>
 <vstp>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </vstp>
 </protocols>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

 <block>—Block the interface.

<bpdutimeout-action> (configuration/logical-systems/routing-instances/instance/protocols/vstp/vlan/interface)

Usage

```

<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <vstp>
            <vlan>
              <interface>
                <bpdutimeout-action>
                  <block/>
                  <alarm/>
                </bpdutimeout-action>
              </interface>
            </vlan>
          </vstp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>

```

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/protocols/mstp/interface)

Usage

```

<configuration>
  <protocols>
    <mstp>
      <interface>
        <bpdutimeout-action>
          <block/>
          <alarm/>
        </bpdutimeout-action>
      </interface>
    </mstp>
  </protocols>
</configuration>

```

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/protocols/mstp/msti/interface)

Usage <configuration>
 <protocols>
 <mstp>
 <msti>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </msti>
 </mstp>
 </protocols>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/protocols/rstp/interface)

Usage <configuration>
 <protocols>
 <rstp>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </rstp>
 </protocols>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/protocols/vstp/interface)

Usage	<pre> <configuration> <protocols> <vstp> <interface> <bpdutimeout-action> <block/> <alarm/> </bpdutimeout-action> </interface> </vstp> </protocols> </configuration> </pre>
Description	Define action on BPDU expiry (Loop Protect).
Contents	<p><alarm>—Generate an alarm.</p> <p><block>—Block the interface.</p>

<bpdutimeout-action> (configuration/protocols/vstp/vlan/interface)

Usage	<pre> <configuration> <protocols> <vstp> <vlan> <interface> <bpdutimeout-action> <block/> <alarm/> </bpdutimeout-action> </interface> </vlan> </vstp> </protocols> </configuration> </pre>
Description	Define action on BPDU expiry (Loop Protect).
Contents	<p><alarm>—Generate an alarm.</p> <p><block>—Block the interface.</p>

<bpdutimeout-action> (configuration/routing-instances/instance/protocols/mstp/interface)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <mstp>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </mstp>
 </protocols>
 </instance>
 </routing-instances>
</configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/routing-instances/instance/protocols/mstp/msti/interface)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <mstp>
 <msti>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </msti>
 </mstp>
 </protocols>
 </instance>
</routing-instances>
</configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdtimeout-action> (configuration/routing-instances/instance/protocols/rstp/interface)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <rstp>
 <interface>
 <bpdtimeout-action>
 <block/>
 <alarm/>
 </bpdtimeout-action>
 </interface>
 </rstp>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdtimeout-action> (configuration/routing-instances/instance/protocols/vstp/interface)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <vstp>
 <interface>
 <bpdtimeout-action>
 <block/>
 <alarm/>
 </bpdtimeout-action>
 </interface>
 </vstp>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

<block>—Block the interface.

<bpdutimeout-action> (configuration/routing-instances/instance/protocols/vstp/vlan/interface)

Usage <configuration>
 <routing-instances>
 <instance>
 <protocols>
 <vstp>
 <vlan>
 <interface>
 <bpdutimeout-action>
 <block/>
 <alarm/>
 </bpdutimeout-action>
 </interface>
 </vlan>
 </vstp>
 </protocols>
 </instance>
 </routing-instances>
 </configuration>

Description Define action on BPDU expiry (Loop Protect).

Contents <alarm>—Generate an alarm.

 <block>—Block the interface.

<bridge> (configuration/dynamic-profiles/interfaces/interface/unit/family)

Usage

```

<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <bridge>
              <core-facing/>
              <filter>...</filter>
              <policer>...</policer>
              <interface-mode>interface-mode-choice</interface-mode>
              <vlan-id>vlan-id</vlan-id>
              <vlan-id-list>...</vlan-id-list>
              <inner-vlan-id-list>...</inner-vlan-id-list>
            </bridge>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>

```

Description Layer-2 bridging parameters.

Contents <core-facing>—Interface is core facing.

<filter>—Packet filtering.

<inner-vlan-id-list>—Trunk mode VLAN membership for this interface based on inner VLAN tag.

<interface-mode>—Interface mode (access or trunk).

■ access—Interface mode is access.

■ trunk—Interface mode is trunk.

<policer>—Interface policing.

<vlan-id>—Access mode VLAN membership.

<vlan-id-list>—Trunk mode VLAN membership for this interface.

<bridge> (configuration/firewall/family)

Usage <configuration>
 <firewall>
 <family>
 <bridge>
 <filter>...</filter>
 </bridge>
 </family>
 </firewall>
 </configuration>

Description Protocol family BRIDGE for firewall filter.

Contents <filter>—No documentation is available yet.

<bridge> (configuration/interfaces/interface/unit/family)

Usage <configuration>
 <interfaces>
 <interface>
 <unit>
 <family>
 <bridge>
 <core-facing/>
 <filter>...</filter>
 <policer>...</policer>
 <interface-mode>*interface-mode-choice*</interface-mode>
 <vlan-id>*vlan-id*</vlan-id>
 <vlan-id-list>...</vlan-id-list>
 <inner-vlan-id-list>...</inner-vlan-id-list>
 </bridge>
 </family>
 </unit>
 </interface>
 </interfaces>
 </configuration>

Description Layer-2 bridging parameters.

Contents <core-facing>—Interface is core facing.

<filter>—Packet filtering.

<inner-vlan-id-list>—Trunk mode VLAN membership for this interface based on inner VLAN tag.

<interface-mode>—Interface mode (access or trunk).

■ access—Interface mode is access.

■ trunk—Interface mode is trunk.

<policer>—Interface policing.

<vlan-id>—Access mode VLAN membership.

<vlan-id-list>—Trunk mode VLAN membership for this interface.

<bridge> (configuration/logical-systems/firewall/family)

Usage <configuration>
 <logical-systems>
 <firewall>
 <family>
 <bridge>
 <filter>...</filter>
 </bridge>
 </family>
 </firewall>
 </logical-systems>
 </configuration>

Description Protocol family BRIDGE for firewall filter.

Contents <filter>—No documentation is available yet.

<bridge> (configuration/logical-systems/interfaces/interface/unit/family)

Usage

```

<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <bridge>
              <core-facing/>
              <filter>...</filter>
              <policer>...</policer>
              <interface-mode>interface-mode-choice</interface-mode>
              <vlan-id>vlan-id</vlan-id>
              <vlan-id-list>...</vlan-id-list>
              <inner-vlan-id-list>...</inner-vlan-id-list>
            </bridge>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>

```

Description Layer-2 bridging parameters.

Contents <core-facing>—Interface is core facing.

<filter>—Packet filtering.

<inner-vlan-id-list>—Trunk mode VLAN membership for this interface based on inner VLAN tag.

<interface-mode>—Interface mode (access or trunk).

■ access—Interface mode is access.

■ trunk—Interface mode is trunk.

<policer>—Interface policing.

<vlan-id>—Access mode VLAN membership.

<vlan-id-list>—Trunk mode VLAN membership for this interface.

<bridge-domains> (configuration)

Usage	<pre> <configuration> <bridge-domains> <domain>...</domain> </bridge-domains> </configuration> </pre>
Description	Bridge domain configuration.
Contents	<domain>—No documentation is available yet.

<bridge-domains> (configuration/logical-systems/routing-instances/instance)

Usage	<pre> <configuration> <logical-systems> <routing-instances> <instance> <bridge-domains> <domain>...</domain> </bridge-domains> </instance> </routing-instances> </logical-systems> </configuration> </pre>
Description	Bridge domain configuration.
Contents	<domain>—No documentation is available yet.

<bridge-domains> (configuration/routing-instances/instance)

Usage	<pre> <configuration> <routing-instances> <instance> <bridge-domains> <domain>...</domain> </bridge-domains> </instance> </routing-instances> </configuration> </pre>
Description	Bridge domain configuration.
Contents	<domain>—No documentation is available yet.

<bridge-options> (configuration/bridge-domains/domain)

Usage <configuration>
 <bridge-domains>
 <domain>
 <bridge-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>
 </bridge-options>
 </domain>
 </bridge-domains>
 </configuration>

Description Bridge domain configuration.

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.

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

Usage <configuration>
 <logical-systems>
 <routing-instances>
 <instance>
 <bridge-domains>
 <domain>
 <bridge-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>
 </bridge-options>
 </domain>
 </bridge-domains>
 </instance>
 </routing-instances>
 </logical-systems>
 </configuration>

Description Bridge domain configuration.

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.

<bridge-options> (configuration/routing-instances/instance/bridge-domains/domain)

Usage <configuration>
 <routing-instances>
 <instance>
 <bridge-domains>
 <domain>
 <bridge-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>
 </bridge-options>
 </domain>
 </bridge-domains>
 </instance>
 </routing-instances>
 </configuration>

Description Bridge domain configuration.

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.

<broadcast> (configuration/system/ntp)

Usage	<pre> <configuration> <system> <ntp> <broadcast> <name>name</name> <!-- identifier --> <key>key</key> <version>version</version> <ttl>tt</ttl> </broadcast> </ntp> </system> </configuration> </pre>
Description	Broadcast parameters.
Contents	<p><key>—Authentication key.</p> <p><name>—Broadcast or multicast address to use.</p> <p><tt</ttl>—TTL value to transmit.</p> <p><version>—NTP version to use.</p>

<buffer-pending-authorization> (configuration/services/ggsn/rule-space)

Usage	<pre> <configuration> <services> <ggsn> <rule-space> <buffer-pending-authorization> <service-identifiers>...</service-identifiers> <buffer-limit>buffer-limit</buffer-limit> </buffer-pending-authorization> </rule-space> </ggsn> </services> </configuration> </pre>
Description	Settings for buffering packets pending authorization.
Contents	<p><buffer-limit>—Maximum number of packets to buffer.</p> <p><service-identifiers>—List of service identifiers for which payload will be buffered while waiting for authorization.</p>

<buffer-size> (configuration/class-of-service/schedulers)

Usage	<pre> <configuration> <class-of-service> <schedulers> <buffer-size> <percent>percent</percent> <remainder/> <temporal>microseconds</temporal> </buffer-size> </schedulers> </class-of-service> </configuration> </pre>
Description	Queue transmission buffer size.
Contents	<p><percent>—Buffer size as a percentage.</p> <p><remainder>—Remainder of buffer size available.</p> <p><temporal>—Buffer size as temporal value.</p>

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

Usage	<pre> <configuration> <dynamic-profiles> <class-of-service> <schedulers> <buffer-size> <percent>percent</percent> <remainder/> <temporal>microseconds</temporal> </buffer-size> </schedulers> </class-of-service> </dynamic-profiles> </configuration> </pre>
Description	Queue transmission buffer size.
Contents	<p><percent>—Buffer size as a percentage.</p> <p><remainder>—Remainder of buffer size available.</p> <p><temporal>—Buffer size as temporal value.</p>

<by-destination> (configuration/services/ids/rule/term/then/session-limit)

Usage <configuration>
 <services>
 <ids>
 <rule>
 <term>
 <then>
 <session-limit>
 <by-destination>
 <maximum>*maximum*</maximum>
 <rate>*rate*</rate>
 <packets>*packets*</packets>
 <hold-time>*second*</hold-time>
 </by-destination>
 </session-limit>
 </then>
 </term>
 </rule>
 </ids>
 </services>
 </configuration>

Description Define IDS session limit parameters by destination.

Contents <hold-time>—How long to keep limit information after session is deleted.
 <maximum>—Maximum number of open sessions allowed simultaneously.
 <packets>—Maximum number of packets allowed per second.
 <rate>—Maximum number of new sessions allowed per second.

<by-pair> (configuration/services/ids/rule/term/then/session-limit)

Usage

```

<configuration>
  <services>
    <ids>
      <rule>
        <term>
          <then>
            <session-limit>
              <by-pair>
                <maximum>maximum</maximum>
                <rate>rate</rate>
                <packets>packets</packets>
                <hold-time>second</hold-time>
              </by-pair>
            </session-limit>
          </then>
        </term>
      </rule>
    </ids>
  </services>
</configuration>

```

Description Define IDS session limit parameters by source-destination pair.

Contents

- <hold-time>—How long to keep limit information after session is deleted.
- <maximum>—Maximum number of open sessions allowed simultaneously.
- <packets>—Maximum number of packets allowed per second.
- <rate>—Maximum number of new sessions allowed per second.

<by-source> (configuration/services/ids/rule/term/then/session-limit)

Usage <configuration>
 <services>
 <ids>
 <rule>
 <term>
 <then>
 <session-limit>
 <by-source>
 <maximum>*maximum*</maximum>
 <rate>*rate*</rate>
 <packets>*packets*</packets>
 <hold-time>*second*</hold-time>
 </by-source>
 </session-limit>
 </then>
 </term>
 </rule>
 </ids>
 </services>
 </configuration>

Description Define IDS session limit parameters by source.

Contents <hold-time>—How long to keep limit information after session is deleted.
 <maximum>—Maximum number of open sessions allowed simultaneously.
 <packets>—Maximum number of packets allowed per second.
 <rate>—Maximum number of new sessions allowed per second.

<bypass> (configuration/logical-systems/protocols/rsvp/ interface/link-protection)

Usage

```

<configuration>
  <logical-systems>
    <protocols>
      <rsvp>
        <interface>
          <link-protection>
            <bypass>
              <name>name</name>    <!-- identifier -->
              <to>to</to>          <!-- mandatory -->
              <bandwidth>...</bandwidth>    <!-- mandatory -->
              <setup-priority>setup-priority</setup-priority>
              <reservation-priority>reservation-priority</reservation-priority>
              <class-of-service>class-of-service</class-of-service>
              <hop-limit>hop-limit</hop-limit>
              <no-cspf/>
              <path>...</path>
              <admin-group>...</admin-group>
            </bypass>
          </link-protection>
        </interface>
      </rsvp>
    </protocols>
  </logical-systems>
</configuration>

```

Description Bypass with specific constraints.

Contents

- <admin-group>—Administrative group policy.
- <bandwidth>—Bandwidth for each bypass.
- <class-of-service>—Class of service for the bypass LSP.
- <hop-limit>—Maximum allowed router hops for bypass.
- <name>—Name of bypass.
- <no-cspf>—Disable automatic path computation.
- <path>—Explicit route of bypass path.
- <reservation-priority>—Reservation priority.
- <setup-priority>—Set-up priority.
- <to>—Address of egress router.

<bypass> (configuration/protocols/rsvp/interface/link-protection)

Usage <configuration>
 <protocols>
 <rsvp>
 <interface>
 <link-protection>
 <bypass>
 <name>*name*</name> <!-- identifier -->
 <to>*to*</to> <!-- mandatory -->
 <bandwidth>...</bandwidth> <!-- mandatory -->
 <setup-priority>*setup-priority*</setup-priority>
 <reservation-priority>*reservation-priority*</reservation-priority>
 <class-of-service>*class-of-service*</class-of-service>
 <hop-limit>*hop-limit*</hop-limit>
 <no-cspf/>
 <path>...</path>
 <admin-group>...</admin-group>
 </bypass>
 </link-protection>
 </interface>
 </rsvp>
 </protocols>
 </configuration>

Description Bypass with specific constraints.

Contents <admin-group>—Administrative group policy.

<bandwidth>—Bandwidth for each bypass.

<class-of-service>—Class of service for the bypass LSP.

<hop-limit>—Maximum allowed router hops for bypass.

<name>—Name of bypass.

<no-cspf>—Disable automatic path computation.

<path>—Explicit route of bypass path.

<reservation-priority>—Reservation priority.

<setup-priority>—Set-up priority.

<to>—Address of egress router.

<byte> (configuration/access/address-assignment/pool/family/inet/dhcp-attributes/option/array)

Usage

```

<configuration>
  <access>
    <address-assignment>
      <pool>
        <family>
          <inet>
            <dhcp-attributes>
              <option>
                <array>
                  <byte>
                    <name>name</name>    <!-- identifier -->
                  </byte>
                </array>
              </option>
            </dhcp-attributes>
          </inet>
        </family>
      </pool>
    </address-assignment>
  </access>
</configuration>

```

Description Array of unsigned 8-bit values.

Contents <name>—Array of unsigned 8-bit values.

<byte> (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>
 <byte>
 <name>*name*</name> <!-- identifier -->
 </byte>
 </array>
 </option>
 </dhcp-attributes>
 </inet>
 </family>
 </pool>
 </address-assignment>
 </access>
 </logical-systems>
 </configuration>

Description Array of unsigned 8-bit values.

Contents <name>—Array of unsigned 8-bit values.

<byte> (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>
                        <byte>
                          <name>name</name>    <!-- identifier -->
                        </byte>
                      </array>
                    </option>
                  </dhcp-attributes>
                </inet>
              </family>
            </pool>
          </address-assignment>
        </access>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Array of unsigned 8-bit values.

Contents <name>—Array of unsigned 8-bit values.

<byte> (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>
 <byte>
 <name>*name*</name> <!-- identifier -->
 </byte>
 </array>
 </option>
 </dhcp-attributes>
 </inet>
 </family>
 </pool>
 </address-assignment>
 </access>
 </instance>
 </routing-instances>
 </configuration>

Description Array of unsigned 8-bit values.

Contents <name>—Array of unsigned 8-bit values.

<byte> (configuration/system/services/dhcp/option/array)

Usage <configuration>
 <system>
 <services>
 <dhcp>
 <option>
 <array>
 <byte>
 <name>*name*</name> <!-- identifier -->
 </byte>
 </array>
 </option>
 </dhcp>
 </services>
 </system>
 </configuration>

Description Array of unsigned 8-bit values.

Contents <name>—Array of unsigned 8-bit values.

<byte> (configuration/system/services/dhcp/pool/option/array)

Usage <configuration>
 <system>
 <services>
 <dhcp>
 <pool>
 <option>
 <array>
 <byte>
 <name>*name*</name> <!-- identifier -->
 </byte>
 </array>
 </option>
 </pool>
 </dhcp>
 </services>
 </system>
 </configuration>

Description Array of unsigned 8-bit values.

Contents <name>—Array of unsigned 8-bit values.

<byte> (configuration/system/services/dhcp/static-binding/option/array)

Usage <configuration>
 <system>
 <services>
 <dhcp>
 <static-binding>
 <option>
 <array>
 <byte>
 <name>*name*</name> <!-- identifier -->
 </byte>
 </array>
 </option>
 </static-binding>
 </dhcp>
 </services>
 </system>
 </configuration>

Description Array of unsigned 8-bit values.

Contents <name>—Array of unsigned 8-bit values.

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

Usage <configuration>
 <dynamic-profiles>
 <interfaces>
 <interface>
 <sonet-options>
 <bytes>
 <e1-quiet>e1-quiet</e1-quiet>
 <f1>f1</f1>
 <f2>f2</f2>
 <s1>s1</s1>
 <z3>z3</z3>
 <z4>z4</z4>
 <c2>c2</c2>
 </bytes>
 </sonet-options>
 </interface>
 </interfaces>
 </dynamic-profiles>
 </configuration>

Description Set SONET header bytes.

Contents <c2>—C2 user value.

<e1-quiet>—E1-quiet value.

<f1>—F1 user value.

<f2>—F2 user value.

<s1>—S1/Z1 value (stratum clock by convention).

<z3>—Z3 user value.

<z4>—Z4 user value.

<bytes> (configuration/interfaces/interface/sonet-options)

Usage <configuration>
 <interfaces>
 <interface>
 <sonet-options>
 <bytes>
 <e1-quiet>e1-quiet</e1-quiet>
 <f1>f1</f1>
 <f2>f2</f2>
 <s1>s1</s1>
 <z3>z3</z3>
 <z4>z4</z4>
 <c2>c2</c2>
 </bytes>
 </sonet-options>
 </interface>
 </interfaces>
 </configuration>

Description Set SONET header bytes.

Contents <c2>—C2 user value.

<e1-quiet>—E1-quiet value.

<f1>—F1 user value.

<f2>—F2 user value.

<s1>—S1/Z1 value (stratum clock by convention).

<z3>—Z3 user value.

<z4>—Z4 user value.

