Chapter 6

Tag Elements Beginning with F

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

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

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

<fabric> (configuration/chassis)

Usage

```
<configuration>
  <chassis>
    <fabric>
      <upgrade-mode/>
    </fabric>
  </chassis>
</configuration>
```

Description Switch fabric settings.

Contents <upgrade-mode>—Enable online switch fabric upgrade.

<fabric> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <fabric>
      <scheduler-map>...</scheduler-map>
    </fabric>
  </class-of-service>
</configuration>
```

Description Define CoS parameters of switch fabric.

Contents <scheduler-map>—Mapping of fabric traffic to packet schedulers.

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

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <fabric>
        <scheduler-map>...</scheduler-map>
      </fabric>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Define CoS parameters of switch fabric.

Contents <scheduler-map>—Mapping of fabric traffic to packet schedulers.

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

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <fabric-options>
          <member-interfaces>...</member-interfaces>
        </fabric-options>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Fabric interface specific options.

Contents <member-interfaces>—Member interface for the fabric interface.

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

Usage

```
<configuration>
  <interfaces>
    <interface>
      <fabric-options>
        <member-interfaces>...</member-interfaces>
      </fabric-options>
    </interface>
  </interfaces>
</configuration>
```

Description Fabric interface specific options.

Contents <member-interfaces>—Member interface for the fabric interface.

<failover> (configuration/chassis/redundancy)

Usage

```
<configuration>
  <chassis>
    <redundancy>
      <failover>
        <on-loss-of-keepalives/>
        <on-disk-failure/>
      </failover>
    </redundancy>
  </chassis>
</configuration>
```

Description Failover to other Routing Engine.

Contents <on-disk-failure>—Failover on disk failure.

<on-loss-of-keepalives>—Failover on loss of keepalives.

<failure> (configuration/services/ggsn/apn/ service-based-charging/credit-control/ro-profile)

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <service-based-charging>
          <credit-control>
            <ro-profile>
              <failure>
                <failure-action>failure-action-choice</failure-action>
                <continue>...</continue>
              </failure>
            </ro-profile>
          </credit-control>
        </service-based-charging>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description Failure handling settings for ro.

Contents <continue>—Settings for handling continue.

<failure-action>—Failure action settings.

- continue—Retry once, and then continue context without credit control.
- retry-and-terminate—Retry once, and then terminate context.
- terminate—Terminate context.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <oam>
          <bfd-liveness-detection>
            <failure-action>
              <remove-route/>
              <remove-nexthop/>
            </failure-action>
          </bfd-liveness-detection>
        </oam>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <remove-nexthop>—Remove LDP nexthop from the route.

<remove-route>—Remove LDP route from the ribs.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <oam>
          <fec>
            <bfd-liveness-detection>
              <failure-action>
                <remove-route/>
                <remove-nexthop/>
              </failure-action>
            </bfd-liveness-detection>
          </fec>
        </oam>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <remove-nexthop>—Remove LDP nexthop from the route.

<remove-route>—Remove LDP route from the ribs.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <oam>
            <bfd-liveness-detection>
              <failure-action>
                <teardown/>
                <make-before-break>...</make-before-break>
              </failure-action>
            </bfd-liveness-detection>
          </oam>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <make-before-break>—Resignal the label switched path before teardown.

<teardown>—Teardown label switched path and resignal.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <primary>
            <oam>
              <bfd-liveness-detection>
                <failure-action>
                  <teardown/>
                  <make-before-break>...</make-before-break>
                </failure-action>
              </bfd-liveness-detection>
            </oam>
          </primary>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <make-before-break>—Resignal the label switched path before teardown.

<teardown>—Teardown label switched path and resignal.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <secondary>
            <oam>
              <bfd-liveness-detection>
                <failure-action>
                  <teardown/>
                  <make-before-break>...</make-before-break>
                </failure-action>
              </bfd-liveness-detection>
            </oam>
          </secondary>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <make-before-break>—Resignal the label switched path before teardown.

<teardown>—Teardown label switched path and resignal.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <oam>
          <bfd-liveness-detection>
            <failure-action>
              <teardown/>
              <make-before-break>...</make-before-break>
            </failure-action>
          </bfd-liveness-detection>
        </oam>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <make-before-break>—Resignal the label switched path before teardown.

<teardown>—Teardown label switched path and resignal.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <oam>
              <bfd-liveness-detection>
                <failure-action>
                  <remove-route/>
                  <remove-nexthop/>
                </failure-action>
              </bfd-liveness-detection>
            </oam>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <remove-nexthop>—Remove LDP nexthop from the route.

<remove-route>—Remove LDP route from the ribs.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <oam>
              <fec>
                <bfd-liveness-detection>
                  <failure-action>
                    <remove-route/>
                    <remove-nexthop/>
                  </failure-action>
                </bfd-liveness-detection>
              </fec>
            </oam>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <remove-nexthop>—Remove LDP nexthop from the route.

<remove-route>—Remove LDP route from the ribs.

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

Usage

```
<configuration>
  <protocols>
    <ldp>
      <oam>
        <bfd-liveness-detection>
          <failure-action>
            <remove-route/>
            <remove-nexthop/>
          </failure-action>
        </bfd-liveness-detection>
      </oam>
    </ldp>
  </protocols>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <remove-nexthop>—Remove LDP nexthop from the route.

<remove-route>—Remove LDP route from the ribs.

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

Usage

```
<configuration>
  <protocols>
    <ldp>
      <oam>
        <fec>
          <bfd-liveness-detection>
            <failure-action>
              <remove-route/>
              <remove-nexthop/>
            </failure-action>
          </bfd-liveness-detection>
        </fec>
      </oam>
    </ldp>
  </protocols>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <remove-nexthop>—Remove LDP nexthop from the route.

<remove-route>—Remove LDP route from the ribs.

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

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <oam>
          <bfd-liveness-detection>
            <failure-action>
              <teardown/>
              <make-before-break>...</make-before-break>
            </failure-action>
          </bfd-liveness-detection>
        </oam>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <make-before-break>—Resignal the label switched path before teardown.

<teardown>—Teardown label switched path and resignal.

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

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <primary>
          <oam>
            <bfd-liveness-detection>
              <failure-action>
                <teardown/>
                <make-before-break>...</make-before-break>
              </failure-action>
            </bfd-liveness-detection>
          </oam>
        </primary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <make-before-break>—Resignal the label switched path before teardown.

<teardown>—Teardown label switched path and resignal.

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

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <secondary>
          <oam>
            <bfd-liveness-detection>
              <failure-action>
                <teardown/>
                <make-before-break>...</make-before-break>
              </failure-action>
            </bfd-liveness-detection>
          </oam>
        </secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <make-before-break>—Resignal the label switched path before teardown.

<teardown>—Teardown label switched path and resignal.

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

Usage

```
<configuration>
  <protocols>
    <mpls>
      <oam>
        <bfd-liveness-detection>
          <failure-action>
            <teardown/>
            <make-before-break>...</make-before-break>
          </failure-action>
        </bfd-liveness-detection>
      </oam>
    </mpls>
  </protocols>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <make-before-break>—Resignal the label switched path before teardown.

<teardown>—Teardown label switched path and resignal.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <oam>
            <bfd-liveness-detection>
              <failure-action>
                <remove-route/>
                <remove-nexthop/>
              </failure-action>
            </bfd-liveness-detection>
          </oam>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <remove-nexthop>—Remove LDP nexthop from the route.

<remove-route>—Remove LDP route from the ribs.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <oam>
            <fec>
              <bfd-liveness-detection>
                <failure-action>
                  <remove-route/>
                  <remove-nexthop/>
                </failure-action>
              </bfd-liveness-detection>
            </fec>
          </oam>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Action to take when BFD session goes down.

Contents <remove-nexthop>—Remove LDP nexthop from the route.

<remove-route>—Remove LDP route from the ribs.

<false-positives> (configuration/security/idp/ dynamic-attack-group/filters)

Usage

```
<configuration>
  <security>
    <idp>
      <dynamic-attack-group>
        <filters>
          <false-positives>
            <values>...</values>     <!-- mandatory -->
          </false-positives>
        </filters>
      </dynamic-attack-group>
    </idp>
  </security>
</configuration>
```

Description False positive field in attack.

Contents <values>—Values for false-positives field.

<family> (configuration/access/address-assignment/pool)

Usage

```
<configuration>
  <access>
    <address-assignment>
      <pool>
        <family>
          <inet>...</inet>
        </family>
      </pool>
    </address-assignment>
  </access>
</configuration>
```

Description Address family.

Contents <inet>—No documentation is available yet.

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

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>...</inet>
            <iso>...</iso>
            <inet6>...</inet6>
            <mpls>...</mpls>
            <mlppp>...</mlppp>
            <mlfr-end-to-end>...</mlfr-end-to-end>
            <mlfr-uni-nni>...</mlfr-uni-nni>
            <ccc>...</ccc>
            <tcc>...</tcc>
            <vpls>...</vpls>
            <bridge>...</bridge>
            <ethernet-switching>...</ethernet-switching>
            <any>...</any>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Protocol family.

Contents <any>—Parameters for 'any' family.

<bridge>—Layer-2 bridging parameters.

<ccc>—Circuit cross-connect parameters.

<ethernet-switching>—Ethernet switching parameters.

<inet>—IPv4 parameters.

<inet6>—IPv6 protocol parameters.

<iso>—OSI ISO protocol parameters.

<mlfr-end-to-end>—Multilink Frame Relay end-to-end protocol parameters.

<mlfr-uni-nni>—Multilink Frame Relay UNI NNI protocol parameters.

<mlppp>—Multilink PPP protocol parameters.

<mpls>—MPLS protocol parameters.

<tcc>—Translational cross-connect parameters.

<vpls>—Virtual private LAN service parameters.

<family> (configuration/firewall)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>...</inet>
      <inet6>...</inet6>
      <mpls>...</mpls>
      <vpls>...</vpls>
      <bridge>...</bridge>
      <ccc>...</ccc>
      <any>...</any>
      <ethernet-switching>...</ethernet-switching>
    </family>
  </firewall>
</configuration>
```

Description Protocol family.

Contents <any>—Protocol-independent filter.

<bridge>—Protocol family BRIDGE for firewall filter.

<ccc>—Protocol family CCC for firewall filter.

<ethernet-switching>—Protocol family Ethernet Switching for firewall filter.

<inet>—Protocol family IPv4 for firewall filter.

<inet6>—Protocol family IPv6 for firewall filter.

<mpls>—Protocol family MPLS for firewall filter.

<vpls>—Protocol family VPLS for firewall filter.

<family> (configuration/forwarding-options)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <inet>...</inet>
      <inet6>...</inet6>
      <mpls>...</mpls>
      <vpls>...</vpls>
    </family>
  </forwarding-options>
</configuration>
```

Description Protocol family.

Contents <inet>—IPv4 parameters.

<inet6>—IPv6 parameters.

<mpls>—MPLS parameters.

<vpls>—VPLS parameters.

<family> (configuration/forwarding-options/hash-key)

Usage

```
<configuration>
  <forwarding-options>
    <hash-key>
      <family>
        <inet>...</inet>
        <mpls>...</mpls>
        <multiservice>...</multiservice>
      </family>
    </hash-key>
  </forwarding-options>
</configuration>
```

Description Protocol family.

Contents <inet>—IPv4 protocol family.

<mpls>—MPLS protocol family.

<multiservice>—Multiservice protocol family.

<family> (configuration/forwarding-options/monitoring)

Usage

```
<configuration>
  <forwarding-options>
    <monitoring>
      <family>
        <inet>...</inet>
      </family>
    </monitoring>
  </forwarding-options>
</configuration>
```

Description Address family of packets to monitor.

Contents <inet>—Monitor IPv4 packets.

<family> (configuration/forwarding-options/port-mirroring)

Usage

```
<configuration>
  <forwarding-options>
    <port-mirroring>
      <family>
        <inet>...</inet>
        <inet6>...</inet6>
        <vpls>...</vpls>
        <ccc>...</ccc>
      </family>
    </port-mirroring>
  </forwarding-options>
</configuration>
```

Description Address family of packets to mirror.

Contents <ccc>—Mirror layer-2 ccc packets.

<inet>—Mirror IPv4 packets.

<inet6>—Mirror IPv6 packets.

<vpls>—Mirror Layer-2 bridged/vpls packets.

<family> (configuration/forwarding-options/port-mirroring/ instance)

Usage

```
<configuration>
  <forwarding-options>
    <port-mirroring>
      <instance>
        <family>
          <inet>...</inet>
          <inet6>...</inet6>
          <vpls>...</vpls>
          <ccc>...</ccc>
        </family>
      </instance>
    </port-mirroring>
  </forwarding-options>
</configuration>
```

Description Address family of packets to mirror.

Contents <ccc>—Mirror layer-2 ccc packets.

<inet>—Mirror IPv4 packets.

<inet6>—Mirror IPv6 packets.

<vpls>—Mirror Layer-2 bridged/vpls packets.

<family> (configuration/forwarding-options/sampling/input)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <input>
        <family>
          <inet>...</inet>
          <mpls>...</mpls>
          <inet6>...</inet6>
        </family>
      </input>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Protocol family.

Contents <inet>—Sampling parameters for IPv4.

<inet6>—Sampling parameters for IPv6.

<mpls>—Sampling parameters for MPLS.

<family> (configuration/interfaces/interface/unit)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>...</inet>
          <iso>...</iso>
          <inet6>...</inet6>
          <mpls>...</mpls>
          <mlppp>...</mlppp>
          <mlfr-end-to-end>...</mlfr-end-to-end>
          <mlfr-uni-nni>...</mlfr-uni-nni>
          <ccc>...</ccc>
          <tcc>...</tcc>
          <vpls>...</vpls>
          <bridge>...</bridge>
          <ethernet-switching>...</ethernet-switching>
          <any>...</any>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Protocol family.

Contents <any>—Parameters for 'any' family.

<bridge>—Layer-2 bridging parameters.

<ccc>—Circuit cross-connect parameters.

<ethernet-switching>—Ethernet switching parameters.

<inet>—IPv4 parameters.

<inet6>—IPv6 protocol parameters.

<iso>—OSI ISO protocol parameters.

<mlfr-end-to-end>—Multilink Frame Relay end-to-end protocol parameters.

<mlfr-uni-nni>—Multilink Frame Relay UNI NNI protocol parameters.

<mlppp>—Multilink PPP protocol parameters.

<mpls>—MPLS protocol parameters.

<tcc>—Translational cross-connect parameters.

<vpls>—Virtual private LAN service parameters.

<family> (configuration/logical-systems/access/ address-assignment/pool)

Usage

```
<configuration>
  <logical-systems>
    <access>
      <address-assignment>
        <pool>
          <family>
            <inet>...</inet>
          </family>
        </pool>
      </address-assignment>
    </access>
  </logical-systems>
</configuration>
```

Description Address family.

Contents <inet>—No documentation is available yet.

<family> (configuration/logical-systems/firewall)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>...</inet>
        <inet6>...</inet6>
        <mpls>...</mpls>
        <vpls>...</vpls>
        <bridge>...</bridge>
        <ccc>...</ccc>
        <any>...</any>
        <ethernet-switching>...</ethernet-switching>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Protocol family.

Contents <any>—Protocol-independent filter.

<bridge>—Protocol family BRIDGE for firewall filter.

<ccc>—Protocol family CCC for firewall filter.

<ethernet-switching>—Protocol family Ethernet Switching for firewall filter.

<inet>—Protocol family IPv4 for firewall filter.

<inet6>—Protocol family IPv6 for firewall filter.

<mpls>—Protocol family MPLS for firewall filter.

<vpls>—Protocol family VPLS for firewall filter.

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

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>...</inet>
            <iso>...</iso>
            <inet6>...</inet6>
            <mpls>...</mpls>
            <mlppp>...</mlppp>
            <mlfr-end-to-end>...</mlfr-end-to-end>
            <mlfr-uni-nni>...</mlfr-uni-nni>
            <ccc>...</ccc>
            <tcc>...</tcc>
            <vpls>...</vpls>
            <bridge>...</bridge>
            <ethernet-switching>...</ethernet-switching>
            <any>...</any>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Protocol family.

Contents <any>—Parameters for 'any' family.

<bridge>—Layer-2 bridging parameters.

<ccc>—Circuit cross-connect parameters.

<ethernet-switching>—Ethernet switching parameters.

<inet>—IPv4 parameters.

<inet6>—IPv6 protocol parameters.

<iso>—OSI ISO protocol parameters.

<mlfr-end-to-end>—Multilink Frame Relay end-to-end protocol parameters.

<mlfr-uni-nni>—Multilink Frame Relay UNI NNI protocol parameters.

<mlppp>—Multilink PPP protocol parameters.

<mpls>—MPLS protocol parameters.

<tcc>—Translational cross-connect parameters.

<vpls>—Virtual private LAN service parameters.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <family>
          <inet>...</inet>
          <inet-vpn>...</inet-vpn>
          <inet6>...</inet6>
          <inet6-vpn>...</inet6-vpn>
          <iso-vpn>...</iso-vpn>
          <l2vpn>...</l2vpn>
          <inet-mvpn>...</inet-mvpn>
          <inet6-mvpn>...</inet6-mvpn>
          <inet-mdt>...</inet-mdt>
          <route-target>...</route-target>
        </family>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <family>
            <inet>...</inet>
            <inet-vpn>...</inet-vpn>
            <inet6>...</inet6>
            <inet6-vpn>...</inet6-vpn>
            <iso-vpn>...</iso-vpn>
            <l2vpn>...</l2vpn>
            <inet-mvpn>...</inet-mvpn>
            <inet6-mvpn>...</inet6-mvpn>
            <inet-mdt>...</inet-mdt>
            <route-target>...</route-target>
          </family>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <family>
              <inet>...</inet>
              <inet-vpn>...</inet-vpn>
              <inet6>...</inet6>
              <inet6-vpn>...</inet6-vpn>
              <iso-vpn>...</iso-vpn>
              <l2vpn>...</l2vpn>
              <inet-mvpn>...</inet-mvpn>
              <inet6-mvpn>...</inet6-mvpn>
              <inet-mdt>...</inet-mdt>
              <route-target>...</route-target>
            </family>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

<family> (configuration/logical-systems/protocols/isis/ traffic-engineering)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <isis>
        <traffic-engineering>
          <family>
            <name>name</name>     <!-- identifier -->
            <shortcuts>...</shortcuts>
          </family>
        </traffic-engineering>
      </isis>
    </protocols>
  </logical-systems>
</configuration>
```

Description Address family specific traffic-engineering attributes.

Contents <name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<shortcuts>—Use label-switched paths as next hops, if possible.

<family> (configuration/logical-systems/protocols/pim/rp/ bootstrap)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <pim>
        <rp>
          <bootstrap>
            <family>
              <inet>...</inet>
              <inet6>...</inet6>
            </family>
          </bootstrap>
        </rp>
      </pim>
    </protocols>
  </logical-systems>
</configuration>
```

Description Bootstrap address family.

Contents <inet>—IPv4 bootstrap properties.

<inet6>—IPv6 bootstrap properties.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <pim>
        <rp>
          <local>
            <family>
              <inet>...</inet>
              <inet6>...</inet6>
            </family>
          </local>
        </rp>
      </pim>
    </protocols>
  </logical-systems>
</configuration>
```

Description Local RP address family.

Contents <inet>—IPv4 local RP properties.

<inet6>—IPv6 local RP properties.

<family> (configuration/logical-systems/routing-instances/instance/access/address-assignment/pool)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <access>
          <address-assignment>
            <pool>
              <family>
                <inet>...</inet>
              </family>
            </pool>
          </address-assignment>
        </access>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Address family.

Contents <inet>—No documentation is available yet.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <family>
            <inet>...</inet>
            <inet6>...</inet6>
            <mpls>...</mpls>
            <vpls>...</vpls>
          </family>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Protocol family.

Contents <inet>—IPv4 parameters.

<inet6>—IPv6 parameters.

<mpls>—MPLS parameters.

<vpls>—VPLS parameters.

<family> (configuration/logical-systems/routing-instances/ instance/forwarding-options/hash-key)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <hash-key>
            <family>
              <inet>...</inet>
              <mpls>...</mpls>
              <multiservice>...</multiservice>
            </family>
          </hash-key>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Protocol family.

Contents <inet>—IPv4 protocol family.

<mpls>—MPLS protocol family.

<multiservice>—Multiservice protocol family.

<family> (configuration/logical-systems/routing-instances/ instance/forwarding-options/monitoring)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <monitoring>
            <family>
              <inet>...</inet>
            </family>
          </monitoring>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Address family of packets to monitor.

Contents <inet>—Monitor IPv4 packets.

<family> (configuration/logical-systems/routing-instances/ instance/forwarding-options/port-mirroring)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <port-mirroring>
            <family>
              <inet>...</inet>
              <inet6>...</inet6>
              <vpls>...</vpls>
              <ccc>...</ccc>
            </family>
          </port-mirroring>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Address family of packets to mirror.

Contents <ccc>—Mirror layer-2 ccc packets.

<inet>—Mirror IPv4 packets.

<inet6>—Mirror IPv6 packets.

<vpls>—Mirror Layer-2 bridged/vpls packets.

<family> (configuration/logical-systems/routing-instances/ instance/forwarding-options/port-mirroring/instance)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <port-mirroring>
            <instance>
              <family>
                <inet>...</inet>
                <inet6>...</inet6>
                <vpls>...</vpls>
                <ccc>...</ccc>
              </family>
            </instance>
          </port-mirroring>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Address family of packets to mirror.

Contents <ccc>—Mirror layer-2 ccc packets.

<inet>—Mirror IPv4 packets.

<inet6>—Mirror IPv6 packets.

<vpls>—Mirror Layer-2 bridged/vpls packets.

<family> (configuration/logical-systems/routing-instances/ instance/forwarding-options/sampling/input)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <sampling>
            <input>
              <family>
                <inet>...</inet>
                <mpls>...</mpls>
                <inet6>...</inet6>
              </family>
            </input>
          </sampling>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Protocol family.

Contents <inet>—Sampling parameters for IPv4.

<inet6>—Sampling parameters for IPv6.

<mpls>—Sampling parameters for MPLS.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <family>
              <inet>...</inet>
              <inet-vpn>...</inet-vpn>
              <inet6>...</inet6>
              <inet6-vpn>...</inet6-vpn>
              <iso-vpn>...</iso-vpn>
              <l2vpn>...</l2vpn>
              <inet-mvpn>...</inet-mvpn>
              <inet6-mvpn>...</inet6-mvpn>
              <inet-mdt>...</inet-mdt>
              <route-target>...</route-target>
            </family>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <family>
                <inet>...</inet>
                <inet-vpn>...</inet-vpn>
                <inet6>...</inet6>
                <inet6-vpn>...</inet6-vpn>
                <iso-vpn>...</iso-vpn>
                <l2vpn>...</l2vpn>
                <inet-mvpn>...</inet-mvpn>
                <inet6-mvpn>...</inet6-mvpn>
                <inet-mdt>...</inet-mdt>
                <route-target>...</route-target>
              </family>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <family>
                  <inet>...</inet>
                  <inet-vpn>...</inet-vpn>
                  <inet6>...</inet6>
                  <inet6-vpn>...</inet6-vpn>
                  <iso-vpn>...</iso-vpn>
                  <l2vpn>...</l2vpn>
                  <inet-mvpn>...</inet-mvpn>
                  <inet6-mvpn>...</inet6-mvpn>
                  <inet-mdt>...</inet-mdt>
                  <route-target>...</route-target>
                </family>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

<family> (configuration/logical-systems/routing-instances/ instance/protocols/isis/traffic-engineering)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <isis>
            <traffic-engineering>
              <family>
                <name>name</name>     <!-- identifier -->
                <shortcuts>...</shortcuts>
              </family>
            </traffic-engineering>
          </isis>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Address family specific traffic-engineering attributes.

Contents <name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<shortcuts>—Use label-switched paths as next hops, if possible.

<family> (configuration/logical-systems/routing-instances/ instance/protocols/pim/rp/bootstrap)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <pim>
            <rp>
              <bootstrap>
                <family>
                  <inet>...</inet>
                  <inet6>...</inet6>
                </family>
              </bootstrap>
            </rp>
          </pim>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Bootstrap address family.

Contents <inet>—IPv4 bootstrap properties.

<inet6>—IPv6 bootstrap properties.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <pim>
            <rp>
              <local>
                <family>
                  <inet>...</inet>
                  <inet6>...</inet6>
                </family>
              </local>
            </rp>
          </pim>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Local RP address family.

Contents <inet>—IPv4 local RP properties.

<inet6>—IPv6 local RP properties.

<family> (configuration/logical-systems/routing-instances/ instance/routing-options/auto-export)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <auto-export>
            <family>
              <inet>...</inet>
              <inet6>...</inet6>
              <iso>...</iso>
            </family>
          </auto-export>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <inet>—IPv4 parameters.

<inet6>—IPv6 parameters.

<iso>—ISO parameters.

<family> (configuration/logical-systems/routing-instances/ instance/routing-options/interface-routes)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <interface-routes>
            <family>
              <name>name</name>     <!-- identifier -->
              <import>...</import>
              <export>...</export>
            </family>
          </interface-routes>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Address family.

Contents <export>—Control exportability of local routes.

<import>—Import policy.

<name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <topologies>
            <family>
              <name>name</name>     <!-- identifier -->
              <topology>...</topology>
            </family>
          </topologies>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Address family.

Contents <name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<topology>—Topology information.

<family> (configuration/logical-systems/routing-options/ auto-export)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <auto-export>
        <family>
          <inet>...</inet>
          <inet6>...</inet6>
          <iso>...</iso>
        </family>
      </auto-export>
    </routing-options>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <inet>—IPv4 parameters.

<inet6>—IPv6 parameters.

<iso>—ISO parameters.

<family> (configuration/logical-systems/routing-options/ interface-routes)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <interface-routes>
        <family>
          <name>name</name>     <!-- identifier -->
          <import>...</import>
          <export>...</export>
        </family>
      </interface-routes>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Address family.

Contents <export>—Control exportability of local routes.

<import>—Import policy.

<name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<family> (configuration/logical-systems/routing-options/ topologies)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <topologies>
        <family>
          <name>name</name>     <!-- identifier -->
          <topology>...</topology>
        </family>
      </topologies>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Address family.

Contents <name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<topology>—Topology information.

<family> (configuration/protocols/bgp)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>...</inet>
        <inet-vpn>...</inet-vpn>
        <inet6>...</inet6>
        <inet6-vpn>...</inet6-vpn>
        <iso-vpn>...</iso-vpn>
        <l2vpn>...</l2vpn>
        <inet-mvpn>...</inet-mvpn>
        <inet6-mvpn>...</inet6-mvpn>
        <inet-mdt>...</inet-mdt>
        <route-target>...</route-target>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

<family> (configuration/protocols/bgp/group)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>...</inet>
          <inet-vpn>...</inet-vpn>
          <inet6>...</inet6>
          <inet6-vpn>...</inet6-vpn>
          <iso-vpn>...</iso-vpn>
          <l2vpn>...</l2vpn>
          <inet-mvpn>...</inet-mvpn>
          <inet6-mvpn>...</inet6-mvpn>
          <inet-mdt>...</inet-mdt>
          <route-target>...</route-target>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

<family> (configuration/protocols/bgp/group/neighbor)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>...</inet>
            <inet-vpn>...</inet-vpn>
            <inet6>...</inet6>
            <inet6-vpn>...</inet6-vpn>
            <iso-vpn>...</iso-vpn>
            <l2vpn>...</l2vpn>
            <inet-mvpn>...</inet-mvpn>
            <inet6-mvpn>...</inet6-mvpn>
            <inet-mdt>...</inet-mdt>
            <route-target>...</route-target>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

<family> (configuration/protocols/isis/traffic-engineering)

Usage

```
<configuration>
  <protocols>
    <isis>
      <traffic-engineering>
        <family>
          <name>name</name>     <!-- identifier -->
          <shortcuts>...</shortcuts>
        </family>
      </traffic-engineering>
    </isis>
  </protocols>
</configuration>
```

Description Address family specific traffic-engineering attributes.

Contents <name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<shortcuts>—Use label-switched paths as next hops, if possible.

<family> (configuration/protocols/pim/rp/bootstrap)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <bootstrap>
          <family>
            <inet>...</inet>
            <inet6>...</inet6>
          </family>
        </bootstrap>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Bootstrap address family.

Contents <inet>—IPv4 bootstrap properties.

<inet6>—IPv6 bootstrap properties.

<family> (configuration/protocols/pim/rp/local)

Usage

```
<configuration>
  <protocols>
    <pim>
      <rp>
        <local>
          <family>
            <inet>...</inet>
            <inet6>...</inet6>
          </family>
        </local>
      </rp>
    </pim>
  </protocols>
</configuration>
```

Description Local RP address family.

Contents <inet>—IPv4 local RP properties.

<inet6>—IPv6 local RP properties.

<family> (configuration/routing-instances/instance/access/address-assignment/pool)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <access>
        <address-assignment>
          <pool>
            <family>
              <inet>...</inet>
            </family>
          </pool>
        </address-assignment>
      </access>
    </instance>
  </routing-instances>
</configuration>
```

Description Address family.

Contents <inet>—No documentation is available yet.

<family> (configuration/routing-instances/instance/ forwarding-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <family>
          <inet>...</inet>
          <inet6>...</inet6>
          <mpls>...</mpls>
          <vpls>...</vpls>
        </family>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family.

Contents <inet>—IPv4 parameters.

<inet6>—IPv6 parameters.

<mpls>—MPLS parameters.

<vpls>—VPLS parameters.

<family> (configuration/routing-instances/instance/ forwarding-options/hash-key)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <hash-key>
          <family>
            <inet>...</inet>
            <mpls>...</mpls>
            <multiservice>...</multiservice>
          </family>
        </hash-key>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family.

Contents <inet>—IPv4 protocol family.

<mpls>—MPLS protocol family.

<multiservice>—Multiservice protocol family.

<family> (configuration/routing-instances/instance/ forwarding-options/monitoring)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <monitoring>
          <family>
            <inet>...</inet>
          </family>
        </monitoring>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Address family of packets to monitor.

Contents <inet>—Monitor IPv4 packets.

<family> (configuration/routing-instances/instance/ forwarding-options/port-mirroring)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <port-mirroring>
          <family>
            <inet>...</inet>
            <inet6>...</inet6>
            <vpls>...</vpls>
            <ccc>...</ccc>
          </family>
        </port-mirroring>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Address family of packets to mirror.

Contents <ccc>—Mirror layer-2 ccc packets.

<inet>—Mirror IPv4 packets.

<inet6>—Mirror IPv6 packets.

<vpls>—Mirror Layer-2 bridged/vpls packets.

<family> (configuration/routing-instances/instance/ forwarding-options/port-mirroring/instance)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <port-mirroring>
          <instance>
            <family>
              <inet>...</inet>
              <inet6>...</inet6>
              <vpls>...</vpls>
              <ccc>...</ccc>
            </family>
          </instance>
        </port-mirroring>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Address family of packets to mirror.

Contents <ccc>—Mirror layer-2 ccc packets.

<inet>—Mirror IPv4 packets.

<inet6>—Mirror IPv6 packets.

<vpls>—Mirror Layer-2 bridged/vpls packets.

<family> (configuration/routing-instances/instance/ forwarding-options/sampling/input)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <sampling>
          <input>
            <family>
              <inet>...</inet>
              <mpls>...</mpls>
              <inet6>...</inet6>
            </family>
          </input>
        </sampling>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family.

Contents <inet>—Sampling parameters for IPv4.

<inet6>—Sampling parameters for IPv6.

<mpls>—Sampling parameters for MPLS.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>...</inet>
            <inet-vpn>...</inet-vpn>
            <inet6>...</inet6>
            <inet6-vpn>...</inet6-vpn>
            <iso-vpn>...</iso-vpn>
            <l2vpn>...</l2vpn>
            <inet-mvpn>...</inet-mvpn>
            <inet6-mvpn>...</inet6-mvpn>
            <inet-mdt>...</inet-mdt>
            <route-target>...</route-target>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>...</inet>
              <inet-vpn>...</inet-vpn>
              <inet6>...</inet6>
              <inet6-vpn>...</inet6-vpn>
              <iso-vpn>...</iso-vpn>
              <l2vpn>...</l2vpn>
              <inet-mvpn>...</inet-mvpn>
              <inet6-mvpn>...</inet6-mvpn>
              <inet-mdt>...</inet-mdt>
              <route-target>...</route-target>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>...</inet>
                <inet-vpn>...</inet-vpn>
                <inet6>...</inet6>
                <inet6-vpn>...</inet6-vpn>
                <iso-vpn>...</iso-vpn>
                <l2vpn>...</l2vpn>
                <inet-mvpn>...</inet-mvpn>
                <inet6-mvpn>...</inet6-mvpn>
                <inet-mdt>...</inet-mdt>
                <route-target>...</route-target>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Protocol family for NLRIs in updates.

Contents <inet>—IPv4 NLRI parameters.

<inet-mdt>—IPv4 Multicast Distribution Tree (MDT) NLRI parameters.

<inet-mvpn>—IPv4 MVPN NLRI parameters.

<inet-vpn>—IPv4 Layer 3 VPN NLRI parameters.

<inet6>—IPv6 NLRI parameters.

<inet6-mvpn>—IPv6 MVPN NLRI parameters.

<inet6-vpn>—IPv6 Layer 3 VPN NLRI parameters.

<iso-vpn>—ISO Layer 3 VPN NLRI parameters.

<l2vpn>—MPLS-based Layer 2 VPN and VPLS NLRI parameters.

<route-target>—Route target NLRI used for VPN route filtering.

<family> (configuration/routing-instances/instance/protocols/ isis/traffic-engineering)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <traffic-engineering>
            <family>
              <name>name</name>     <!-- identifier -->
              <shortcuts>...</shortcuts>
            </family>
          </traffic-engineering>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Address family specific traffic-engineering attributes.

Contents <name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<shortcuts>—Use label-switched paths as next hops, if possible.

<family> (configuration/routing-instances/instance/protocols/ pim/rp/bootstrap)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <bootstrap>
              <family>
                <inet>...</inet>
                <inet6>...</inet6>
              </family>
            </bootstrap>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Bootstrap address family.

Contents <inet>—IPv4 bootstrap properties.

<inet6>—IPv6 bootstrap properties.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <rp>
            <local>
              <family>
                <inet>...</inet>
                <inet6>...</inet6>
              </family>
            </local>
          </rp>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Local RP address family.

Contents <inet>—IPv4 local RP properties.

<inet6>—IPv6 local RP properties.

<family> (configuration/routing-instances/instance/ routing-options/auto-export)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <family>
            <inet>...</inet>
            <inet6>...</inet6>
            <iso>...</iso>
          </family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description No documentation is available yet.

Contents <inet>—IPv4 parameters.

<inet6>—IPv6 parameters.

<iso>—ISO parameters.

<family> (configuration/routing-instances/instance/ routing-options/interface-routes)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <interface-routes>
          <family>
            <name>name</name>     <!-- identifier -->
            <import>...</import>
            <export>...</export>
          </family>
        </interface-routes>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Address family.

Contents <export>—Control exportability of local routes.

<import>—Import policy.

<name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<family> (configuration/routing-instances/instance/ routing-options/topologies)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <topologies>
          <family>
            <name>name</name>     <!-- identifier -->
            <topology>...</topology>
          </family>
        </topologies>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Address family.

Contents <name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<topology>—Topology information.

<family> (configuration/routing-options/auto-export)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <family>
        <inet>...</inet>
        <inet6>...</inet6>
        <iso>...</iso>
      </family>
    </auto-export>
  </routing-options>
</configuration>
```

Description No documentation is available yet.

Contents <inet>—IPv4 parameters.

<inet6>—IPv6 parameters.

<iso>—ISO parameters.

<family> (configuration/routing-options/interface-routes)

Usage

```
<configuration>
  <routing-options>
    <interface-routes>
      <family>
        <name>name</name>     <!-- identifier -->
        <import>...</import>
        <export>...</export>
      </family>
    </interface-routes>
  </routing-options>
</configuration>
```

Description Address family.

Contents <export>—Control exportability of local routes.

<import>—Import policy.

<name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<family> (configuration/routing-options/topologies)

Usage

```
<configuration>
  <routing-options>
    <topologies>
      <family>
        <name>name</name>     <!-- identifier -->
        <topology>...</topology>
      </family>
    </topologies>
  </routing-options>
</configuration>
```

Description Address family.

Contents <name>—No documentation is available yet.

- inet—IPv4 family.
- inet6—IPv6 family.

<topology>—Topology information.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <fast-reroute>
            <hop-limit>hop-limit</hop-limit>
            <bandwidth>bandwidth</bandwidth>
            <bandwidth-percent>bandwidth-percent</bandwidth-percent>
            <no-include-any/>
            <include-any>...</include-any>
            <no-include-all/>
            <include-all>...</include-all>
            <no-exclude/>
            <exclude>...</exclude>
          </fast-reroute>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Fast reroute.

Contents <bandwidth>—Bandwidth to reserve (bps).

<bandwidth-percent>—Percentage of main path bandwidth to reserve.

<exclude>—Groups, all of which must be absent.

<hop-limit>—Maximum allowed router hops.

<include-all>—Groups, all of which must be present.

<include-any>—Groups, one or more of which must be present.

<no-exclude>—Disable exclude checking.

<no-include-all>—Disable include-all checking.

<no-include-any>—Disable include-any checking.

<fast-reroute> (configuration/logical-systems/protocols/rsvp)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <rsvp>
        <fast-reroute>
          <optimize-timer>seconds</optimize-timer>
        </fast-reroute>
      </rsvp>
    </protocols>
  </logical-systems>
</configuration>
```

Description One-to-one fast-reroute protection mechanism.

Contents <optimize-timer>—Frequency of reoptimization for fast-reroute detour.

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

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <fast-reroute>
          <hop-limit>hop-limit</hop-limit>
          <bandwidth>bandwidth</bandwidth>
          <bandwidth-percent>bandwidth-percent</bandwidth-percent>
          <no-include-any/>
          <include-any>...</include-any>
          <no-include-all/>
          <include-all>...</include-all>
          <no-exclude/>
          <exclude>...</exclude>
        </fast-reroute>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Fast reroute.

Contents <bandwidth>—Bandwidth to reserve (bps).

<bandwidth-percent>—Percentage of main path bandwidth to reserve.

<exclude>—Groups, all of which must be absent.

<hop-limit>—Maximum allowed router hops.

<include-all>—Groups, all of which must be present.

<include-any>—Groups, one or more of which must be present.

<no-exclude>—Disable exclude checking.

<no-include-all>—Disable include-all checking.

<no-include-any>—Disable include-any checking.

<fast-reroute> (configuration/protocols/rsvp)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <fast-reroute>
        <optimize-timer>seconds</optimize-timer>
      </fast-reroute>
    </rsvp>
  </protocols>
</configuration>
```

Description One-to-one fast-reroute protection mechanism.

Contents <optimize-timer>—Frequency of reoptimization for fast-reroute detour.

<fast-update-filters> (configuration/services/pgcp/gateway)

Usage

```
<configuration>
  <services>
    <pgcp>
      <gateway>
        <fast-update-filters>
          <maximum-terms>maximum-terms</maximum-terms>
          <maximum-term-percentage>maximum-term-percentage</
maximum-term-percentage>
        </fast-update-filters>
      </gateway>
    </pgcp>
  </services>
</configuration>
```

Description No documentation is available yet.

Contents <maximum-term-percentage>—Maximum percentage of gates with rate-limit terms at PFE.

<maximum-terms>—Maximum gate rate-limit terms to install at PFE.

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

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <fastether-options>
          <loopback/>
          <flow-control/>
          <source-filtering/>
          <auto-negotiation/>
          <ingress-rate-limit>megabits per second</ingress-rate-limit>
          <source-address-filter>...</source-address-filter>
          <redundant-parent>...</redundant-parent>
          <ieee-802.3ad>...</ieee-802.3ad>
          <mpls>...</mpls>
          <ignore-l3-incompletes/>
        </fastether-options>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Fast Ethernet interface-specific options.

Contents <auto-negotiation>—Enable auto-negotiation.

<flow-control>—Enable flow control.

<ieee-802.3ad>—IEEE 802.3ad.

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

<ingress-rate-limit>—Ingress rate at port.

<loopback>—Enable loopback.

<mpls>—MPLS options.

<redundant-parent>— Parent of this interface.

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

<source-filtering>—Enable source address filtering.

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

Usage

```
<configuration>
  <interfaces>
    <interface>
      <fastether-options>
        <loopback/>
        <flow-control/>
        <source-filtering/>
        <auto-negotiation/>
        <ingress-rate-limit>megabits per second</ingress-rate-limit>
        <source-address-filter>...</source-address-filter>
        <redundant-parent>...</redundant-parent>
        <ieee-802.3ad>...</ieee-802.3ad>
        <mpls>...</mpls>
        <ignore-l3-incompletes/>
      </fastether-options>
    </interface>
  </interfaces>
</configuration>
```

Description Fast Ethernet interface-specific options.

Contents <auto-negotiation>—Enable auto-negotiation.

<flow-control>—Enable flow control.

<ieee-802.3ad>—IEEE 802.3ad.

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

<ingress-rate-limit>—Ingress rate at port.

<loopback>—Enable loopback.

<mpls>—MPLS options.

<redundant-parent>— Parent of this interface.

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

<source-filtering>—Enable source address filtering.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <fate-sharing>
            <group>...</group>
          </fate-sharing>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Fate-sharing links or nodes database.

Contents <group>—Group of objects sharing common characteristics.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <fate-sharing>
        <group>...</group>
      </fate-sharing>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Fate-sharing links or nodes database.

Contents <group>—Group of objects sharing common characteristics.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <fate-sharing>
          <group>...</group>
        </fate-sharing>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Fate-sharing links or nodes database.

Contents <group>—Group of objects sharing common characteristics.

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

Usage

```
<configuration>
  <routing-options>
    <fate-sharing>
      <group>...</group>
    </fate-sharing>
  </routing-options>
</configuration>
```

Description Fate-sharing links or nodes database.

Contents <group>—Group of objects sharing common characteristics.

<fault-management> (configuration/services/ggsn)

Usage

```
<configuration>
  <services>
    <ggsn>
      <fault-management>
        <alarm>...</alarm>
      </fault-management>
    </ggsn>
  </services>
</configuration>
```

Description Settings for fault management.

Contents <alarm>—Settings for alarms.

<feb> (configuration/chassis/fpc-feb-connectivity/fpc)

Usage

```
<configuration>
  <chassis>
    <fpc-feb-connectivity>
      <fpc>
        <feb>
          <none/>
          <feb-slot>feb-slot</feb-slot>
        </feb>
      </fpc>
    </fpc-feb-connectivity>
  </chassis>
</configuration>
```

Description FEB slot number.

Contents <feb-slot>—FEB slot number.

<none>—FPC not connected to any FEB.

<feb> (configuration/chassis/redundancy)

Usage

```
<configuration>
  <chassis>
    <redundancy>
      <feb>
        <redundancy-group>...</redundancy-group>
      </feb>
    </redundancy>
  </chassis>
</configuration>
```

Description Forwarding Engine Board redundancy configuration.

Contents <redundancy-group>—No documentation is available yet.

<feb> (configuration/chassis/redundancy/feb/redundancy-group)

Usage

```
<configuration>
  <chassis>
    <redundancy>
      <feb>
        <redundancy-group>
          <feb>
            <name>name</name>     <!-- identifier -->
            <primary/>
            <backup/>
          </feb>
        </redundancy-group>
      </feb>
    </redundancy>
  </chassis>
</configuration>
```

Description Redundancy settings for a Forwarding Engine Board.

Contents <backup>—FEB is backup in the redundancy group.

<name>—Slot number.

<primary>—FEB is default master in the redundancy group.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <oam>
          <fec>
            <name>name</name>     <!-- identifier -->
            <bfd-liveness-detection>...</bfd-liveness-detection>
            <no-bfd-liveness-detection/>
            <periodic-traceroute>...</periodic-traceroute>
          </fec>
        </oam>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Forwarding equivalence class.

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

<name>—Forwarding equivalence class address.

<no-bfd-liveness-detection>—Disable BFD liveness detection.

<periodic-traceroute>—Configure periodic traceroute.

<fec> (configuration/logical-systems/protocols/ldp/policing)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <policing>
          <fec>
            <name>name</name>     <!-- identifier -->
            <ingress-traffic>ingress-traffic</ingress-traffic>
            <transit-traffic>transit-traffic</transit-traffic>
          </fec>
        </policing>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Forwarding equivalence class.

Contents <ingress-traffic>—Name of filter to use for policing ingress LDP traffic.

<name>—Forwarding equivalence class address.

<transit-traffic>—Name of filter to use for policing transit LDP traffic.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <oam>
              <fec>
                <name>name</name>     <!-- identifier -->
                <bfd-liveness-detection>...</bfd-liveness-detection>
                <no-bfd-liveness-detection/>
                <periodic-traceroute>...</periodic-traceroute>
              </fec>
            </oam>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Forwarding equivalence class.

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

<name>—Forwarding equivalence class address.

<no-bfd-liveness-detection>—Disable BFD liveness detection.

<periodic-traceroute>—Configure periodic traceroute.

<fec> (configuration/logical-systems/routing-instances/instance/ protocols/ldp/policing)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <policing>
              <fec>
                <name>name</name>     <!-- identifier -->
                <ingress-traffic>ingress-traffic</ingress-traffic>
                <transit-traffic>transit-traffic</transit-traffic>
              </fec>
            </policing>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Forwarding equivalence class.

Contents <ingress-traffic>—Name of filter to use for policing ingress LDP traffic.

<name>—Forwarding equivalence class address.

<transit-traffic>—Name of filter to use for policing transit LDP traffic.

<fec> (configuration/protocols/ldp/oam)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <oam>
        <fec>
          <name>name</name>     <!-- identifier -->
          <bfd-liveness-detection>...</bfd-liveness-detection>
          <no-bfd-liveness-detection/>
          <periodic-traceroute>...</periodic-traceroute>
        </fec>
      </oam>
    </ldp>
  </protocols>
</configuration>
```

Description Forwarding equivalence class.

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

<name>—Forwarding equivalence class address.

<no-bfd-liveness-detection>—Disable BFD liveness detection.

<periodic-traceroute>—Configure periodic traceroute.

<fec> (configuration/protocols/ldp/policing)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <policing>
        <fec>
          <name>name</name>     <!-- identifier -->
          <ingress-traffic>ingress-traffic</ingress-traffic>
          <transit-traffic>transit-traffic</transit-traffic>
        </fec>
      </policing>
    </ldp>
  </protocols>
</configuration>
```

Description Forwarding equivalence class.

Contents <ingress-traffic>—Name of filter to use for policing ingress LDP traffic.

<name>—Forwarding equivalence class address.

<transit-traffic>—Name of filter to use for policing transit LDP traffic.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <oam>
            <fec>
              <name>name</name>     <!-- identifier -->
              <bfd-liveness-detection>...</bfd-liveness-detection>
              <no-bfd-liveness-detection/>
              <periodic-traceroute>...</periodic-traceroute>
            </fec>
          </oam>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Forwarding equivalence class.

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

<name>—Forwarding equivalence class address.

<no-bfd-liveness-detection>—Disable BFD liveness detection.

<periodic-traceroute>—Configure periodic traceroute.

<fec> (configuration/routing-instances/instance/protocols/ldp/ policing)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <policing>
            <fec>
              <name>name</name>     <!-- identifier -->
              <ingress-traffic>ingress-traffic</ingress-traffic>
              <transit-traffic>transit-traffic</transit-traffic>
            </fec>
          </policing>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Forwarding equivalence class.

Contents <ingress-traffic>—Name of filter to use for policing ingress LDP traffic.

<name>—Forwarding equivalence class address.

<transit-traffic>—Name of filter to use for policing transit LDP traffic.

<fields> (configuration/accounting-options/interface-profile)

Usage

```
<configuration>
  <accounting-options>
    <interface-profile>
      <fields>
        <input-bytes/>
        <output-bytes/>
        <input-packets/>
        <output-packets/>
        <input-errors/>
        <output-errors/>
        <input-multicast/>
        <output-multicast/>
        <input-unicast/>
        <output-unicast/>
        <unsupported-protocol/>
        <rpf-check-bytes/>
        <rpf-check-packets/>
        <rpf-check6-bytes/>
        <rpf-check6-packets/>
      </fields>
    </interface-profile>
  </accounting-options>
</configuration>
```

Description Statistics to log to file.

Contents <input-bytes>—Input bytes.

<input-errors>—Generic input error packets.

<input-multicast>—Input packets arriving by multicast.

<input-packets>—Input packets.

<input-unicast>—Input unicast packets.

<output-bytes>—Output bytes.

<output-errors>—Generic output error packets.

<output-multicast>—Output packets sent by multicast.

<output-packets>—Output packets.

<output-unicast>—Output unicast packets.

<rpf-check-bytes>—Bytes failing IPv4 reverse-path-forwarding check.

<rpf-check-packets>—Packets failing IPv4 reverse-path-forwarding check.

<rpf-check6-bytes>—Bytes failing IPv6 reverse-path-forwarding check.

<rpf-check6-packets>—Packets failing IPv6 reverse-path-forwarding check.

<unsupported-protocol>—Packets for unsupported protocol.

<fields> (configuration/accounting-options/ routing-engine-profile)

Usage

```
<configuration>
  <accounting-options>
    <routing-engine-profile>
      <fields>
        <host-name/>
        <date/>
        <time-of-day/>
        <uptime/>
        <cpu-load-1/>
        <cpu-load-5/>
        <cpu-load-15/>
        <memory-usage/>
        <total-cpu-usage/>
      </fields>
    </routing-engine-profile>
  </accounting-options>
</configuration>
```

Description Information to log to file.

Contents <cpu-load-1>—Average system load over last 1 minute.

<cpu-load-15>—Average system load over last 15 minutes.

<cpu-load-5>—Average system load over last 5 minutes.

<date>—Date.

<host-name>—Hostname for this router.

<memory-usage>—Instantaneous active memory usage.

<time-of-day>—Time of day.

<total-cpu-usage>—Total CPU usage percentage.

<uptime>—Time since last reboot.

<file> (configuration/accounting-options)

Usage

```
<configuration>
  <accounting-options>
    <file>
      <name>name</name>     <!-- identifier -->
      <nonpersistent/>
      <size>size</size>
      <files>files</files>
      <transfer-interval>minutes</transfer-interval>
      <start-time>start-time</start-time>
      <archive-sites>...</archive-sites>
    </file>
  </accounting-options>
</configuration>
```

Description Accounting data file configuration.

Contents <archive-sites>—List of archive destinations.

<files>—Maximum number of files for this profile.

<name>—Name of file in which to write accounting data.

<nonpersistent>—File does not persist across reboot.

<size>—Maximum accounting data file size.

<start-time>—Start time for file transmission (yyyy-mm-dd.hh:mm).

<transfer-interval>—Frequency at which to transfer files to archive sites.

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

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <forwarding-options>
        <dhcp-relay>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </dhcp-relay>
      </forwarding-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/bridge-domains/domain/ multicast-snooping-options/traceoptions)

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <multicast-snooping-options>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </multicast-snooping-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/bridge-domains/domain/protocols/ igmp-snooping/traceoptions)

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <protocols>
        <igmp-snooping>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </igmp-snooping>
      </protocols>
    </domain>
  </bridge-domains>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/chassis/system-domains/traceoptions)

Usage

```
<configuration>
  <chassis>
    <system-domains>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </system-domains>
  </chassis>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/class-of-service/traceoptions)

Usage

```
<configuration>
  <class-of-service>
    <traceoptions>
      <file>
        <filename>filename</filename>
        <size>size</size>
        <files>files</files>
        <world-readable/>
        <match>match</match>
      </file>
    </traceoptions>
  </class-of-service>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/dynamic-profiles/class-of-service/ traceoptions)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/dynamic-profiles/interfaces/traceoptions)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/dynamic-profiles/protocols/igmp/ traceoptions)

Usage

```
<configuration>
  <dynamic-profiles>
    <protocols>
      <igmp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </igmp>
    </protocols>
  </dynamic-profiles>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/event-options/event-script)

Usage

```
<configuration>
  <event-options>
    <event-script>
      <file>
        <name>name</name>     <!-- identifier -->
      </file>
    </event-script>
  </event-options>
</configuration>
```

Description File name for event script.

Contents <name>—Local filename of the script file.

<file> (configuration/event-options/event-script/traceoptions)

Usage

```
<configuration>
  <event-options>
    <event-script>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </event-script>
  </event-options>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/event-options/traceoptions)

Usage

```
<configuration>
  <event-options>
    <traceoptions>
      <file>
        <filename>filename</filename>
        <size>size</size>
        <files>files</files>
        <world-readable/>
        <match>match</match>
      </file>
    </traceoptions>
  </event-options>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/forwarding-options/dhcp-relay/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <dhcp-relay>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </dhcp-relay>
  </forwarding-options>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/forwarding-options/helpers/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/forwarding-options/packet-capture)

Usage

```
<configuration>
  <forwarding-options>
    <packet-capture>
      <file>
        <filename>filename</filename>     <!-- mandatory -->
        <files>files</files>
        <size>size</size>
        <world-readable/>
      </file>
    </packet-capture>
  </forwarding-options>
</configuration>
```

Description Parameters for file that contains captured packets.

Contents <filename>—Name of file.

<files>—Maximum number of files.

<size>—Maximum file size.

<world-readable>—Allow any user to read packet-capture files.

<file> (configuration/forwarding-options/port-mirroring/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <port-mirroring>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </port-mirroring>
  </forwarding-options>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/forwarding-options/sampling/output)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <output>
        <file>
          <disable/>
          <filename>filename</filename>     <!-- mandatory -->
          <files>files</files>
          <size>size</size>
          <world-readable/>
          <stamp/>
        </file>
      </output>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Configure parameters for dumping sampled packets.

Contents <disable>—Disable sampled packet dumps.

<filename>—Name of file to contain sampled packet dumps.

<files>—Maximum number of sampled packet dump files.

<size>—Maximum sample dump file size.

<stamp>—Timestamp every packet in the dump.

<world-readable>—Allow any user to read the sampled dump.

<file> (configuration/forwarding-options/sampling/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </sampling>
  </forwarding-options>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/interfaces/traceoptions)

Usage

```
<configuration>
  <interfaces>
    <traceoptions>
      <file>
        <filename>filename</filename>
        <size>size</size>
        <files>files</files>
        <world-readable/>
        <match>match</match>
      </file>
    </traceoptions>
  </interfaces>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/jnx-example/traceoptions)

Usage

```
<configuration>
  <jnx-example>
    <traceoptions>
      <file>
        <filename>filename</filename>
        <size>size</size>
        <files>files</files>
        <world-readable/>
        <match>match</match>
      </file>
    </traceoptions>
  </jnx-example>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <forwarding-options>
      <dhcp-relay>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </dhcp-relay>
    </forwarding-options>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ancp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ancp>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </ancp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bfd>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </bfd>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/bgp/family/inet/ labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <family>
          <inet>
            <labeled-unicast>
              <traffic-statistics>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traffic-statistics>
            </labeled-unicast>
          </inet>
        </family>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/bgp/family/ inet6/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <family>
          <inet6>
            <labeled-unicast>
              <traffic-statistics>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traffic-statistics>
            </labeled-unicast>
          </inet6>
        </family>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/bgp/group/ family/inet/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <family>
            <inet>
              <labeled-unicast>
                <traffic-statistics>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traffic-statistics>
              </labeled-unicast>
            </inet>
          </family>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/bgp/group/ family/inet6/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <family>
            <inet6>
              <labeled-unicast>
                <traffic-statistics>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traffic-statistics>
              </labeled-unicast>
            </inet6>
          </family>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/bgp/group/ neighbor/family/inet/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <family>
              <inet>
                <labeled-unicast>
                  <traffic-statistics>
                    <file>
                      <filename>filename</filename>     <!-- mandatory -->
                      <size>size</size>
                      <files>files</files>
                      <world-readable/>
                    </file>
                  </traffic-statistics>
                </labeled-unicast>
              </inet>
            </family>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/bgp/group/ neighbor/family/inet6/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <family>
              <inet6>
                <labeled-unicast>
                  <traffic-statistics>
                    <file>
                      <filename>filename</filename>     <!-- mandatory -->
                      <size>size</size>
                      <files>files</files>
                      <world-readable/>
                    </file>
                  </traffic-statistics>
                </labeled-unicast>
              </inet6>
            </family>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/bgp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/dot1x/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <dot1x>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </dot1x>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/dvmrp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <dvmrp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </dvmrp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/esis/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <esis>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </esis>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/igmp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <igmp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </igmp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/igmp-host/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <igmp-host>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </igmp-host>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ilmi/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ilmi>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </ilmi>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/isis/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <isis>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </isis>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/l2circuit/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <l2circuit>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </l2circuit>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/l2iw/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <l2iw>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </l2iw>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/lacp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <lacp>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </lacp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/layer2-control/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <layer2-control>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </layer2-control>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ldp/ traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <traffic-statistics>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traffic-statistics>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/link-management/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <link-management>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </link-management>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mld/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mld>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </mld>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mld-host/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mld-host>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </mld-host>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mpls/ label-switched-path/oam/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <oam>
            <traceoptions>
              <file>
                <filename>filename</filename>
                <size>size</size>
                <files>files</files>
                <world-readable/>
                <match>match</match>
              </file>
            </traceoptions>
          </oam>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mpls/ label-switched-path/primary/oam/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <primary>
            <oam>
              <traceoptions>
                <file>
                  <filename>filename</filename>
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                  <match>match</match>
                </file>
              </traceoptions>
            </oam>
          </primary>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mpls/ label-switched-path/secondary/oam/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <secondary>
            <oam>
              <traceoptions>
                <file>
                  <filename>filename</filename>
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                  <match>match</match>
                </file>
              </traceoptions>
            </oam>
          </secondary>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mpls/oam/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <oam>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </oam>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mpls/statistics)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <statistics>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </statistics>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mpls/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <msdp>
        <group>
          <peer>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </peer>
        </group>
      </msdp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <msdp>
        <group>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </group>
      </msdp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/msdp/peer/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <msdp>
        <peer>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </peer>
      </msdp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/msdp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <msdp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </msdp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/mstp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mstp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </mstp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ neighbor-discovery/secure/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <neighbor-discovery>
        <secure>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </secure>
      </neighbor-discovery>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/oam/ethernet/ connectivity-fault-management/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <oam>
        <ethernet>
          <connectivity-fault-management>
            <traceoptions>
              <file>
                <filename>filename</filename>
                <size>size</size>
                <files>files</files>
                <world-readable/>
                <match>match</match>
              </file>
            </traceoptions>
          </connectivity-fault-management>
        </ethernet>
      </oam>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/oam/ethernet/ link-fault-management/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <oam>
        <ethernet>
          <link-fault-management>
            <traceoptions>
              <file>
                <filename>filename</filename>
                <size>size</size>
                <files>files</files>
                <world-readable/>
                <match>match</match>
              </file>
            </traceoptions>
          </link-fault-management>
        </ethernet>
      </oam>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ospf/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ospf>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </ospf>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ospf3/realm/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ospf3>
        <realm>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </realm>
      </ospf3>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ospf3/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ospf3>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </ospf3>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/pim/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <pim>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </pim>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ppp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ppp>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </ppp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ protection-group/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <protection-group>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </protection-group>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/rip/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <rip>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </rip>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ripng/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ripng>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </ripng>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ router-advertisement/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <router-advertisement>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </router-advertisement>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/ router-discovery/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <router-discovery>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </router-discovery>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/rstp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <rstp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </rstp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/rsvp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <rsvp>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </rsvp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/vrrp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <vrrp>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
            <microsecond-stamp/>
          </file>
        </traceoptions>
      </vrrp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<microsecond-stamp>—Timestamp with microsecond granularity.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/protocols/vstp/vlan/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <vstp>
        <vlan>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </vlan>
      </vstp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <forwarding-options>
              <dhcp-relay>
                <traceoptions>
                  <file>
                    <filename>filename</filename>
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                    <match>match</match>
                  </file>
                </traceoptions>
              </dhcp-relay>
            </forwarding-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <multicast-snooping-options>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </multicast-snooping-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/bridge-domains/domain/protocols/igmp-snooping/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <protocols>
              <igmp-snooping>
                <traceoptions>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traceoptions>
              </igmp-snooping>
            </protocols>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <dhcp-relay>
            <traceoptions>
              <file>
                <filename>filename</filename>
                <size>size</size>
                <files>files</files>
                <world-readable/>
                <match>match</match>
              </file>
            </traceoptions>
          </dhcp-relay>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/forwarding-options/helpers/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <helpers>
            <traceoptions>
              <file>
                <filename>filename</filename>
                <size>size</size>
                <files>files</files>
                <world-readable/>
                <match>match</match>
              </file>
            </traceoptions>
          </helpers>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/forwarding-options/packet-capture)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <packet-capture>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <files>files</files>
              <size>size</size>
              <world-readable/>
            </file>
          </packet-capture>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Parameters for file that contains captured packets.

Contents <filename>—Name of file.

<files>—Maximum number of files.

<size>—Maximum file size.

<world-readable>—Allow any user to read packet-capture files.

<file> (configuration/logical-systems/routing-instances/ instance/forwarding-options/port-mirroring/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <port-mirroring>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </port-mirroring>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/forwarding-options/sampling/output)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <sampling>
            <output>
              <file>
                <disable/>
                <filename>filename</filename>     <!-- mandatory -->
                <files>files</files>
                <size>size</size>
                <world-readable/>
                <stamp/>
              </file>
            </output>
          </sampling>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Configure parameters for dumping sampled packets.

Contents <disable>—Disable sampled packet dumps.

<filename>—Name of file to contain sampled packet dumps.

<files>—Maximum number of sampled packet dump files.

<size>—Maximum sample dump file size.

<stamp>—Timestamp every packet in the dump.

<world-readable>—Allow any user to read the sampled dump.

<file> (configuration/logical-systems/routing-instances/ instance/forwarding-options/sampling/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <sampling>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </sampling>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/multicast-snooping-options/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <multicast-snooping-options>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </multicast-snooping-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/family/inet/labeled-unicast/ traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <family>
              <inet>
                <labeled-unicast>
                  <traffic-statistics>
                    <file>
                      <filename>filename</filename>     <!-- mandatory -->
                      <size>size</size>
                      <files>files</files>
                      <world-readable/>
                    </file>
                  </traffic-statistics>
                </labeled-unicast>
              </inet>
            </family>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/family/inet6/labeled-unicast/ traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <family>
              <inet6>
                <labeled-unicast>
                  <traffic-statistics>
                    <file>
                      <filename>filename</filename>     <!-- mandatory -->
                      <size>size</size>
                      <files>files</files>
                      <world-readable/>
                    </file>
                  </traffic-statistics>
                </labeled-unicast>
              </inet6>
            </family>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/group/family/inet/labeled-unicast/ traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <family>
                <inet>
                  <labeled-unicast>
                    <traffic-statistics>
                      <file>
                        <filename>filename</filename>     <!-- mandatory -->
                        <size>size</size>
                        <files>files</files>
                        <world-readable/>
                      </file>
                    </traffic-statistics>
                  </labeled-unicast>
                </inet>
              </family>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/group/family/inet6/labeled-unicast/ traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <family>
                <inet6>
                  <labeled-unicast>
                    <traffic-statistics>
                      <file>
                        <filename>filename</filename>     <!-- mandatory -->
                        <size>size</size>
                        <files>files</files>
                        <world-readable/>
                      </file>
                    </traffic-statistics>
                  </labeled-unicast>
                </inet6>
              </family>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/group/neighbor/family/inet/ labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <family>
                  <inet>
                    <labeled-unicast>
                      <traffic-statistics>
                        <file>
                          <filename>filename</filename>     <!-- mandatory -->
                          <size>size</size>
                          <files>files</files>
                          <world-readable/>
                        </file>
                      </traffic-statistics>
                    </labeled-unicast>
                  </inet>
                </family>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/group/neighbor/family/inet6/ labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <family>
                  <inet6>
                    <labeled-unicast>
                      <traffic-statistics>
                        <file>
                          <filename>filename</filename>     <!-- mandatory -->
                          <size>size</size>
                          <files>files</files>
                          <world-readable/>
                        </file>
                      </traffic-statistics>
                    </labeled-unicast>
                  </inet6>
                </family>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <traceoptions>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traceoptions>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/esis/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <esis>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </esis>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/igmp-snooping/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <igmp-snooping>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </igmp-snooping>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/isis/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <isis>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </isis>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/l2vpn/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <l2vpn>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </l2vpn>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/ldp/traffic-statistics)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <traffic-statistics>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traffic-statistics>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <msdp>
            <group>
              <peer>
                <traceoptions>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traceoptions>
              </peer>
            </group>
          </msdp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <msdp>
            <group>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </group>
          </msdp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/msdp/peer/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <msdp>
            <peer>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </peer>
          </msdp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <msdp>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </msdp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/mstp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <mstp>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </mstp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/mvpn/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <mvpn>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </mvpn>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/ospf/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </ospf>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/ospf3/realm/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf3>
            <realm>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </realm>
          </ospf3>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/ospf3/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf3>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </ospf3>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/pim/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <pim>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </pim>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <rip>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </rip>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ripng>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </ripng>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/router-discovery/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <router-discovery>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </router-discovery>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/rstp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <rstp>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </rstp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/vpls/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <vpls>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </vpls>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/protocols/vstp/vlan/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <vstp>
            <vlan>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </vlan>
          </vstp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <auto-export>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </auto-export>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/routing-options/dynamic-tunnels/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <dynamic-tunnels>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </dynamic-tunnels>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/routing-options/flow/validation/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <flow>
            <validation>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </validation>
          </flow>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/routing-options/multicast/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <multicast>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </multicast>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-instances/ instance/routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <resolution>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </resolution>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <system>
          <services>
            <dhcp-local-server>
              <traceoptions>
                <file>
                  <filename>filename</filename>
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                  <match>match</match>
                </file>
              </traceoptions>
            </dhcp-local-server>
          </services>
        </system>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-options/ auto-export/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <auto-export>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </auto-export>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-options/ dynamic-tunnels/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <dynamic-tunnels>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </dynamic-tunnels>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-options/flow/ validation/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <flow>
        <validation>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </validation>
      </flow>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-options/multicast/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <multicast>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </multicast>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-options/ resolution/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <resolution>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </resolution>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/logical-systems/routing-options/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <logical-systems>
    <system>
      <services>
        <dhcp-local-server>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </dhcp-local-server>
      </services>
    </system>
  </logical-systems>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/multicast-snooping-options/traceoptions)

Usage

```
<configuration>
  <multicast-snooping-options>
    <traceoptions>
      <file>
        <filename>filename</filename>     <!-- mandatory -->
        <size>size</size>
        <files>files</files>
        <world-readable/>
      </file>
    </traceoptions>
  </multicast-snooping-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ancp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ancp>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </ancp>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bfd/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bfd>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </bfd>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/family/inet/labeled-unicast/ traffic-statistics)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <labeled-unicast>
            <traffic-statistics>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traffic-statistics>
          </labeled-unicast>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/family/inet6/ labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet6>
          <labeled-unicast>
            <traffic-statistics>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traffic-statistics>
          </labeled-unicast>
        </inet6>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/group/family/inet/ labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <labeled-unicast>
              <traffic-statistics>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traffic-statistics>
            </labeled-unicast>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/group/family/inet6/ labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet6>
            <labeled-unicast>
              <traffic-statistics>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traffic-statistics>
            </labeled-unicast>
          </inet6>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/group/neighbor/family/inet/ labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <labeled-unicast>
                <traffic-statistics>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traffic-statistics>
              </labeled-unicast>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/group/neighbor/family/inet6/ labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet6>
              <labeled-unicast>
                <traffic-statistics>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traffic-statistics>
              </labeled-unicast>
            </inet6>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/group/neighbor/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/bgp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </bgp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/dot1x/traceoptions)

Usage

```
<configuration>
  <protocols>
    <dot1x>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </dot1x>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/dvmrp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </dvmrp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/esis/traceoptions)

Usage

```
<configuration>
  <protocols>
    <esis>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </esis>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/igmp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </igmp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/igmp-host/traceoptions)

Usage

```
<configuration>
  <protocols>
    <igmp-host>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </igmp-host>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ilmi/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ilmi>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </ilmi>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/isis/traceoptions)

Usage

```
<configuration>
  <protocols>
    <isis>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </isis>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/l2circuit/traceoptions)

Usage

```
<configuration>
  <protocols>
    <l2circuit>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </l2circuit>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/l2iw/traceoptions)

Usage

```
<configuration>
  <protocols>
    <l2iw>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </l2iw>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/lacp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <lacp>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </lacp>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/layer2-control/traceoptions)

Usage

```
<configuration>
  <protocols>
    <layer2-control>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </layer2-control>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </ldp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ldp/traffic-statistics)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traffic-statistics>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traffic-statistics>
    </ldp>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/link-management/traceoptions)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </link-management>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mld/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mld>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </mld>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mld-host/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mld-host>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </mld-host>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/label-switched-path/oam/ traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <oam>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </oam>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/label-switched-path/ primary/oam/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <primary>
          <oam>
            <traceoptions>
              <file>
                <filename>filename</filename>
                <size>size</size>
                <files>files</files>
                <world-readable/>
                <match>match</match>
              </file>
            </traceoptions>
          </oam>
        </primary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/label-switched-path/ secondary/oam/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <secondary>
          <oam>
            <traceoptions>
              <file>
                <filename>filename</filename>
                <size>size</size>
                <files>files</files>
                <world-readable/>
                <match>match</match>
              </file>
            </traceoptions>
          </oam>
        </secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/oam/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <oam>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </oam>
    </mpls>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/statistics)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <statistics>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </statistics>
    </mpls>
  </protocols>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mpls/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </mpls>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/msdp/group/peer/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <peer>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/msdp/group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/msdp/peer/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <peer>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </peer>
    </msdp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/msdp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </msdp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/mstp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mstp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </mstp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/neighbor-discovery/secure/ traceoptions)

Usage

```
<configuration>
  <protocols>
    <neighbor-discovery>
      <secure>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </secure>
    </neighbor-discovery>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/oam/ethernet/ connectivity-fault-management/traceoptions)

Usage

```
<configuration>
  <protocols>
    <oam>
      <ethernet>
        <connectivity-fault-management>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </connectivity-fault-management>
      </ethernet>
    </oam>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/oam/ethernet/ link-fault-management/traceoptions)

Usage

```
<configuration>
  <protocols>
    <oam>
      <ethernet>
        <link-fault-management>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </link-fault-management>
      </ethernet>
    </oam>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ospf/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </ospf>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ospf3/realm/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <realm>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </realm>
    </ospf3>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ospf3/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </ospf3>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/pim/traceoptions)

Usage

```
<configuration>
  <protocols>
    <pim>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </pim>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ppp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ppp>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </ppp>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/protection-group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <protection-group>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </protection-group>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/rip/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </rip>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/ripng/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </ripng>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/router-advertisement/ traceoptions)

Usage

```
<configuration>
  <protocols>
    <router-advertisement>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </router-advertisement>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/router-discovery/traceoptions)

Usage

```
<configuration>
  <protocols>
    <router-discovery>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </router-discovery>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/rstp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rstp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </rstp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/rsvp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </rsvp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/vrrp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <vrrp>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
          <microsecond-stamp/>
        </file>
      </traceoptions>
    </vrrp>
  </protocols>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<microsecond-stamp>—Timestamp with microsecond granularity.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/protocols/vstp/vlan/traceoptions)

Usage

```
<configuration>
  <protocols>
    <vstp>
      <vlan>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </vlan>
    </vstp>
  </protocols>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <forwarding-options>
            <dhcp-relay>
              <traceoptions>
                <file>
                  <filename>filename</filename>
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                  <match>match</match>
                </file>
              </traceoptions>
            </dhcp-relay>
          </forwarding-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <multicast-snooping-options>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </multicast-snooping-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/bridge-domains/ domain/protocols/igmp-snooping/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <protocols>
            <igmp-snooping>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </igmp-snooping>
          </protocols>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <dhcp-relay>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </dhcp-relay>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ forwarding-options/helpers/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <helpers>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </helpers>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ forwarding-options/packet-capture)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <packet-capture>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <files>files</files>
            <size>size</size>
            <world-readable/>
          </file>
        </packet-capture>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Parameters for file that contains captured packets.

Contents <filename>—Name of file.

<files>—Maximum number of files.

<size>—Maximum file size.

<world-readable>—Allow any user to read packet-capture files.

<file> (configuration/routing-instances/instance/ forwarding-options/port-mirroring/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <port-mirroring>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </port-mirroring>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ forwarding-options/sampling/output)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <sampling>
          <output>
            <file>
              <disable/>
              <filename>filename</filename>     <!-- mandatory -->
              <files>files</files>
              <size>size</size>
              <world-readable/>
              <stamp/>
            </file>
          </output>
        </sampling>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Configure parameters for dumping sampled packets.

Contents <disable>—Disable sampled packet dumps.

<filename>—Name of file to contain sampled packet dumps.

<files>—Maximum number of sampled packet dump files.

<size>—Maximum sample dump file size.

<stamp>—Timestamp every packet in the dump.

<world-readable>—Allow any user to read the sampled dump.

<file> (configuration/routing-instances/instance/ forwarding-options/sampling/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <sampling>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </sampling>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file information.

Contents <filename>—Filename to hold trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ multicast-snooping-options/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <multicast-snooping-options>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </multicast-snooping-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/ family/inet/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <labeled-unicast>
                <traffic-statistics>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traffic-statistics>
              </labeled-unicast>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/ family/inet6/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet6>
              <labeled-unicast>
                <traffic-statistics>
                  <file>
                    <filename>filename</filename>     <!-- mandatory -->
                    <size>size</size>
                    <files>files</files>
                    <world-readable/>
                  </file>
                </traffic-statistics>
              </labeled-unicast>
            </inet6>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/ group/family/inet/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <labeled-unicast>
                  <traffic-statistics>
                    <file>
                      <filename>filename</filename>     <!-- mandatory -->
                      <size>size</size>
                      <files>files</files>
                      <world-readable/>
                    </file>
                  </traffic-statistics>
                </labeled-unicast>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/ group/family/inet6/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet6>
                <labeled-unicast>
                  <traffic-statistics>
                    <file>
                      <filename>filename</filename>     <!-- mandatory -->
                      <size>size</size>
                      <files>files</files>
                      <world-readable/>
                    </file>
                  </traffic-statistics>
                </labeled-unicast>
              </inet6>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/ group/neighbor/family/inet/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <labeled-unicast>
                    <traffic-statistics>
                      <file>
                        <filename>filename</filename>     <!-- mandatory -->
                        <size>size</size>
                        <files>files</files>
                        <world-readable/>
                      </file>
                    </traffic-statistics>
                  </labeled-unicast>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/bgp/ group/neighbor/family/inet6/labeled-unicast/traffic-statistics)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet6>
                  <labeled-unicast>
                    <traffic-statistics>
                      <file>
                        <filename>filename</filename>     <!-- mandatory -->
                        <size>size</size>
                        <files>files</files>
                        <world-readable/>
                      </file>
                    </traffic-statistics>
                  </labeled-unicast>
                </inet6>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/esis/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <esis>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </esis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ igmp-snooping/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <igmp-snooping>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </igmp-snooping>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/isis/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ l2vpn/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ldp/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ldp/ traffic-statistics)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traffic-statistics>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traffic-statistics>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Statistics file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <msdp>
          <group>
            <peer>
              <traceoptions>
                <file>
                  <filename>filename</filename>     <!-- mandatory -->
                  <size>size</size>
                  <files>files</files>
                  <world-readable/>
                </file>
              </traceoptions>
            </peer>
          </group>
        </msdp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <msdp>
          <group>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </group>
        </msdp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/msdp/ peer/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <msdp>
          <peer>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </peer>
        </msdp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <msdp>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </msdp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/mstp/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <mstp>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </mstp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/mvpn/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <mvpn>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </mvpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ospf/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ ospf3/realm/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf3>
          <realm>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </realm>
        </ospf3>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ ospf3/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf3>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </ospf3>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/pim/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ripng>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </ripng>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/ router-discovery/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <router-discovery>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/rstp/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rstp>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </rstp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/vpls/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <vpls>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </vpls>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/protocols/vstp/ vlan/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <vstp>
          <vlan>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </vlan>
        </vstp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ routing-options/dynamic-tunnels/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <dynamic-tunnels>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </dynamic-tunnels>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ routing-options/flow/validation/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <flow>
          <validation>
            <traceoptions>
              <file>
                <filename>filename</filename>     <!-- mandatory -->
                <size>size</size>
                <files>files</files>
                <world-readable/>
              </file>
            </traceoptions>
          </validation>
        </flow>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ routing-options/multicast/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <resolution>
          <traceoptions>
            <file>
              <filename>filename</filename>     <!-- mandatory -->
              <size>size</size>
              <files>files</files>
              <world-readable/>
            </file>
          </traceoptions>
        </resolution>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-instances/instance/ routing-options/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <system>
        <services>
          <dhcp-local-server>
            <traceoptions>
              <file>
                <filename>filename</filename>
                <size>size</size>
                <files>files</files>
                <world-readable/>
                <match>match</match>
              </file>
            </traceoptions>
          </dhcp-local-server>
        </services>
      </system>
    </instance>
  </routing-instances>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </auto-export>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-options/dynamic-tunnels/ traceoptions)

Usage

```
<configuration>
  <routing-options>
    <dynamic-tunnels>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </dynamic-tunnels>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-options/flow/validation/ traceoptions)

Usage

```
<configuration>
  <routing-options>
    <flow>
      <validation>
        <traceoptions>
          <file>
            <filename>filename</filename>     <!-- mandatory -->
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </validation>
    </flow>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-options/multicast/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </multicast>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <resolution>
      <traceoptions>
        <file>
          <filename>filename</filename>     <!-- mandatory -->
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </resolution>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/routing-options/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <traceoptions>
      <file>
        <filename>filename</filename>     <!-- mandatory -->
        <size>size</size>
        <files>files</files>
        <world-readable/>
      </file>
    </traceoptions>
  </routing-options>
</configuration>
```

Description Trace file options.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/security/idp/traceoptions)

Usage

```
<configuration>
  <security>
    <idp>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </idp>
  </security>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/security/pki/traceoptions)

Usage

```
<configuration>
  <security>
    <pki>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </pki>
  </security>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/security/traceoptions)

Usage

```
<configuration>
  <security>
    <traceoptions>
      <file>
        <filename>filename</filename>
        <size>size</size>
        <files>files</files>
        <world-readable/>
        <match>match</match>
      </file>
    </traceoptions>
  </security>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/adaptive-services-pics/ traceoptions)

Usage

```
<configuration>
  <services>
    <adaptive-services-pics>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </adaptive-services-pics>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/application-identification/ traceoptions)

Usage

```
<configuration>
  <services>
    <application-identification>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </application-identification>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/border-signaling-gateway/gateway/ traceoptions)

Usage

```
<configuration>
  <services>
    <border-signaling-gateway>
      <gateway>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </gateway>
    </border-signaling-gateway>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/dynamic-flow-capture/traceoptions)

Usage

```
<configuration>
  <services>
    <dynamic-flow-capture>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </dynamic-flow-capture>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/ggsn/charging/charging-log/ traceoptions)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <charging-log>
          <traceoptions>
            <file>
              <filename>filename</filename>
              <size>size</size>
              <files>files</files>
              <world-readable/>
              <match>match</match>
            </file>
          </traceoptions>
        </charging-log>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/ipsec-vpn/traceoptions)

Usage

```
<configuration>
  <services>
    <ipsec-vpn>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </ipsec-vpn>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/logging/traceoptions)

Usage

```
<configuration>
  <services>
    <logging>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </logging>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/mobile-ip/traceoptions)

Usage

```
<configuration>
  <services>
    <mobile-ip>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </mobile-ip>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/services/pgcp/traceoptions)

Usage

```
<configuration>
  <services>
    <pgcp>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
          <microsecond-stamp/>
        </file>
      </traceoptions>
    </pgcp>
  </services>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<microsecond-stamp>—Timestamp with microsecond granularity.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/snmp/traceoptions)

Usage

```
<configuration>
  <snmp>
    <traceoptions>
      <file>
        <size>size</size>
        <files>files</files>
        <world-readable/>
        <match>match</match>
      </file>
    </traceoptions>
  </snmp>
</configuration>
```

Description Trace file information.

Contents <files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/accounting/traceoptions)

Usage

```
<configuration>
  <system>
    <accounting>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
        </file>
      </traceoptions>
    </accounting>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/license/traceoptions)

Usage

```
<configuration>
  <system>
    <license>
      <traceoptions>
        <file>
          <filename>filename</filename>
          <size>size</size>
          <files>files</files>
          <world-readable/>
          <match>match</match>
        </file>
      </traceoptions>
    </license>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/processes/diameter-service/ traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <diameter-service>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </diameter-service>
    </processes>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <system>
    <processes>
      <general-authentication-service>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </general-authentication-service>
    </processes>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/processes/mac-validation/ traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <mac-validation>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </mac-validation>
    </processes>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/processes/process-monitor/ traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <process-monitor>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </process-monitor>
    </processes>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/processes/resource-cleanup/ traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <resource-cleanup>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </resource-cleanup>
    </processes>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/processes/ sbc-configuration-process/traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <sbc-configuration-process>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </sbc-configuration-process>
    </processes>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/scripts/commit)

Usage

```
<configuration>
  <system>
    <scripts>
      <commit>
        <file>
          <name>name</name>     <!-- identifier -->
          <optional/>
          <source>source</source>
          <refresh/>
          <refresh-from>refresh-from</refresh-from>
        </file>
      </commit>
    </scripts>
  </system>
</configuration>
```

Description Commit script file.

Contents <name>—Local filename of the script file.

<optional>—Allow commit to succeed if the script is missing.

<refresh>—Refresh this script from its source.

<refresh-from>—Refresh this script from a given URL.

<source>—URL of source for this script.

<file> (configuration/system/scripts/commit/traceoptions)

Usage

```
<configuration>
  <system>
    <scripts>
      <commit>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </commit>
    </scripts>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/scripts/op)

Usage

```
<configuration>
  <system>
    <scripts>
      <op>
        <file>
          <name>name</name>     <!-- identifier -->
          <command>command</command>
          <description>description</description>
          <source>source</source>
          <refresh/>
          <refresh-from>refresh-from</refresh-from>
          <arguments>...</arguments>
        </file>
      </op>
    </scripts>
  </system>
</configuration>
```

Description Configuration for each operation script.

Contents <arguments>—Command line argument to the script.

<command>—Command alias for the script file.

<description>—Description of the script.

<name>—Local filename of the script file.

<refresh>—Refresh this script from its source.

<refresh-from>—Refresh this script from a given URL.

<source>—URL of source for this script.

<file> (configuration/system/scripts/op/traceoptions)

Usage

```
<configuration>
  <system>
    <scripts>
      <op>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
          </file>
        </traceoptions>
      </op>
    </scripts>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/services/database-replication/ traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <database-replication>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </database-replication>
    </services>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/services/dhcp/traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <dhcp>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </dhcp>
    </services>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

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

Usage

```
<configuration>
  <system>
    <services>
      <dhcp-local-server>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </dhcp-local-server>
    </services>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/services/ local-policy-decision-function/traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <local-policy-decision-function>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </local-policy-decision-function>
    </services>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/services/outbound-ssh/traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <outbound-ssh>
        <traceoptions>
          <file>
            <filename>filename</filename>
            <size>size</size>
            <files>files</files>
            <world-readable/>
            <match>match</match>
          </file>
        </traceoptions>
      </outbound-ssh>
    </services>
  </system>
</configuration>
```

Description Trace file information.

Contents <filename>—Name of file in which to write trace information.

<files>—Maximum number of trace files.

<match>—Regular expression for lines to be logged.

<size>—Maximum trace file size.

<world-readable>—Allow any user to read the log file.

<file> (configuration/system/syslog)

Usage

```
<configuration>
  <system>
    <syslog>
      <file>
        <name>name</name>     <!-- identifier -->
        <contents>...</contents>
        <match>match</match>
        <archive>...</archive>
        <explicit-priority/>
        <structured-data>...</structured-data>
      </file>
    </syslog>
  </system>
</configuration>
```

Description File in which to log data.

Contents <archive>—Archive file information.

<contents>—No documentation is available yet.

<explicit-priority>—Include priority and facility in messages.

<match>—Regular expression for lines to be logged.

<name>—Name of file in which to log data.

<structured-data>—Log system message in structured format.

<file-specification> (configuration/services/flow-collector)

Usage

```
<configuration>
  <services>
    <flow-collector>
      <file-specification>
        <name>name</name>     <!-- identifier -->
        <name-format>name-format</name-format>     <!-- mandatory -->
        <data-format>data-format-choice</data-format>
        <transfer>...</transfer>
      </file-specification>
    </flow-collector>
  </services>
</configuration>
```

Description File format specification.

Contents <data-format>—Data format for flow collection output.

- flow-compressed—Flow format (compressed).

<name>—Name for file type.

<name-format>—Format string for filename (allows {text} macros).

<transfer>—No documentation is available yet.

<filename> (configuration/services/ggsn/service-identification/ ftp-rule/term/from/ftp)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <ftp-rule>
          <term>
            <from>
              <ftp>
                <filename>
                  <case/>
                  <contains>...</contains>
                  <not-contains>...</not-contains>
                </filename>
              </ftp>
            </from>
          </term>
        </ftp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Match filename.

Contents <case>—Consider case while processing.

<contains>—Matches a substring.

<not-contains>—Doesn't match a substring.

<filename> (configuration/services/ggsn/service-identification/ tftp-rule/term/from/tftp)

Usage

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

Description Match filename.

Contents <case>—Consider case while processing.

<contains>—Matches a substring.

<ends-with>—End matches.

<is>—Exact match.

<not-contains>—Doesn't match a substring.

<not-ends-with>—End doesn't match.

<not-is>—Exclude exact match.

<not-starts-with>—Beginning doesn't match.

<starts-with>—Beginning matches.

<fill-level> (configuration/class-of-service/drop-profiles)

Usage

```
<configuration>
  <class-of-service>
    <drop-profiles>
      <fill-level>
        <name>name</name>     <!-- identifier -->
        <drop-probability>drop-probability</drop-probability>
      </fill-level>
    </drop-profiles>
  </class-of-service>
</configuration>
```

Description Fill-level value of data point.

Contents <drop-probability>—Probability packet will be dropped.

<name>—Percentage the queue is full.

<fill-level> (configuration/class-of-service/drop-profiles/interpolate)

Usage

```
<configuration>
  <class-of-service>
    <drop-profiles>
      <interpolate>
        <fill-level>
          <name>name</name>     <!-- identifier -->
        </fill-level>
      </interpolate>
    </drop-profiles>
  </class-of-service>
</configuration>
```

Description Data points for queue full percentage.

Contents <name>—Data points for queue full percentage.

<fill-level> (configuration/dynamic-profiles/class-of-service/ drop-profiles)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <drop-profiles>
        <fill-level>
          <name>name</name>     <!-- identifier -->
          <drop-probability>drop-probability</drop-probability>
        </fill-level>
      </drop-profiles>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Fill-level value of data point.

Contents <drop-probability>—Probability packet will be dropped.

<name>—Percentage the queue is full.

<fill-level> (configuration/dynamic-profiles/class-of-service/ drop-profiles/interpolate)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <drop-profiles>
        <interpolate>
          <fill-level>
            <name>name</name>     <!-- identifier -->
          </fill-level>
        </interpolate>
      </drop-profiles>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Data points for queue full percentage.

Contents <name>—Data points for queue full percentage.

<filter> (configuration/bridge-domains/domain/forwarding-options)

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <forwarding-options>
        <filter>
          <input>input</input>
        </filter>
      </forwarding-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description Filtering for bridge forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<filter> (configuration/dynamic-profiles/interfaces/interface/unit)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <filter>
            <output>output</output>
          </filter>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Filters to apply to all families configured under this logical interface.

Contents <output>—Name of filter applied to transmitted packets.

<filter> (configuration/dynamic-profiles/interfaces/interface/ unit/family/any)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <any>
              <filter>
                <input>input</input>
                <group>group</group>
              </filter>
            </any>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Layer 2 packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Name of filter applied to received packets.

<filter> (configuration/dynamic-profiles/interfaces/interface/ unit/family/bridge)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <bridge>
              <filter>
                <input>...</input>
                <input-list>...</input-list>
                <output>...</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </bridge>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/dynamic-profiles/interfaces/interface/ unit/family/ccc)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <ccc>
              <filter>
                <input>input</input>
                <input-list>...</input-list>
                <output>output</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </ccc>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Packet filtering.

Contents <group>—Interface group to which interface belongs.

<input>—Name of filter applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Name of filter applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/dynamic-profiles/interfaces/interface/ unit/family/ethernet-switching)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <ethernet-switching>
              <filter>
                <input>input</input>
                <output>output</output>
              </filter>
            </ethernet-switching>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Packet filtering.

Contents <input>—Name of filter applied to received packets.

<output>—Name of filter applied to transmitted packets.

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

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <filter>
                <input>...</input>
                <input-list>...</input-list>
                <output>...</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/dynamic-profiles/interfaces/interface/ unit/family/inet6)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet6>
              <filter>
                <input>...</input>
                <input-list>...</input-list>
                <output>...</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </inet6>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/dynamic-profiles/interfaces/interface/ unit/family/mpls)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <mpls>
              <filter>
                <input>input</input>
                <input-list>...</input-list>
                <output>output</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </mpls>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Packet filtering.

Contents <group>—Interface group to which interface belongs.

<input>—Name of filter applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Name of filter applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/dynamic-profiles/interfaces/interface/ unit/family/vpls)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <unit>
          <family>
            <vpls>
              <filter>
                <input>...</input>
                <input-list>...</input-list>
                <output>...</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </vpls>
          </family>
        </unit>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/firewall)

Usage

```
<configuration>
  <firewall>
    <filter>
      <name>name</name>     <!-- identifier -->
      <accounting-profile>...</accounting-profile>
      <interface-specific/>
      <term>...</term>
    </filter>
  </firewall>
</configuration>
```

Description Define an IPv4 firewall filter.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/any)

Usage

```
<configuration>
  <firewall>
    <family>
      <any>
        <filter>
          <name>name</name>     <!-- identifier -->
          <term>...</term>
        </filter>
      </any>
    </family>
  </firewall>
</configuration>
```

Description Define a protocol-independent filter.

Contents <name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/bridge)

Usage

```
<configuration>
  <firewall>
    <family>
      <bridge>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </bridge>
    </family>
  </firewall>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/ccc)

Usage

```
<configuration>
  <firewall>
    <family>
      <ccc>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </ccc>
    </family>
  </firewall>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Any counters defined will be interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/ethernet-switching)

Usage

```
<configuration>
  <firewall>
    <family>
      <ethernet-switching>
        <filter>
          <name>name</name>     <!-- identifier -->
          <term>...</term>
        </filter>
      </ethernet-switching>
    </family>
  </firewall>
</configuration>
```

Description Define an Ethernet Switching firewall filter.

Contents <name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/inet)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Define an IPv4 firewall filter.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/inet6)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Define an IPv6 firewall filter.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/mpls)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/firewall/family/vpls)

Usage

```
<configuration>
  <firewall>
    <family>
      <vpls>
        <filter>
          <name>name</name>     <!-- identifier -->
          <accounting-profile>...</accounting-profile>
          <interface-specific/>
          <term>...</term>
        </filter>
      </vpls>
    </family>
  </firewall>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/forwarding-options/family/inet)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <inet>
        <filter>
          <input>input</input>
          <output>output</output>
        </filter>
      </inet>
    </family>
  </forwarding-options>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/forwarding-options/family/inet6)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <inet6>
        <filter>
          <input>input</input>
          <output>output</output>
        </filter>
      </inet6>
    </family>
  </forwarding-options>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/forwarding-options/family/mpls)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <mpls>
        <filter>
          <input>input</input>
          <output>output</output>
        </filter>
      </mpls>
    </family>
  </forwarding-options>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/forwarding-options/family/vpls)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <vpls>
        <filter>
          <input>input</input>
        </filter>
      </vpls>
    </family>
  </forwarding-options>
</configuration>
```

Description Filtering for VPLS DMAC forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<filter> (configuration/interfaces/interface/unit)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <filter>
          <output>output</output>
        </filter>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Filters to apply to all families configured under this logical interface.

Contents <output>—Name of filter applied to transmitted packets.

<filter> (configuration/interfaces/interface/unit/family/any)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <any>
            <filter>
              <input>input</input>
              <group>group</group>
            </filter>
          </any>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Layer 2 packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Name of filter applied to received packets.

<filter> (configuration/interfaces/interface/unit/family/bridge)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <bridge>
            <filter>
              <input>...</input>
              <input-list>...</input-list>
              <output>...</output>
              <output-list>...</output-list>
              <group>group</group>
            </filter>
          </bridge>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/interfaces/interface/unit/family/ccc)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <ccc>
            <filter>
              <input>input</input>
              <input-list>...</input-list>
              <output>output</output>
              <output-list>...</output-list>
              <group>group</group>
            </filter>
          </ccc>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Interface group to which interface belongs.

<input>—Name of filter applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Name of filter applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/interfaces/interface/unit/family/ ethernet-switching)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <ethernet-switching>
            <filter>
              <input>input</input>
              <output>output</output>
            </filter>
          </ethernet-switching>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <input>—Name of filter applied to received packets.

<output>—Name of filter applied to transmitted packets.

<filter> (configuration/interfaces/interface/unit/family/inet)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet>
            <filter>
              <input>...</input>
              <input-list>...</input-list>
              <output>...</output>
              <output-list>...</output-list>
              <group>group</group>
            </filter>
          </inet>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/interfaces/interface/unit/family/inet6)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <inet6>
            <filter>
              <input>...</input>
              <input-list>...</input-list>
              <output>...</output>
              <output-list>...</output-list>
              <group>group</group>
            </filter>
          </inet6>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/interfaces/interface/unit/family/mpls)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <mpls>
            <filter>
              <input>input</input>
              <input-list>...</input-list>
              <output>output</output>
              <output-list>...</output-list>
              <group>group</group>
            </filter>
          </mpls>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Interface group to which interface belongs.

<input>—Name of filter applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Name of filter applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/interfaces/interface/unit/family/vpls)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <unit>
        <family>
          <vpls>
            <filter>
              <input>...</input>
              <input-list>...</input-list>
              <output>...</output>
              <output-list>...</output-list>
              <group>group</group>
            </filter>
          </vpls>
        </family>
      </unit>
    </interface>
  </interfaces>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/logical-systems/firewall)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <filter>
        <name>name</name>     <!-- identifier -->
        <accounting-profile>...</accounting-profile>
        <interface-specific/>
        <term>...</term>
      </filter>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define an IPv4 firewall filter.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/logical-systems/firewall/family/any)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <any>
          <filter>
            <name>name</name>     <!-- identifier -->
            <term>...</term>
          </filter>
        </any>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define a protocol-independent filter.

Contents <name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/logical-systems/firewall/family/bridge)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <bridge>
          <filter>
            <name>name</name>     <!-- identifier -->
            <accounting-profile>...</accounting-profile>
            <interface-specific/>
            <term>...</term>
          </filter>
        </bridge>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/logical-systems/firewall/family/ccc)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <ccc>
          <filter>
            <name>name</name>     <!-- identifier -->
            <accounting-profile>...</accounting-profile>
            <interface-specific/>
            <term>...</term>
          </filter>
        </ccc>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Any counters defined will be interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/logical-systems/firewall/family/ethernet-switching)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <ethernet-switching>
          <filter>
            <name>name</name>     <!-- identifier -->
            <term>...</term>
          </filter>
        </ethernet-switching>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define an Ethernet Switching firewall filter.

Contents <name>—Filter name.

<term>—Define a firewall term.

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

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <filter>
            <name>name</name>     <!-- identifier -->
            <accounting-profile>...</accounting-profile>
            <interface-specific/>
            <term>...</term>
          </filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define an IPv4 firewall filter.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

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

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet6>
          <filter>
            <name>name</name>     <!-- identifier -->
            <accounting-profile>...</accounting-profile>
            <interface-specific/>
            <term>...</term>
          </filter>
        </inet6>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define an IPv6 firewall filter.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/logical-systems/firewall/family/mpls)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <mpls>
          <filter>
            <name>name</name>     <!-- identifier -->
            <accounting-profile>...</accounting-profile>
            <interface-specific/>
            <term>...</term>
          </filter>
        </mpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/logical-systems/firewall/family/vpls)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <vpls>
          <filter>
            <name>name</name>     <!-- identifier -->
            <accounting-profile>...</accounting-profile>
            <interface-specific/>
            <term>...</term>
          </filter>
        </vpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <accounting-profile>—Accounting profile name.

<interface-specific>—Defined counters are interface specific.

<name>—Filter name.

<term>—Define a firewall term.

<filter> (configuration/logical-systems/interfaces/interface/unit)

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <filter>
            <output>output</output>
          </filter>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Filters to apply to all families configured under this logical interface.

Contents <output>—Name of filter applied to transmitted packets.

<filter> (configuration/logical-systems/interfaces/interface/ unit/family/any)

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <any>
              <filter>
                <input>input</input>
                <group>group</group>
              </filter>
            </any>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Layer 2 packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Name of filter applied to received packets.

<filter> (configuration/logical-systems/interfaces/interface/ unit/family/bridge)

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <bridge>
              <filter>
                <input>...</input>
                <input-list>...</input-list>
                <output>...</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </bridge>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/logical-systems/interfaces/interface/ unit/family/ccc)

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <ccc>
              <filter>
                <input>input</input>
                <input-list>...</input-list>
                <output>output</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </ccc>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Packet filtering.

Contents <group>—Interface group to which interface belongs.

<input>—Name of filter applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Name of filter applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/logical-systems/interfaces/interface/ unit/family/ethernet-switching)

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <ethernet-switching>
              <filter>
                <input>input</input>
                <output>output</output>
              </filter>
            </ethernet-switching>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Packet filtering.

Contents <input>—Name of filter applied to received packets.

<output>—Name of filter applied to transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet>
              <filter>
                <input>...</input>
                <input-list>...</input-list>
                <output>...</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </inet>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

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

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <inet6>
              <filter>
                <input>...</input>
                <input-list>...</input-list>
                <output>...</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </inet6>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/logical-systems/interfaces/interface/ unit/family/mpls)

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <mpls>
              <filter>
                <input>input</input>
                <input-list>...</input-list>
                <output>output</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </mpls>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Packet filtering.

Contents <group>—Interface group to which interface belongs.

<input>—Name of filter applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Name of filter applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/logical-systems/interfaces/interface/ unit/family/vpls)

Usage

```
<configuration>
  <logical-systems>
    <interfaces>
      <interface>
        <unit>
          <family>
            <vpls>
              <filter>
                <input>...</input>
                <input-list>...</input-list>
                <output>...</output>
                <output-list>...</output-list>
                <group>group</group>
              </filter>
            </vpls>
          </family>
        </unit>
      </interface>
    </interfaces>
  </logical-systems>
</configuration>
```

Description Packet filtering.

Contents <group>—Group to which interface belongs.

<input>—Filter to be applied to received packets.

<input-list>—List of filter modules applied to received packets .

<output>—Filter to be applied to transmitted packets.

<output-list>—List of filter modules applied to transmitted packets .

<filter> (configuration/logical-systems/protocols/bgp/group/ neighbor/traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <traceoptions>
              <flag>
                <filter>
                  <match-on>match-on-choice</match-on>     <!-- mandatory -->
                  <policy>...</policy>     <!-- mandatory -->
                </filter>
              </flag>
            </traceoptions>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/logical-systems/protocols/bgp/ traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <traceoptions>
          <flag>
            <filter>
              <match-on>match-on-choice</match-on>     <!-- mandatory -->
              <policy>...</policy>     <!-- mandatory -->
            </filter>
          </flag>
        </traceoptions>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/logical-systems/protocols/ldp/ traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <traceoptions>
          <flag>
            <filter>
              <match-on>match-on-choice</match-on>     <!-- mandatory -->
              <policy>...</policy>     <!-- mandatory -->
            </filter>
          </flag>
        </traceoptions>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- fec—Filter based on FEC associated to the traced object.

<policy>—Filter policy.

<filter> (configuration/logical-systems/protocols/pim/ traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <pim>
        <traceoptions>
          <flag>
            <filter>
              <match-on>match-on-choice</match-on>     <!-- mandatory -->
              <policy>...</policy>     <!-- mandatory -->
            </filter>
          </flag>
        </traceoptions>
      </pim>
    </protocols>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/logical-systems/protocols/rip/ traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <rip>
        <traceoptions>
          <flag>
            <filter>
              <match-on>match-on-choice</match-on>     <!-- mandatory -->
              <policy>...</policy>     <!-- mandatory -->
            </filter>
          </flag>
        </traceoptions>
      </rip>
    </protocols>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <forwarding-options>
              <filter>
                <input>input</input>
              </filter>
            </forwarding-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filtering for bridge forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<filter> (configuration/logical-systems/routing-instances/ instance/forwarding-options/family/inet)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <family>
            <inet>
              <filter>
                <input>input</input>
                <output>output</output>
              </filter>
            </inet>
          </family>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/logical-systems/routing-instances/ instance/forwarding-options/family/inet6)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <family>
            <inet6>
              <filter>
                <input>input</input>
                <output>output</output>
              </filter>
            </inet6>
          </family>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/logical-systems/routing-instances/ instance/forwarding-options/family/mpls)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <family>
            <mpls>
              <filter>
                <input>input</input>
                <output>output</output>
              </filter>
            </mpls>
          </family>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/logical-systems/routing-instances/ instance/forwarding-options/family/vpls)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <family>
            <vpls>
              <filter>
                <input>input</input>
              </filter>
            </vpls>
          </family>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filtering for VPLS DMAC forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<filter> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/group/neighbor/traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <traceoptions>
                  <flag>
                    <filter>
                      <match-on>match-on-choice</match-on>     <!-- mandatory -->
                      <policy>...</policy>     <!-- mandatory -->
                    </filter>
                  </flag>
                </traceoptions>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <traceoptions>
                <flag>
                  <filter>
                    <match-on>match-on-choice</match-on>     <!-- mandatory -->
                    <policy>...</policy>     <!-- mandatory -->
                  </filter>
                </flag>
              </traceoptions>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <traceoptions>
              <flag>
                <filter>
                  <match-on>match-on-choice</match-on>     <!-- mandatory -->
                  <policy>...</policy>     <!-- mandatory -->
                </filter>
              </flag>
            </traceoptions>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/logical-systems/routing-instances/ instance/protocols/ldp/traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <traceoptions>
              <flag>
                <filter>
                  <match-on>match-on-choice</match-on>     <!-- mandatory -->
                  <policy>...</policy>     <!-- mandatory -->
                </filter>
              </flag>
            </traceoptions>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- fec—Filter based on FEC associated to the traced object.

<policy>—Filter policy.

<filter> (configuration/logical-systems/routing-instances/ instance/protocols/pim/traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <pim>
            <traceoptions>
              <flag>
                <filter>
                  <match-on>match-on-choice</match-on>     <!-- mandatory -->
                  <policy>...</policy>     <!-- mandatory -->
                </filter>
              </flag>
            </traceoptions>
          </pim>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/logical-systems/routing-instances/ instance/protocols/rip/traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <rip>
            <traceoptions>
              <flag>
                <filter>
                  <match-on>match-on-choice</match-on>     <!-- mandatory -->
                  <policy>...</policy>     <!-- mandatory -->
                </filter>
              </flag>
            </traceoptions>
          </rip>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/logical-systems/routing-instances/ instance/routing-options/flow/validation/traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <flow>
            <validation>
              <traceoptions>
                <flag>
                  <filter>
                    <match-on>match-on-choice</match-on>     <!-- mandatory -->
                    <policy>...</policy>     <!-- mandatory -->
                  </filter>
                </flag>
              </traceoptions>
            </validation>
          </flow>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filter to apply to tracing.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.
- route-attribute—Filter based on route attributes.

<policy>—Filter policy.

<filter> (configuration/logical-systems/routing-options/flow/ validation/traceoptions/flag)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <flow>
        <validation>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </validation>
      </flow>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Filter to apply to tracing.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.
- route-attribute—Filter based on route attributes.

<policy>—Filter policy.

<filter> (configuration/protocols/bgp/group/neighbor/ traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/protocols/bgp/group/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <traceoptions>
          <flag>
            <filter>
              <match-on>match-on-choice</match-on>     <!-- mandatory -->
              <policy>...</policy>     <!-- mandatory -->
            </filter>
          </flag>
        </traceoptions>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/protocols/bgp/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <traceoptions>
        <flag>
          <filter>
            <match-on>match-on-choice</match-on>     <!-- mandatory -->
            <policy>...</policy>     <!-- mandatory -->
          </filter>
        </flag>
      </traceoptions>
    </bgp>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/protocols/ldp/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traceoptions>
        <flag>
          <filter>
            <match-on>match-on-choice</match-on>     <!-- mandatory -->
            <policy>...</policy>     <!-- mandatory -->
          </filter>
        </flag>
      </traceoptions>
    </ldp>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- fec—Filter based on FEC associated to the traced object.

<policy>—Filter policy.

<filter> (configuration/protocols/pim/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <pim>
      <traceoptions>
        <flag>
          <filter>
            <match-on>match-on-choice</match-on>     <!-- mandatory -->
            <policy>...</policy>     <!-- mandatory -->
          </filter>
        </flag>
      </traceoptions>
    </pim>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/protocols/rip/traceoptions/flag)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>
        <flag>
          <filter>
            <match-on>match-on-choice</match-on>     <!-- mandatory -->
            <policy>...</policy>     <!-- mandatory -->
          </filter>
        </flag>
      </traceoptions>
    </rip>
  </protocols>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/bridge-domains/domain/forwarding-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <forwarding-options>
            <filter>
              <input>input</input>
            </filter>
          </forwarding-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Filtering for bridge forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<filter> (configuration/routing-instances/instance/ forwarding-options/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <family>
          <inet>
            <filter>
              <input>input</input>
              <output>output</output>
            </filter>
          </inet>
        </family>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/routing-instances/instance/ forwarding-options/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <family>
          <inet6>
            <filter>
              <input>input</input>
              <output>output</output>
            </filter>
          </inet6>
        </family>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/routing-instances/instance/ forwarding-options/family/mpls)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <family>
          <mpls>
            <filter>
              <input>input</input>
              <output>output</output>
            </filter>
          </mpls>
        </family>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Filtering for forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<output>—Name of output filter to apply for forwarded packets.

<filter> (configuration/routing-instances/instance/ forwarding-options/family/vpls)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <family>
          <vpls>
            <filter>
              <input>input</input>
            </filter>
          </vpls>
        </family>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Filtering for VPLS DMAC forwarding table.

Contents <input>—Name of input filter to apply for forwarded packets.

<filter> (configuration/routing-instances/instance/protocols/ bgp/group/neighbor/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <traceoptions>
                <flag>
                  <filter>
                    <match-on>match-on-choice</match-on>     <!-- mandatory -->
                    <policy>...</policy>     <!-- mandatory -->
                  </filter>
                </flag>
              </traceoptions>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <traceoptions>
              <flag>
                <filter>
                  <match-on>match-on-choice</match-on>     <!-- mandatory -->
                  <policy>...</policy>     <!-- mandatory -->
                </filter>
              </flag>
            </traceoptions>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/protocols/ bgp/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/protocols/ ldp/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- fec—Filter based on FEC associated to the traced object.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/protocols/ pim/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/protocols/ rip/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>
            <flag>
              <filter>
                <match-on>match-on-choice</match-on>     <!-- mandatory -->
                <policy>...</policy>     <!-- mandatory -->
              </filter>
            </flag>
          </traceoptions>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to this flag.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.

<policy>—Filter policy.

<filter> (configuration/routing-instances/instance/ routing-options/flow/validation/traceoptions/flag)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <flow>
          <validation>
            <traceoptions>
              <flag>
                <filter>
                  <match-on>match-on-choice</match-on>     <!-- mandatory -->
                  <policy>...</policy>     <!-- mandatory -->
                </filter>
              </flag>
            </traceoptions>
          </validation>
        </flow>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Filter to apply to tracing.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.
- route-attribute—Filter based on route attributes.

<policy>—Filter policy.

<filter> (configuration/routing-options/flow/validation/ traceoptions/flag)

Usage

```
<configuration>
  <routing-options>
    <flow>
      <validation>
        <traceoptions>
          <flag>
            <filter>
              <match-on>match-on-choice</match-on>     <!-- mandatory -->
              <policy>...</policy>     <!-- mandatory -->
            </filter>
          </flag>
        </traceoptions>
      </validation>
    </flow>
  </routing-options>
</configuration>
```

Description Filter to apply to tracing.

Contents <match-on>—Argument on which to match.

- prefix—Filter based on prefix.
- route-attribute—Filter based on route attributes.

<policy>—Filter policy.

<filter> (configuration/services/l2tp/traceoptions)

Usage

```
<configuration>
  <services>
    <l2tp>
      <traceoptions>
        <filter>
          <protocol>...</protocol>
          <user-name>user-name</user-name>
        </filter>
      </traceoptions>
    </l2tp>
  </services>
</configuration>
```

Description Filter to control trace messages.

Contents <protocol>—Additional filter for protocol.

<user-name>—Additional filter by user name.

<filter-interfaces> (configuration/snmp)

Usage

```
<configuration>
  <snmp>
    <filter-interfaces>
      <interfaces>...</interfaces>
      <all-internal-interfaces/>
    </filter-interfaces>
  </snmp>
</configuration>
```

Description List of interfaces that needs to be filtered.

Contents <all-internal-interfaces>—Filter all internal interfaces.

<interfaces>—Filter specified interfaces.

<filter-profile> (configuration/accounting-options)

Usage

```
<configuration>
  <accounting-options>
    <filter-profile>
      <name>name</name>     <!-- identifier -->
      <file>file</file>
      <interval>minutes</interval>
      <counters>...</counters>     <!-- mandatory -->
    </filter-profile>
  </accounting-options>
</configuration>
```

Description Filter profile for accounting data.

Contents <counters>—Name of counter.

<file>—Name of file for accounting data.

<interval>—Polling interval.

<name>—Name of profile.

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

Usage

```
<configuration>
  <services>
    <ggsn>
      <apn>
        <p-cscf>
          <filtering-server>
            <name>name</name>     <!-- identifier -->
          </filtering-server>
        </p-cscf>
      </apn>
    </ggsn>
  </services>
</configuration>
```

Description IPv4 P-CSCF filtering server.

Contents <name>—IPv4 filtering server address.

<filters> (configuration/security/idp/dynamic-attack-group)

Usage

```
<configuration>
  <security>
    <idp>
      <dynamic-attack-group>
        <filters>
          <direction>...</direction>
          <severity>...</severity>
          <type>...</type>
          <recommended/>
          <performance>...</performance>
          <category>...</category>
          <service>...</service>
          <false-positives>...</false-positives>
          <products>...</products>
        </filters>
      </dynamic-attack-group>
    </idp>
  </security>
</configuration>
```

Description Configure filters.

Contents <category>—Category of attack.

<direction>—Direction of attack.

<false-positives>—False positive field in attack.

<performance>—Performance of attack.

<products>—Products this attack belongs to.

<recommended>—Recommended flag.

<service>—Service/Application of attack.

<severity>—Severity of attack.

<type>—Type of attack.

<finger> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <finger>
        <connection-limit>connection-limit</connection-limit>
        <rate-limit>rate-limit</rate-limit>
      </finger>
    </services>
  </system>
</configuration>
```

Description Allow finger requests from remote systems.

Contents <connection-limit>—Maximum number of allowed connections.

<rate-limit>—Maximum number of connections per minute.

<firewall> (configuration)

Usage

```
<configuration>
  <firewall>
    <policer>...</policer>
    <interface-set>...</interface-set>
    <load-balance-group>...</load-balance-group>
    <three-color-policer>...</three-color-policer>
    <family>...</family>
    <filter>...</filter>
  </firewall>
</configuration>
```

Description Define a firewall configuration.

Contents <family>—Protocol family.

<filter>—Define an IPv4 firewall filter.

<interface-set>—Interface set definition.

<load-balance-group>—Load-balance group definition.

<policer>—Policer template definition.

<three-color-policer>—Three-color policer.

<firewall> (configuration/logical-systems)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <policer>...</policer>
      <interface-set>...</interface-set>
      <load-balance-group>...</load-balance-group>
      <three-color-policer>...</three-color-policer>
      <family>...</family>
      <filter>...</filter>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define a firewall configuration.

Contents <family>—Protocol family.

<filter>—Define an IPv4 firewall filter.

<interface-set>—Interface set definition.

<load-balance-group>—Load-balance group definition.

<policer>—Policer template definition.

<three-color-policer>—Three-color policer.

<firewall-user> (configuration/access/profile/client)

Usage

```
<configuration>
  <access>
    <profile>
      <client>
        <firewall-user>
          <password>password</password>
        </firewall-user>
      </client>
    </profile>
  </access>
</configuration>
```

Description Client is configured as a firewall user.

Contents <password>—Password for user.

<fixed-address> (configuration/system/services/dhcp/ static-binding)

Usage

```
<configuration>
  <system>
    <services>
      <dhcp>
        <static-binding>
          <fixed-address>
            <name>name</name>     <!-- identifier -->
          </fixed-address>
        </static-binding>
      </dhcp>
    </services>
  </system>
</configuration>
```

Description Possible IP addresses to assign to host.

Contents <name>—IPv4 address.

<flag> (configuration/access/address-assignment/pool/family/ inet/dhcp-attributes/option/array)

Usage

```
<configuration>
  <access>
    <address-assignment>
      <pool>
        <family>
          <inet>
            <dhcp-attributes>
              <option>
                <array>
                  <flag>
                    <name>name</name>     <!-- identifier -->
                  </flag>
                </array>
              </option>
            </dhcp-attributes>
          </inet>
        </family>
      </pool>
    </address-assignment>
  </access>
</configuration>
```

Description Array of boolean flag values.

Contents <name>—Array of boolean flag values.

- false—False value.
- off—Off value.
- on—On value.
- true—True value.

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

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <forwarding-options>
        <dhcp-relay>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </dhcp-relay>
      </forwarding-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.
- session-db—Session database operations.
- state—State-transition operations.

- statistics—Baseline statistics operations.
- ui—User Interface operations.

<flag> (configuration/bridge-domains/domain/ multicast-snooping-options/traceoptions)

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <multicast-snooping-options>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </multicast-snooping-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/bridge-domains/domain/protocols/ igmp-snooping/traceoptions)

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <protocols>
        <igmp-snooping>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </igmp-snooping>
      </protocols>
    </domain>
  </bridge-domains>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (IGMPv2 only).
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/chassis/system-domains/traceoptions)

Usage

```
<configuration>
  <chassis>
    <system-domains>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </system-domains>
  </chassis>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- init—Trace intialization messages.
- ipc—Trace IPC messages.
- psd—Trace psd messages.
- rtsock—Trace rtsock messages.

<flag> (configuration/class-of-service/traceoptions)

Usage

```
<configuration>
  <class-of-service>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </class-of-service>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- asynch—Trace asynchronous configuration processing.
- cos-adjustment—Trace CoS rate adjustments.
- dynamic—Trace dynamic CoS functions.
- hardware-database—Trace chassis hardware database related processing.
- init—Trace initialization events.
- parse—Trace parser processing.
- process—Trace configuration processing.
- restart—Trace restart processing.
- route-socket—Trace route-socket events.
- show—Trace show command servicing.
- snmp—Trace SNMP-related processing.
- util—Trace utilities.

<flag> (configuration/dynamic-profiles/class-of-service/ traceoptions)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- asynch—Trace asynchronous configuration processing.
- cos-adjustment—Trace CoS rate adjustments.
- dynamic—Trace dynamic CoS functions.
- hardware-database—Trace chassis hardware database related processing.
- init—Trace initialization events.
- parse—Trace parser processing.
- process—Trace configuration processing.
- restart—Trace restart processing.
- route-socket—Trace route-socket events.
- show—Trace show command servicing.
- snmp—Trace SNMP-related processing.
- util—Trace utilities.

<flag> (configuration/dynamic-profiles/interfaces/interface/ traceoptions)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Enable all interface trace flags.
- event—Trace interface events.
- ipc—Trace interface IPC messages.
- media—Trace interface media changes.

<flag> (configuration/dynamic-profiles/interfaces/traceoptions)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <disable/>
        </flag>
      </traceoptions>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Enable all configuration logging.
- change-events—Log changes that produce configuration events.
- config-states—Log the configuration state machine changes.
- kernel—Log configuration IPC messages to kernel.
- kernel-detail—Log details of configuration messages to kernel.

<flag> (configuration/dynamic-profiles/protocols/igmp/ traceoptions)

Usage

```
<configuration>
  <dynamic-profiles>
    <protocols>
      <igmp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </igmp>
    </protocols>
  </dynamic-profiles>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- client-notification—Trace notifications.
- general—Trace general events.
- group—Trace group operations.
- host-notification—Trace host notifications.
- leave—Trace leave group messages (IGMPv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/event-options/event-script/traceoptions)

Usage

```
<configuration>
  <event-options>
    <event-script>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </event-script>
  </event-options>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all operations.
- events—Trace important events.
- input—Trace script input data.
- offline—Generate data for offline development.
- output—Trace script output data.
- rpc—Trace script RPCs.
- xslt—Trace the XSLT library.

<flag> (configuration/event-options/traceoptions)

Usage

```
<configuration>
  <event-options>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </event-options>
</configuration>
```

Description List of event types to include in trace.

Contents <name>—No documentation is available yet.

- all—Everything.
- configuration—Reading of configuration.
- database—Events involving storage and retrieval in events database.
- events—Event processing.
- policy—Policy processing.
- registration—Event registration.
- server—Communication with processes that are generating events.
- syslogd—Syslog related traces.
- timer-events—Internally generated events.

<flag> (configuration/forwarding-options/dhcp-relay/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <dhcp-relay>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </dhcp-relay>
  </forwarding-options>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.
- session-db—Session database operations.
- state—State-transition operations.
- statistics—Baseline statistics operations.
- ui—User Interface operations.

<flag> (configuration/forwarding-options/helpers/traceoptions)

Usage

```
<configuration>
  <forwarding-options>
    <helpers>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </helpers>
  </forwarding-options>
</configuration>
```

Description Area of UDP forwarding helper process on which to enable debugging output.

Contents <name>—No documentation is available yet.

- address—Trace address management code.
- all—Trace all areas of code.
- bootp—Trace BOOTP/DHCP service-specific code.
- config—Trace configuration code.
- domain—Trace DNS service-specific code.
- ifdb—Trace interface database code.
- io—Trace I/O code.
- main—Trace main loop code.
- port—Trace arbitrary protocol code.
- rtsock—Trace routing socket code.
- tftp—Trace TFTP service-specific code.
- trace—Trace tracing code.
- ui—Trace user interface code.
- util—Trace miscellaneous utility code.

<flag> (configuration/interfaces/interface/traceoptions)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </interface>
  </interfaces>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Enable all interface trace flags.
- event—Trace interface events.
- ipc—Trace interface IPC messages.
- media—Trace interface media changes.

<flag> (configuration/interfaces/traceoptions)

Usage

```
<configuration>
  <interfaces>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
        <disable/>
      </flag>
    </traceoptions>
  </interfaces>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Enable all configuration logging.
- change-events—Log changes that produce configuration events.
- config-states—Log the configuration state machine changes.
- kernel—Log configuration IPC messages to kernel.
- kernel-detail—Log details of configuration messages to kernel.

<flag> (configuration/jnx-example/traceoptions)

Usage

```
<configuration>
  <jnx-example>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </jnx-example>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- routing-socket—Trace routing socket events.

<flag> (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>
                    <flag>
                      <name>name</name>     <!-- identifier -->
                    </flag>
                  </array>
                </option>
              </dhcp-attributes>
            </inet>
          </family>
        </pool>
      </address-assignment>
    </access>
  </logical-systems>
</configuration>
```

Description Array of boolean flag values.

Contents <name>—Array of boolean flag values.

- false—False value.
- off—Off value.
- on—On value.
- true—True value.

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

Usage

```
<configuration>
  <logical-systems>
    <forwarding-options>
      <dhcp-relay>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </dhcp-relay>
    </forwarding-options>
  </logical-systems>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.
- session-db—Session database operations.
- state—State-transition operations.
- statistics—Baseline statistics operations.

- ui—User Interface operations.

<flag> (configuration/logical-systems/protocols/ancp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ancp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </ancp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config—Trace config events.
- cos—Trace CoS events.
- general—Trace general flow.
- packet—Trace ANCP packet Transmit/Receive.
- process—Trace process internals.
- protocol—Trace protocol events.
- restart—Trace process restart flow.
- routing-socket—Trace routing-socket events.
- session—Trace connection events/sessions.
- startup—Trace ANCP startup events/flow.
- subscriber—Trace subscriber events.
- timer—Trace timer processing.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bfd>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </bfd>
    </protocols>
  </logical-systems>
</configuration>
```

Description Trace flag information.

Contents <name>—No documentation is available yet.

- adjacency—Trace adjacency messages.
- all—Trace everything.
- error—Trace all errors.
- event—Trace all events.
- issu—Trace ISSU packet activity.
- nsr-packet—Trace packet activity of NSR.
- nsr-synchronization—Trace NSR synchronization events.
- packet—Trace all packets.
- pipe—Trace pipe messages.
- pipe-detail—Trace pipe messages in detail.
- ppm-packet—Trace packet activity by periodic packet management.
- state—Trace state transitions.
- timer—Trace timer processing.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
                <filter>...</filter>
              </flag>
            </traceoptions>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.

- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.

- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/bgp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
            <filter>...</filter>
          </flag>
        </traceoptions>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.

- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/dot1x/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <dot1x>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </dot1x>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- dot1x-debug—Trace dot1x events.
- eapol—Trace EAPOL Transmit/Receive.
- general—Trace general events.
- normal—Trace normal events.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol task timer processing.

<flag> (configuration/logical-systems/protocols/dvmrp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <dvmrp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </dvmrp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- graft—Trace graft messages.
- neighbor—Trace neighbor probe packets.
- normal—Trace normal events.
- packets—Trace all DVMRP packets.
- poison—Trace poison-route-reverse packets.
- policy—Trace policy processing.
- probe—Trace probe packets.
- prune—Trace prune messages.
- report—Trace DVMRP route report packets.
- route—Trace routing information.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/esis/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <esis>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </esis>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace errored packets.
- esh—Trace end system hello packets.
- general—Trace general events.
- graceful-restart—Trace graceful restart events.
- ish—Trace intermediate system hello packets.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/igmp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <igmp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </igmp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- client-notification—Trace notifications.
- general—Trace general events.
- group—Trace group operations.
- host-notification—Trace host notifications.
- leave—Trace leave group messages (IGMPv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/igmp-host/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <igmp-host>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </igmp-host>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (IGMPv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/ilmi/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ilmi>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </ilmi>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all areas of code.
- database—Trace database events.
- debug—Trace debug messages.
- event—Trace event handler events.
- packet—Trace packet events.
- routing-socket—Trace Routing socket events.
- state—Trace state change events.

<flag> (configuration/logical-systems/protocols/isis/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <isis>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </isis>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- csn—Trace complete sequence number (CSN) packets.
- error—Trace errored packets.
- general—Trace general events.
- graceful-restart—Trace graceful restart events.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between IS-IS and LDP.
- lsp—Trace link-state packets.
- lsp-generation—Trace LSP generation.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace IS-IS packets.
- policy—Trace policy processing.

- psn—Trace partial sequence number (PSN) packets.
- route—Trace routing information.
- spf—Trace SPF events.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/l2circuit/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <l2circuit>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </l2circuit>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- connections—Trace Layer 2 circuit connections.
- error—Trace errors.
- fec—Trace Layer 2 circuit VC FEC advertisements.
- general—Trace general events.
- normal—Trace normal events.
- oam—Trace Layer 2 circuit OAM messages.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- topology—Trace Layer 2 circuit topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/l2iw/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <l2iw>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </l2iw>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace errors.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/lacp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <lacp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </lacp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Events and packet types to include in the trace.

Contents <name>—No documentation is available yet.

- all—All events and packets.
- configuration—Configuration events.
- packet—LACP packets.
- ppm—LACP PPM messages.
- process—Process events.
- protocol—Protocol events.
- routing-socket—Routing socket events.
- startup—Process startup events.

<flag> (configuration/logical-systems/protocols/layer2-control/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <layer2-control>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </layer2-control>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- regex-parse—Trace regular-expression parsing.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol task timer processing.

<flag> (configuration/logical-systems/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ldp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
            <filter>...</filter>
          </flag>
        </traceoptions>
      </ldp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- address—Trace address packets.
- all—Trace everything.
- binding—Trace label binding state.
- error—Trace errored packets.
- event—Trace LDP state machine events.
- general—Trace general events.
- initialization—Trace initialization packets.
- label—Trace label packets.
- normal—Trace normal events.
- notification—Trace notification packets.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all LDP packets.

- path—Trace label path state.
- periodic—Trace periodic (hello and keepalive) packets.
- policy—Trace policy processing.
- ppmd—Trace state and events for ppmd process.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/link-management/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <link-management>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </link-management>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- hello-packets—Trace hello packet processing.
- init—Trace initialization events.
- packets—Trace packet processing.
- parse—Trace parser processing.
- process—Trace general configuration processing.
- route-socket—Trace route-socket events.
- routing—Trace routing protocols interworking.
- server—Trace server processing.
- show—Trace show command servicing.
- state—Trace state transitions.

<flag> (configuration/logical-systems/protocols/mld/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mld>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </mld>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- client-notification—Trace notifications.
- general—Trace general events.
- group—Trace group operations.
- host-notification—Trace host notifications.
- leave—Trace leave group messages (MLDv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all MLD packets.
- policy—Trace policy processing.
- query—Trace MLD membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/mld-host/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mld-host>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </mld-host>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (MLDv1 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all MLD packets.
- policy—Trace policy processing.
- query—Trace MLD membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/mpls/ label-switched-path/oam/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <oam>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </oam>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- database—Trace database activity.
- network—Trace network activity.
- pipe—Trace pipe activity.
- rpc-packet-details—Trace RPC packet details.
- traceroute—Trace traceroute activity.

<flag> (configuration/logical-systems/protocols/mpls/ label-switched-path/primary/oam/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <primary>
            <oam>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                </flag>
              </traceoptions>
            </oam>
          </primary>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- database—Trace database activity.
- network—Trace network activity.
- pipe—Trace pipe activity.
- rpc-packet-details—Trace RPC packet details.
- traceroute—Trace traceroute activity.

<flag> (configuration/logical-systems/protocols/mpls/ label-switched-path/secondary/oam/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <secondary>
            <oam>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                </flag>
              </traceoptions>
            </oam>
          </secondary>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- database—Trace database activity.
- network—Trace network activity.
- pipe—Trace pipe activity.
- rpc-packet-details—Trace RPC packet details.
- traceroute—Trace traceroute activity.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <label-switched-path>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </label-switched-path>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- cspf—Trace CSPF computation.
- cspf-link—Trace links visited during CSPF.
- cspf-node—Trace nodes visited during CSPF.
- state—Trace state transitions.

<flag> (configuration/logical-systems/protocols/mpls/oam/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <oam>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </oam>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- database—Trace database activity.
- network—Trace network activity.
- pipe—Trace pipe activity.
- rpc-packet-details—Trace RPC packet details.
- traceroute—Trace traceroute activity.

<flag> (configuration/logical-systems/protocols/mpls/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mpls>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </mpls>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- connection—Trace CCC activity.
- connection-detail—Trace CCC activity in detail.
- cspf—Trace CSPF computation.
- cspf-link—Trace links visited during CSPF.
- cspf-node—Trace nodes visited during CSPF.
- error—Trace error conditions.
- graceful-restart—Trace graceful-restart-related events.
- lsping—Trace LSP ping packets received.
- state—Trace state transitions.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <msdp>
        <group>
          <peer>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </peer>
        </group>
      </msdp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <msdp>
        <group>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </group>
      </msdp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/msdp/peer/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <msdp>
        <peer>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </peer>
      </msdp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/msdp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <msdp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </msdp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/mstp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <mstp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </mstp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.
- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/logical-systems/protocols/ neighbor-discovery/secure/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <neighbor-discovery>
        <secure>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </secure>
      </neighbor-discovery>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- cryptographic-address—Trace Cryptographically Generated Address events.
- protocol—Trace protocol processing events.
- rsa—Trace RSA events.

<flag> (configuration/logical-systems/protocols/oam/ethernet/ connectivity-fault-management/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <oam>
        <ethernet>
          <connectivity-fault-management>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </connectivity-fault-management>
        </ethernet>
      </oam>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- error—Trace events related to catestrophic errors in daemon.
- init—Trace events related to protocol daemon start-up.
- protocol—Trace protocol processing events.
- routing-socket—Trace routing socket events.

<flag> (configuration/logical-systems/protocols/oam/ethernet/ link-fault-management/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <oam>
        <ethernet>
          <link-fault-management>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </link-fault-management>
        </ethernet>
      </oam>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- action-profile—Trace action profile invocation events.
- all—Trace everything.
- configuration—Trace configuration events.
- protocol—Trace protocol processing events.
- routing-socket—Trace routing socket events.

<flag> (configuration/logical-systems/protocols/ospf/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ospf>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </ospf>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.

- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/ospf3/realm/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ospf3>
        <realm>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </realm>
      </ospf3>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.

- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/ospf3/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ospf3>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </ospf3>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.

- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/pgm/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <pgm>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </pgm>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- init—Trace initialization events.
- packets—Trace packet processing.
- parse—Trace parser processing.
- route-socket—Trace route-socket events.
- show—Trace show command servicing.
- state—Trace state transitions.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/pim/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <pim>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
            <filter>...</filter>
          </flag>
        </traceoptions>
      </pim>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- assert—Trace assert messages.
- autorp—Trace bootstrap/RP/auto-RP messages.
- bootstrap—Trace bootstrap/RP/auto-RP messages.
- general—Trace general events.
- graft—Trace join/prune/graft/graft-ack messages.
- hello—Trace hello packets.
- join—Trace join/prune/graft/graft-ack messages.
- mdt—Trace messages related to multicast data tunnels.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all PIM packets.

- policy—Trace policy processing.
- prune—Trace join/prune/graft/graft-ack messages.
- register—Trace register/register-stop messages.
- route—Trace routing information.
- rp—Trace bootstrap/RP/auto-RP messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/ppp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ppp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </ppp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Area of PPP process to enable debugging output.

Contents <name>—No documentation is available yet.

- access—Trace access code.
- address-pool—Trace address pool code.
- all—Trace all areas of code.
- auth—Trace authentication code.
- chap—Trace CHAP code.
- ci—Trace ci code.
- config—Trace configuration code.
- ifdb—Trace interface database code.
- lcp—Trace LCP state machine code.
- memory—Trace memory management code.
- message—Trace message processing code.
- mlppp—Trace MLPPP code.
- ncp—Trace NCP state machine code.
- pap—Trace PAP code.
- ppp—Trace PPP protocol processing code.
- radius—Trace RADIUS processing code.
- redundancy—Trace redundancy code.
- rtsock—Trace routing socket code.

- session—Trace session management code.
- signal—Trace signal handling code.
- timer—Trace timer code.
- ui—Trace user interface code.

<flag> (configuration/logical-systems/protocols/ protection-group/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <protection-group>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </protection-group>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all.
- events—Trace events to the protocol state machine.
- pdu—Trace R-APS PDU reception and transmission.
- periodic-packet-management—Trace periodic packet management state and events.
- state-machine—Trace R-APS state machine.
- timers—Trace protocol timers.

<flag> (configuration/logical-systems/protocols/rip/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <rip>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
            <filter>...</filter>
          </flag>
        </traceoptions>
      </rip>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- auth—Trace RIP authentication.
- error—Trace RIP errors.
- expiration—Trace RIP route expiration processing.
- general—Trace general events.
- holddown—Trace RIP hold-down processing.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all RIP packets.
- policy—Trace policy processing.
- request—Trace RIP information packets.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIP triggered updates.
- update—Trace RIP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/ripng/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <ripng>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </ripng>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace RIPng errors.
- expiration—Trace RIPng route expiration processing.
- general—Trace general events.
- holddown—Trace RIPng hold-down processing.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all RIPng packets.
- policy—Trace policy processing.
- request—Trace RIPng information packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.
- trigger—Trace RIPng triggered updates.
- update—Trace RIPng update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/ router-advertisement/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <router-advertisement>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </router-advertisement>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/logical-systems/protocols/ router-discovery/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <router-discovery>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </router-discovery>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/logical-systems/protocols/rstp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <rstp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </rstp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.
- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/logical-systems/protocols/rsvp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <rsvp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </rsvp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace error conditions.
- event—Trace RSVP related events.
- lmp—Trace RSVP-LMP related interactions.
- packets—Trace all RSVP packets.
- path—Trace RSVP path messages.
- pathtear—Trace RSVP PathTear messages.
- resv—Trace RSVP Resv messages.
- resvtear—Trace RSVP ResvTear messages.
- route—Trace routing information.
- state—Trace state transitions.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/protocols/vrrp/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <vrrp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </vrrp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all events.
- database—Trace database.
- general—Trace general events.
- interfaces—Trace interface messages.
- normal—Trace normal events.
- packets—Trace packets.
- state—Trace state transitions.
- timer—Trace timer events.

<flag> (configuration/logical-systems/protocols/vstp/vlan/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <vstp>
        <vlan>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <disable/>
            </flag>
          </traceoptions>
        </vlan>
      </vstp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.

- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (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>
                        <flag>
                          <name>name</name>     <!-- identifier -->
                        </flag>
                      </array>
                    </option>
                  </dhcp-attributes>
                </inet>
              </family>
            </pool>
          </address-assignment>
        </access>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Array of boolean flag values.

Contents <name>—Array of boolean flag values.

- false—False value.
- off—Off value.
- on—On value.
- true—True value.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <forwarding-options>
              <dhcp-relay>
                <traceoptions>
                  <flag>
                    <name>name</name>     <!-- identifier -->
                  </flag>
                </traceoptions>
              </dhcp-relay>
            </forwarding-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.

- rtsock—Routing socket operations.
- session-db—Session database operations.
- state—State-transition operations.
- statistics—Baseline statistics operations.
- ui—User Interface operations.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <multicast-snooping-options>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <disable/>
                </flag>
              </traceoptions>
            </multicast-snooping-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/logical-systems/routing-instances/ instance/bridge-domains/domain/protocols/igmp-snooping/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <protocols>
              <igmp-snooping>
                <traceoptions>
                  <flag>
                    <name>name</name>     <!-- identifier -->
                    <send/>
                    <receive/>
                    <detail/>
                    <disable/>
                  </flag>
                </traceoptions>
              </igmp-snooping>
            </protocols>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (IGMPv2 only).
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.

- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <dhcp-relay>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </dhcp-relay>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.
- session-db—Session database operations.

- state—State-transition operations.
- statistics—Baseline statistics operations.
- ui—User Interface operations.

<flag> (configuration/logical-systems/routing-instances/ instance/forwarding-options/helpers/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <helpers>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </helpers>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Area of UDP forwarding helper process on which to enable debugging output.

Contents <name>—No documentation is available yet.

- address—Trace address management code.
- all—Trace all areas of code.
- bootp—Trace BOOTP/DHCP service-specific code.
- config—Trace configuration code.
- domain—Trace DNS service-specific code.
- ifdb—Trace interface database code.
- io—Trace I/O code.
- main—Trace main loop code.
- port—Trace arbitrary protocol code.
- rtsock—Trace routing socket code.
- tftp—Trace TFTP service-specific code.
- trace—Trace tracing code.
- ui—Trace user interface code.
- util—Trace miscellaneous utility code.

<flag> (configuration/logical-systems/routing-instances/ instance/multicast-snooping-options/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <multicast-snooping-options>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <disable/>
            </flag>
          </traceoptions>
        </multicast-snooping-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <traceoptions>
                  <flag>
                    <name>name</name>     <!-- identifier -->
                    <send/>
                    <receive/>
                    <detail/>
                    <disable/>
                    <filter>...</filter>
                  </flag>
                </traceoptions>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.

- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                  <filter>...</filter>
                </flag>
              </traceoptions>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.

- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
                <filter>...</filter>
              </flag>
            </traceoptions>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.

- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/esis/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <esis>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </esis>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace errored packets.
- esh—Trace end system hello packets.
- general—Trace general events.
- graceful-restart—Trace graceful restart events.
- ish—Trace intermediate system hello packets.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/igmp-snooping/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <igmp-snooping>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </igmp-snooping>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (IGMPv2 only).
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/isis/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <isis>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </isis>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- csn—Trace complete sequence number (CSN) packets.
- error—Trace errored packets.
- general—Trace general events.
- graceful-restart—Trace graceful restart events.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between IS-IS and LDP.
- lsp—Trace link-state packets.
- lsp-generation—Trace LSP generation.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.

- packets—Trace IS-IS packets.
- policy—Trace policy processing.
- psn—Trace partial sequence number (PSN) packets.
- route—Trace routing information.
- spf—Trace SPF events.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/l2vpn/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <l2vpn>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </l2vpn>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- automatic-site—Trace VPLS automatic site state.
- connections—Trace Layer 2 VPN and VPLS connections.
- error—Trace errors.
- general—Trace general events.
- nlri—Trace Layer 2 VPN and VPLS remote site advertisements.
- normal—Trace normal events.
- oam—Trace LDP VPLS pseudowire OAM messages.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- topology—Trace Layer 2 VPN and VPLS topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ldp>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
                <filter>...</filter>
              </flag>
            </traceoptions>
          </ldp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- address—Trace address packets.
- all—Trace everything.
- binding—Trace label binding state.
- error—Trace errored packets.
- event—Trace LDP state machine events.
- general—Trace general events.
- initialization—Trace initialization packets.
- label—Trace label packets.
- normal—Trace normal events.
- notification—Trace notification packets.

- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all LDP packets.
- path—Trace label path state.
- periodic—Trace periodic (hello and keepalive) packets.
- policy—Trace policy processing.
- ppmd—Trace state and events for ppmd process.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <msdp>
            <group>
              <peer>
                <traceoptions>
                  <flag>
                    <name>name</name>     <!-- identifier -->
                    <send/>
                    <receive/>
                    <detail/>
                    <disable/>
                  </flag>
                </traceoptions>
              </peer>
            </group>
          </msdp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.

- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <msdp>
            <group>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                </flag>
              </traceoptions>
            </group>
          </msdp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/msdp/peer/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <msdp>
            <peer>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                </flag>
              </traceoptions>
            </peer>
          </msdp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <msdp>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </msdp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/mstp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <mstp>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <disable/>
              </flag>
            </traceoptions>
          </mstp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.
- state-machine-variables—Trace when state machine variables change.

- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/mvpn/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <mvpn>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </mvpn>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace errors.
- general—Trace general events.
- nlri—Trace MVPN advertisements.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- topology—Trace MVPN topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/ospf/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </ospf>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.

- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/ospf3/realm/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf3>
            <realm>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                </flag>
              </traceoptions>
            </realm>
          </ospf3>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.

- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/ospf3/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ospf3>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </ospf3>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.

- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/pim/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <pim>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
                <filter>...</filter>
              </flag>
            </traceoptions>
          </pim>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- assert—Trace assert messages.
- autorp—Trace bootstrap/RP/auto-RP messages.
- bootstrap—Trace bootstrap/RP/auto-RP messages.
- general—Trace general events.
- graft—Trace join/prune/graft/graft-ack messages.
- hello—Trace hello packets.
- join—Trace join/prune/graft/graft-ack messages.
- mdt—Trace messages related to multicast data tunnels.
- normal—Trace normal events.

- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all PIM packets.
- policy—Trace policy processing.
- prune—Trace join/prune/graft/graft-ack messages.
- register—Trace register/register-stop messages.
- route—Trace routing information.
- rp—Trace bootstrap/RP/auto-RP messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <rip>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
                <filter>...</filter>
              </flag>
            </traceoptions>
          </rip>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- auth—Trace RIP authentication.
- error—Trace RIP errors.
- expiration—Trace RIP route expiration processing.
- general—Trace general events.
- holddown—Trace RIP hold-down processing.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all RIP packets.
- policy—Trace policy processing.

- request—Trace RIP information packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIP triggered updates.
- update—Trace RIP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <ripng>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </ripng>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace RIPng errors.
- expiration—Trace RIPng route expiration processing.
- general—Trace general events.
- holddown—Trace RIPng hold-down processing.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all RIPng packets.
- policy—Trace policy processing.
- request—Trace RIPng information packets.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIPng triggered updates.
- update—Trace RIPng update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/router-discovery/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <router-discovery>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </router-discovery>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/rstp/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <rstp>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <disable/>
              </flag>
            </traceoptions>
          </rstp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.
- state-machine-variables—Trace when state machine variables change.

- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/vpls/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <vpls>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </vpls>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- automatic-site—Trace VPLS automatic site state.
- connections—Trace Layer 2 VPN and VPLS connections.
- error—Trace errors.
- general—Trace general events.
- nlri—Trace Layer 2 VPN and VPLS remote site advertisements.
- normal—Trace normal events.
- oam—Trace LDP VPLS pseudowire OAM messages.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- topology—Trace Layer 2 VPN and VPLS topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/protocols/vstp/vlan/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <vstp>
            <vlan>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <disable/>
                </flag>
              </traceoptions>
            </vlan>
          </vstp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.

- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/logical-systems/routing-instances/ instance/routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <auto-export>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </auto-export>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- export—Export processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/routing-options/dynamic-tunnels/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <dynamic-tunnels>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </dynamic-tunnels>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- kernel—Trace kernel communication.
- task—Trace task or job processing.
- tunnel—Trace tunnel addition, change, or deletion.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/routing-options/flow/validation/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <flow>
            <validation>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                  <filter>...</filter>
                </flag>
              </traceoptions>
            </validation>
          </flow>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to tracing.

<name>—No documentation is available yet.

- all—Trace everything.
- flash—Trace flash processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- resolution—Trace flow to unicast route resolution.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-instances/ instance/routing-options/multicast/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <multicast>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <disable/>
              </flag>
            </traceoptions>
          </multicast>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/logical-systems/routing-instances/ instance/routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <resolution>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </resolution>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- event—Event processing.
- flash—Flash processing.
- indirect—Indirect next-hop addition, change, or deletion.
- kernel—Kernel communication.
- task—Task or job processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <disable/>
            </flag>
          </traceoptions>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- condition-manager—Trace condition manager events.
- config-internal—Trace configuration internals.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- normal—Trace normal events.
- nsr-synchronization—Trace nonstop routing synchronization events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- regex-parse—Trace regular-expression parsing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <system>
          <services>
            <dhcp-local-server>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                </flag>
              </traceoptions>
            </dhcp-local-server>
          </services>
        </system>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.

- session-db—Session database operations.
- state—State-transition operations.
- statistics—Baseline statistics operations.
- ui—User Interface operations.

<flag> (configuration/logical-systems/routing-options/ auto-export/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <auto-export>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </auto-export>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- export—Export processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-options/ dynamic-tunnels/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <dynamic-tunnels>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </dynamic-tunnels>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- kernel—Trace kernel communication.
- task—Trace task or job processing.
- tunnel—Trace tunnel addition, change, or deletion.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-options/flow/ validation/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <flow>
        <validation>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </validation>
      </flow>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to tracing.

<name>—No documentation is available yet.

- all—Trace everything.
- flash—Trace flash processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- resolution—Trace flow to unicast route resolution.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-options/multicast/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <multicast>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </multicast>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/logical-systems/routing-options/ resolution/traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <resolution>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </resolution>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- event—Event processing.
- flash—Flash processing.
- indirect—Indirect next-hop addition, change, or deletion.
- kernel—Kernel communication.
- task—Task or job processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/logical-systems/routing-options/ traceoptions)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <disable/>
        </flag>
      </traceoptions>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- condition-manager—Trace condition manager events.
- config-internal—Trace configuration internals.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- normal—Trace normal events.
- nsr-synchronization—Trace nonstop routing synchronization events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- regex-parse—Trace regular-expression parsing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

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

Usage

```
<configuration>
  <logical-systems>
    <system>
      <services>
        <dhcp-local-server>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </dhcp-local-server>
      </services>
    </system>
  </logical-systems>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.
- session-db—Session database operations.
- state—State-transition operations.

- statistics—Baseline statistics operations.
- ui—User Interface operations.

<flag> (configuration/multicast-snooping-options/traceoptions)

Usage

```
<configuration>
  <multicast-snooping-options>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
        <disable/>
      </flag>
    </traceoptions>
  </multicast-snooping-options>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/protocols/ancp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ancp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <disable/>
        </flag>
      </traceoptions>
    </ancp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config—Trace config events.
- cos—Trace CoS events.
- general—Trace general flow.
- packet—Trace ANCP packet Transmit/Receive.
- process—Trace process internals.
- protocol—Trace protocol events.
- restart—Trace process restart flow.
- routing-socket—Trace routing-socket events.
- session—Trace connection events/sessions.
- startup—Trace ANCP startup events/flow.
- subscriber—Trace subscriber events.
- timer—Trace timer processing.

<flag> (configuration/protocols/bfd/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bfd>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </bfd>
  </protocols>
</configuration>
```

Description Trace flag information.

Contents <name>—No documentation is available yet.

- adjacency—Trace adjacency messages.
- all—Trace everything.
- error—Trace all errors.
- event—Trace all events.
- issu—Trace ISSU packet activity.
- nsr-packet—Trace packet activity of NSR.
- nsr-synchronization—Trace NSR synchronization events.
- packet—Trace all packets.
- pipe—Trace pipe messages.
- pipe-detail—Trace pipe messages in detail.
- ppm-packet—Trace packet activity by periodic packet management.
- state—Trace state transitions.
- timer—Trace timer processing.

<flag> (configuration/protocols/bgp/group/neighbor/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.

- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/bgp/group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
            <filter>...</filter>
          </flag>
        </traceoptions>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.

- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/bgp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
          <filter>...</filter>
        </flag>
      </traceoptions>
    </bgp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.

- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/dot1x/traceoptions)

Usage

```
<configuration>
  <protocols>
    <dot1x>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <disable/>
        </flag>
      </traceoptions>
    </dot1x>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- dot1x-debug—Trace dot1x events.
- eapol—Trace EAPOL Transmit/Receive.
- general—Trace general events.
- normal—Trace normal events.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol task timer processing.

<flag> (configuration/protocols/dvmrp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <dvmrp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </dvmrp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- graft—Trace graft messages.
- neighbor—Trace neighbor probe packets.
- normal—Trace normal events.
- packets—Trace all DVMRP packets.
- poison—Trace poison-route-reverse packets.
- policy—Trace policy processing.
- probe—Trace probe packets.
- prune—Trace prune messages.
- report—Trace DVMRP route report packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/esis/traceoptions)

Usage

```
<configuration>
  <protocols>
    <esis>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </esis>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace errored packets.
- esh—Trace end system hello packets.
- general—Trace general events.
- graceful-restart—Trace graceful restart events.
- ish—Trace intermediate system hello packets.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/igmp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <igmp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </igmp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- client-notification—Trace notifications.
- general—Trace general events.
- group—Trace group operations.
- host-notification—Trace host notifications.
- leave—Trace leave group messages (IGMPv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/igmp-host/traceoptions)

Usage

```
<configuration>
  <protocols>
    <igmp-host>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </igmp-host>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (IGMPv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ilmi/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ilmi>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </ilmi>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all areas of code.
- database—Trace database events.
- debug—Trace debug messages.
- event—Trace event handler events.
- packet—Trace packet events.
- routing-socket—Trace Routing socket events.
- state—Trace state change events.

<flag> (configuration/protocols/isis/traceoptions)

Usage

```
<configuration>
  <protocols>
    <isis>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </isis>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- csn—Trace complete sequence number (CSN) packets.
- error—Trace errored packets.
- general—Trace general events.
- graceful-restart—Trace graceful restart events.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between IS-IS and LDP.
- lsp—Trace link-state packets.
- lsp-generation—Trace LSP generation.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace IS-IS packets.
- policy—Trace policy processing.
- psn—Trace partial sequence number (PSN) packets.
- route—Trace routing information.

- spf—Trace SPF events.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/l2circuit/traceoptions)

Usage

```
<configuration>
  <protocols>
    <l2circuit>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </l2circuit>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- connections—Trace Layer 2 circuit connections.
- error—Trace errors.
- fec—Trace Layer 2 circuit VC FEC advertisements.
- general—Trace general events.
- normal—Trace normal events.
- oam—Trace Layer 2 circuit OAM messages.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- topology—Trace Layer 2 circuit topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/l2iw/traceoptions)

Usage

```
<configuration>
  <protocols>
    <l2iw>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </l2iw>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace errors.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/lacp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <lacp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </lacp>
  </protocols>
</configuration>
```

Description Events and packet types to include in the trace.

Contents <name>—No documentation is available yet.

- all—All events and packets.
- configuration—Configuration events.
- packet—LACP packets.
- ppm—LACP PPM messages.
- process—Process events.
- protocol—Protocol events.
- routing-socket—Routing socket events.
- startup—Process startup events.

<flag> (configuration/protocols/layer2-control/traceoptions)

Usage

```
<configuration>
  <protocols>
    <layer2-control>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <disable/>
        </flag>
      </traceoptions>
    </layer2-control>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- regex-parse—Trace regular-expression parsing.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol task timer processing.

<flag> (configuration/protocols/ldp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ldp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
          <filter>...</filter>
        </flag>
      </traceoptions>
    </ldp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- address—Trace address packets.
- all—Trace everything.
- binding—Trace label binding state.
- error—Trace errored packets.
- event—Trace LDP state machine events.
- general—Trace general events.
- initialization—Trace initialization packets.
- label—Trace label packets.
- normal—Trace normal events.
- notification—Trace notification packets.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all LDP packets.
- path—Trace label path state.

- periodic—Trace periodic (hello and keepalive) packets.
- policy—Trace policy processing.
- ppmd—Trace state and events for ppmd process.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/link-management/traceoptions)

Usage

```
<configuration>
  <protocols>
    <link-management>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </link-management>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- hello-packets—Trace hello packet processing.
- init—Trace initialization events.
- packets—Trace packet processing.
- parse—Trace parser processing.
- process—Trace general configuration processing.
- route-socket—Trace route-socket events.
- routing—Trace routing protocols interworking.
- server—Trace server processing.
- show—Trace show command servicing.
- state—Trace state transitions.

<flag> (configuration/protocols/mld/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mld>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </mld>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- client-notification—Trace notifications.
- general—Trace general events.
- group—Trace group operations.
- host-notification—Trace host notifications.
- leave—Trace leave group messages (MLDv2 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all MLD packets.
- policy—Trace policy processing.
- query—Trace MLD membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/mld-host/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mld-host>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </mld-host>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (MLDv1 only).
- mtrace—Trace mtrace packets.
- normal—Trace normal events.
- packets—Trace all MLD packets.
- policy—Trace policy processing.
- query—Trace MLD membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/mpls/label-switched-path/oam/ traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <oam>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </oam>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- database—Trace database activity.
- network—Trace network activity.
- pipe—Trace pipe activity.
- rpc-packet-details—Trace RPC packet details.
- traceroute—Trace traceroute activity.

<flag> (configuration/protocols/mpls/label-switched-path/ primary/oam/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <primary>
          <oam>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </oam>
        </primary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- database—Trace database activity.
- network—Trace network activity.
- pipe—Trace pipe activity.
- rpc-packet-details—Trace RPC packet details.
- traceroute—Trace traceroute activity.

<flag> (configuration/protocols/mpls/label-switched-path/ secondary/oam/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <secondary>
          <oam>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </oam>
        </secondary>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- database—Trace database activity.
- network—Trace network activity.
- pipe—Trace pipe activity.
- rpc-packet-details—Trace RPC packet details.
- traceroute—Trace traceroute activity.

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

Usage

```
<configuration>
  <protocols>
    <mpls>
      <label-switched-path>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </label-switched-path>
    </mpls>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- cspf—Trace CSPF computation.
- cspf-link—Trace links visited during CSPF.
- cspf-node—Trace nodes visited during CSPF.
- state—Trace state transitions.

<flag> (configuration/protocols/mpls/oam/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <oam>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </oam>
    </mpls>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- database—Trace database activity.
- network—Trace network activity.
- pipe—Trace pipe activity.
- rpc-packet-details—Trace RPC packet details.
- traceroute—Trace traceroute activity.

<flag> (configuration/protocols/mpls/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mpls>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </mpls>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- connection—Trace CCC activity.
- connection-detail—Trace CCC activity in detail.
- cspf—Trace CSPF computation.
- cspf-link—Trace links visited during CSPF.
- cspf-node—Trace nodes visited during CSPF.
- error—Trace error conditions.
- graceful-restart—Trace graceful-restart-related events.
- lsping—Trace LSP ping packets received.
- state—Trace state transitions.

<flag> (configuration/protocols/msdp/group/peer/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <peer>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </peer>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/msdp/group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <group>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </group>
    </msdp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/msdp/peer/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <peer>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </peer>
    </msdp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/msdp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <msdp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </msdp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/mstp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <mstp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <disable/>
        </flag>
      </traceoptions>
    </mstp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.
- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/protocols/neighbor-discovery/secure/ traceoptions)

Usage

```
<configuration>
  <protocols>
    <neighbor-discovery>
      <secure>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </secure>
    </neighbor-discovery>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- cryptographic-address—Trace Cryptographically Generated Address events.
- protocol—Trace protocol processing events.
- rsa—Trace RSA events.

<flag> (configuration/protocols/oam/ethernet/ connectivity-fault-management/traceoptions)

Usage

```
<configuration>
  <protocols>
    <oam>
      <ethernet>
        <connectivity-fault-management>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </connectivity-fault-management>
      </ethernet>
    </oam>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- error—Trace events related to catestrophic errors in daemon.
- init—Trace events related to protocol daemon start-up.
- protocol—Trace protocol processing events.
- routing-socket—Trace routing socket events.

<flag> (configuration/protocols/oam/ethernet/ link-fault-management/traceoptions)

Usage

```
<configuration>
  <protocols>
    <oam>
      <ethernet>
        <link-fault-management>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </link-fault-management>
      </ethernet>
    </oam>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- action-profile—Trace action profile invocation events.
- all—Trace everything.
- configuration—Trace configuration events.
- protocol—Trace protocol processing events.
- routing-socket—Trace routing socket events.

<flag> (configuration/protocols/ospf/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </ospf>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.

- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ospf3/realm/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <realm>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
          </flag>
        </traceoptions>
      </realm>
    </ospf3>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.

- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ospf3/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ospf3>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </ospf3>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.

- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/pgm/traceoptions)

Usage

```
<configuration>
  <protocols>
    <pgm>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </pgm>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- init—Trace initialization events.
- packets—Trace packet processing.
- parse—Trace parser processing.
- route-socket—Trace route-socket events.
- show—Trace show command servicing.
- state—Trace state transitions.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/pim/traceoptions)

Usage

```
<configuration>
  <protocols>
    <pim>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
          <filter>...</filter>
        </flag>
      </traceoptions>
    </pim>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- assert—Trace assert messages.
- autorp—Trace bootstrap/RP/auto-RP messages.
- bootstrap—Trace bootstrap/RP/auto-RP messages.
- general—Trace general events.
- graft—Trace join/prune/graft/graft-ack messages.
- hello—Trace hello packets.
- join—Trace join/prune/graft/graft-ack messages.
- mdt—Trace messages related to multicast data tunnels.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all PIM packets.
- policy—Trace policy processing.

- prune—Trace join/prune/graft/graft-ack messages.
- register—Trace register/register-stop messages.
- route—Trace routing information.
- rp—Trace bootstrap/RP/auto-RP messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ppp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ppp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </ppp>
  </protocols>
</configuration>
```

Description Area of PPP process to enable debugging output.

Contents <name>—No documentation is available yet.

- access—Trace access code.
- address-pool—Trace address pool code.
- all—Trace all areas of code.
- auth—Trace authentication code.
- chap—Trace CHAP code.
- ci—Trace ci code.
- config—Trace configuration code.
- ifdb—Trace interface database code.
- lcp—Trace LCP state machine code.
- memory—Trace memory management code.
- message—Trace message processing code.
- mlppp—Trace MLPPP code.
- ncp—Trace NCP state machine code.
- pap—Trace PAP code.
- ppp—Trace PPP protocol processing code.
- radius—Trace RADIUS processing code.
- redundancy—Trace redundancy code.
- rtsock—Trace routing socket code.
- session—Trace session management code.

- signal—Trace signal handling code.
- timer—Trace timer code.
- ui—Trace user interface code.

<flag> (configuration/protocols/protection-group/traceoptions)

Usage

```
<configuration>
  <protocols>
    <protection-group>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </protection-group>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all.
- events—Trace events to the protocol state machine.
- pdu—Trace R-APS PDU reception and transmission.
- periodic-packet-management—Trace periodic packet management state and events.
- state-machine—Trace R-APS state machine.
- timers—Trace protocol timers.

<flag> (configuration/protocols/rip/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rip>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
          <filter>...</filter>
        </flag>
      </traceoptions>
    </rip>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- auth—Trace RIP authentication.
- error—Trace RIP errors.
- expiration—Trace RIP route expiration processing.
- general—Trace general events.
- holddown—Trace RIP hold-down processing.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all RIP packets.
- policy—Trace policy processing.
- request—Trace RIP information packets.
- route—Trace routing information.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIP triggered updates.
- update—Trace RIP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/ripng/traceoptions)

Usage

```
<configuration>
  <protocols>
    <ripng>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </ripng>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace RIPng errors.
- expiration—Trace RIPng route expiration processing.
- general—Trace general events.
- holddown—Trace RIPng hold-down processing.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all RIPng packets.
- policy—Trace policy processing.
- request—Trace RIPng information packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIPng triggered updates.

- update—Trace RIPng update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/router-advertisement/ traceoptions)

Usage

```
<configuration>
  <protocols>
    <router-advertisement>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </router-advertisement>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/protocols/router-discovery/traceoptions)

Usage

```
<configuration>
  <protocols>
    <router-discovery>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </router-discovery>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/protocols/rstp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rstp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <disable/>
        </flag>
      </traceoptions>
    </rstp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.
- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/protocols/rsvp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <rsvp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </rsvp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace error conditions.
- event—Trace RSVP related events.
- lmp—Trace RSVP-LMP related interactions.
- packets—Trace all RSVP packets.
- path—Trace RSVP path messages.
- pathtear—Trace RSVP PathTear messages.
- resv—Trace RSVP Resv messages.
- resvtear—Trace RSVP ResvTear messages.
- route—Trace routing information.
- state—Trace state transitions.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/protocols/vrrp/traceoptions)

Usage

```
<configuration>
  <protocols>
    <vrrp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </vrrp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all events.
- database—Trace database.
- general—Trace general events.
- interfaces—Trace interface messages.
- normal—Trace normal events.
- packets—Trace packets.
- state—Trace state transitions.
- timer—Trace timer events.

<flag> (configuration/protocols/vstp/vlan/traceoptions)

Usage

```
<configuration>
  <protocols>
    <vstp>
      <vlan>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </vlan>
    </vstp>
  </protocols>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.
- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (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>
                      <flag>
                        <name>name</name>     <!-- identifier -->
                      </flag>
                    </array>
                  </option>
                </dhcp-attributes>
              </inet>
            </family>
          </pool>
        </address-assignment>
      </access>
    </instance>
  </routing-instances>
</configuration>
```

Description Array of boolean flag values.

Contents <name>—Array of boolean flag values.

- false—False value.
- off—Off value.
- on—On value.
- true—True value.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <forwarding-options>
            <dhcp-relay>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                </flag>
              </traceoptions>
            </dhcp-relay>
          </forwarding-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.

- session-db—Session database operations.
- state—State-transition operations.
- statistics—Baseline statistics operations.
- ui—User Interface operations.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <multicast-snooping-options>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <disable/>
              </flag>
            </traceoptions>
          </multicast-snooping-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/routing-instances/instance/bridge-domains/ domain/protocols/igmp-snooping/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <protocols>
            <igmp-snooping>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                </flag>
              </traceoptions>
            </igmp-snooping>
          </protocols>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (IGMPv2 only).
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <dhcp-relay>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </dhcp-relay>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.
- session-db—Session database operations.
- state—State-transition operations.

- statistics—Baseline statistics operations.
- ui—User Interface operations.

<flag> (configuration/routing-instances/instance/ forwarding-options/helpers/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <helpers>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </helpers>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Area of UDP forwarding helper process on which to enable debugging output.

Contents <name>—No documentation is available yet.

- address—Trace address management code.
- all—Trace all areas of code.
- bootp—Trace BOOTP/DHCP service-specific code.
- config—Trace configuration code.
- domain—Trace DNS service-specific code.
- ifdb—Trace interface database code.
- io—Trace I/O code.
- main—Trace main loop code.
- port—Trace arbitrary protocol code.
- rtsock—Trace routing socket code.
- tftp—Trace TFTP service-specific code.
- trace—Trace tracing code.
- ui—Trace user interface code.
- util—Trace miscellaneous utility code.

<flag> (configuration/routing-instances/instance/ multicast-snooping-options/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <multicast-snooping-options>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </multicast-snooping-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                  <filter>...</filter>
                </flag>
              </traceoptions>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.

- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
                <filter>...</filter>
              </flag>
            </traceoptions>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.

- packets—Trace all BGP protocol packets.
- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- 4byte-as—Trace 4 byte AS events.
- all—Trace everything.
- bfd—Trace BFD events.
- damping—Trace BGP damping information.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- keepalive—Trace BGP keepalive packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- open—Trace BGP open packets.
- packets—Trace all BGP protocol packets.

- policy—Trace policy processing.
- refresh—Trace BGP refresh packets.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- update—Trace BGP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/esis/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <esis>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </esis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace errored packets.
- esh—Trace end system hello packets.
- general—Trace general events.
- graceful-restart—Trace graceful restart events.
- ish—Trace intermediate system hello packets.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/ igmp-snooping/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <igmp-snooping>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </igmp-snooping>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- leave—Trace leave group messages (IGMPv2 only).
- normal—Trace normal events.
- packets—Trace all IGMP packets.
- policy—Trace policy processing.
- query—Trace IGMP membership query messages.
- report—Trace membership report messages.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/isis/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <isis>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </isis>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- csn—Trace complete sequence number (CSN) packets.
- error—Trace errored packets.
- general—Trace general events.
- graceful-restart—Trace graceful restart events.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between IS-IS and LDP.
- lsp—Trace link-state packets.
- lsp-generation—Trace LSP generation.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace IS-IS packets.

- policy—Trace policy processing.
- psn—Trace partial sequence number (PSN) packets.
- route—Trace routing information.
- spf—Trace SPF events.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/ l2vpn/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <l2vpn>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </l2vpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- automatic-site—Trace VPLS automatic site state.
- connections—Trace Layer 2 VPN and VPLS connections.
- error—Trace errors.
- general—Trace general events.
- nlri—Trace Layer 2 VPN and VPLS remote site advertisements.
- normal—Trace normal events.
- oam—Trace LDP VPLS pseudowire OAM messages.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.
- topology—Trace Layer 2 VPN and VPLS topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/ldp/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ldp>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </ldp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- address—Trace address packets.
- all—Trace everything.
- binding—Trace label binding state.
- error—Trace errored packets.
- event—Trace LDP state machine events.
- general—Trace general events.
- initialization—Trace initialization packets.
- label—Trace label packets.
- normal—Trace normal events.
- notification—Trace notification packets.
- nsr-synchronization—Trace NSR synchronization events.

- packets—Trace all LDP packets.
- path—Trace label path state.
- periodic—Trace periodic (hello and keepalive) packets.
- policy—Trace policy processing.
- ppmd—Trace state and events for ppmd process.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <msdp>
          <group>
            <peer>
              <traceoptions>
                <flag>
                  <name>name</name>     <!-- identifier -->
                  <send/>
                  <receive/>
                  <detail/>
                  <disable/>
                </flag>
              </traceoptions>
            </peer>
          </group>
        </msdp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.

- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <msdp>
          <group>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </group>
        </msdp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/msdp/ peer/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <msdp>
          <peer>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </peer>
        </msdp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <msdp>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </msdp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- keepalive—Trace keepalive messages.
- normal—Trace normal events.
- packets—Trace all MSDP packets.
- policy—Trace policy processing.
- route—Trace routing information.
- source-active—Trace source-active messages.
- source-active-request—Trace source-active request messages.
- source-active-response—Trace source-active response messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/mstp/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <mstp>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <disable/>
            </flag>
          </traceoptions>
        </mstp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.

- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/routing-instances/instance/protocols/mvpn/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <mvpn>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </mvpn>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace errors.
- general—Trace general events.
- nlri—Trace MVPN advertisements.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.
- topology—Trace MVPN topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/ospf/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </ospf>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.

- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/ ospf3/realm/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf3>
          <realm>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
              </flag>
            </traceoptions>
          </realm>
        </ospf3>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.

- lsa-update—Trace LSA update packets.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/ ospf3/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ospf3>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </ospf3>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- database-description—Trace database description packets.
- error—Trace errored packets.
- event—Trace OSPF state machine events.
- flooding—Trace LSA flooding.
- general—Trace general events.
- graceful-restart—Trace graceful restart.
- hello—Trace hello packets.
- ldp-synchronization—Trace synchronization between OSPF and LDP.
- lsa-ack—Trace LSA acknowledgment packets.
- lsa-request—Trace LSA request packets.
- lsa-update—Trace LSA update packets.

- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- on-demand—Trace demand circuit extensions.
- packet-dump—Dump the contents of selected packet types.
- packets—Trace all OSPF packets.
- policy—Trace policy processing.
- route—Trace routing information.
- spf—Trace SPF calculations.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/pim/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <pim>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </pim>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- assert—Trace assert messages.
- autorp—Trace bootstrap/RP/auto-RP messages.
- bootstrap—Trace bootstrap/RP/auto-RP messages.
- general—Trace general events.
- graft—Trace join/prune/graft/graft-ack messages.
- hello—Trace hello packets.
- join—Trace join/prune/graft/graft-ack messages.
- mdt—Trace messages related to multicast data tunnels.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.

- packets—Trace all PIM packets.
- policy—Trace policy processing.
- prune—Trace join/prune/graft/graft-ack messages.
- register—Trace register/register-stop messages.
- route—Trace routing information.
- rp—Trace bootstrap/RP/auto-RP messages.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rip>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
              <filter>...</filter>
            </flag>
          </traceoptions>
        </rip>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to this flag.

<name>—No documentation is available yet.

- all—Trace everything.
- auth—Trace RIP authentication.
- error—Trace RIP errors.
- expiration—Trace RIP route expiration processing.
- general—Trace general events.
- holddown—Trace RIP hold-down processing.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all RIP packets.
- policy—Trace policy processing.
- request—Trace RIP information packets.

- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIP triggered updates.
- update—Trace RIP update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <ripng>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </ripng>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- error—Trace RIPng errors.
- expiration—Trace RIPng route expiration processing.
- general—Trace general events.
- holddown—Trace RIPng hold-down processing.
- normal—Trace normal events.
- nsr-synchronization—Trace NSR synchronization events.
- packets—Trace all RIPng packets.
- policy—Trace policy processing.
- request—Trace RIPng information packets.
- route—Trace routing information.
- state—Trace state transitions.

- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.
- trigger—Trace RIPng triggered updates.
- update—Trace RIPng update packets.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/ router-discovery/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <router-discovery>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </router-discovery>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/routing-instances/instance/protocols/rstp/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <rstp>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <disable/>
            </flag>
          </traceoptions>
        </rstp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.

- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/routing-instances/instance/protocols/vpls/ traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <vpls>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </vpls>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- automatic-site—Trace VPLS automatic site state.
- connections—Trace Layer 2 VPN and VPLS connections.
- error—Trace errors.
- general—Trace general events.
- nlri—Trace Layer 2 VPN and VPLS remote site advertisements.
- normal—Trace normal events.
- oam—Trace LDP VPLS pseudowire OAM messages.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.

- timer—Trace routing protocol timer processing.
- topology—Trace Layer 2 VPN and VPLS topology changes.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/protocols/vstp/ vlan/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <vstp>
          <vlan>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <disable/>
              </flag>
            </traceoptions>
          </vlan>
        </vstp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace all.
- all-failures—Trace all failure conditions.
- bpdu—Trace BPDU reception and transmission.
- bridge-detection-state-machine—Trace Bridge detection state machine.
- events—Trace events to the protocol state machine.
- port-information-state-machine—Trace port information state machine.
- port-migration-state-machine—Trace port migration state machine.
- port-receive-state-machine—Trace port receive state machine.
- port-role-select-state-machine—Trace port role selection state machine.
- port-role-transit-state-machine—Trace port role transit state machine.
- port-state-transit-state-machine—Trace port state transit state machine.
- port-transmit-state-machine—Trace port transmit state machine.
- ppmd—Trace state and events for ppmd process.

- state-machine-variables—Trace when state machine variables change.
- timers—Trace protocol timers.
- topology-change-state-machine—Trace topology change state machine.

<flag> (configuration/routing-instances/instance/ routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- export—Export processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/ routing-options/dynamic-tunnels/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <dynamic-tunnels>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </dynamic-tunnels>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- kernel—Trace kernel communication.
- task—Trace task or job processing.
- tunnel—Trace tunnel addition, change, or deletion.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/ routing-options/flow/validation/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <flow>
          <validation>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
                <send/>
                <receive/>
                <detail/>
                <disable/>
                <filter>...</filter>
              </flag>
            </traceoptions>
          </validation>
        </flow>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to tracing.

<name>—No documentation is available yet.

- all—Trace everything.
- flash—Trace flash processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- resolution—Trace flow to unicast route resolution.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/ routing-options/multicast/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <disable/>
            </flag>
          </traceoptions>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/routing-instances/instance/ routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <resolution>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
              <send/>
              <receive/>
              <detail/>
              <disable/>
            </flag>
          </traceoptions>
        </resolution>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- event—Event processing.
- flash—Flash processing.
- indirect—Indirect next-hop addition, change, or deletion.
- kernel—Kernel communication.
- task—Task or job processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-instances/instance/ routing-options/traceoptions)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <disable/>
          </flag>
        </traceoptions>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- condition-manager—Trace condition manager events.
- config-internal—Trace configuration internals.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- normal—Trace normal events.
- nsr-synchronization—Trace nonstop routing synchronization events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- regex-parse—Trace regular-expression parsing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <system>
        <services>
          <dhcp-local-server>
            <traceoptions>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </traceoptions>
          </dhcp-local-server>
        </services>
      </system>
    </instance>
  </routing-instances>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.
- session-db—Session database operations.

- state—State-transition operations.
- statistics—Baseline statistics operations.
- ui—User Interface operations.

<flag> (configuration/routing-options/auto-export/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </auto-export>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- export—Export processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-options/dynamic-tunnels/ traceoptions)

Usage

```
<configuration>
  <routing-options>
    <dynamic-tunnels>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </dynamic-tunnels>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- kernel—Trace kernel communication.
- task—Trace task or job processing.
- tunnel—Trace tunnel addition, change, or deletion.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-options/flow/validation/ traceoptions)

Usage

```
<configuration>
  <routing-options>
    <flow>
      <validation>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
            <send/>
            <receive/>
            <detail/>
            <disable/>
            <filter>...</filter>
          </flag>
        </traceoptions>
      </validation>
    </flow>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<filter>—Filter to apply to tracing.

<name>—No documentation is available yet.

- all—Trace everything.
- flash—Trace flash processing.
- general—Trace general events.
- normal—Trace normal events.
- policy—Trace policy processing.
- resolution—Trace flow to unicast route resolution.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-options/multicast/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <disable/>
        </flag>
      </traceoptions>
    </multicast>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- config-internal—Trace configuration internals.
- general—Trace general events.
- normal—Trace normal events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/routing-options/resolution/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <resolution>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
          <send/>
          <receive/>
          <detail/>
          <disable/>
        </flag>
      </traceoptions>
    </resolution>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <detail>—Trace detailed information.

<disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- event—Event processing.
- flash—Flash processing.
- indirect—Indirect next-hop addition, change, or deletion.
- kernel—Kernel communication.
- task—Task or job processing.

<receive>—Trace received packets.

<send>—Trace transmitted packets.

<flag> (configuration/routing-options/traceoptions)

Usage

```
<configuration>
  <routing-options>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
        <disable/>
      </flag>
    </traceoptions>
  </routing-options>
</configuration>
```

Description Tracing parameters.

Contents <disable>—Disable this trace flag.

<name>—No documentation is available yet.

- all—Trace everything.
- condition-manager—Trace condition manager events.
- config-internal—Trace configuration internals.
- general—Trace general events.
- graceful-restart—Trace Graceful Restart events.
- normal—Trace normal events.
- nsr-synchronization—Trace nonstop routing synchronization events.
- parse—Trace configuration parsing.
- policy—Trace policy processing.
- regex-parse—Trace regular-expression parsing.
- route—Trace routing information.
- state—Trace state transitions.
- task—Trace routing protocol task processing.
- timer—Trace routing protocol timer processing.

<flag> (configuration/security/idp/traceoptions)

Usage

```
<configuration>
  <security>
    <idp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </idp>
  </security>
</configuration>
```

Description Events and other information to include in trace output.

Contents <name>—Flag name to include in trace output.

- all—All events.

<flag> (configuration/security/pki/traceoptions)

Usage

```
<configuration>
  <security>
    <pki>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </pki>
  </security>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- enrollment—PKI certificate enrollment tracing.

<flag> (configuration/security/traceoptions)

Usage

```
<configuration>
  <security>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </security>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- certificates—Trace certificate events.
- database—Trace security associations database events.
- general—Trace general events.
- ike—Trace IKE module processing.
- parse—Trace configuration processing.
- policy-manager—Trace policy manager processing.
- routing-socket—Trace routing socket messages.
- snmp—Trace SNMP operations.
- timer—Trace internal timer events.

<flag> (configuration/services/adaptive-services-pics/ traceoptions)

Usage

```
<configuration>
  <services>
    <adaptive-services-pics>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </adaptive-services-pics>
  </services>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- kernel-object—Trace kernel object management.
- routing-protocol—Trace routing protocol events.
- routing-socket—Trace routing socket events.
- snmp—Trace SNMP operations.

<flag> (configuration/services/application-identification/ traceoptions)

Usage

```
<configuration>
  <services>
    <application-identification>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </application-identification>
  </services>
</configuration>
```

Description Events and other information to include in trace output.

Contents <name>—Flag name to include in trace output.

- all—All events.

<flag> (configuration/services/border-signaling-gateway/gateway/ traceoptions)

Usage

```
<configuration>
  <services>
    <border-signaling-gateway>
      <gateway>
        <traceoptions>
          <flag>
            <minimum>minimum-choice</minimum>
            <session-trace>session-trace-choice</session-trace>
            <sip-stack>...</sip-stack>
            <signaling>...</signaling>
            <framework>...</framework>
            <datastore>...</datastore>
            <sbc-utils>...</sbc-utils>
          </flag>
        </traceoptions>
      </gateway>
    </border-signaling-gateway>
  </services>
</configuration>
```

Description Per-component trace options.

Contents <datastore>—Datastore component sub-components.

<framework>—Framework component sub-components.

<minimum>—Minimum trace level for all the components.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<sbc-utils>—SBC utils component sub-components.

<session-trace>—Trace level for the session tracing component.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<signaling>—Signaling component sub-components.

<sip-stack>—Sip stack trace level options.

<flag> (configuration/services/ggsn/charging/charging-log/ traceoptions)

Usage

```
<configuration>
  <services>
    <ggsn>
      <charging>
        <charging-log>
          <traceoptions>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </traceoptions>
        </charging-log>
      </charging>
    </ggsn>
  </services>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- charging—Trace charging-specific events.
- connections—Trace connection-specific events.
- init—Trace initialization events.

<flag> (configuration/services/ipsec-vpn/traceoptions)

Usage

```
<configuration>
  <services>
    <ipsec-vpn>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </ipsec-vpn>
  </services>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- certificates—Trace certificate events.
- database—Trace security associations database events.
- general—Trace general events.
- ike—Trace IKE module processing.
- parse—Trace configuration processing.
- policy-manager—Trace policy manager processing.
- routing-socket—Trace routing socket messages.
- snmp—Trace SNMP operations.
- timer—Trace internal timer events.

<flag> (configuration/services/l2tp/traceoptions)

Usage

```
<configuration>
  <services>
    <l2tp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </l2tp>
  </services>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- protocol—Trace Layer 2 Tunneling Protocol events.
- routing-socket—Trace routing socket events.
- rpd—Trace interactions with rpd.

<flag> (configuration/services/l2tp/traceoptions/interfaces)

Usage

```
<configuration>
  <services>
    <l2tp>
      <traceoptions>
        <interfaces>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </interfaces>
      </traceoptions>
    </l2tp>
  </services>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- ipc—Trace L2TP IPC messages between PIC and Routing Engine.
- packet-dump—Dump each packet content based on debug level.
- protocol—Trace L2TP, PPP, and multilink handling.
- system—Trace packet processing on the PIC.

<flag> (configuration/services/logging/traceoptions)

Usage

```
<configuration>
  <services>
    <logging>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </logging>
  </services>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- connections—Trace connection-specific events.
- flow-collector—Trace flow collector specific events.
- init—Trace initialization events.

<flag> (configuration/services/mobile-ip/traceoptions)

Usage

```
<configuration>
  <services>
    <mobile-ip>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </mobile-ip>
  </services>
</configuration>
```

Description Area of MIP server process to enable debugging output.

Contents <name>—No documentation is available yet.

- all—Trace all areas of code.
- authentication—Trace authentication code.
- binding—Trace binding code.
- configuration—Trace configuration code.
- event—Trace event code.
- foreign-agent—Trace foreign agent code.
- home-agent—Trace home agent code.
- interface-database—Trace interface database code.
- link-control—Trace link control code.
- packet—Trace packet code.
- protocol—Trace protocol code.
- route—Trace route code.
- rtsock—Trace routing socket code.
- session-db—Trace session management code.
- signal—Trace signal code.
- socket-control—Trace socket control code.
- subscriber—Trace subscriber code.
- trace—Trace tracing code.
- tunnel—Trace tunnelling code.

- user-interface—Trace user interface code.

<flag> (configuration/services/pgcp/traceoptions)

Usage

```
<configuration>
  <services>
    <pgcp>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </pgcp>
  </services>
</configuration>
```

Description Type of packet gateway service events to include in trace.

Contents <name>—No documentation is available yet.

- all—All events.
- configuration—Configuration events.
- debug—Debug events.
- error—Error events.
- firewall—Firewall events.
- gate—Gate requests and replies events.
- media-function—Media function events.
- pgc-connection—PGC connection events.
- pgcp-stack-debug—PGCP stack debug events.
- pgcp-stack-h248—PGCP stack h.248 messages.
- pgcp-stack-trace—PGCP stack function calls.
- routing-socket—Routing socket events.
- trace—Daemon function calls.

<flag> (configuration/snmp/traceoptions)

Usage

```
<configuration>
  <snmp>
    <traceoptions>
      <flag>
        <name>name</name>     <!-- identifier -->
      </flag>
    </traceoptions>
  </snmp>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- general—Trace general events.
- interface-stats—Trace interface statistics (logical and physical).
- nonvolatile-sets—Nonvolatile SNMP set request handling.
- pdu—Dump SNMP request/response packets.
- protocol-timeouts—Trace SNMP request timeouts.
- routing-socket—Trace routing socket calls.
- subagent—Trace subagent restarts.
- timer—Trace internal timer events.
- varbind-error—Trace varbind errors.

<flag> (configuration/system/accounting/traceoptions)

Usage

```
<configuration>
  <system>
    <accounting>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </accounting>
  </system>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all operations.
- config—Trace configuration processing.
- events—Trace accounting events and their processing.
- radius—Trace RADIUS processing.

<flag> (configuration/system/license/traceoptions)

Usage

```
<configuration>
  <system>
    <license>
      <traceoptions>
        <flag>
          <name>name</name>     <!-- identifier -->
        </flag>
      </traceoptions>
    </license>
  </system>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all operations.
- config—Trace license configuration processing.
- events—Trace licensing events and their processing.

<flag> (configuration/system/processes/diameter-service/ traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <diameter-service>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </diameter-service>
    </processes>
  </system>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- application—Trace Diameter applications.
- configuration—Trace configuration events.
- connection—Trace Diameter transport.
- framework—Trace Diameter framework.
- message—Trace Diameter messages.
- peer—Trace Diameter peer events.
- session—Trace Diameter sessions.

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

Usage

```
<configuration>
  <system>
    <processes>
      <general-authentication-service>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </general-authentication-service>
    </processes>
  </system>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- address-assignment—Trace address-assignment events.
- all—Trace everything.
- configuration—Trace configuration events.
- framework—Trace authentication framework events.
- ldap—Trace ldap authentication events.
- local-authentication—Trace local authentication events.
- radius—Trace radius authentication events.

<flag> (configuration/system/processes/mac-validation/ traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <mac-validation>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </mac-validation>
    </processes>
  </system>
</configuration>
```

Description Area of process mac validation to enable debugging output.

Contents <name>—No documentation is available yet.

- all—Trace all areas of code.
- database—Trace mac validation database operations.
- firewall—Trace firewall (DFWD) operations.
- general—Trace miscellaneous operations.
- rtsock—Trace routing socket operations.

<flag> (configuration/system/processes/process-monitor/ traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <process-monitor>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </process-monitor>
    </processes>
  </system>
</configuration>
```

Description Area of process health monitor to enable debugging output.

Contents <name>—No documentation is available yet.

- all—Trace all areas of code.
- events—Trace event conde.
- heartbeat—Trace heartbeat code.
- process-tracking—Trace process tracking code.
- ui—Trace user interface code.

<flag> (configuration/system/processes/resource-cleanup/ traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <resource-cleanup>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </resource-cleanup>
    </processes>
  </system>
</configuration>
```

Description Area of resource cleanup process to enable debugging output.

Contents <name>—No documentation is available yet.

- all—Trace all areas of code.
- events—Trace event code.
- gencfg—Trace GENCFG blob cleanup code.
- module—Trace module code.
- sysvsem—Trace SYSV semaphore cleanup code.
- sysvshm—Trace SYSV shared memory cleanup code.
- tracking—Trace process tracking code.
- ui—Trace user interface code.

<flag> (configuration/system/processes/ sbc-configuration-process/traceoptions)

Usage

```
<configuration>
  <system>
    <processes>
      <sbc-configuration-process>
        <traceoptions>
          <flag>
            <configuration>configuration-choice</configuration>
            <ipc>ipc-choice</ipc>
            <device-monitor>device-monitor-choice</device-monitor>
            <ui>ui-choice</ui>
            <common>common-choice</common>
            <all>all-choice</all>
          </flag>
        </traceoptions>
      </sbc-configuration-process>
    </processes>
  </system>
</configuration>
```

Description Tracing parameters.

Contents <all>—Minimal trace level for all components.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<common>—Trace common events.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<configuration>—Trace configuration events.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.

- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<device-monitor>—Trace device monitor events.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<ipc>—Trace IPC events.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<ui>—Trace ui events.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<flag> (configuration/system/scripts/commit/traceoptions)

Usage

```
<configuration>
  <system>
    <scripts>
      <commit>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </commit>
    </scripts>
  </system>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all operations.
- events—Trace important events.
- input—Trace script input data.
- offline—Generate data for offline development.
- output—Trace script output data.
- rpc—Trace script RPCs.
- xslt—Trace the XSLT library.

<flag> (configuration/system/scripts/op/traceoptions)

Usage

```
<configuration>
  <system>
    <scripts>
      <op>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </op>
    </scripts>
  </system>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace all operations.
- events—Trace important events.
- input—Trace script input data.
- offline—Generate data for offline development.
- output—Trace script output data.
- rpc—Trace script RPCs.
- xslt—Trace the XSLT library.

<flag> (configuration/system/services/database-replication/ traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <database-replication>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </database-replication>
    </services>
  </system>
</configuration>
```

Description Database replication operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- database—Database operations.
- general—Miscellaneous operations.
- mirror—Mirror operations.
- replication—Database replication operations.
- server—Server operations.
- session-db—Session database operations.
- ui—User Interface operations.

<flag> (configuration/system/services/dhcp/option/array)

Usage

```
<configuration>
  <system>
    <services>
      <dhcp>
        <option>
          <array>
            <flag>
              <name>name</name>     <!-- identifier -->
            </flag>
          </array>
        </option>
      </dhcp>
    </services>
  </system>
</configuration>
```

Description Array of boolean flag values.

Contents <name>—Array of boolean flag values.

- false—False value.
- off—Off value.
- on—On value.
- true—True value.

<flag> (configuration/system/services/dhcp/pool/option/array)

Usage

```
<configuration>
  <system>
    <services>
      <dhcp>
        <pool>
          <option>
            <array>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </array>
          </option>
        </pool>
      </dhcp>
    </services>
  </system>
</configuration>
```

Description Array of boolean flag values.

Contents <name>—Array of boolean flag values.

- false—False value.
- off—Off value.
- on—On value.
- true—True value.

<flag> (configuration/system/services/dhcp/static-binding/ option/array)

Usage

```
<configuration>
  <system>
    <services>
      <dhcp>
        <static-binding>
          <option>
            <array>
              <flag>
                <name>name</name>     <!-- identifier -->
              </flag>
            </array>
          </option>
        </static-binding>
      </dhcp>
    </services>
  </system>
</configuration>
```

Description Array of boolean flag values.

Contents <name>—Array of boolean flag values.

- false—False value.
- off—Off value.
- on—On value.
- true—True value.

<flag> (configuration/system/services/dhcp/traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <dhcp>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </dhcp>
    </services>
  </system>
</configuration>
```

Description Area of DHCP server process to enable debugging output.

Contents <name>—No documentation is available yet.

- all—Trace all areas of code.
- binding—Trace bindings code.
- config—Trace configuration code.
- conflict—Trace conflict detection code.
- event—Trace event code.
- ifdb—Trace interface database code.
- io—Trace I/O code.
- lease—Trace lease code.
- main—Trace main loop code.
- misc—Trace miscellaneous code.
- option—Trace option code.
- packet—Trace packet code.
- pool—Trace pool code.
- protocol—Trace protocol code.
- relay—Trace relay code.
- rtsock—Trace routing socket code.
- scope—Trace scope code.

- signal—Trace signal code.
- trace—Trace tracing code.
- ui—Trace user interface code.

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

Usage

```
<configuration>
  <system>
    <services>
      <dhcp-local-server>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </dhcp-local-server>
    </services>
  </system>
</configuration>
```

Description DHCP relay operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- auth—Authentication operations.
- database—Database operations.
- fwd—Firewall process operations.
- general—Miscellaneous operations.
- ha—High Availability-related operations.
- interface—Interface operations.
- io—I/O operations.
- packet—Packet-decoding operations.
- packet-option—DHCP option-decoding operations.
- performance—Performance measurement operations.
- profile—Profile operations.
- rpd—Routing Protocol process operations.
- rtsock—Routing socket operations.
- session-db—Session database operations.

- state—State-transition operations.
- statistics—Baseline statistics operations.
- ui—User Interface operations.

<flag> (configuration/system/services/ local-policy-decision-function/traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <local-policy-decision-function>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </local-policy-decision-function>
    </services>
  </system>
</configuration>
```

Description L-PDF operations to include in debugging trace.

Contents <name>—No documentation is available yet.

- all—All operations.
- configuration—Configuration operations.
- database—Database operations.
- general—Miscellaneous operations.
- gres—GRES operations.
- rtsock—Routing socket operations.
- statistics—Statistics operations.
- subscriber—Subscriber operations.

<flag> (configuration/system/services/outbound-ssh/traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <outbound-ssh>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </outbound-ssh>
    </services>
  </system>
</configuration>
```

Description Tracing parameters.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- configuration—Trace configuration events.
- connectivity—Trace TCP connection handling.

<flag> (configuration/system/services/service-deployment/ traceoptions)

Usage

```
<configuration>
  <system>
    <services>
      <service-deployment>
        <traceoptions>
          <flag>
            <name>name</name>     <!-- identifier -->
          </flag>
        </traceoptions>
      </service-deployment>
    </services>
  </system>
</configuration>
```

Description Tracing options.

Contents <name>—No documentation is available yet.

- all—Trace everything.
- application—Trace application events.
- beep—Trace BEEP protocol events.
- io—Trace I/O activities.
- profile—Trace BEEP profile events.

<flood> (configuration/bridge-domains/domain/forwarding-options)

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <forwarding-options>
        <flood>
          <input>input</input>
        </flood>
      </forwarding-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description Filtering for bridge flood table.

Contents <input>—Name of input filter to apply for bridge flood packets.

<flood> (configuration/forwarding-options/family/vpls)

Usage

```
<configuration>
  <forwarding-options>
    <family>
      <vpls>
        <flood>
          <input>input</input>
        </flood>
      </vpls>
    </family>
  </forwarding-options>
</configuration>
```

Description Filtering for VPLS flood table.

Contents <input>—Name of input filter to apply for VPLS flood packets.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <forwarding-options>
              <flood>
                <input>input</input>
              </flood>
            </forwarding-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filtering for bridge flood table.

Contents <input>—Name of input filter to apply for bridge flood packets.

<flood> (configuration/logical-systems/routing-instances/ instance/forwarding-options/family/vpls)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <family>
            <vpls>
              <flood>
                <input>input</input>
              </flood>
            </vpls>
          </family>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Filtering for VPLS flood table.

Contents <input>—Name of input filter to apply for VPLS flood packets.

<flood> (configuration/routing-instances/instance/ bridge-domains/domain/forwarding-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <forwarding-options>
            <flood>
              <input>input</input>
            </flood>
          </forwarding-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Filtering for bridge flood table.

Contents <input>—Name of input filter to apply for bridge flood packets.

<flood> (configuration/routing-instances/instance/ forwarding-options/family/vpls)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <family>
          <vpls>
            <flood>
              <input>input</input>
            </flood>
          </vpls>
        </family>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Filtering for VPLS flood table.

Contents <input>—Name of input filter to apply for VPLS flood packets.

<flood-groups> (configuration/bridge-domains/domain/ multicast-snooping-options)

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <multicast-snooping-options>
        <flood-groups>
          <name>name</name>     <!-- identifier -->
        </flood-groups>
      </multicast-snooping-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description Groups for which the traffic will be flooded.

Contents <name>—Groups for which the traffic will be flooded.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <multicast-snooping-options>
              <flood-groups>
                <name>name</name>     <!-- identifier -->
              </flood-groups>
            </multicast-snooping-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Groups for which the traffic will be flooded.

Contents <name>—Groups for which the traffic will be flooded.

<flood-groups> (configuration/logical-systems/routing-instances/ instance/multicast-snooping-options)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <multicast-snooping-options>
          <flood-groups>
            <name>name</name>     <!-- identifier -->
          </flood-groups>
        </multicast-snooping-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Groups for which the traffic will be flooded.

Contents <name>—Groups for which the traffic will be flooded.

<flood-groups> (configuration/multicast-snooping-options)

Usage

```
<configuration>
  <multicast-snooping-options>
    <flood-groups>
      <name>name</name>     <!-- identifier -->
    </flood-groups>
  </multicast-snooping-options>
</configuration>
```

Description Groups for which the traffic will be flooded.

Contents <name>—Groups for which the traffic will be flooded.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <multicast-snooping-options>
            <flood-groups>
              <name>name</name>     <!-- identifier -->
            </flood-groups>
          </multicast-snooping-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Groups for which the traffic will be flooded.

Contents <name>—Groups for which the traffic will be flooded.

<flood-groups> (configuration/routing-instances/instance/ multicast-snooping-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <multicast-snooping-options>
        <flood-groups>
          <name>name</name>     <!-- identifier -->
        </flood-groups>
      </multicast-snooping-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Groups for which the traffic will be flooded.

Contents <name>—Groups for which the traffic will be flooded.

<flow> (configuration/logical-systems/protocols/bgp/family/inet)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <family>
          <inet>
            <flow>
              <prefix-limit>...</prefix-limit>
              <accepted-prefix-limit>...</accepted-prefix-limit>
              <rib-group>...</rib-group>
              <no-validate>...</no-validate>
            </flow>
          </inet>
        </family>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/protocols/bgp/family/ inet-vpn)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <family>
          <inet-vpn>
            <flow>
              <prefix-limit>...</prefix-limit>
              <accepted-prefix-limit>...</accepted-prefix-limit>
              <rib-group>...</rib-group>
            </flow>
          </inet-vpn>
        </family>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

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

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <family>
            <inet>
              <flow>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
                <no-validate>...</no-validate>
              </flow>
            </inet>
          </family>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/protocols/bgp/group/ family/inet-vpn)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <family>
            <inet-vpn>
              <flow>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
              </flow>
            </inet-vpn>
          </family>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/protocols/bgp/group/ neighbor/family/inet)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <family>
              <inet>
                <flow>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                  <no-validate>...</no-validate>
                </flow>
              </inet>
            </family>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/protocols/bgp/group/ neighbor/family/inet-vpn)

Usage

```
<configuration>
  <logical-systems>
    <protocols>
      <bgp>
        <group>
          <neighbor>
            <family>
              <inet-vpn>
                <flow>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </flow>
              </inet-vpn>
            </family>
          </neighbor>
        </group>
      </bgp>
    </protocols>
  </logical-systems>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/family/inet)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <family>
              <inet>
                <flow>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                  <no-validate>...</no-validate>
                </flow>
              </inet>
            </family>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/family/inet-vpn)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <family>
              <inet-vpn>
                <flow>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </flow>
              </inet-vpn>
            </family>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <family>
                <inet>
                  <flow>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                    <no-validate>...</no-validate>
                  </flow>
                </inet>
              </family>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/group/family/inet-vpn)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <family>
                <inet-vpn>
                  <flow>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                  </flow>
                </inet-vpn>
              </family>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/group/neighbor/family/inet)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <family>
                  <inet>
                    <flow>
                      <prefix-limit>...</prefix-limit>
                      <accepted-prefix-limit>...</accepted-prefix-limit>
                      <rib-group>...</rib-group>
                      <no-validate>...</no-validate>
                    </flow>
                  </inet>
                </family>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/logical-systems/routing-instances/ instance/protocols/bgp/group/neighbor/family/inet-vpn)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <protocols>
          <bgp>
            <group>
              <neighbor>
                <family>
                  <inet-vpn>
                    <flow>
                      <prefix-limit>...</prefix-limit>
                      <accepted-prefix-limit>...</accepted-prefix-limit>
                      <rib-group>...</rib-group>
                    </flow>
                  </inet-vpn>
                </family>
              </neighbor>
            </group>
          </bgp>
        </protocols>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <flow>
            <validation>...</validation>
            <route>...</route>
          </flow>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Locally defined flow routing information.

Contents <route>—Flow route.

<validation>—Flow route validation options.

<flow> (configuration/logical-systems/routing-instances/ instance/routing-options/auto-export/family/inet)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <auto-export>
            <family>
              <inet>
                <flow>
                  <disable/>
                  <rib-group>rib-group</rib-group>
                </flow>
              </inet>
            </family>
          </auto-export>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/logical-systems/routing-instances/ instance/routing-options/auto-export/family/inet6)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <auto-export>
            <family>
              <inet6>
                <flow>
                  <disable/>
                  <rib-group>rib-group</rib-group>
                </flow>
              </inet6>
            </family>
          </auto-export>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/logical-systems/routing-instances/ instance/routing-options/auto-export/family/iso)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <auto-export>
            <family>
              <iso>
                <flow>
                  <disable/>
                  <rib-group>rib-group</rib-group>
                </flow>
              </iso>
            </family>
          </auto-export>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <flow>
        <validation>...</validation>
        <route>...</route>
      </flow>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Locally defined flow routing information.

Contents <route>—Flow route.

<validation>—Flow route validation options.

<flow> (configuration/logical-systems/routing-options/ auto-export/family/inet)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <auto-export>
        <family>
          <inet>
            <flow>
              <disable/>
              <rib-group>rib-group</rib-group>
            </flow>
          </inet>
        </family>
      </auto-export>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/logical-systems/routing-options/ auto-export/family/inet6)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <auto-export>
        <family>
          <inet6>
            <flow>
              <disable/>
              <rib-group>rib-group</rib-group>
            </flow>
          </inet6>
        </family>
      </auto-export>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/logical-systems/routing-options/ auto-export/family/iso)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <auto-export>
        <family>
          <iso>
            <flow>
              <disable/>
              <rib-group>rib-group</rib-group>
            </flow>
          </iso>
        </family>
      </auto-export>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/protocols/bgp/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet>
          <flow>
            <prefix-limit>...</prefix-limit>
            <accepted-prefix-limit>...</accepted-prefix-limit>
            <rib-group>...</rib-group>
            <no-validate>...</no-validate>
          </flow>
        </inet>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/protocols/bgp/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <family>
        <inet-vpn>
          <flow>
            <prefix-limit>...</prefix-limit>
            <accepted-prefix-limit>...</accepted-prefix-limit>
            <rib-group>...</rib-group>
          </flow>
        </inet-vpn>
      </family>
    </bgp>
  </protocols>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/protocols/bgp/group/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet>
            <flow>
              <prefix-limit>...</prefix-limit>
              <accepted-prefix-limit>...</accepted-prefix-limit>
              <rib-group>...</rib-group>
              <no-validate>...</no-validate>
            </flow>
          </inet>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/protocols/bgp/group/family/inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <family>
          <inet-vpn>
            <flow>
              <prefix-limit>...</prefix-limit>
              <accepted-prefix-limit>...</accepted-prefix-limit>
              <rib-group>...</rib-group>
            </flow>
          </inet-vpn>
        </family>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/protocols/bgp/group/neighbor/family/inet)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet>
              <flow>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
                <no-validate>...</no-validate>
              </flow>
            </inet>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/protocols/bgp/group/neighbor/family/ inet-vpn)

Usage

```
<configuration>
  <protocols>
    <bgp>
      <group>
        <neighbor>
          <family>
            <inet-vpn>
              <flow>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
              </flow>
            </inet-vpn>
          </family>
        </neighbor>
      </group>
    </bgp>
  </protocols>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/routing-instances/instance/protocols/bgp/ family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet>
              <flow>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
                <no-validate>...</no-validate>
              </flow>
            </inet>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/routing-instances/instance/protocols/bgp/ family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <family>
            <inet-vpn>
              <flow>
                <prefix-limit>...</prefix-limit>
                <accepted-prefix-limit>...</accepted-prefix-limit>
                <rib-group>...</rib-group>
              </flow>
            </inet-vpn>
          </family>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet>
                <flow>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                  <no-validate>...</no-validate>
                </flow>
              </inet>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/routing-instances/instance/protocols/bgp/ group/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <family>
              <inet-vpn>
                <flow>
                  <prefix-limit>...</prefix-limit>
                  <accepted-prefix-limit>...</accepted-prefix-limit>
                  <rib-group>...</rib-group>
                </flow>
              </inet-vpn>
            </family>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/routing-instances/instance/protocols/bgp/ group/neighbor/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet>
                  <flow>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                    <no-validate>...</no-validate>
                  </flow>
                </inet>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include flow NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<no-validate>—Bypass validation procedure for routes that match policy.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

<flow> (configuration/routing-instances/instance/protocols/bgp/ group/neighbor/family/inet-vpn)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <protocols>
        <bgp>
          <group>
            <neighbor>
              <family>
                <inet-vpn>
                  <flow>
                    <prefix-limit>...</prefix-limit>
                    <accepted-prefix-limit>...</accepted-prefix-limit>
                    <rib-group>...</rib-group>
                  </flow>
                </inet-vpn>
              </family>
            </neighbor>
          </group>
        </bgp>
      </protocols>
    </instance>
  </routing-instances>
</configuration>
```

Description Include flow VPN NLRI.

Contents <accepted-prefix-limit>—Limit maximum number of prefixes accepted from a peer.

<prefix-limit>—Limit maximum number of prefixes from a peer.

<rib-group>—Routing table group.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <flow>
          <validation>...</validation>
          <route>...</route>
        </flow>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Locally defined flow routing information.

Contents <route>—Flow route.

<validation>—Flow route validation options.

<flow> (configuration/routing-instances/instance/ routing-options/auto-export/family/inet)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <family>
            <inet>
              <flow>
                <disable/>
                <rib-group>rib-group</rib-group>
              </flow>
            </inet>
          </family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/routing-instances/instance/ routing-options/auto-export/family/inet6)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <family>
            <inet6>
              <flow>
                <disable/>
                <rib-group>rib-group</rib-group>
              </flow>
            </inet6>
          </family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/routing-instances/instance/ routing-options/auto-export/family/iso)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <auto-export>
          <family>
            <iso>
              <flow>
                <disable/>
                <rib-group>rib-group</rib-group>
              </flow>
            </iso>
          </family>
        </auto-export>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <flow>
      <validation>...</validation>
      <route>...</route>
    </flow>
  </routing-options>
</configuration>
```

Description Locally defined flow routing information.

Contents <route>—Flow route.

<validation>—Flow route validation options.

<flow> (configuration/routing-options/auto-export/family/inet)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <family>
        <inet>
          <flow>
            <disable/>
            <rib-group>rib-group</rib-group>
          </flow>
        </inet>
      </family>
    </auto-export>
  </routing-options>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/routing-options/auto-export/family/inet6)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <family>
        <inet6>
          <flow>
            <disable/>
            <rib-group>rib-group</rib-group>
          </flow>
        </inet6>
      </family>
    </auto-export>
  </routing-options>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/routing-options/auto-export/family/iso)

Usage

```
<configuration>
  <routing-options>
    <auto-export>
      <family>
        <iso>
          <flow>
            <disable/>
            <rib-group>rib-group</rib-group>
          </flow>
        </iso>
      </family>
    </auto-export>
  </routing-options>
</configuration>
```

Description Flow routing information.

Contents <disable>—Disable instance export.

<rib-group>—Auxiliary rib-group of additional RIBs to consider.

<flow> (configuration/security/idp/sensor-configuration)

Usage

```
<configuration>
  <security>
    <idp>
      <sensor-configuration>
        <flow>
          <log-errors/>
          <reset-on-policy/>
          <allow-icmp-without-flow/>
          <hash-table-size>hash-table-size</hash-table-size>
          <reject-timeout>reject-timeout</reject-timeout>
          <max-timers-poll-ticks>max-timers-poll-ticks</max-timers-poll-ticks>
          <fifo-max-size>fifo-max-size</fifo-max-size>
          <udp-anticipated-timeout>udp-anticipated-timeout</
udp-anticipated-timeout>
        </flow>
      </sensor-configuration>
    </idp>
  </security>
</configuration>
```

Description Flow configuration.

Contents <allow-icmp-without-flow>—Allow icmp without flow.

<fifo-max-size>—Maximum fifo size.

<hash-table-size>—Flow hash table size.

<log-errors>—Flow log errors.

<max-timers-poll-ticks>—Maximum timers poll ticks.

<reject-timeout>—Flow reject timeout.

<reset-on-policy>—Flow reset-on-policy.

<udp-anticipated-timeout>—Maximum udp anticipated timeout.

<flow-collector> (configuration/services)

Usage

```
<configuration>
  <services>
    <flow-collector>
      <analyzer-address>analyzer-address</analyzer-address>
      <analyzer-id>analyzer-id</analyzer-id>
      <retry>retry</retry>
      <retry-delay>seconds</retry-delay>
      <destinations>...</destinations>     <!-- mandatory -->
      <file-specification>...</file-specification>     <!-- mandatory -->
      <interface-map>...</interface-map>     <!-- mandatory -->
      <transfer-log-archive>...</transfer-log-archive>
    </flow-collector>
  </services>
</configuration>
```

Description Configure options to control flow collector.

Contents <analyzer-address>—Analyzer IP address field override value.

<analyzer-id>—Analyzer ID field override value.

<destinations>—Configure destination for files.

<file-specification>—File format specification.

<interface-map>—Input interface to Collector PIC mapping.

<retry>—Transfer retry attempt count.

<retry-delay>—Delay between transfer retry attempts.

<transfer-log-archive>—Transfer log archive specification.

<flow-limits> (configuration/services/ggsn/ service-identification)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <flow-limits>
          <max-user-child>max-user-child</max-user-child>
          <max-node-flow>max-node-flow</max-node-flow>
          <max-analyzer-routing>max-analyzer-routing</max-analyzer-routing>
        </flow-limits>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Settings for limitation of inspection flows.

Contents <max-analyzer-routing>—Maximum accepted dynamic routing rule per analyzer.

<max-node-flow>—Maximum accepted flows in the node.

<max-user-child>—Maximum allowed flows per protocol and user.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <multicast>
            <flow-map>
              <name>name</name>     <!-- identifier -->
              <policy>...</policy>     <!-- mandatory -->
              <bandwidth>...</bandwidth>
              <redundant-sources>...</redundant-sources>
              <forwarding-cache>...</forwarding-cache>
            </flow-map>
          </multicast>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Multicast flow map configuration.

Contents <bandwidth>—Bandwidth properties for matched flows.

<forwarding-cache>—Forwarding cache properties for matched flows.

<name>—Name of the flow map.

<policy>—Policy for matched flows.

<redundant-sources>—Redundant source addresses.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <multicast>
        <flow-map>
          <name>name</name>     <!-- identifier -->
          <policy>...</policy>     <!-- mandatory -->
          <bandwidth>...</bandwidth>
          <redundant-sources>...</redundant-sources>
          <forwarding-cache>...</forwarding-cache>
        </flow-map>
      </multicast>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Multicast flow map configuration.

Contents <bandwidth>—Bandwidth properties for matched flows.

<forwarding-cache>—Forwarding cache properties for matched flows.

<name>—Name of the flow map.

<policy>—Policy for matched flows.

<redundant-sources>—Redundant source addresses.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <flow-map>
            <name>name</name>     <!-- identifier -->
            <policy>...</policy>     <!-- mandatory -->
            <bandwidth>...</bandwidth>
            <redundant-sources>...</redundant-sources>
            <forwarding-cache>...</forwarding-cache>
          </flow-map>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Multicast flow map configuration.

Contents <bandwidth>—Bandwidth properties for matched flows.

<forwarding-cache>—Forwarding cache properties for matched flows.

<name>—Name of the flow map.

<policy>—Policy for matched flows.

<redundant-sources>—Redundant source addresses.

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

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <flow-map>
        <name>name</name>     <!-- identifier -->
        <policy>...</policy>     <!-- mandatory -->
        <bandwidth>...</bandwidth>
        <redundant-sources>...</redundant-sources>
        <forwarding-cache>...</forwarding-cache>
      </flow-map>
    </multicast>
  </routing-options>
</configuration>
```

Description Multicast flow map configuration.

Contents <bandwidth>—Bandwidth properties for matched flows.

<forwarding-cache>—Forwarding cache properties for matched flows.

<name>—Name of the flow map.

<policy>—Policy for matched flows.

<redundant-sources>—Redundant source addresses.

<flow-monitoring> (configuration/services)

Usage

```
<configuration>
  <services>
    <flow-monitoring>
      <version9>...</version9>
    </flow-monitoring>
  </services>
</configuration>
```

Description Configure flow monitoring.

Contents <version9>—Version 9 configuration.

<flow-tap> (configuration/services)

Usage

```
<configuration>
  <services>
    <flow-tap>
      <interface>interface</interface>     <!-- mandatory -->
    </flow-tap>
  </services>
</configuration>
```

Description Configure flow-tap parameters.

Contents <interface>—Service interface on which to configure flow-tap service.

<flow-tap-dtcp> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <flow-tap-dtcp>
        <ssh>...</ssh>
      </flow-tap-dtcp>
    </services>
  </system>
</configuration>
```

Description Configure DTCP-based Flow-tap service.

Contents <ssh>—Allow flow-tap-dtcp service over SSH.

<forward-flow> (configuration/services/service-set/service-order)

Usage

```
<configuration>
  <services>
    <service-set>
      <service-order>
        <forward-flow>
          <name>name</name>     <!-- identifier -->
        </forward-flow>
      </service-order>
    </service-set>
  </services>
</configuration>
```

Description Service Order for forward flow.

Contents <name>—Service Name.

<forwarding-cache> (configuration/bridge-domains/domain/ multicast-snooping-options)

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <multicast-snooping-options>
        <forwarding-cache>
          <threshold>...</threshold>
        </forwarding-cache>
      </multicast-snooping-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <multicast-snooping-options>
              <forwarding-cache>
                <threshold>...</threshold>
              </forwarding-cache>
            </multicast-snooping-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

<forwarding-cache> (configuration/logical-systems/ routing-instances/instance/multicast-snooping-options)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <multicast-snooping-options>
          <forwarding-cache>
            <threshold>...</threshold>
          </forwarding-cache>
        </multicast-snooping-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

<forwarding-cache> (configuration/logical-systems/ routing-instances/instance/routing-options/multicast)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <multicast>
            <forwarding-cache>
              <threshold>...</threshold>
              <timeout>timeout</timeout>
            </forwarding-cache>
          </multicast>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

<timeout>—Forwarding cache entry timeout in minutes.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <multicast>
            <flow-map>
              <forwarding-cache>
                <timeout>...</timeout>     <!-- mandatory -->
              </forwarding-cache>
            </flow-map>
          </multicast>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Forwarding cache properties for matched flows.

Contents <timeout>—Timeout properties for matched flows.

<forwarding-cache> (configuration/logical-systems/ routing-options/multicast)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <multicast>
        <forwarding-cache>
          <threshold>...</threshold>
          <timeout>timeout</timeout>
        </forwarding-cache>
      </multicast>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

<timeout>—Forwarding cache entry timeout in minutes.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <multicast>
        <flow-map>
          <forwarding-cache>
            <timeout>...</timeout>     <!-- mandatory -->
          </forwarding-cache>
        </flow-map>
      </multicast>
    </routing-options>
  </logical-systems>
</configuration>
```

Description Forwarding cache properties for matched flows.

Contents <timeout>—Timeout properties for matched flows.

<forwarding-cache> (configuration/multicast-snooping-options)

Usage

```
<configuration>
  <multicast-snooping-options>
    <forwarding-cache>
      <threshold>...</threshold>
    </forwarding-cache>
  </multicast-snooping-options>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <multicast-snooping-options>
            <forwarding-cache>
              <threshold>...</threshold>
            </forwarding-cache>
          </multicast-snooping-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

<forwarding-cache> (configuration/routing-instances/instance/ multicast-snooping-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <multicast-snooping-options>
        <forwarding-cache>
          <threshold>...</threshold>
        </forwarding-cache>
      </multicast-snooping-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

<forwarding-cache> (configuration/routing-instances/instance/ routing-options/multicast)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <forwarding-cache>
            <threshold>...</threshold>
            <timeout>timeout</timeout>
          </forwarding-cache>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

<timeout>—Forwarding cache entry timeout in minutes.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <multicast>
          <flow-map>
            <forwarding-cache>
              <timeout>...</timeout>     <!-- mandatory -->
            </forwarding-cache>
          </flow-map>
        </multicast>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Forwarding cache properties for matched flows.

Contents <timeout>—Timeout properties for matched flows.

<forwarding-cache> (configuration/routing-options/multicast)

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <forwarding-cache>
        <threshold>...</threshold>
        <timeout>timeout</timeout>
      </forwarding-cache>
    </multicast>
  </routing-options>
</configuration>
```

Description Multicast forwarding cache.

Contents <threshold>—Threshold.

<timeout>—Forwarding cache entry timeout in minutes.

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

Usage

```
<configuration>
  <routing-options>
    <multicast>
      <flow-map>
        <forwarding-cache>
          <timeout>...</timeout>     <!-- mandatory -->
        </forwarding-cache>
      </flow-map>
    </multicast>
  </routing-options>
</configuration>
```

Description Forwarding cache properties for matched flows.

Contents <timeout>—Timeout properties for matched flows.

<forwarding-class> (configuration/class-of-service/classifiers/ dscp)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <dscp>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </dscp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/classifiers/ dscp-ipv6)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <dscp-ipv6>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </dscp-ipv6>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/classifiers/ exp)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <exp>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </exp>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/classifiers/ ieee-802.1ad)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <ieee-802.1ad>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </ieee-802.1ad>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/classifiers/ ieee-802.1)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <ieee-802.1>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </ieee-802.1>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/classifiers/ inet-precedence)

Usage

```
<configuration>
  <class-of-service>
    <classifiers>
      <inet-precedence>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </inet-precedence>
    </classifiers>
  </class-of-service>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/ forwarding-policy/next-hop-map)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <next-hop-map>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <next-hop>...</next-hop>
          <lsp-next-hop>...</lsp-next-hop>
          <non-lsp-next-hop/>
          <discard/>
        </forwarding-class>
      </next-hop-map>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Forwarding class from which to map.

Contents <discard>—Discard next hop.

<lsp-next-hop>—Regular expression for LSP next hop.

<name>—Forwarding class.

<next-hop>—Next-hop identifier to which to map.

<non-lsp-next-hop>—Any non-RSVP LSP next hop.

<forwarding-class> (configuration/class-of-service/ fragmentation-maps)

Usage

```
<configuration>
  <class-of-service>
    <fragmentation-maps>
      <forwarding-class>
        <name>name</name>     <!-- identifier -->
        <fragment-threshold>bytes</fragment-threshold>
        <no-fragmentation/>
        <multilink-class>multilink-class</multilink-class>
        <drop-timeout>milliseconds</drop-timeout>
      </forwarding-class>
    </fragmentation-maps>
  </class-of-service>
</configuration>
```

Description Forwarding class name to map to fragmentation options.

Contents <drop-timeout>—Drop timeout.

<fragment-threshold>—Fragmentation threshold.

<multilink-class>—Multilink-Class assigned to the forwarding class.

<name>—Forwarding class name.

<no-fragmentation>—Don't allow fragmentation.

<forwarding-class> (configuration/class-of-service/ restricted-queues)

Usage

```
<configuration>
  <class-of-service>
    <restricted-queues>
      <forwarding-class>
        <name>name</name>     <!-- identifier -->
        <rqueue-num>rqueue-num</rqueue-num>
      </forwarding-class>
    </restricted-queues>
  </class-of-service>
</configuration>
```

Description Forwarding class to map to a restricted queue.

Contents <name>—Forwarding class name.

<rqueue-num>—Restricted queue number.

<forwarding-class> (configuration/class-of-service/ rewrite-rules/dscp)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <dscp>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </dscp>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/ rewrite-rules/dscp-ipv6)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <dscp-ipv6>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </dscp-ipv6>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/ rewrite-rules/exp)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <exp>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </exp>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/ rewrite-rules/frame-relay-de)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <frame-relay-de>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </frame-relay-de>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/ rewrite-rules/ieee-802.1)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <ieee-802.1>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </ieee-802.1>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/ rewrite-rules/ieee-802.1ad)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <ieee-802.1ad>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </ieee-802.1ad>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/class-of-service/ rewrite-rules/inet-precedence)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <inet-precedence>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </forwarding-class>
      </inet-precedence>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

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

Usage

```
<configuration>
  <class-of-service>
    <scheduler-maps>
      <forwarding-class>
        <name>name</name>     <!-- identifier -->
        <scheduler>scheduler</scheduler>     <!-- mandatory -->
      </forwarding-class>
    </scheduler-maps>
  </class-of-service>
</configuration>
```

Description Forwarding class name to map to scheduler.

Contents <name>—Forwarding class name.

<scheduler>—Scheduler name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/classifiers/dscp)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <classifiers>
        <dscp>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </dscp>
      </classifiers>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/classifiers/dscp-ipv6)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <classifiers>
        <dscp-ipv6>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </dscp-ipv6>
      </classifiers>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/classifiers/exp)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <classifiers>
        <exp>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </exp>
      </classifiers>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/classifiers/ieee-802.1ad)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <classifiers>
        <ieee-802.1ad>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </ieee-802.1ad>
      </classifiers>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/classifiers/ieee-802.1)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <classifiers>
        <ieee-802.1>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </ieee-802.1>
      </classifiers>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/classifiers/inet-precedence)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <classifiers>
        <inet-precedence>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </inet-precedence>
      </classifiers>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Define a classification of code point aliases.

Contents <loss-priority>—Classify code points to a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/forwarding-policy/next-hop-map)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <forwarding-policy>
        <next-hop-map>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <next-hop>...</next-hop>
            <lsp-next-hop>...</lsp-next-hop>
            <non-lsp-next-hop/>
            <discard/>
          </forwarding-class>
        </next-hop-map>
      </forwarding-policy>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Forwarding class from which to map.

Contents <discard>—Discard next hop.

<lsp-next-hop>—Regular expression for LSP next hop.

<name>—Forwarding class.

<next-hop>—Next-hop identifier to which to map.

<non-lsp-next-hop>—Any non-RSVP LSP next hop.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/fragmentation-maps)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <fragmentation-maps>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <fragment-threshold>bytes</fragment-threshold>
          <no-fragmentation/>
          <multilink-class>multilink-class</multilink-class>
          <drop-timeout>milliseconds</drop-timeout>
        </forwarding-class>
      </fragmentation-maps>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Forwarding class name to map to fragmentation options.

Contents <drop-timeout>—Drop timeout.

<fragment-threshold>—Fragmentation threshold.

<multilink-class>—Multilink-Class assigned to the forwarding class.

<name>—Forwarding class name.

<no-fragmentation>—Don't allow fragmentation.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/restricted-queues)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <restricted-queues>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <rqueue-num>rqueue-num</rqueue-num>
        </forwarding-class>
      </restricted-queues>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Forwarding class to map to a restricted queue.

Contents <name>—Forwarding class name.

<rqueue-num>—Restricted queue number.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/rewrite-rules/dscp)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <rewrite-rules>
        <dscp>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </dscp>
      </rewrite-rules>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/rewrite-rules/dscp-ipv6)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <rewrite-rules>
        <dscp-ipv6>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </dscp-ipv6>
      </rewrite-rules>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/rewrite-rules/exp)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <rewrite-rules>
        <exp>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </exp>
      </rewrite-rules>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/rewrite-rules/frame-relay-de)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <rewrite-rules>
        <frame-relay-de>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </frame-relay-de>
      </rewrite-rules>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/rewrite-rules/ieee-802.1ad)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <rewrite-rules>
        <ieee-802.1ad>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </ieee-802.1ad>
      </rewrite-rules>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/rewrite-rules/ieee-802.1)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <rewrite-rules>
        <ieee-802.1>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </ieee-802.1>
      </rewrite-rules>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/dynamic-profiles/ class-of-service/rewrite-rules/inet-precedence)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <rewrite-rules>
        <inet-precedence>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <loss-priority>...</loss-priority>
          </forwarding-class>
        </inet-precedence>
      </rewrite-rules>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Markings for named forwarding class.

Contents <loss-priority>—Code point marking based on loss priority.

<name>—Forwarding class name.

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

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <scheduler-maps>
        <forwarding-class>
          <name>name</name>     <!-- identifier -->
          <scheduler>scheduler</scheduler>     <!-- mandatory -->
        </forwarding-class>
      </scheduler-maps>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Forwarding class name to map to scheduler.

Contents <name>—Forwarding class name.

<scheduler>—Scheduler name.

<forwarding-class> (configuration/dynamic-profiles/interfaces/ interface/atm-options/scheduler-maps)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <atm-options>
          <scheduler-maps>
            <forwarding-class>
              <name>name</name>     <!-- identifier -->
              <priority>priority-choice</priority>
              <transmit-weight>...</transmit-weight>
              <epd-threshold>...</epd-threshold>
              <linear-red-profile>linear-red-profile</linear-red-profile>
            </forwarding-class>
          </scheduler-maps>
        </atm-options>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Scheduling parameters associated with forwarding class.

Contents <epd-threshold>—Early packet discard threshold for ATM2.

<linear-red-profile>—Linear RED profile profile name.

<name>—Forwarding class name.

<priority>—Queuing priority assigned to forwarding class.

- high—High priority queuing.
- low—Low priority queuing.

<transmit-weight>—Transmit weight.

<forwarding-class> (configuration/dynamic-profiles/interfaces/ interface/gigether-options/ethernet-switch-profile/ ethernet-policer-profile/output-priority-map/classifier/premium)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <gigether-options>
          <ethernet-switch-profile>
            <ethernet-policer-profile>
              <output-priority-map>
                <classifier>
                  <premium>
                    <forwarding-class>
                      <name>name</name>     <!-- identifier -->
                      <loss-priority>...</loss-priority>
                    </forwarding-class>
                  </premium>
                </classifier>
              </output-priority-map>
            </ethernet-policer-profile>
          </ethernet-switch-profile>
        </gigether-options>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Select a classification for this priority map.

Contents <loss-priority>—Select a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/firewall/family/any/filter/ term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <any>
        <filter>
          <term>
            <from>
              <forwarding-class>
                <name>name</name>     <!-- identifier -->
              </forwarding-class>
            </from>
          </term>
        </filter>
      </any>
    </family>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/firewall/family/bridge/filter/ term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <bridge>
        <filter>
          <term>
            <from>
              <forwarding-class>
                <name>name</name>     <!-- identifier -->
              </forwarding-class>
            </from>
          </term>
        </filter>
      </bridge>
    </family>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/firewall/family/ccc/filter/ term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <ccc>
        <filter>
          <term>
            <from>
              <forwarding-class>
                <name>name</name>     <!-- identifier -->
              </forwarding-class>
            </from>
          </term>
        </filter>
      </ccc>
    </family>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/firewall/family/inet/filter/ term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <forwarding-class>
                <name>name</name>     <!-- identifier -->
              </forwarding-class>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/firewall/family/inet/ simple-filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <simple-filter>
          <term>
            <from>
              <forwarding-class>
                <name>name</name>     <!-- identifier -->
              </forwarding-class>
            </from>
          </term>
        </simple-filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/firewall/family/inet6/filter/ term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <forwarding-class>
                <name>name</name>     <!-- identifier -->
              </forwarding-class>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/firewall/family/mpls/filter/ term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <term>
            <from>
              <forwarding-class>
                <name>name</name>     <!-- identifier -->
              </forwarding-class>
            </from>
          </term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/firewall/family/vpls/filter/ term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <vpls>
        <filter>
          <term>
            <from>
              <forwarding-class>
                <name>name</name>     <!-- identifier -->
              </forwarding-class>
            </from>
          </term>
        </filter>
      </vpls>
    </family>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
          </forwarding-class>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

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

Usage

```
<configuration>
  <interfaces>
    <interface>
      <atm-options>
        <scheduler-maps>
          <forwarding-class>
            <name>name</name>     <!-- identifier -->
            <priority>priority-choice</priority>
            <transmit-weight>...</transmit-weight>
            <epd-threshold>...</epd-threshold>
            <linear-red-profile>linear-red-profile</linear-red-profile>
          </forwarding-class>
        </scheduler-maps>
      </atm-options>
    </interface>
  </interfaces>
</configuration>
```

Description Scheduling parameters associated with forwarding class.

Contents <epd-threshold>—Early packet discard threshold for ATM2.

<linear-red-profile>—Linear RED profile profile name.

<name>—Forwarding class name.

<priority>—Queuing priority assigned to forwarding class.

- high—High priority queuing.
- low—Low priority queuing.

<transmit-weight>—Transmit weight.

<forwarding-class> (configuration/interfaces/interface/ gigether-options/ethernet-switch-profile/ ethernet-policer-profile/output-priority-map/classifier/premium)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <gigether-options>
        <ethernet-switch-profile>
          <ethernet-policer-profile>
            <output-priority-map>
              <classifier>
                <premium>
                  <forwarding-class>
                    <name>name</name>     <!-- identifier -->
                    <loss-priority>...</loss-priority>
                  </forwarding-class>
                </premium>
              </classifier>
            </output-priority-map>
          </ethernet-policer-profile>
        </ethernet-switch-profile>
      </gigether-options>
    </interface>
  </interfaces>
</configuration>
```

Description Select a classification for this priority map.

Contents <loss-priority>—Select a loss priority.

<name>—Forwarding class name.

<forwarding-class> (configuration/logical-systems/firewall/ family/any/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <any>
          <filter>
            <term>
              <from>
                <forwarding-class>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class>
              </from>
            </term>
          </filter>
        </any>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/logical-systems/firewall/ family/bridge/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <bridge>
          <filter>
            <term>
              <from>
                <forwarding-class>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class>
              </from>
            </term>
          </filter>
        </bridge>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/logical-systems/firewall/ family/ccc/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <ccc>
          <filter>
            <term>
              <from>
                <forwarding-class>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class>
              </from>
            </term>
          </filter>
        </ccc>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/logical-systems/firewall/ family/inet/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <filter>
            <term>
              <from>
                <forwarding-class>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class>
              </from>
            </term>
          </filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/logical-systems/firewall/ family/inet/simple-filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <simple-filter>
            <term>
              <from>
                <forwarding-class>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class>
              </from>
            </term>
          </simple-filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/logical-systems/firewall/ family/inet6/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet6>
          <filter>
            <term>
              <from>
                <forwarding-class>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class>
              </from>
            </term>
          </filter>
        </inet6>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/logical-systems/firewall/ family/mpls/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <mpls>
          <filter>
            <term>
              <from>
                <forwarding-class>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class>
              </from>
            </term>
          </filter>
        </mpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/logical-systems/firewall/ family/vpls/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <vpls>
          <filter>
            <term>
              <from>
                <forwarding-class>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class>
              </from>
            </term>
          </filter>
        </vpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class> (configuration/logical-systems/firewall/ filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <filter>
        <term>
          <from>
            <forwarding-class>
              <name>name</name>     <!-- identifier -->
            </forwarding-class>
          </from>
        </term>
      </filter>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/firewall/family/any/ filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <any>
        <filter>
          <term>
            <from>
              <forwarding-class-except>
                <name>name</name>     <!-- identifier -->
              </forwarding-class-except>
            </from>
          </term>
        </filter>
      </any>
    </family>
  </firewall>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/firewall/family/bridge/ filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <bridge>
        <filter>
          <term>
            <from>
              <forwarding-class-except>
                <name>name</name>     <!-- identifier -->
              </forwarding-class-except>
            </from>
          </term>
        </filter>
      </bridge>
    </family>
  </firewall>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/firewall/family/ccc/ filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <ccc>
        <filter>
          <term>
            <from>
              <forwarding-class-except>
                <name>name</name>     <!-- identifier -->
              </forwarding-class-except>
            </from>
          </term>
        </filter>
      </ccc>
    </family>
  </firewall>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/firewall/family/inet/ filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <forwarding-class-except>
                <name>name</name>     <!-- identifier -->
              </forwarding-class-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/firewall/family/inet6/ filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <forwarding-class-except>
                <name>name</name>     <!-- identifier -->
              </forwarding-class-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/firewall/family/mpls/ filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <term>
            <from>
              <forwarding-class-except>
                <name>name</name>     <!-- identifier -->
              </forwarding-class-except>
            </from>
          </term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/firewall/family/vpls/ filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <vpls>
        <filter>
          <term>
            <from>
              <forwarding-class-except>
                <name>name</name>     <!-- identifier -->
              </forwarding-class-except>
            </from>
          </term>
        </filter>
      </vpls>
    </family>
  </firewall>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/firewall/filter/term/ from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <forwarding-class-except>
            <name>name</name>     <!-- identifier -->
          </forwarding-class-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/logical-systems/ firewall/family/any/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <any>
          <filter>
            <term>
              <from>
                <forwarding-class-except>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class-except>
              </from>
            </term>
          </filter>
        </any>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/logical-systems/ firewall/family/bridge/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <bridge>
          <filter>
            <term>
              <from>
                <forwarding-class-except>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class-except>
              </from>
            </term>
          </filter>
        </bridge>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/logical-systems/ firewall/family/ccc/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <ccc>
          <filter>
            <term>
              <from>
                <forwarding-class-except>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class-except>
              </from>
            </term>
          </filter>
        </ccc>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/logical-systems/ firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <filter>
            <term>
              <from>
                <forwarding-class-except>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class-except>
              </from>
            </term>
          </filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/logical-systems/ firewall/family/inet6/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet6>
          <filter>
            <term>
              <from>
                <forwarding-class-except>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class-except>
              </from>
            </term>
          </filter>
        </inet6>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/logical-systems/ firewall/family/mpls/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <mpls>
          <filter>
            <term>
              <from>
                <forwarding-class-except>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class-except>
              </from>
            </term>
          </filter>
        </mpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/logical-systems/ firewall/family/vpls/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <vpls>
          <filter>
            <term>
              <from>
                <forwarding-class-except>
                  <name>name</name>     <!-- identifier -->
                </forwarding-class-except>
              </from>
            </term>
          </filter>
        </vpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

<forwarding-class-except> (configuration/logical-systems/ firewall/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <filter>
        <term>
          <from>
            <forwarding-class-except>
              <name>name</name>     <!-- identifier -->
            </forwarding-class-except>
          </from>
        </term>
      </filter>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match forwarding class.

Contents <name>—String name.

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

Usage

```
<configuration>
  <class-of-service>
    <forwarding-classes>
      <class>...</class>
      <queue>...</queue>
    </forwarding-classes>
  </class-of-service>
</configuration>
```

Description One or more mappings of forwarding class to queue number.

Contents <class>—Forwarding class to map to queue number.

<queue>—Queue number to map to forwarding class.

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

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <forwarding-classes>
        <class>...</class>
        <queue>...</queue>
      </forwarding-classes>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description One or more mappings of forwarding class to queue number.

Contents <class>—Forwarding class to map to queue number.

<queue>—Queue number to map to forwarding class.

<forwarding-options> (configuration)

Usage

```
<configuration>
  <forwarding-options>
    <sampling>...</sampling>
    <packet-capture>...</packet-capture>
    <monitoring>...</monitoring>
    <accounting>...</accounting>
    <port-mirroring>...</port-mirroring>
    <load-balance>...</load-balance>
    <hash-key>...</hash-key>
    <helpers>...</helpers>
    <family>...</family>
    <next-hop-group>...</next-hop-group>
    <dhcp-relay>...</dhcp-relay>
  </forwarding-options>
</configuration>
```

Description Configure options to control packet forwarding.

Contents <accounting>—Configure accounting of traffic.

<dhcp-relay>—Dynamic Host Configuration Protocol relay configuration.

<family>—Protocol family.

<hash-key>—Select data used in the hash key.

<helpers>—Port forwarding configuration.

<load-balance>—Configure load-balancing attributes on the forwarding path.

<monitoring>—Configure lawful interception of traffic.

<next-hop-group>—Next hop group forwarding option.

<packet-capture>—Packet capture options.

<port-mirroring>—Configure port mirroring of traffic.

<sampling>—Statistical traffic sampling options.

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

Usage

```
<configuration>
  <bridge-domains>
    <domain>
      <forwarding-options>
        <filter>...</filter>
        <flood>...</flood>
        <dhcp-relay>...</dhcp-relay>
      </forwarding-options>
    </domain>
  </bridge-domains>
</configuration>
```

Description Forwarding options configuration.

Contents <dhcp-relay>—Dynamic Host Configuration Protocol relay configuration.

<filter>—Filtering for bridge forwarding table.

<flood>—Filtering for bridge flood table.

<forwarding-options> (configuration/logical-systems)

Usage

```
<configuration>
  <logical-systems>
    <forwarding-options>
      <dhcp-relay>...</dhcp-relay>
    </forwarding-options>
  </logical-systems>
</configuration>
```

Description Configure options to control packet forwarding.

Contents <dhcp-relay>—Dynamic Host Configuration Protocol relay configuration.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <forwarding-options>
          <sampling>...</sampling>
          <packet-capture>...</packet-capture>
          <monitoring>...</monitoring>
          <accounting>...</accounting>
          <port-mirroring>...</port-mirroring>
          <load-balance>...</load-balance>
          <hash-key>...</hash-key>
          <helpers>...</helpers>
          <family>...</family>
          <next-hop-group>...</next-hop-group>
          <dhcp-relay>...</dhcp-relay>
        </forwarding-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Forwarding options configuration.

Contents <accounting>—Configure accounting of traffic.

<dhcp-relay>—Dynamic Host Configuration Protocol relay configuration.

<family>—Protocol family.

<hash-key>—Select data used in the hash key.

<helpers>—Port forwarding configuration.

<load-balance>—Configure load-balancing attributes on the forwarding path.

<monitoring>—Configure lawful interception of traffic.

<next-hop-group>—Next hop group forwarding option.

<packet-capture>—Packet capture options.

<port-mirroring>—Configure port mirroring of traffic.

<sampling>—Statistical traffic sampling options.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <bridge-domains>
          <domain>
            <forwarding-options>
              <filter>...</filter>
              <flood>...</flood>
              <dhcp-relay>...</dhcp-relay>
            </forwarding-options>
          </domain>
        </bridge-domains>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description Forwarding options configuration.

Contents <dhcp-relay>—Dynamic Host Configuration Protocol relay configuration.

<filter>—Filtering for bridge forwarding table.

<flood>—Filtering for bridge flood table.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <forwarding-options>
        <sampling>...</sampling>
        <packet-capture>...</packet-capture>
        <monitoring>...</monitoring>
        <accounting>...</accounting>
        <port-mirroring>...</port-mirroring>
        <load-balance>...</load-balance>
        <hash-key>...</hash-key>
        <helpers>...</helpers>
        <family>...</family>
        <next-hop-group>...</next-hop-group>
        <dhcp-relay>...</dhcp-relay>
      </forwarding-options>
    </instance>
  </routing-instances>
</configuration>
```

Description Forwarding options configuration.

Contents <accounting>—Configure accounting of traffic.

<dhcp-relay>—Dynamic Host Configuration Protocol relay configuration.

<family>—Protocol family.

<hash-key>—Select data used in the hash key.

<helpers>—Port forwarding configuration.

<load-balance>—Configure load-balancing attributes on the forwarding path.

<monitoring>—Configure lawful interception of traffic.

<next-hop-group>—Next hop group forwarding option.

<packet-capture>—Packet capture options.

<port-mirroring>—Configure port mirroring of traffic.

<sampling>—Statistical traffic sampling options.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <bridge-domains>
        <domain>
          <forwarding-options>
            <filter>...</filter>
            <flood>...</flood>
            <dhcp-relay>...</dhcp-relay>
          </forwarding-options>
        </domain>
      </bridge-domains>
    </instance>
  </routing-instances>
</configuration>
```

Description Forwarding options configuration.

Contents <dhcp-relay>—Dynamic Host Configuration Protocol relay configuration.

<filter>—Filtering for bridge forwarding table.

<flood>—Filtering for bridge flood table.

<forwarding-policy> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <forwarding-policy>
      <next-hop-map>...</next-hop-map>
      <class>...</class>
    </forwarding-policy>
  </class-of-service>
</configuration>
```

Description Class-of-service forwarding policy.

Contents <class>—Class-of-service description.

<next-hop-map>—Class-of-service next-hop map.

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

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <forwarding-policy>
        <next-hop-map>...</next-hop-map>
        <class>...</class>
      </forwarding-policy>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Class-of-service forwarding policy.

Contents <class>—Class-of-service description.

<next-hop-map>—Class-of-service next-hop map.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <forwarding-table>
            <export>...</export>
            <indirect-next-hop/>
            <unicast-reverse-path>unicast-reverse-path-choice</unicast-reverse-path>
          </forwarding-table>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <export>—Export policy.

<indirect-next-hop>—Install indirect next hops in Packet Forwarding Engine.

<unicast-reverse-path>—Unicast reverse path (RP) verification.

- active-paths—Consider active paths when performing RP verification.
- feasible-paths—Consider all feasible paths for RP verification.

<forwarding-table> (configuration/logical-systems/ routing-options)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <forwarding-table>
        <export>...</export>
        <indirect-next-hop/>
        <unicast-reverse-path>unicast-reverse-path-choice</unicast-reverse-path>
      </forwarding-table>
    </routing-options>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <export>—Export policy.

<indirect-next-hop>—Install indirect next hops in Packet Forwarding Engine.

<unicast-reverse-path>—Unicast reverse path (RP) verification.

- active-paths—Consider active paths when performing RP verification.
- feasible-paths—Consider all feasible paths for RP verification.

<forwarding-table> (configuration/routing-instances/instance/ routing-options)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <forwarding-table>
          <export>...</export>
          <indirect-next-hop/>
          <unicast-reverse-path>unicast-reverse-path-choice</unicast-reverse-path>
        </forwarding-table>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description No documentation is available yet.

Contents <export>—Export policy.

<indirect-next-hop>—Install indirect next hops in Packet Forwarding Engine.

<unicast-reverse-path>—Unicast reverse path (RP) verification.

- active-paths—Consider active paths when performing RP verification.
- feasible-paths—Consider all feasible paths for RP verification.

<forwarding-table> (configuration/routing-options)

Usage

```
<configuration>
  <routing-options>
    <forwarding-table>
      <export>...</export>
      <indirect-next-hop/>
      <unicast-reverse-path>unicast-reverse-path-choice</unicast-reverse-path>
    </forwarding-table>
  </routing-options>
</configuration>
```

Description No documentation is available yet.

Contents <export>—Export policy.

<indirect-next-hop>—Install indirect next hops in Packet Forwarding Engine.

<unicast-reverse-path>—Unicast reverse path (RP) verification.

- active-paths—Consider active paths when performing RP verification.
- feasible-paths—Consider all feasible paths for RP verification.

<fpc> (configuration/chassis)

Usage

```
<configuration>
  <chassis>
    <fpc>
      <name>name</name>     <!-- identifier -->
      <pic>...</pic>
      <power>power-choice</power>
      <allow-sram-parity-errors/>
      <offline/>
      <port-mirror-instance>port-mirror-instance</port-mirror-instance>
    </fpc>
  </chassis>
</configuration>
```

Description Flexible PIC Concentrator parameters.

Contents <allow-sram-parity-errors>—Do not power cycle FPC when SRAM parity errors occur.

<name>—FPC slot number.

<offline>—Keep FPC offline.

<pic>—Physical Interface Card number.

<port-mirror-instance>—Associate a port mirroring instance with the FPC.

<power>—Power FPCs on or off.

- off—Do not provide power to FPCs.
- on—Provide power to FPCs.

<fpc> (configuration/chassis/fpc-feb-connectivity)

Usage

```
<configuration>
  <chassis>
    <fpc-feb-connectivity>
      <fpc>
        <name>name</name>     <!-- identifier -->
        <feb>...</feb>     <!-- mandatory -->
      </fpc>
    </fpc-feb-connectivity>
  </chassis>
</configuration>
```

Description No documentation is available yet.

Contents <feb>—FEB slot number.

<name>—FPC slot number.

<fpc> (configuration/chassis/lcc)

Usage

```
<configuration>
  <chassis>
    <lcc>
      <fpc>
        <name>name</name>     <!-- identifier -->
        <pic>...</pic>
        <power>power-choice</power>
        <allow-sram-parity-errors/>
        <offline/>
        <port-mirror-instance>port-mirror-instance</port-mirror-instance>
      </fpc>
    </lcc>
  </chassis>
</configuration>
```

Description Flexible PIC Concentrator parameters.

Contents <allow-sram-parity-errors>—Do not power cycle FPC when SRAM parity errors occur.

<name>—FPC slot number.

<offline>—Keep FPC offline.

<pic>—Physical Interface Card number.

<port-mirror-instance>—Associate a port mirroring instance with the FPC.

<power>—Power FPCs on or off.

- off—Do not provide power to FPCs.
- on—Provide power to FPCs.

<fpc> (configuration/chassis/lcd)

Usage

```
<configuration>
  <chassis>
    <lcd>
      <fpc>
        <name>name</name>     <!-- identifier -->
        <maintenance-menu/>
        <disable/>
      </fpc>
    </lcd>
  </chassis>
</configuration>
```

Description No documentation is available yet.

Contents <disable>—Disable maintenance-menu.

<maintenance-menu>—LCD maintenance menu.

<name>—FPC slot number.

<fpc-feb-connectivity> (configuration/chassis)

Usage

```
<configuration>
  <chassis>
    <fpc-feb-connectivity>
      <fpc>...</fpc>
    </fpc-feb-connectivity>
  </chassis>
</configuration>
```

Description Connectivity between Flexible PIC Concentrators and Forwarding Engine Boards.

Contents <fpc>—No documentation is available yet.

<fpcs> (configuration/chassis/system-domains/ protected-system-domains)

Usage

```
<configuration>
  <chassis>
    <system-domains>
      <protected-system-domains>
        <fpcs>
          <name>name</name>     <!-- identifier -->
        </fpcs>
      </protected-system-domains>
    </system-domains>
  </chassis>
</configuration>
```

Description FPC associated with protected system domain.

Contents <name>—FPC associated with protected system domain.

<fqdn> (configuration/services/ipsec-vpn/ike/policy/remote-id)

Usage

```
<configuration>
  <services>
    <ipsec-vpn>
      <ike>
        <policy>
          <remote-id>
            <fqdn>
              <name>name</name>     <!-- identifier -->
            </fqdn>
          </remote-id>
        </policy>
      </ike>
    </ipsec-vpn>
  </services>
</configuration>
```

Description One or more fully qualified domain name values.

Contents <name>—One or more fully qualified domain name values.

<fragment> (configuration/logical-systems/routing-instances/ instance/routing-options/flow/route/match)

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <flow>
            <route>
              <match>
                <fragment>
                  <name>name</name>     <!-- identifier -->
                </fragment>
              </match>
            </route>
          </flow>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <name>—No documentation is available yet.

- dont-fragment—Don't Fragment flag is set.
- first-fragment—First fragment.
- is-fragment—Fragmented packet.
- last-fragment—Last fragment.
- not-a-fragment—Not a fragment.

<fragment> (configuration/logical-systems/routing-options/flow/ route/match)

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <flow>
        <route>
          <match>
            <fragment>
              <name>name</name>     <!-- identifier -->
            </fragment>
          </match>
        </route>
      </flow>
    </routing-options>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <name>—No documentation is available yet.

- dont-fragment—Don't Fragment flag is set.
- first-fragment—First fragment.
- is-fragment—Fragmented packet.
- last-fragment—Last fragment.
- not-a-fragment—Not a fragment.

<fragment> (configuration/routing-instances/instance/ routing-options/flow/route/match)

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <flow>
          <route>
            <match>
              <fragment>
                <name>name</name>     <!-- identifier -->
              </fragment>
            </match>
          </route>
        </flow>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description No documentation is available yet.

Contents <name>—No documentation is available yet.

- dont-fragment—Don't Fragment flag is set.
- first-fragment—First fragment.
- is-fragment—Fragmented packet.
- last-fragment—Last fragment.
- not-a-fragment—Not a fragment.

<fragment> (configuration/routing-options/flow/route/match)

Usage

```
<configuration>
  <routing-options>
    <flow>
      <route>
        <match>
          <fragment>
            <name>name</name>     <!-- identifier -->
          </fragment>
        </match>
      </route>
    </flow>
  </routing-options>
</configuration>
```

Description No documentation is available yet.

Contents <name>—No documentation is available yet.

- dont-fragment—Don't Fragment flag is set.
- first-fragment—First fragment.
- is-fragment—Fragmented packet.
- last-fragment—Last fragment.
- not-a-fragment—Not a fragment.

<fragment-offset> (configuration/firewall/family/inet/filter/ term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <fragment-offset>
                <name>name</name>     <!-- identifier -->
              </fragment-offset>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match fragment offset.

Contents <name>—Range of values.

<fragment-offset> (configuration/firewall/family/inet/ service-filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <service-filter>
          <term>
            <from>
              <fragment-offset>
                <name>name</name>     <!-- identifier -->
              </fragment-offset>
            </from>
          </term>
        </service-filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match fragment offset.

Contents <name>—Range of values.

<fragment-offset> (configuration/firewall/filter/term/from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <fragment-offset>
            <name>name</name>     <!-- identifier -->
          </fragment-offset>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Match fragment offset.

Contents <name>—Range of values.

<fragment-offset> (configuration/logical-systems/firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <filter>
            <term>
              <from>
                <fragment-offset>
                  <name>name</name>     <!-- identifier -->
                </fragment-offset>
              </from>
            </term>
          </filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match fragment offset.

Contents <name>—Range of values.

<fragment-offset> (configuration/logical-systems/firewall/ family/inet/service-filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <service-filter>
            <term>
              <from>
                <fragment-offset>
                  <name>name</name>     <!-- identifier -->
                </fragment-offset>
              </from>
            </term>
          </service-filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match fragment offset.

Contents <name>—Range of values.

<fragment-offset> (configuration/logical-systems/firewall/ filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <filter>
        <term>
          <from>
            <fragment-offset>
              <name>name</name>     <!-- identifier -->
            </fragment-offset>
          </from>
        </term>
      </filter>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match fragment offset.

Contents <name>—Range of values.

<fragment-offset-except> (configuration/firewall/family/inet/ filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <fragment-offset-except>
                <name>name</name>     <!-- identifier -->
              </fragment-offset-except>
            </from>
          </term>
        </filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match fragment offset.

Contents <name>—Range of values.

<fragment-offset-except> (configuration/firewall/family/inet/ service-filter/term/from)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <service-filter>
          <term>
            <from>
              <fragment-offset-except>
                <name>name</name>     <!-- identifier -->
              </fragment-offset-except>
            </from>
          </term>
        </service-filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Do not match fragment offset.

Contents <name>—Range of values.

<fragment-offset-except> (configuration/firewall/filter/term/ from)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <fragment-offset-except>
            <name>name</name>     <!-- identifier -->
          </fragment-offset-except>
        </from>
      </term>
    </filter>
  </firewall>
</configuration>
```

Description Do not match fragment offset.

Contents <name>—Range of values.

<fragment-offset-except> (configuration/logical-systems/ firewall/family/inet/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <filter>
            <term>
              <from>
                <fragment-offset-except>
                  <name>name</name>     <!-- identifier -->
                </fragment-offset-except>
              </from>
            </term>
          </filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match fragment offset.

Contents <name>—Range of values.

<fragment-offset-except> (configuration/logical-systems/ firewall/family/inet/service-filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <service-filter>
            <term>
              <from>
                <fragment-offset-except>
                  <name>name</name>     <!-- identifier -->
                </fragment-offset-except>
              </from>
            </term>
          </service-filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match fragment offset.

Contents <name>—Range of values.

<fragment-offset-except> (configuration/logical-systems/ firewall/filter/term/from)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <filter>
        <term>
          <from>
            <fragment-offset-except>
              <name>name</name>     <!-- identifier -->
            </fragment-offset-except>
          </from>
        </term>
      </filter>
    </firewall>
  </logical-systems>
</configuration>
```

Description Do not match fragment offset.

Contents <name>—Range of values.

<fragmentation-maps> (configuration/class-of-service)

Usage

```
<configuration>
  <class-of-service>
    <fragmentation-maps>
      <name>name</name>     <!-- identifier -->
      <forwarding-class>...</forwarding-class>
    </fragmentation-maps>
  </class-of-service>
</configuration>
```

Description Mapping of forwarding class to fragmentation options.

Contents <forwarding-class>—Forwarding class name to map to fragmentation options.

<name>—Fragmentation map name.

<fragmentation-maps> (configuration/dynamic-profiles/ class-of-service)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <fragmentation-maps>
        <name>name</name>     <!-- identifier -->
        <forwarding-class>...</forwarding-class>
      </fragmentation-maps>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Mapping of forwarding class to fragmentation options.

Contents <forwarding-class>—Forwarding class name to map to fragmentation options.

<name>—Fragmentation map name.

<frame-relay-de> (configuration/class-of-service/interfaces/ interface/unit/loss-priority-maps)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <interface>
        <unit>
          <loss-priority-maps>
            <frame-relay-de>
              <lpmap-name>lpmap-name</lpmap-name>
            </frame-relay-de>
          </loss-priority-maps>
        </unit>
      </interface>
    </interfaces>
  </class-of-service>
</configuration>
```

Description Frame Relay discard eligible bit loss priority map.

Contents <lpmap-name>—Name of loss priority map to be applied.

<frame-relay-de> (configuration/class-of-service/interfaces/ interface/unit/rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <interfaces>
      <interface>
        <unit>
          <rewrite-rules>
            <frame-relay-de>
              <rewrite-rule-name>rewrite-rule-name</rewrite-rule-name>
            </frame-relay-de>
          </rewrite-rules>
        </unit>
      </interface>
    </interfaces>
  </class-of-service>
</configuration>
```

Description Frame relay discard eligible bit rewrite rule.

Contents <rewrite-rule-name>—Name of rewrite rule to be applied.

<frame-relay-de> (configuration/class-of-service/ loss-priority-maps)

Usage

```
<configuration>
  <class-of-service>
    <loss-priority-maps>
      <frame-relay-de>
        <name>name</name>     <!-- identifier -->
        <loss-priority>...</loss-priority>
      </frame-relay-de>
    </loss-priority-maps>
  </class-of-service>
</configuration>
```

Description Frame relay discard eligible bit loss priority map.

Contents <loss-priority>—Map code points to a loss priority.

<name>—Loss priority map name.

<frame-relay-de> (configuration/class-of-service/rewrite-rules)

Usage

```
<configuration>
  <class-of-service>
    <rewrite-rules>
      <frame-relay-de>
        <name>name</name>     <!-- identifier -->
        <import>import</import>
        <forwarding-class>...</forwarding-class>
      </frame-relay-de>
    </rewrite-rules>
  </class-of-service>
</configuration>
```

Description Frame relay discard eligible bit rewrite rule.

Contents <forwarding-class>—Markings for named forwarding class.

<import>—Include this rewrite rule in this definition.

<name>—Rewrite rule name.

<frame-relay-de> (configuration/dynamic-profiles/ class-of-service/interfaces/interface/unit/loss-priority-maps)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <interfaces>
        <interface>
          <unit>
            <loss-priority-maps>
              <frame-relay-de>
                <lpmap-name>lpmap-name</lpmap-name>
              </frame-relay-de>
            </loss-priority-maps>
          </unit>
        </interface>
      </interfaces>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Frame Relay discard eligible bit loss priority map.

Contents <lpmap-name>—Name of loss priority map to be applied.

<frame-relay-de> (configuration/dynamic-profiles/ class-of-service/interfaces/interface/unit/rewrite-rules)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <interfaces>
        <interface>
          <unit>
            <rewrite-rules>
              <frame-relay-de>
                <rewrite-rule-name>rewrite-rule-name</rewrite-rule-name>
              </frame-relay-de>
            </rewrite-rules>
          </unit>
        </interface>
      </interfaces>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Frame relay discard eligible bit rewrite rule.

Contents <rewrite-rule-name>—Name of rewrite rule to be applied.

<frame-relay-de> (configuration/dynamic-profiles/ class-of-service/loss-priority-maps)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <loss-priority-maps>
        <frame-relay-de>
          <name>name</name>     <!-- identifier -->
          <loss-priority>...</loss-priority>
        </frame-relay-de>
      </loss-priority-maps>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Frame relay discard eligible bit loss priority map.

Contents <loss-priority>—Map code points to a loss priority.

<name>—Loss priority map name.

<frame-relay-de> (configuration/dynamic-profiles/ class-of-service/rewrite-rules)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <rewrite-rules>
        <frame-relay-de>
          <name>name</name>     <!-- identifier -->
          <import>import</import>
          <forwarding-class>...</forwarding-class>
        </frame-relay-de>
      </rewrite-rules>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description Frame relay discard eligible bit rewrite rule.

Contents <forwarding-class>—Markings for named forwarding class.

<import>—Include this rewrite rule in this definition.

<name>—Rewrite rule name.

<framed-ip-address> (configuration/access/profile/radius/ attributes/exclude)

Usage

```
<configuration>
  <access>
    <profile>
      <radius>
        <attributes>
          <exclude>
            <framed-ip-address>
              <name>name</name>     <!-- identifier -->
            </framed-ip-address>
          </exclude>
        </attributes>
      </radius>
    </profile>
  </access>
</configuration>
```

Description Excludes RADIUS attribute 8, Framed-IP-Address.

Contents <name>—Excludes RADIUS attribute 8, Framed-IP-Address.

- access-request—RADIUS Access-Request message.
- accounting-start—RADIUS Accounting-Start message.
- accounting-stop—RADIUS Accounting-Stop message.

<framed-ip-netmask> (configuration/access/profile/radius/ attributes/exclude)

Usage

```
<configuration>
  <access>
    <profile>
      <radius>
        <attributes>
          <exclude>
            <framed-ip-netmask>
              <name>name</name>     <!-- identifier -->
            </framed-ip-netmask>
          </exclude>
        </attributes>
      </radius>
    </profile>
  </access>
</configuration>
```

Description Excludes RADIUS attribute 9, Framed-IP-Netmask.

Contents <name>—Excludes RADIUS attribute 9, Framed-IP-Netmask.

- access-request—RADIUS Access-Request message.
- accounting-start—RADIUS Accounting-Start message.
- accounting-stop—RADIUS Accounting-Stop message.

<framework> (configuration/services/border-signaling-gateway/ gateway/traceoptions/flag)

Usage

```
<configuration>
  <services>
    <border-signaling-gateway>
      <gateway>
        <traceoptions>
          <flag>
            <framework>
              <minimum>minimum-choice</minimum>
              <executor>executor-choice</executor>
              <action>action-choice</action>
              <event>event-choice</event>
              <freezer>freezer-choice</freezer>
              <memory-pool>memory-pool-choice</memory-pool>
            </framework>
          </flag>
        </traceoptions>
      </gateway>
    </border-signaling-gateway>
  </services>
</configuration>
```

Description Framework component sub-components.

Contents <action>—Action trace level .

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<event>—Event trace level .

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<executor>—Executor trace level .

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.

- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<freezer>—Freezer trace level .

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<memory-pool>—Memory pool trace level .

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<minimum>—Minimum trace level for the framework subcomponents.

- debug—Trace code flow, branching, positive style guide check.
- error—Failure with short-term affect.
- info—Summary logs for normal operations.
- trace—Trace functions entering and exiting.
- warning—Failure-recovery or Failure of an external entity.

<framing> (configuration/dynamic-profiles/interfaces/interface)

Usage

```
<configuration>
  <dynamic-profiles>
    <interfaces>
      <interface>
        <framing>
          <lan-phy/>
          <wan-phy/>
          <sonet/>
          <sdh/>
        </framing>
      </interface>
    </interfaces>
  </dynamic-profiles>
</configuration>
```

Description Frame type.

Contents <lan-phy>—802.3ae 10-Gbps LAN-mode interface.

<sdh>—SDH framing.

<sonet>—SONET framing.

<wan-phy>—802.3ae 10-Gbps WAN-mode interface.

<framing> (configuration/interfaces/interface)

Usage

```
<configuration>
  <interfaces>
    <interface>
      <framing>
        <lan-phy/>
        <wan-phy/>
        <sonet/>
        <sdh/>
      </framing>
    </interface>
  </interfaces>
</configuration>
```

Description Frame type.

Contents <lan-phy>—802.3ae 10-Gbps LAN-mode interface.

<sdh>—SDH framing.

<sonet>—SONET framing.

<wan-phy>—802.3ae 10-Gbps WAN-mode interface.

<from> (configuration/firewall/family/any/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <any>
        <filter>
          <term>
            <from>
              <interface>...</interface>
              <interface-set>...</interface-set>
              <packet-length>...</packet-length>
              <packet-length-except>...</packet-length-except>
              <forwarding-class>...</forwarding-class>
              <forwarding-class-except>...</forwarding-class-except>
              <loss-priority>...</loss-priority>
              <loss-priority-except>...</loss-priority-except>
            </from>
          </term>
        </filter>
      </any>
    </family>
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<interface>—Match interface name.

<interface-set>—Match interface in set.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<from> (configuration/firewall/family/bridge/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <bridge>
        <filter>
          <term>
            <from>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <ether-type>...</ether-type>
              <ether-type-except>...</ether-type-except>
              <vlan-ether-type>...</vlan-ether-type>
              <vlan-ether-type-except>...</vlan-ether-type-except>
              <destination-mac-address>...</destination-mac-address>
              <source-mac-address>...</source-mac-address>
              <forwarding-class>...</forwarding-class>
              <forwarding-class-except>...</forwarding-class-except>
              <loss-priority>...</loss-priority>
              <loss-priority-except>...</loss-priority-except>
              <learn-vlan-id>...</learn-vlan-id>
              <learn-vlan-id-except>...</learn-vlan-id-except>
              <learn-vlan-1p-priority>...</learn-vlan-1p-priority>
              <learn-vlan-1p-priority-except>...</learn-vlan-1p-priority-except>
              <user-vlan-id>...</user-vlan-id>
              <user-vlan-id-except>...</user-vlan-id-except>
              <user-vlan-1p-priority>...</user-vlan-1p-priority>
              <user-vlan-1p-priority-except>...</user-vlan-1p-priority-except>
              <traffic-type>...</traffic-type>
              <traffic-type-except>...</traffic-type-except>
              <ip-source-address>...</ip-source-address>
              <ip-destination-address>...</ip-destination-address>
              <ip-address>...</ip-address>
              <ip-protocol>...</ip-protocol>
              <ip-protocol-except>...</ip-protocol-except>
              <dscp>...</dscp>
              <dscp-except>...</dscp-except>
              <ip-precedence>...</ip-precedence>
              <ip-precedence-except>...</ip-precedence-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
              <tcp-flags>tcp-flags</tcp-flags>
              <icmp-type>...</icmp-type>
              <icmp-type-except>...</icmp-type-except>
              <icmp-code>...</icmp-code>
              <icmp-code-except>...</icmp-code-except>
            </from>
          </term>
        </filter>
```

```
        </bridge>
      </family>
    </firewall>
  </configuration>
```

Description Define match criteria.

Contents <destination-mac-address>—Destination MAC address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<ether-type>—Match Ethernet type.

<ether-type-except>—Do not match Ethernet type.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<ip-address>—Match IP source or destination address.

<ip-destination-address>—Match IP destination address.

<ip-precedence>—Match IP precedence value.

<ip-precedence-except>—Do not match IP precedence value.

<ip-protocol>—Match IP protocol type.

<ip-protocol-except>—Do not match IP protocol type.

<ip-source-address>—Match IP source address.

<learn-vlan-1p-priority>—Match Learned 802.1p VLAN Priority.

<learn-vlan-1p-priority-except>—Do not match Learned 802.1p VLAN Priority.

<learn-vlan-id>—Match Learnt VLAN ID.

<learn-vlan-id-except>—Do not match Learnt VLAN ID.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<source-mac-address>—Source MAC address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<tcp-flags>—Match TCP flags.

<traffic-type>—Match Match traffic type.

<traffic-type-except>—Do not match Match traffic type.

<user-vlan-1p-priority>—Match User 802.1p VLAN Priority.

<user-vlan-1p-priority-except>—Do not match User 802.1p VLAN Priority.

<user-vlan-id>—Match User VLAN ID.

<user-vlan-id-except>—Do not match User VLAN ID.

<vlan-ether-type>—Match VLAN Ethernet type.

<vlan-ether-type-except>—Do not match VLAN Ethernet type.

<from> (configuration/firewall/family/ccc/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <ccc>
        <filter>
          <term>
            <from>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <forwarding-class>...</forwarding-class>
              <forwarding-class-except>...</forwarding-class-except>
              <loss-priority>...</loss-priority>
              <loss-priority-except>...</loss-priority-except>
            </from>
          </term>
        </filter>
      </ccc>
    </family>
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<from> (configuration/firewall/family/ethernet-switching/filter/ term)

Usage

```
<configuration>
  <firewall>
    <family>
      <ethernet-switching>
        <filter>
          <term>
            <from>
              <interface>...</interface>
              <source-mac-address>...</source-mac-address>
              <destination-mac-address>...</destination-mac-address>
              <ether-type>...</ether-type>
              <ether-type-except>...</ether-type-except>
              <vlan>...</vlan>
              <vlan-except>...</vlan-except>
              <dot1q-tag>...</dot1q-tag>
              <dot1q-tag-except>...</dot1q-tag-except>
              <dot1q-user-priority>...</dot1q-user-priority>
              <dot1q-user-priority-except>...</dot1q-user-priority-except>
              <address>...</address>
              <source-address>...</source-address>
              <destination-address>...</destination-address>
              <dscp>...</dscp>
              <dscp-except>...</dscp-except>
              <precedence>...</precedence>
              <precedence-except>...</precedence-except>
              <ip-options>...</ip-options>
              <ip-options-except>...</ip-options-except>
              <fragment-flags>fragment-flags</fragment-flags>
              <is-fragment/>
              <protocol>...</protocol>
              <protocol-except>...</protocol-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
              <tcp-flags>tcp-flags</tcp-flags>
              <tcp-initial/>
              <tcp-established/>
              <icmp-type>...</icmp-type>
              <icmp-type-except>...</icmp-type-except>
              <icmp-code>...</icmp-code>
              <icmp-code-except>...</icmp-code-except>
              <source-prefix-list>...</source-prefix-list>
              <destination-prefix-list>...</destination-prefix-list>
            </from>
          </term>
        </filter>
      </ethernet-switching>
    </family>
```

```
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<destination-address>—Match IP destination address.

<destination-mac-address>—Match MAC destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefixes in named list.

<dot1q-tag>—Match Dot1Q Tag Value.

<dot1q-tag-except>—Do not match Dot1Q Tag Value.

<dot1q-user-priority>—Match Dot1Q user priority.

<dot1q-user-priority-except>—Do not match Dot1Q user priority.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<ether-type>—Match Ethernet Type.

<ether-type-except>—Do not match Ethernet Type.

<fragment-flags>—Match fragment flags (in symbolic or hex formats) - (Ingress only).

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface>—Match interface name.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<precedence>—Match IP precedence value.

<precedence-except>—Do not match IP precedence value.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<source-address>—Match IP source address.

<source-mac-address>—Match MAC source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefixes in named list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags (in symbolic or hex formats) - (Ingress only).

<tcp-initial>—Match initial packet of a TCP connection - (Ingress only).

<vlan>—Match Vlan Id or Name.

<vlan-except>—Do not match Vlan Id or Name.

<from> (configuration/firewall/family/inet/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <filter>
          <term>
            <from>
              <destination-class>...</destination-class>
              <destination-class-except>...</destination-class-except>
              <source-class>...</source-class>
              <source-class-except>...</source-class-except>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <source-address>...</source-address>
              <destination-address>...</destination-address>
              <address>...</address>
              <source-prefix-list>...</source-prefix-list>
              <destination-prefix-list>...</destination-prefix-list>
              <prefix-list>...</prefix-list>
              <packet-length>...</packet-length>
              <packet-length-except>...</packet-length-except>
              <precedence>...</precedence>
              <precedence-except>...</precedence-except>
              <dscp>...</dscp>
              <dscp-except>...</dscp-except>
              <ip-options>...</ip-options>
              <ip-options-except>...</ip-options-except>
              <is-fragment/>
              <first-fragment/>
              <service-filter-hit/>
              <fragment-offset>...</fragment-offset>
              <fragment-offset-except>...</fragment-offset-except>
              <fragment-flags>fragment-flags</fragment-flags>
              <protocol>...</protocol>
              <protocol-except>...</protocol-except>
              <ttl>...</ttl>
              <ttl-except>...</ttl-except>
              <icmp-type>...</icmp-type>
              <icmp-type-except>...</icmp-type-except>
              <icmp-code>...</icmp-code>
              <icmp-code-except>...</icmp-code-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
              <tcp-initial/>
              <tcp-established/>
              <tcp-flags>tcp-flags</tcp-flags>
              <esp-spi>...</esp-spi>
              <esp-spi-except>...</esp-spi-except>
```

```
                <ah-spi>...</ah-spi>
                <ah-spi-except>...</ah-spi-except>
                <interface>...</interface>
                <interface-set>...</interface-set>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
              </from>
            </term>
          </filter>
        </inet>
      </family>
    </firewall>
  </configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match IP destination address.

<destination-class>—Match destination class.

<destination-class-except>—Do not match destination class.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefixes in named list.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<first-fragment>—Match if packet is the first fragment.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<fragment-flags>—Match fragment flags (in symbolic or hex formats).

<fragment-offset>—Match fragment offset.

<fragment-offset-except>—Do not match fragment offset.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface>—Match interface name.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<interface-set>—Match interface in set.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<precedence>—Match IP precedence value.

<precedence-except>—Do not match IP precedence value.

<prefix-list>—Match IP source or destination prefixes in named list.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<service-filter-hit>—Match if service-filter-hit is set.

<source-address>—Match IP source address.

<source-class>—Match source class.

<source-class-except>—Do not match source class.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefixes in named list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags (in symbolic or hex formats).

<tcp-initial>—Match initial packet of a TCP connection.

<ttl>—Match IP ttl type.

<ttl-except>—Do not match IP ttl type.

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

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <service-filter>
          <term>
            <from>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <source-address>...</source-address>
              <destination-address>...</destination-address>
              <address>...</address>
              <source-prefix-list>...</source-prefix-list>
              <destination-prefix-list>...</destination-prefix-list>
              <prefix-list>...</prefix-list>
              <protocol>...</protocol>
              <protocol-except>...</protocol-except>
              <ip-options>...</ip-options>
              <ip-options-except>...</ip-options-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
              <esp-spi>...</esp-spi>
              <esp-spi-except>...</esp-spi-except>
              <is-fragment/>
              <first-fragment/>
              <fragment-offset>...</fragment-offset>
              <fragment-offset-except>...</fragment-offset-except>
              <fragment-flags>fragment-flags</fragment-flags>
              <ah-spi>...</ah-spi>
              <ah-spi-except>...</ah-spi-except>
              <loss-priority>...</loss-priority>
              <loss-priority-except>...</loss-priority-except>
            </from>
          </term>
        </service-filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match criteria.

Contents <address>—Match IP source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match IP destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefixes in named list.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<first-fragment>—Match if packet is the first fragment.

<fragment-flags>—Match fragment flags.

<fragment-offset>—Match fragment offset.

<fragment-offset-except>—Do not match fragment offset.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<prefix-list>—Match IP source or destination prefixes in named list.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<source-address>—Match IP source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefixes in named list.

<from> (configuration/firewall/family/inet/simple-filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet>
        <simple-filter>
          <term>
            <from>
              <source-address>...</source-address>
              <destination-address>...</destination-address>
              <protocol>...</protocol>
              <source-port>...</source-port>
              <destination-port>...</destination-port>
              <forwarding-class>...</forwarding-class>
            </from>
          </term>
        </simple-filter>
      </inet>
    </family>
  </firewall>
</configuration>
```

Description Match criteria.

Contents <destination-address>—Destination IP address.

<destination-port>—Match TCP/UDP destination port.

<forwarding-class>—Match forwarding class.

<protocol>—Match IP protocol type.

<source-address>—Source IP address.

<source-port>—Match TCP/UDP source port.

<from> (configuration/firewall/family/inet6/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <filter>
          <term>
            <from>
              <destination-class>...</destination-class>
              <destination-class-except>...</destination-class-except>
              <source-class>...</source-class>
              <source-class-except>...</source-class-except>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <source-address>...</source-address>
              <destination-address>...</destination-address>
              <address>...</address>
              <source-prefix-list>...</source-prefix-list>
              <destination-prefix-list>...</destination-prefix-list>
              <prefix-list>...</prefix-list>
              <next-header>...</next-header>
              <next-header-except>...</next-header-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
              <packet-length>...</packet-length>
              <packet-length-except>...</packet-length-except>
              <traffic-class>...</traffic-class>
              <traffic-class-except>...</traffic-class-except>
              <icmp-type>...</icmp-type>
              <icmp-type-except>...</icmp-type-except>
              <icmp-code>...</icmp-code>
              <icmp-code-except>...</icmp-code-except>
              <tcp-initial/>
              <tcp-established/>
              <tcp-flags>tcp-flags</tcp-flags>
              <interface>...</interface>
              <interface-set>...</interface-set>
              <forwarding-class>...</forwarding-class>
              <forwarding-class-except>...</forwarding-class-except>
              <loss-priority>...</loss-priority>
              <loss-priority-except>...</loss-priority-except>
            </from>
          </term>
        </filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <address>—Match source or destination address.

<destination-address>—Match destination address.

<destination-class>—Match destination class.

<destination-class-except>—Do not match destination class.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match destination prefixes in named list.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface>—Match interface name.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<interface-set>—Match interface in set.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<next-header>—Match IP protocol type.

<next-header-except>—Do not match IP protocol type.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<prefix-list>—Match source or destination prefixes in named list.

<source-address>—Match source address.

<source-class>—Match source class.

<source-class-except>—Do not match source class.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match source prefixes in named list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags (in symbolic or hex formats).

<tcp-initial>—Match initial packet of a TCP connection.

<traffic-class>—Match Differentiated Services (DiffServ) code point.

<traffic-class-except>—Do not match Differentiated Services (DiffServ) code point.

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

Usage

```
<configuration>
  <firewall>
    <family>
      <inet6>
        <service-filter>
          <term>
            <from>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <source-address>...</source-address>
              <destination-address>...</destination-address>
              <address>...</address>
              <source-prefix-list>...</source-prefix-list>
              <destination-prefix-list>...</destination-prefix-list>
              <prefix-list>...</prefix-list>
              <next-header>...</next-header>
              <next-header-except>...</next-header-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
              <esp-spi>...</esp-spi>
              <esp-spi-except>...</esp-spi-except>
              <ah-spi>...</ah-spi>
              <ah-spi-except>...</ah-spi-except>
            </from>
          </term>
        </service-filter>
      </inet6>
    </family>
  </firewall>
</configuration>
```

Description Match criteria.

Contents <address>—Match source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match destination prefixes in named list.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<next-header>—Match IP protocol type.

<next-header-except>—Do not match IP protocol type.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<prefix-list>—Match source or destination prefixes in named list.

<source-address>—Match source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match source prefixes in named list.

<from> (configuration/firewall/family/mpls/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <mpls>
        <filter>
          <term>
            <from>
              <exp>...</exp>
              <exp-except>...</exp-except>
              <interface>...</interface>
              <interface-set>...</interface-set>
              <forwarding-class>...</forwarding-class>
              <forwarding-class-except>...</forwarding-class-except>
              <loss-priority>...</loss-priority>
              <loss-priority-except>...</loss-priority-except>
            </from>
          </term>
        </filter>
      </mpls>
    </family>
  </firewall>
</configuration>
```

Description Define match criteria.

Contents <exp>—Match MPLS EXP bits.

<exp-except>—Do not match MPLS EXP bits.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<interface>—Match interface name.

<interface-set>—Match interface in set.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<from> (configuration/firewall/family/vpls/filter/term)

Usage

```
<configuration>
  <firewall>
    <family>
      <vpls>
        <filter>
          <term>
            <from>
              <interface-group>...</interface-group>
              <interface-group-except>...</interface-group-except>
              <ether-type>...</ether-type>
              <ether-type-except>...</ether-type-except>
              <vlan-ether-type>...</vlan-ether-type>
              <vlan-ether-type-except>...</vlan-ether-type-except>
              <destination-mac-address>...</destination-mac-address>
              <source-mac-address>...</source-mac-address>
              <forwarding-class>...</forwarding-class>
              <forwarding-class-except>...</forwarding-class-except>
              <loss-priority>...</loss-priority>
              <loss-priority-except>...</loss-priority-except>
              <learn-vlan-id>...</learn-vlan-id>
              <learn-vlan-id-except>...</learn-vlan-id-except>
              <learn-vlan-1p-priority>...</learn-vlan-1p-priority>
              <learn-vlan-1p-priority-except>...</learn-vlan-1p-priority-except>
              <user-vlan-id>...</user-vlan-id>
              <user-vlan-id-except>...</user-vlan-id-except>
              <user-vlan-1p-priority>...</user-vlan-1p-priority>
              <user-vlan-1p-priority-except>...</user-vlan-1p-priority-except>
              <traffic-type>...</traffic-type>
              <traffic-type-except>...</traffic-type-except>
              <ip-source-address>...</ip-source-address>
              <ip-destination-address>...</ip-destination-address>
              <ip-address>...</ip-address>
              <ip-protocol>...</ip-protocol>
              <ip-protocol-except>...</ip-protocol-except>
              <dscp>...</dscp>
              <dscp-except>...</dscp-except>
              <ip-precedence>...</ip-precedence>
              <ip-precedence-except>...</ip-precedence-except>
              <source-port>...</source-port>
              <source-port-except>...</source-port-except>
              <destination-port>...</destination-port>
              <destination-port-except>...</destination-port-except>
              <port>...</port>
              <port-except>...</port-except>
              <tcp-flags>tcp-flags</tcp-flags>
              <icmp-type>...</icmp-type>
              <icmp-type-except>...</icmp-type-except>
              <icmp-code>...</icmp-code>
              <icmp-code-except>...</icmp-code-except>
            </from>
          </term>
        </filter>
```

```
        </vpls>
      </family>
    </firewall>
  </configuration>
```

Description Define match criteria.

Contents <destination-mac-address>—Destination MAC address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<ether-type>—Match Ethernet type.

<ether-type-except>—Do not match Ethernet type.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<ip-address>—Match IP source or destination address.

<ip-destination-address>—Match IP destination address.

<ip-precedence>—Match IP precedence value.

<ip-precedence-except>—Do not match IP precedence value.

<ip-protocol>—Match IP protocol type.

<ip-protocol-except>—Do not match IP protocol type.

<ip-source-address>—Match IP source address.

<learn-vlan-1p-priority>—Match Learned 802.1p VLAN Priority.

<learn-vlan-1p-priority-except>—Do not match Learned 802.1p VLAN Priority.

<learn-vlan-id>—Match Learnt VLAN ID.

<learn-vlan-id-except>—Do not match Learnt VLAN ID.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<source-mac-address>—Source MAC address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<tcp-flags>—Match TCP flags.

<traffic-type>—Match Match traffic type.

<traffic-type-except>—Do not match Match traffic type.

<user-vlan-1p-priority>—Match User 802.1p VLAN Priority.

<user-vlan-1p-priority-except>—Do not match User 802.1p VLAN Priority.

<user-vlan-id>—Match User VLAN ID.

<user-vlan-id-except>—Do not match User VLAN ID.

<vlan-ether-type>—Match VLAN Ethernet type.

<vlan-ether-type-except>—Do not match VLAN Ethernet type.

<from> (configuration/firewall/filter/term)

Usage

```
<configuration>
  <firewall>
    <filter>
      <term>
        <from>
          <destination-class>...</destination-class>
          <destination-class-except>...</destination-class-except>
          <source-class>...</source-class>
          <source-class-except>...</source-class-except>
          <interface-group>...</interface-group>
          <interface-group-except>...</interface-group-except>
          <source-address>...</source-address>
          <destination-address>...</destination-address>
          <address>...</address>
          <source-prefix-list>...</source-prefix-list>
          <destination-prefix-list>...</destination-prefix-list>
          <prefix-list>...</prefix-list>
          <packet-length>...</packet-length>
          <packet-length-except>...</packet-length-except>
          <precedence>...</precedence>
          <precedence-except>...</precedence-except>
          <dscp>...</dscp>
          <dscp-except>...</dscp-except>
          <ip-options>...</ip-options>
          <ip-options-except>...</ip-options-except>
          <is-fragment/>
          <first-fragment/>
          <service-filter-hit/>
          <fragment-offset>...</fragment-offset>
          <fragment-offset-except>...</fragment-offset-except>
          <fragment-flags>fragment-flags</fragment-flags>
          <protocol>...</protocol>
          <protocol-except>...</protocol-except>
          <ttl>...</ttl>
          <ttl-except>...</ttl-except>
          <icmp-type>...</icmp-type>
          <icmp-type-except>...</icmp-type-except>
          <icmp-code>...</icmp-code>
          <icmp-code-except>...</icmp-code-except>
          <source-port>...</source-port>
          <source-port-except>...</source-port-except>
          <destination-port>...</destination-port>
          <destination-port-except>...</destination-port-except>
          <port>...</port>
          <port-except>...</port-except>
          <tcp-initial/>
          <tcp-established/>
          <tcp-flags>tcp-flags</tcp-flags>
          <esp-spi>...</esp-spi>
          <esp-spi-except>...</esp-spi-except>
          <ah-spi>...</ah-spi>
          <ah-spi-except>...</ah-spi-except>
```

```
            <interface>...</interface>
            <interface-set>...</interface-set>
            <forwarding-class>...</forwarding-class>
            <forwarding-class-except>...</forwarding-class-except>
            <loss-priority>...</loss-priority>
            <loss-priority-except>...</loss-priority-except>
          </from>
        </term>
      </filter>
    </firewall>
</configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match IP destination address.

<destination-class>—Match destination class.

<destination-class-except>—Do not match destination class.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefixes in named list.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<first-fragment>—Match if packet is the first fragment.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<fragment-flags>—Match fragment flags (in symbolic or hex formats).

<fragment-offset>—Match fragment offset.

<fragment-offset-except>—Do not match fragment offset.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface>—Match interface name.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<interface-set>—Match interface in set.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<precedence>—Match IP precedence value.

<precedence-except>—Do not match IP precedence value.

<prefix-list>—Match IP source or destination prefixes in named list.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<service-filter-hit>—Match if service-filter-hit is set.

<source-address>—Match IP source address.

<source-class>—Match source class.

<source-class-except>—Do not match source class.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefixes in named list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags (in symbolic or hex formats).

<tcp-initial>—Match initial packet of a TCP connection.

<ttl>—Match IP ttl type.

<ttl-except>—Do not match IP ttl type.

<from> (configuration/logical-systems/firewall/family/any/ filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <any>
          <filter>
            <term>
              <from>
                <interface>...</interface>
                <interface-set>...</interface-set>
                <packet-length>...</packet-length>
                <packet-length-except>...</packet-length-except>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
              </from>
            </term>
          </filter>
        </any>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define match criteria.

Contents <forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<interface>—Match interface name.

<interface-set>—Match interface in set.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<from> (configuration/logical-systems/firewall/family/bridge/ filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <bridge>
          <filter>
            <term>
              <from>
                <interface-group>...</interface-group>
                <interface-group-except>...</interface-group-except>
                <ether-type>...</ether-type>
                <ether-type-except>...</ether-type-except>
                <vlan-ether-type>...</vlan-ether-type>
                <vlan-ether-type-except>...</vlan-ether-type-except>
                <destination-mac-address>...</destination-mac-address>
                <source-mac-address>...</source-mac-address>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
                <learn-vlan-id>...</learn-vlan-id>
                <learn-vlan-id-except>...</learn-vlan-id-except>
                <learn-vlan-1p-priority>...</learn-vlan-1p-priority>
                <learn-vlan-1p-priority-except>...</learn-vlan-1p-priority-except>
                <user-vlan-id>...</user-vlan-id>
                <user-vlan-id-except>...</user-vlan-id-except>
                <user-vlan-1p-priority>...</user-vlan-1p-priority>
                <user-vlan-1p-priority-except>...</user-vlan-1p-priority-except>
                <traffic-type>...</traffic-type>
                <traffic-type-except>...</traffic-type-except>
                <ip-source-address>...</ip-source-address>
                <ip-destination-address>...</ip-destination-address>
                <ip-address>...</ip-address>
                <ip-protocol>...</ip-protocol>
                <ip-protocol-except>...</ip-protocol-except>
                <dscp>...</dscp>
                <dscp-except>...</dscp-except>
                <ip-precedence>...</ip-precedence>
                <ip-precedence-except>...</ip-precedence-except>
                <source-port>...</source-port>
                <source-port-except>...</source-port-except>
                <destination-port>...</destination-port>
                <destination-port-except>...</destination-port-except>
                <port>...</port>
                <port-except>...</port-except>
                <tcp-flags>tcp-flags</tcp-flags>
                <icmp-type>...</icmp-type>
                <icmp-type-except>...</icmp-type-except>
                <icmp-code>...</icmp-code>
                <icmp-code-except>...</icmp-code-except>
              </from>
```

```
                </term>
              </filter>
            </bridge>
          </family>
        </firewall>
      </logical-systems>
    </configuration>
```

Description Define match criteria.

Contents <destination-mac-address>—Destination MAC address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<ether-type>—Match Ethernet type.

<ether-type-except>—Do not match Ethernet type.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<ip-address>—Match IP source or destination address.

<ip-destination-address>—Match IP destination address.

<ip-precedence>—Match IP precedence value.

<ip-precedence-except>—Do not match IP precedence value.

<ip-protocol>—Match IP protocol type.

<ip-protocol-except>—Do not match IP protocol type.

<ip-source-address>—Match IP source address.

<learn-vlan-1p-priority>—Match Learned 802.1p VLAN Priority.

<learn-vlan-1p-priority-except>—Do not match Learned 802.1p VLAN Priority.

<learn-vlan-id>—Match Learnt VLAN ID.

<learn-vlan-id-except>—Do not match Learnt VLAN ID.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<source-mac-address>—Source MAC address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<tcp-flags>—Match TCP flags.

<traffic-type>—Match Match traffic type.

<traffic-type-except>—Do not match Match traffic type.

<user-vlan-1p-priority>—Match User 802.1p VLAN Priority.

<user-vlan-1p-priority-except>—Do not match User 802.1p VLAN Priority.

<user-vlan-id>—Match User VLAN ID.

<user-vlan-id-except>—Do not match User VLAN ID.

<vlan-ether-type>—Match VLAN Ethernet type.

<vlan-ether-type-except>—Do not match VLAN Ethernet type.

<from> (configuration/logical-systems/firewall/family/ccc/ filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <ccc>
          <filter>
            <term>
              <from>
                <interface-group>...</interface-group>
                <interface-group-except>...</interface-group-except>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
              </from>
            </term>
          </filter>
        </ccc>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define match criteria.

Contents <forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<from> (configuration/logical-systems/firewall/family/ ethernet-switching/filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <ethernet-switching>
          <filter>
            <term>
              <from>
                <interface>...</interface>
                <source-mac-address>...</source-mac-address>
                <destination-mac-address>...</destination-mac-address>
                <ether-type>...</ether-type>
                <ether-type-except>...</ether-type-except>
                <vlan>...</vlan>
                <vlan-except>...</vlan-except>
                <dot1q-tag>...</dot1q-tag>
                <dot1q-tag-except>...</dot1q-tag-except>
                <dot1q-user-priority>...</dot1q-user-priority>
                <dot1q-user-priority-except>...</dot1q-user-priority-except>
                <address>...</address>
                <source-address>...</source-address>
                <destination-address>...</destination-address>
                <dscp>...</dscp>
                <dscp-except>...</dscp-except>
                <precedence>...</precedence>
                <precedence-except>...</precedence-except>
                <ip-options>...</ip-options>
                <ip-options-except>...</ip-options-except>
                <fragment-flags>fragment-flags</fragment-flags>
                <is-fragment/>
                <protocol>...</protocol>
                <protocol-except>...</protocol-except>
                <source-port>...</source-port>
                <source-port-except>...</source-port-except>
                <destination-port>...</destination-port>
                <destination-port-except>...</destination-port-except>
                <port>...</port>
                <port-except>...</port-except>
                <tcp-flags>tcp-flags</tcp-flags>
                <tcp-initial/>
                <tcp-established/>
                <icmp-type>...</icmp-type>
                <icmp-type-except>...</icmp-type-except>
                <icmp-code>...</icmp-code>
                <icmp-code-except>...</icmp-code-except>
                <source-prefix-list>...</source-prefix-list>
                <destination-prefix-list>...</destination-prefix-list>
              </from>
            </term>
          </filter>
        </ethernet-switching>
```

```
        </family>
      </firewall>
    </logical-systems>
  </configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<destination-address>—Match IP destination address.

<destination-mac-address>—Match MAC destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefixes in named list.

<dot1q-tag>—Match Dot1Q Tag Value.

<dot1q-tag-except>—Do not match Dot1Q Tag Value.

<dot1q-user-priority>—Match Dot1Q user priority.

<dot1q-user-priority-except>—Do not match Dot1Q user priority.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<ether-type>—Match Ethernet Type.

<ether-type-except>—Do not match Ethernet Type.

<fragment-flags>—Match fragment flags (in symbolic or hex formats) - (Ingress only).

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface>—Match interface name.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<precedence>—Match IP precedence value.

<precedence-except>—Do not match IP precedence value.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<source-address>—Match IP source address.

<source-mac-address>—Match MAC source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefixes in named list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags (in symbolic or hex formats) - (Ingress only).

<tcp-initial>—Match initial packet of a TCP connection - (Ingress only).

<vlan>—Match Vlan Id or Name.

<vlan-except>—Do not match Vlan Id or Name.

<from> (configuration/logical-systems/firewall/family/inet/ filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <filter>
            <term>
              <from>
                <destination-class>...</destination-class>
                <destination-class-except>...</destination-class-except>
                <source-class>...</source-class>
                <source-class-except>...</source-class-except>
                <interface-group>...</interface-group>
                <interface-group-except>...</interface-group-except>
                <source-address>...</source-address>
                <destination-address>...</destination-address>
                <address>...</address>
                <source-prefix-list>...</source-prefix-list>
                <destination-prefix-list>...</destination-prefix-list>
                <prefix-list>...</prefix-list>
                <packet-length>...</packet-length>
                <packet-length-except>...</packet-length-except>
                <precedence>...</precedence>
                <precedence-except>...</precedence-except>
                <dscp>...</dscp>
                <dscp-except>...</dscp-except>
                <ip-options>...</ip-options>
                <ip-options-except>...</ip-options-except>
                <is-fragment/>
                <first-fragment/>
                <service-filter-hit/>
                <fragment-offset>...</fragment-offset>
                <fragment-offset-except>...</fragment-offset-except>
                <fragment-flags>fragment-flags</fragment-flags>
                <protocol>...</protocol>
                <protocol-except>...</protocol-except>
                <ttl>...</ttl>
                <ttl-except>...</ttl-except>
                <icmp-type>...</icmp-type>
                <icmp-type-except>...</icmp-type-except>
                <icmp-code>...</icmp-code>
                <icmp-code-except>...</icmp-code-except>
                <source-port>...</source-port>
                <source-port-except>...</source-port-except>
                <destination-port>...</destination-port>
                <destination-port-except>...</destination-port-except>
                <port>...</port>
                <port-except>...</port-except>
                <tcp-initial/>
                <tcp-established/>
                <tcp-flags>tcp-flags</tcp-flags>
```

```
                <esp-spi>...</esp-spi>
                <esp-spi-except>...</esp-spi-except>
                <ah-spi>...</ah-spi>
                <ah-spi-except>...</ah-spi-except>
                <interface>...</interface>
                <interface-set>...</interface-set>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
              </from>
            </term>
          </filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match IP destination address.

<destination-class>—Match destination class.

<destination-class-except>—Do not match destination class.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefixes in named list.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<first-fragment>—Match if packet is the first fragment.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<fragment-flags>—Match fragment flags (in symbolic or hex formats).

<fragment-offset>—Match fragment offset.

<fragment-offset-except>—Do not match fragment offset.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface>—Match interface name.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<interface-set>—Match interface in set.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<precedence>—Match IP precedence value.

<precedence-except>—Do not match IP precedence value.

<prefix-list>—Match IP source or destination prefixes in named list.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<service-filter-hit>—Match if service-filter-hit is set.

<source-address>—Match IP source address.

<source-class>—Match source class.

<source-class-except>—Do not match source class.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefixes in named list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags (in symbolic or hex formats).

<tcp-initial>—Match initial packet of a TCP connection.

<ttl>—Match IP ttl type.

<ttl-except>—Do not match IP ttl type.

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

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <service-filter>
            <term>
              <from>
                <interface-group>...</interface-group>
                <interface-group-except>...</interface-group-except>
                <source-address>...</source-address>
                <destination-address>...</destination-address>
                <address>...</address>
                <source-prefix-list>...</source-prefix-list>
                <destination-prefix-list>...</destination-prefix-list>
                <prefix-list>...</prefix-list>
                <protocol>...</protocol>
                <protocol-except>...</protocol-except>
                <ip-options>...</ip-options>
                <ip-options-except>...</ip-options-except>
                <source-port>...</source-port>
                <source-port-except>...</source-port-except>
                <destination-port>...</destination-port>
                <destination-port-except>...</destination-port-except>
                <port>...</port>
                <port-except>...</port-except>
                <esp-spi>...</esp-spi>
                <esp-spi-except>...</esp-spi-except>
                <is-fragment/>
                <first-fragment/>
                <fragment-offset>...</fragment-offset>
                <fragment-offset-except>...</fragment-offset-except>
                <fragment-flags>fragment-flags</fragment-flags>
                <ah-spi>...</ah-spi>
                <ah-spi-except>...</ah-spi-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
              </from>
            </term>
          </service-filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match criteria.

Contents <address>—Match IP source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match IP destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefixes in named list.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<first-fragment>—Match if packet is the first fragment.

<fragment-flags>—Match fragment flags.

<fragment-offset>—Match fragment offset.

<fragment-offset-except>—Do not match fragment offset.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<prefix-list>—Match IP source or destination prefixes in named list.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<source-address>—Match IP source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefixes in named list.

<from> (configuration/logical-systems/firewall/family/inet/ simple-filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet>
          <simple-filter>
            <term>
              <from>
                <source-address>...</source-address>
                <destination-address>...</destination-address>
                <protocol>...</protocol>
                <source-port>...</source-port>
                <destination-port>...</destination-port>
                <forwarding-class>...</forwarding-class>
              </from>
            </term>
          </simple-filter>
        </inet>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match criteria.

Contents <destination-address>—Destination IP address.

<destination-port>—Match TCP/UDP destination port.

<forwarding-class>—Match forwarding class.

<protocol>—Match IP protocol type.

<source-address>—Source IP address.

<source-port>—Match TCP/UDP source port.

<from> (configuration/logical-systems/firewall/family/inet6/ filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet6>
          <filter>
            <term>
              <from>
                <destination-class>...</destination-class>
                <destination-class-except>...</destination-class-except>
                <source-class>...</source-class>
                <source-class-except>...</source-class-except>
                <interface-group>...</interface-group>
                <interface-group-except>...</interface-group-except>
                <source-address>...</source-address>
                <destination-address>...</destination-address>
                <address>...</address>
                <source-prefix-list>...</source-prefix-list>
                <destination-prefix-list>...</destination-prefix-list>
                <prefix-list>...</prefix-list>
                <next-header>...</next-header>
                <next-header-except>...</next-header-except>
                <source-port>...</source-port>
                <source-port-except>...</source-port-except>
                <destination-port>...</destination-port>
                <destination-port-except>...</destination-port-except>
                <port>...</port>
                <port-except>...</port-except>
                <packet-length>...</packet-length>
                <packet-length-except>...</packet-length-except>
                <traffic-class>...</traffic-class>
                <traffic-class-except>...</traffic-class-except>
                <icmp-type>...</icmp-type>
                <icmp-type-except>...</icmp-type-except>
                <icmp-code>...</icmp-code>
                <icmp-code-except>...</icmp-code-except>
                <tcp-initial/>
                <tcp-established/>
                <tcp-flags>tcp-flags</tcp-flags>
                <interface>...</interface>
                <interface-set>...</interface-set>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
              </from>
            </term>
          </filter>
        </inet6>
      </family>
    </firewall>
```

```
  </logical-systems>
</configuration>
```

Description Define match criteria.

Contents <address>—Match source or destination address.

<destination-address>—Match destination address.

<destination-class>—Match destination class.

<destination-class-except>—Do not match destination class.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match destination prefixes in named list.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface>—Match interface name.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<interface-set>—Match interface in set.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<next-header>—Match IP protocol type.

<next-header-except>—Do not match IP protocol type.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<prefix-list>—Match source or destination prefixes in named list.

<source-address>—Match source address.

<source-class>—Match source class.

<source-class-except>—Do not match source class.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match source prefixes in named list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags (in symbolic or hex formats).

<tcp-initial>—Match initial packet of a TCP connection.

<traffic-class>—Match Differentiated Services (DiffServ) code point.

<traffic-class-except>—Do not match Differentiated Services (DiffServ) code point.

<from> (configuration/logical-systems/firewall/family/inet6/ service-filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <inet6>
          <service-filter>
            <term>
              <from>
                <interface-group>...</interface-group>
                <interface-group-except>...</interface-group-except>
                <source-address>...</source-address>
                <destination-address>...</destination-address>
                <address>...</address>
                <source-prefix-list>...</source-prefix-list>
                <destination-prefix-list>...</destination-prefix-list>
                <prefix-list>...</prefix-list>
                <next-header>...</next-header>
                <next-header-except>...</next-header-except>
                <source-port>...</source-port>
                <source-port-except>...</source-port-except>
                <destination-port>...</destination-port>
                <destination-port-except>...</destination-port-except>
                <port>...</port>
                <port-except>...</port-except>
                <esp-spi>...</esp-spi>
                <esp-spi-except>...</esp-spi-except>
                <ah-spi>...</ah-spi>
                <ah-spi-except>...</ah-spi-except>
              </from>
            </term>
          </service-filter>
        </inet6>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Match criteria.

Contents <address>—Match source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match destination address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match destination prefixes in named list.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<next-header>—Match IP protocol type.

<next-header-except>—Do not match IP protocol type.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<prefix-list>—Match source or destination prefixes in named list.

<source-address>—Match source address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match source prefixes in named list.

<from> (configuration/logical-systems/firewall/family/mpls/ filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <mpls>
          <filter>
            <term>
              <from>
                <exp>...</exp>
                <exp-except>...</exp-except>
                <interface>...</interface>
                <interface-set>...</interface-set>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
              </from>
            </term>
          </filter>
        </mpls>
      </family>
    </firewall>
  </logical-systems>
</configuration>
```

Description Define match criteria.

Contents <exp>—Match MPLS EXP bits.

<exp-except>—Do not match MPLS EXP bits.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<interface>—Match interface name.

<interface-set>—Match interface in set.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<from> (configuration/logical-systems/firewall/family/vpls/ filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <family>
        <vpls>
          <filter>
            <term>
              <from>
                <interface-group>...</interface-group>
                <interface-group-except>...</interface-group-except>
                <ether-type>...</ether-type>
                <ether-type-except>...</ether-type-except>
                <vlan-ether-type>...</vlan-ether-type>
                <vlan-ether-type-except>...</vlan-ether-type-except>
                <destination-mac-address>...</destination-mac-address>
                <source-mac-address>...</source-mac-address>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
                <learn-vlan-id>...</learn-vlan-id>
                <learn-vlan-id-except>...</learn-vlan-id-except>
                <learn-vlan-1p-priority>...</learn-vlan-1p-priority>
                <learn-vlan-1p-priority-except>...</learn-vlan-1p-priority-except>
                <user-vlan-id>...</user-vlan-id>
                <user-vlan-id-except>...</user-vlan-id-except>
                <user-vlan-1p-priority>...</user-vlan-1p-priority>
                <user-vlan-1p-priority-except>...</user-vlan-1p-priority-except>
                <traffic-type>...</traffic-type>
                <traffic-type-except>...</traffic-type-except>
                <ip-source-address>...</ip-source-address>
                <ip-destination-address>...</ip-destination-address>
                <ip-address>...</ip-address>
                <ip-protocol>...</ip-protocol>
                <ip-protocol-except>...</ip-protocol-except>
                <dscp>...</dscp>
                <dscp-except>...</dscp-except>
                <ip-precedence>...</ip-precedence>
                <ip-precedence-except>...</ip-precedence-except>
                <source-port>...</source-port>
                <source-port-except>...</source-port-except>
                <destination-port>...</destination-port>
                <destination-port-except>...</destination-port-except>
                <port>...</port>
                <port-except>...</port-except>
                <tcp-flags>tcp-flags</tcp-flags>
                <icmp-type>...</icmp-type>
                <icmp-type-except>...</icmp-type-except>
                <icmp-code>...</icmp-code>
                <icmp-code-except>...</icmp-code-except>
              </from>
```

```
                </term>
              </filter>
            </vpls>
          </family>
        </firewall>
      </logical-systems>
    </configuration>
```

Description Define match criteria.

Contents <destination-mac-address>—Destination MAC address.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<ether-type>—Match Ethernet type.

<ether-type-except>—Do not match Ethernet type.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<ip-address>—Match IP source or destination address.

<ip-destination-address>—Match IP destination address.

<ip-precedence>—Match IP precedence value.

<ip-precedence-except>—Do not match IP precedence value.

<ip-protocol>—Match IP protocol type.

<ip-protocol-except>—Do not match IP protocol type.

<ip-source-address>—Match IP source address.

<learn-vlan-1p-priority>—Match Learned 802.1p VLAN Priority.

<learn-vlan-1p-priority-except>—Do not match Learned 802.1p VLAN Priority.

<learn-vlan-id>—Match Learnt VLAN ID.

<learn-vlan-id-except>—Do not match Learnt VLAN ID.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<source-mac-address>—Source MAC address.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<tcp-flags>—Match TCP flags.

<traffic-type>—Match Match traffic type.

<traffic-type-except>—Do not match Match traffic type.

<user-vlan-1p-priority>—Match User 802.1p VLAN Priority.

<user-vlan-1p-priority-except>—Do not match User 802.1p VLAN Priority.

<user-vlan-id>—Match User VLAN ID.

<user-vlan-id-except>—Do not match User VLAN ID.

<vlan-ether-type>—Match VLAN Ethernet type.

<vlan-ether-type-except>—Do not match VLAN Ethernet type.

<from> (configuration/logical-systems/firewall/filter/term)

Usage

```
<configuration>
  <logical-systems>
    <firewall>
      <filter>
        <term>
          <from>
            <destination-class>...</destination-class>
            <destination-class-except>...</destination-class-except>
            <source-class>...</source-class>
            <source-class-except>...</source-class-except>
            <interface-group>...</interface-group>
            <interface-group-except>...</interface-group-except>
            <source-address>...</source-address>
            <destination-address>...</destination-address>
            <address>...</address>
            <source-prefix-list>...</source-prefix-list>
            <destination-prefix-list>...</destination-prefix-list>
            <prefix-list>...</prefix-list>
            <packet-length>...</packet-length>
            <packet-length-except>...</packet-length-except>
            <precedence>...</precedence>
            <precedence-except>...</precedence-except>
            <dscp>...</dscp>
            <dscp-except>...</dscp-except>
            <ip-options>...</ip-options>
            <ip-options-except>...</ip-options-except>
            <is-fragment/>
            <first-fragment/>
            <service-filter-hit/>
            <fragment-offset>...</fragment-offset>
            <fragment-offset-except>...</fragment-offset-except>
            <fragment-flags>fragment-flags</fragment-flags>
            <protocol>...</protocol>
            <protocol-except>...</protocol-except>
            <ttl>...</ttl>
            <ttl-except>...</ttl-except>
            <icmp-type>...</icmp-type>
            <icmp-type-except>...</icmp-type-except>
            <icmp-code>...</icmp-code>
            <icmp-code-except>...</icmp-code-except>
            <source-port>...</source-port>
            <source-port-except>...</source-port-except>
            <destination-port>...</destination-port>
            <destination-port-except>...</destination-port-except>
            <port>...</port>
            <port-except>...</port-except>
            <tcp-initial/>
            <tcp-established/>
            <tcp-flags>tcp-flags</tcp-flags>
            <esp-spi>...</esp-spi>
            <esp-spi-except>...</esp-spi-except>
            <ah-spi>...</ah-spi>
```

```
                <ah-spi-except>...</ah-spi-except>
                <interface>...</interface>
                <interface-set>...</interface-set>
                <forwarding-class>...</forwarding-class>
                <forwarding-class-except>...</forwarding-class-except>
                <loss-priority>...</loss-priority>
                <loss-priority-except>...</loss-priority-except>
              </from>
            </term>
          </filter>
        </firewall>
      </logical-systems>
    </configuration>
```

Description Define match criteria.

Contents <address>—Match IP source or destination address.

<ah-spi>—Match IPSec AH SPI value.

<ah-spi-except>—Do not match IPSec AH SPI value.

<destination-address>—Match IP destination address.

<destination-class>—Match destination class.

<destination-class-except>—Do not match destination class.

<destination-port>—Match TCP/UDP destination port.

<destination-port-except>—Do not match TCP/UDP destination port.

<destination-prefix-list>—Match IP destination prefixes in named list.

<dscp>—Match Differentiated Services (DiffServ) code point.

<dscp-except>—Do not match Differentiated Services (DiffServ) code point.

<esp-spi>—Match IPSec ESP SPI value.

<esp-spi-except>—Do not match IPSec ESP SPI value.

<first-fragment>—Match if packet is the first fragment.

<forwarding-class>—Match forwarding class.

<forwarding-class-except>—Do not match forwarding class.

<fragment-flags>—Match fragment flags (in symbolic or hex formats).

<fragment-offset>—Match fragment offset.

<fragment-offset-except>—Do not match fragment offset.

<icmp-code>—Match ICMP message code.

<icmp-code-except>—Do not match ICMP message code.

<icmp-type>—Match ICMP message type.

<icmp-type-except>—Do not match ICMP message type.

<interface>—Match interface name.

<interface-group>—Match interface group.

<interface-group-except>—Do not match interface group.

<interface-set>—Match interface in set.

<ip-options>—Match IP options.

<ip-options-except>—Do not match IP options.

<is-fragment>—Match if packet is a fragment.

<loss-priority>—Match Loss Priority.

<loss-priority-except>—Do not match Loss Priority.

<packet-length>—Match packet length.

<packet-length-except>—Do not match packet length.

<port>—Match TCP/UDP source or destination port.

<port-except>—Do not match TCP/UDP source or destination port.

<precedence>—Match IP precedence value.

<precedence-except>—Do not match IP precedence value.

<prefix-list>—Match IP source or destination prefixes in named list.

<protocol>—Match IP protocol type.

<protocol-except>—Do not match IP protocol type.

<service-filter-hit>—Match if service-filter-hit is set.

<source-address>—Match IP source address.

<source-class>—Match source class.

<source-class-except>—Do not match source class.

<source-port>—Match TCP/UDP source port.

<source-port-except>—Do not match TCP/UDP source port.

<source-prefix-list>—Match IP source prefixes in named list.

<tcp-established>—Match packet of an established TCP connection.

<tcp-flags>—Match TCP flags (in symbolic or hex formats).

<tcp-initial>—Match initial packet of a TCP connection.

<ttl>—Match IP ttl type.

<ttl-except>—Do not match IP ttl type.

<from> (configuration/logical-systems/policy-options/ policy-statement)

Usage

```
<configuration>
  <logical-systems>
    <policy-options>
      <policy-statement>
        <from>
          <instance>instance</instance>
          <protocol>...</protocol>
          <rib>rib</rib>
          <neighbor>...</neighbor>
          <next-hop>...</next-hop>
          <interface>...</interface>
          <area>area</area>
          <as-path>...</as-path>
          <as-path-group>...</as-path-group>
          <origin>origin-choice</origin>
          <community>...</community>
          <level>level</level>
          <external>...</external>
          <metric>metric</metric>
          <metric2>metric2</metric2>
          <metric3>metric3</metric3>
          <metric4>metric4</metric4>
          <tag>...</tag>
          <tag2>tag2</tag2>
          <preference>preference</preference>
          <preference2>preference2</preference2>
          <color>color</color>
          <color2>color2</color2>
          <local-preference>local-preference</local-preference>
          <policy>...</policy>
          <family>family-choice</family>
          <route-filter>...</route-filter>
          <source-address-filter>...</source-address-filter>
          <prefix-list>...</prefix-list>
          <prefix-list-filter>...</prefix-list-filter>
          <multicast-scope>...</multicast-scope>
          <aggregate-contributor/>
          <state>state-choice</state>
          <route-type>route-type-choice</route-type>
          <next-hop-type>next-hop-type-choice</next-hop-type>
          <condition>...</condition>
        </from>
      </policy-statement>
    </policy-options>
  </logical-systems>
</configuration>
```

Description Conditions to match the source of a route.

Contents <aggregate-contributor>—Match more specifics of an aggregate.

<area>—OSPF area identifier.

<as-path>—Name of AS path regular expression (BGP only).

<as-path-group>—Name of AS path group (BGP only).

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community.

<condition>—Condition to match on.

<external>—External route.

<family>—No documentation is available yet.

- inet—IPv4 family.
- inet-mvpn—IPv4 Multicast VPN family.
- inet6—IPv6 family.
- inet6-mvpn—IPv6 Multicast VPN family.
- iso—ISO family.

<instance>—Routing protocol instance.

<interface>—Interface name or address.

<level>—IS-IS level.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<multicast-scope>—Multicast scope to match.

<neighbor>—Neighboring router.

<next-hop>—Next-hop router.

<next-hop-type>—Next-hop type.

- merged—Merged next hop.

<origin>—BGP origin attribute.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<policy>—Name of policy to evaluate.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-list>—List of prefix-lists of routes to match.

<prefix-list-filter>—List of prefix-list-filters to match.

<protocol>—Protocol from which route was learned.

<rib>—Routing table.

<route-filter>—List of routes to match.

<route-type>—Route type.

- external—External route.
- internal—Internal route.

<source-address-filter>—List of source addresses to match.

<state>—Route state.

- active—Active route.
- inactive—Inactive route.

<tag>—Tag string.

<tag2>—Tag string 2.

<from> (configuration/logical-systems/policy-options/ policy-statement/term)

Usage

```
<configuration>
  <logical-systems>
    <policy-options>
      <policy-statement>
        <term>
          <from>
            <instance>instance</instance>
            <protocol>...</protocol>
            <rib>rib</rib>
            <neighbor>...</neighbor>
            <next-hop>...</next-hop>
            <interface>...</interface>
            <area>area</area>
            <as-path>...</as-path>
            <as-path-group>...</as-path-group>
            <origin>origin-choice</origin>
            <community>...</community>
            <level>level</level>
            <external>...</external>
            <metric>metric</metric>
            <metric2>metric2</metric2>
            <metric3>metric3</metric3>
            <metric4>metric4</metric4>
            <tag>...</tag>
            <tag2>tag2</tag2>
            <preference>preference</preference>
            <preference2>preference2</preference2>
            <color>color</color>
            <color2>color2</color2>
            <local-preference>local-preference</local-preference>
            <policy>...</policy>
            <family>family-choice</family>
            <route-filter>...</route-filter>
            <source-address-filter>...</source-address-filter>
            <prefix-list>...</prefix-list>
            <prefix-list-filter>...</prefix-list-filter>
            <multicast-scope>...</multicast-scope>
            <aggregate-contributor/>
            <state>state-choice</state>
            <route-type>route-type-choice</route-type>
            <next-hop-type>next-hop-type-choice</next-hop-type>
            <condition>...</condition>
          </from>
        </term>
      </policy-statement>
    </policy-options>
  </logical-systems>
</configuration>
```

Description Conditions to match the source of a route.

Contents <aggregate-contributor>—Match more specifics of an aggregate.

<area>—OSPF area identifier.

<as-path>—Name of AS path regular expression (BGP only).

<as-path-group>—Name of AS path group (BGP only).

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community.

<condition>—Condition to match on.

<external>—External route.

<family>—No documentation is available yet.

- inet—IPv4 family.
- inet-mvpn—IPv4 Multicast VPN family.
- inet6—IPv6 family.
- inet6-mvpn—IPv6 Multicast VPN family.
- iso—ISO family.

<instance>—Routing protocol instance.

<interface>—Interface name or address.

<level>—IS-IS level.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<multicast-scope>—Multicast scope to match.

<neighbor>—Neighboring router.

<next-hop>—Next-hop router.

<next-hop-type>—Next-hop type.

- merged—Merged next hop.

<origin>—BGP origin attribute.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<policy>—Name of policy to evaluate.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-list>—List of prefix-lists of routes to match.

<prefix-list-filter>—List of prefix-list-filters to match.

<protocol>—Protocol from which route was learned.

<rib>—Routing table.

<route-filter>—List of routes to match.

<route-type>—Route type.

- external—External route.
- internal—Internal route.

<source-address-filter>—List of source addresses to match.

<state>—Route state.

- active—Active route.
- inactive—Inactive route.

<tag>—Tag string.

<tag2>—Tag string 2.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-instances>
      <instance>
        <routing-options>
          <fate-sharing>
            <group>
              <from>
                <name>name</name>     <!-- identifier -->
                <to>to</to>
              </from>
            </group>
          </fate-sharing>
        </routing-options>
      </instance>
    </routing-instances>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Router ID or LAN interface address.

<to>—Point-to-point links.

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

Usage

```
<configuration>
  <logical-systems>
    <routing-options>
      <fate-sharing>
        <group>
          <from>
            <name>name</name>     <!-- identifier -->
            <to>to</to>
          </from>
        </group>
      </fate-sharing>
    </routing-options>
  </logical-systems>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Router ID or LAN interface address.

<to>—Point-to-point links.

<from> (configuration/policy-options/policy-statement)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <from>
        <instance>instance</instance>
        <protocol>...</protocol>
        <rib>rib</rib>
        <neighbor>...</neighbor>
        <next-hop>...</next-hop>
        <interface>...</interface>
        <area>area</area>
        <as-path>...</as-path>
        <as-path-group>...</as-path-group>
        <origin>origin-choice</origin>
        <community>...</community>
        <level>level</level>
        <external>...</external>
        <metric>metric</metric>
        <metric2>metric2</metric2>
        <metric3>metric3</metric3>
        <metric4>metric4</metric4>
        <tag>...</tag>
        <tag2>tag2</tag2>
        <preference>preference</preference>
        <preference2>preference2</preference2>
        <color>color</color>
        <color2>color2</color2>
        <local-preference>local-preference</local-preference>
        <policy>...</policy>
        <family>family-choice</family>
        <route-filter>...</route-filter>
        <source-address-filter>...</source-address-filter>
        <prefix-list>...</prefix-list>
        <prefix-list-filter>...</prefix-list-filter>
        <multicast-scope>...</multicast-scope>
        <aggregate-contributor/>
        <state>state-choice</state>
        <route-type>route-type-choice</route-type>
        <next-hop-type>next-hop-type-choice</next-hop-type>
        <condition>...</condition>
      </from>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Conditions to match the source of a route.

Contents <aggregate-contributor>—Match more specifics of an aggregate.

<area>—OSPF area identifier.

<as-path>—Name of AS path regular expression (BGP only).

<as-path-group>—Name of AS path group (BGP only).

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community.

<condition>—Condition to match on.

<external>—External route.

<family>—No documentation is available yet.

- inet—IPv4 family.
- inet-mvpn—IPv4 Multicast VPN family.
- inet6—IPv6 family.
- inet6-mvpn—IPv6 Multicast VPN family.
- iso—ISO family.

<instance>—Routing protocol instance.

<interface>—Interface name or address.

<level>—IS-IS level.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<multicast-scope>—Multicast scope to match.

<neighbor>—Neighboring router.

<next-hop>—Next-hop router.

<next-hop-type>—Next-hop type.

- merged—Merged next hop.

<origin>—BGP origin attribute.

- egp—Path originated in another AS.
- igp—Path originated in the local IGP.

- incomplete—Path was learned by some other means.

<policy>—Name of policy to evaluate.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-list>—List of prefix-lists of routes to match.

<prefix-list-filter>—List of prefix-list-filters to match.

<protocol>—Protocol from which route was learned.

<rib>—Routing table.

<route-filter>—List of routes to match.

<route-type>—Route type.

- external—External route.
- internal—Internal route.

<source-address-filter>—List of source addresses to match.

<state>—Route state.

- active—Active route.
- inactive—Inactive route.

<tag>—Tag string.

<tag2>—Tag string 2.

<from> (configuration/policy-options/policy-statement/term)

Usage

```
<configuration>
  <policy-options>
    <policy-statement>
      <term>
        <from>
          <instance>instance</instance>
          <protocol>...</protocol>
          <rib>rib</rib>
          <neighbor>...</neighbor>
          <next-hop>...</next-hop>
          <interface>...</interface>
          <area>area</area>
          <as-path>...</as-path>
          <as-path-group>...</as-path-group>
          <origin>origin-choice</origin>
          <community>...</community>
          <level>level</level>
          <external>...</external>
          <metric>metric</metric>
          <metric2>metric2</metric2>
          <metric3>metric3</metric3>
          <metric4>metric4</metric4>
          <tag>...</tag>
          <tag2>tag2</tag2>
          <preference>preference</preference>
          <preference2>preference2</preference2>
          <color>color</color>
          <color2>color2</color2>
          <local-preference>local-preference</local-preference>
          <policy>...</policy>
          <family>family-choice</family>
          <route-filter>...</route-filter>
          <source-address-filter>...</source-address-filter>
          <prefix-list>...</prefix-list>
          <prefix-list-filter>...</prefix-list-filter>
          <multicast-scope>...</multicast-scope>
          <aggregate-contributor/>
          <state>state-choice</state>
          <route-type>route-type-choice</route-type>
          <next-hop-type>next-hop-type-choice</next-hop-type>
          <condition>...</condition>
        </from>
      </term>
    </policy-statement>
  </policy-options>
</configuration>
```

Description Conditions to match the source of a route.

Contents <aggregate-contributor>—Match more specifics of an aggregate.

<area>—OSPF area identifier.

<as-path>—Name of AS path regular expression (BGP only).

<as-path-group>—Name of AS path group (BGP only).

<color>—Color (preference) value.

<color2>—Color (preference) value 2.

<community>—BGP community.

<condition>—Condition to match on.

<external>—External route.

<family>—No documentation is available yet.

- inet—IPv4 family.
- inet-mvpn—IPv4 Multicast VPN family.
- inet6—IPv6 family.
- inet6-mvpn—IPv6 Multicast VPN family.
- iso—ISO family.

<instance>—Routing protocol instance.

<interface>—Interface name or address.

<level>—IS-IS level.

<local-preference>—Local preference associated with a route.

<metric>—Metric value.

<metric2>—Metric value 2.

<metric3>—Metric value 3.

<metric4>—Metric value 4.

<multicast-scope>—Multicast scope to match.

<neighbor>—Neighboring router.

<next-hop>—Next-hop router.

<next-hop-type>—Next-hop type.

- merged—Merged next hop.

<origin>—BGP origin attribute.

- egp—Path originated in another AS.

- igp—Path originated in the local IGP.
- incomplete—Path was learned by some other means.

<policy>—Name of policy to evaluate.

<preference>—Preference value.

<preference2>—Preference value 2.

<prefix-list>—List of prefix-lists of routes to match.

<prefix-list-filter>—List of prefix-list-filters to match.

<protocol>—Protocol from which route was learned.

<rib>—Routing table.

<route-filter>—List of routes to match.

<route-type>—Route type.

- external—External route.
- internal—Internal route.

<source-address-filter>—List of source addresses to match.

<state>—Route state.

- active—Active route.
- inactive—Inactive route.

<tag>—Tag string.

<tag2>—Tag string 2.

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

Usage

```
<configuration>
  <routing-instances>
    <instance>
      <routing-options>
        <fate-sharing>
          <group>
            <from>
              <name>name</name>     <!-- identifier -->
              <to>to</to>
            </from>
          </group>
        </fate-sharing>
      </routing-options>
    </instance>
  </routing-instances>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Router ID or LAN interface address.

<to>—Point-to-point links.

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

Usage

```
<configuration>
  <routing-options>
    <fate-sharing>
      <group>
        <from>
          <name>name</name>     <!-- identifier -->
          <to>to</to>
        </from>
      </group>
    </fate-sharing>
  </routing-options>
</configuration>
```

Description No documentation is available yet.

Contents <name>—Router ID or LAN interface address.

<to>—Point-to-point links.

<from> (configuration/services/aacl/rule/term)

Usage

```
<configuration>
  <services>
    <aacl>
      <rule>
        <term>
          <from>
            <source-address>...</source-address>
            <destination-address>...</destination-address>
            <source-address-range>...</source-address-range>
            <source-prefix-list>...</source-prefix-list>
            <destination-address-range>...</destination-address-range>
            <destination-prefix-list>...</destination-prefix-list>
            <application-group-any/>
            <applications>...</applications>
            <application-groups>...</application-groups>
          </from>
        </term>
      </rule>
    </aacl>
  </services>
</configuration>
```

Description Match criteria.

Contents <application-group-any>—Use to wildcard or match any application group.

<application-groups>—Match one or more applications.

<applications>—Match one or more applications.

<destination-address>—Match IP destination address.

<destination-address-range>—Match IP destination address range.

<destination-prefix-list>—One or more named lists of destination prefixes to match.

<source-address>—Match IP source address.

<source-address-range>—Match IP source address range.

<source-prefix-list>—One or more named lists of source prefixes to match.

<from> (configuration/services/border-signaling-gateway/gateway/ embedded-spdf/service-class/term)

Usage

```
<configuration>
  <services>
    <border-signaling-gateway>
      <gateway>
        <embedded-spdf>
          <service-class>
            <term>
              <from>
                <media-type>...</media-type>
              </from>
            </term>
          </service-class>
        </embedded-spdf>
      </gateway>
    </border-signaling-gateway>
  </services>
</configuration>
```

Description No documentation is available yet.

Contents <media-type>—Media types.

<from> (configuration/services/border-signaling-gateway/gateway/ sip/new-call-usage-policy/term)

Usage

```
<configuration>
  <services>
    <border-signaling-gateway>
      <gateway>
        <sip>
          <new-call-usage-policy>
            <term>
              <from>
                <source-address>...</source-address>
                <method>...</method>
                <request-uri>...</request-uri>
                <contact>...</contact>
              </from>
            </term>
          </new-call-usage-policy>
        </sip>
      </gateway>
    </border-signaling-gateway>
  </services>
</configuration>
```

Description No documentation is available yet.

Contents <contact>—Contact field.

<method>—Methods.

<request-uri>—Request URI field.

<source-address>—Source addresses and masks.

<from> (configuration/services/border-signaling-gateway/gateway/ sip/new-transaction-policy/term)

Usage

```
<configuration>
  <services>
    <border-signaling-gateway>
      <gateway>
        <sip>
          <new-transaction-policy>
            <term>
              <from>
                <source-address>...</source-address>
                <method>...</method>
                <request-uri>...</request-uri>
                <contact>...</contact>
              </from>
            </term>
          </new-transaction-policy>
        </sip>
      </gateway>
    </border-signaling-gateway>
  </services>
</configuration>
```

Description No documentation is available yet.

Contents <contact>—Contact field.

<method>—Methods.

<request-uri>—Request URI field.

<source-address>—Source addresses and masks.

<from> (configuration/services/cos/rule/term)

Usage

```
<configuration>
  <services>
    <cos>
      <rule>
        <term>
          <from>
            <source-address>...</source-address>
            <destination-address>...</destination-address>
            <source-address-range>...</source-address-range>
            <source-prefix-list>...</source-prefix-list>
            <destination-address-range>...</destination-address-range>
            <destination-prefix-list>...</destination-prefix-list>
            <applications>...</applications>
            <application-sets>...</application-sets>
          </from>
        </term>
      </rule>
    </cos>
  </services>
</configuration>
```

Description Match criteria.

Contents <application-sets>—Match one or more application sets.

<applications>—Match one or more applications.

<destination-address>—Match IP destination address.

<destination-address-range>—Match IP destination address range.

<destination-prefix-list>—One or more named lists of destination prefixes to match.

<source-address>—Match IP source address.

<source-address-range>—Match IP source address range.

<source-prefix-list>—One or more named lists of source prefixes to match.

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

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <dns-rule>
          <term>
            <from>
              <dns>...</dns>
            </from>
          </term>
        </dns-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <dns>—Match DNS sessions.

<from> (configuration/services/ggsn/service-identification/ ftp-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <ftp-rule>
          <term>
            <from>
              <ftp>...</ftp>
            </from>
          </term>
        </ftp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <ftp>—Match FTP sessions.

<from> (configuration/services/ggsn/service-identification/ header-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <header-rule>
          <term>
            <from>
              <ms-prefix>...</ms-prefix>
              <ms-address>...</ms-address>
              <network-prefix>...</network-prefix>
              <network-address>...</network-address>
              <network-port>...</network-port>
              <ms-port>...</ms-port>
              <protocol>...</protocol>
            </from>
          </term>
        </header-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <ms-address>—Match MS address.

<ms-port>—Match MS port.

<ms-prefix>—Match MS prefix.

<network-address>—Match network address.

<network-port>—Match network port.

<network-prefix>—Match network prefix.

<protocol>—Match protocol type.

<from> (configuration/services/ggsn/service-identification/ heuristic-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <heuristic-rule>
          <term>
            <from>
              <protocol>...</protocol>
            </from>
          </term>
        </heuristic-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <protocol>—Match protocol sessions.

<from> (configuration/services/ggsn/service-identification/ http-wsp-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <http-wsp-rule>
          <term>
            <from>
              <uri>...</uri>
              <http>...</http>
              <wsp>...</wsp>
              <mms>...</mms>
            </from>
          </term>
        </http-wsp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <http>—Match HTTP sessions.

<mms>—Match MMS sessions.

<uri>—Match URI settings.

<wsp>—Match WSP sessions.

<from> (configuration/services/ggsn/service-identification/ msn-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <msn-rule>
          <term>
            <from>
              <msn>msn</msn>
            </from>
          </term>
        </msn-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <msn>—Match MSN sessions.

<from> (configuration/services/ggsn/service-identification/ pop3-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <pop3-rule>
          <term>
            <from>
              <pop3>...</pop3>
            </from>
          </term>
        </pop3-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <pop3>—Match POP3 sessions.

<from> (configuration/services/ggsn/service-identification/ rtsp-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <rtsp-rule>
          <term>
            <from>
              <rtsp>...</rtsp>
            </from>
          </term>
        </rtsp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <rtsp>—Match RTSP sessions.

<from> (configuration/services/ggsn/service-identification/ sip-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <sip-rule>
          <term>
            <from>
              <sip>...</sip>
            </from>
          </term>
        </sip-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <sip>—Match SIP sessions.

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

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <smtp-rule>
          <term>
            <from>
              <smtp>...</smtp>
            </from>
          </term>
        </smtp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <smtp>—Match SMTP sessions.

<from> (configuration/services/ggsn/service-identification/ tftp-rule/term)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <tftp-rule>
          <term>
            <from>
              <tftp>...</tftp>
            </from>
          </term>
        </tftp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <tftp>—Match TFTP sessions.

<from> (configuration/services/ids/rule/term)

Usage

```
<configuration>
  <services>
    <ids>
      <rule>
        <term>
          <from>
            <source-address>...</source-address>
            <destination-address>...</destination-address>
            <source-address-range>...</source-address-range>
            <source-prefix-list>...</source-prefix-list>
            <destination-address-range>...</destination-address-range>
            <destination-prefix-list>...</destination-prefix-list>
            <applications>...</applications>
            <application-sets>...</application-sets>
          </from>
        </term>
      </rule>
    </ids>
  </services>
</configuration>
```

Description Define match criteria.

Contents <application-sets>—Match one or more application sets.

<applications>—Match one or more applications.

<destination-address>—Match IP destination address.

<destination-address-range>—Match IP destination address range.

<destination-prefix-list>—One or more named lists of destination prefixes to match.

<source-address>—Match IP source address.

<source-address-range>—Match IP source address range.

<source-prefix-list>—One or more named lists of source prefixes to match.

<from> (configuration/services/ipsec-vpn/rule/term)

Usage

```
<configuration>
  <services>
    <ipsec-vpn>
      <rule>
        <term>
          <from>
            <source-address>...</source-address>
            <destination-address>...</destination-address>
            <ipsec-inside-interface>ipsec-inside-interface</ipsec-inside-interface>
          </from>
        </term>
      </rule>
    </ipsec-vpn>
  </services>
</configuration>
```

Description Define match criteria.

Contents <destination-address>—Match IP destination address.

<ipsec-inside-interface>—IPSec interface to internal network.

<source-address>—Match IP source address.

<from> (configuration/services/nat/rule/term)

Usage

```
<configuration>
  <services>
    <nat>
      <rule>
        <term>
          <from>
            <source-address>...</source-address>
            <destination-address>...</destination-address>
            <source-address-range>...</source-address-range>
            <source-prefix-list>...</source-prefix-list>
            <destination-address-range>...</destination-address-range>
            <destination-prefix-list>...</destination-prefix-list>
            <applications>...</applications>
            <application-sets>...</application-sets>
          </from>
        </term>
      </rule>
    </nat>
  </services>
</configuration>
```

Description Define match criteria.

Contents <application-sets>—Match one or more application sets.

<applications>—Match one or more applications.

<destination-address>—Match IP destination address.

<destination-address-range>—Match IP destination address range.

<destination-prefix-list>—One or more named lists of destination prefixes to match.

<source-address>—Match IP source address.

<source-address-range>—Match IP source address range.

<source-prefix-list>—One or more named lists of source prefixes to match.

<from> (configuration/services/stateful-firewall/rule/term)

Usage

```
<configuration>
  <services>
    <stateful-firewall>
      <rule>
        <term>
          <from>
            <source-address>...</source-address>
            <destination-address>...</destination-address>
            <source-address-range>...</source-address-range>
            <source-prefix-list>...</source-prefix-list>
            <destination-address-range>...</destination-address-range>
            <destination-prefix-list>...</destination-prefix-list>
            <applications>...</applications>
            <application-sets>...</application-sets>
          </from>
        </term>
      </rule>
    </stateful-firewall>
  </services>
</configuration>
```

Description Define match criteria.

Contents <application-sets>—Match one or more application sets.

<applications>—Match one or more applications.

<destination-address>—Match IP destination address.

<destination-address-range>—Match IP destination address range.

<destination-prefix-list>—One or more named lists of destination prefixes to match.

<source-address>—Match IP source address.

<source-address-range>—Match IP source address range.

<source-prefix-list>—One or more named lists of source prefixes to match.

<from-code-points> (configuration/class-of-service/ translation-table/to-802.1p-from-dscp/to-code-point)

Usage

```
<configuration>
  <class-of-service>
    <translation-table>
      <to-802.1p-from-dscp>
        <to-code-point>
          <from-code-points>
            <name>name</name>     <!-- identifier -->
          </from-code-points>
        </to-code-point>
      </to-802.1p-from-dscp>
    </translation-table>
  </class-of-service>
</configuration>
```

Description DSCP code point.

Contents <name>—DSCP code point.

<from-code-points> (configuration/class-of-service/ translation-table/to-dscp-from-dscp/to-code-point)

Usage

```
<configuration>
  <class-of-service>
    <translation-table>
      <to-dscp-from-dscp>
        <to-code-point>
          <from-code-points>
            <name>name</name>     <!-- identifier -->
          </from-code-points>
        </to-code-point>
      </to-dscp-from-dscp>
    </translation-table>
  </class-of-service>
</configuration>
```

Description DSCP code point.

Contents <name>—DSCP code point.

<from-code-points> (configuration/class-of-service/ translation-table/to-dscp-ipv6-from-dscp-ipv6/to-code-point)

Usage

```
<configuration>
  <class-of-service>
    <translation-table>
      <to-dscp-ipv6-from-dscp-ipv6>
        <to-code-point>
          <from-code-points>
            <name>name</name>     <!-- identifier -->
          </from-code-points>
        </to-code-point>
      </to-dscp-ipv6-from-dscp-ipv6>
    </translation-table>
  </class-of-service>
</configuration>
```

Description DSCP-IPV6 code point.

Contents <name>—DSCP-IPV6 code point.

<from-code-points> (configuration/class-of-service/ translation-table/to-exp-from-exp/to-code-point)

Usage

```
<configuration>
  <class-of-service>
    <translation-table>
      <to-exp-from-exp>
        <to-code-point>
          <from-code-points>
            <name>name</name>     <!-- identifier -->
          </from-code-points>
        </to-code-point>
      </to-exp-from-exp>
    </translation-table>
  </class-of-service>
</configuration>
```

Description EXP code point.

Contents <name>—EXP code point.

<from-code-points> (configuration/class-of-service/ translation-table/to-inet-precedence-from-inet-precedence/ to-code-point)

Usage

```
<configuration>
  <class-of-service>
    <translation-table>
      <to-inet-precedence-from-inet-precedence>
        <to-code-point>
          <from-code-points>
            <name>name</name>     <!-- identifier -->
          </from-code-points>
        </to-code-point>
      </to-inet-precedence-from-inet-precedence>
    </translation-table>
  </class-of-service>
</configuration>
```

Description INET PRECEDENCE code point.

Contents <name>—INET PRECEDENCE code point.

<from-code-points> (configuration/dynamic-profiles/ class-of-service/translation-table/to-802.1p-from-dscp/ to-code-point)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <translation-table>
        <to-802.1p-from-dscp>
          <to-code-point>
            <from-code-points>
              <name>name</name>     <!-- identifier -->
            </from-code-points>
          </to-code-point>
        </to-802.1p-from-dscp>
      </translation-table>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description DSCP code point.

Contents <name>—DSCP code point.

<from-code-points> (configuration/dynamic-profiles/ class-of-service/translation-table/to-dscp-from-dscp/ to-code-point)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <translation-table>
        <to-dscp-from-dscp>
          <to-code-point>
            <from-code-points>
              <name>name</name>     <!-- identifier -->
            </from-code-points>
          </to-code-point>
        </to-dscp-from-dscp>
      </translation-table>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description DSCP code point.

Contents <name>—DSCP code point.

<from-code-points> (configuration/dynamic-profiles/ class-of-service/translation-table/to-dscp-ipv6-from-dscp-ipv6/ to-code-point)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <translation-table>
        <to-dscp-ipv6-from-dscp-ipv6>
          <to-code-point>
            <from-code-points>
              <name>name</name>     <!-- identifier -->
            </from-code-points>
          </to-code-point>
        </to-dscp-ipv6-from-dscp-ipv6>
      </translation-table>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description DSCP-IPV6 code point.

Contents <name>—DSCP-IPV6 code point.

<from-code-points> (configuration/dynamic-profiles/ class-of-service/translation-table/to-exp-from-exp/to-code-point)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <translation-table>
        <to-exp-from-exp>
          <to-code-point>
            <from-code-points>
              <name>name</name>     <!-- identifier -->
            </from-code-points>
          </to-code-point>
        </to-exp-from-exp>
      </translation-table>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description EXP code point.

Contents <name>—EXP code point.

<from-code-points> (configuration/dynamic-profiles/ class-of-service/translation-table/ to-inet-precedence-from-inet-precedence/to-code-point)

Usage

```
<configuration>
  <dynamic-profiles>
    <class-of-service>
      <translation-table>
        <to-inet-precedence-from-inet-precedence>
          <to-code-point>
            <from-code-points>
              <name>name</name>     <!-- identifier -->
            </from-code-points>
          </to-code-point>
        </to-inet-precedence-from-inet-precedence>
      </translation-table>
    </class-of-service>
  </dynamic-profiles>
</configuration>
```

Description INET PRECEDENCE code point.

Contents <name>—INET PRECEDENCE code point.

<ftp> (configuration/services/cos/application-profile)

Usage

```
<configuration>
  <services>
    <cos>
      <application-profile>
        <ftp>
          <data>...</data>
        </ftp>
      </application-profile>
    </cos>
  </services>
</configuration>
```

Description CoS treatment for FTP data.

Contents <data>—No documentation is available yet.

<ftp> (configuration/services/ggsn/service-identification/ftp-rule/term/from)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <ftp-rule>
          <term>
            <from>
              <ftp>
                <filename>...</filename>
                <operation>...</operation>
              </ftp>
            </from>
          </term>
        </ftp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Match FTP sessions.

Contents <filename>—Match filename.

<operation>—Limit match to operation being performed.

<ftp> (configuration/system/services)

Usage

```
<configuration>
  <system>
    <services>
      <ftp>
        <connection-limit>connection-limit</connection-limit>
        <rate-limit>rate-limit</rate-limit>
      </ftp>
    </services>
  </system>
</configuration>
```

Description Allow FTP file transfers.

Contents <connection-limit>—Maximum number of allowed connections.

<rate-limit>—Maximum number of connections per minute.

<ftp-rule> (configuration/services/ggsn/service-identification)

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <ftp-rule>
          <name>name</name>     <!-- identifier -->
          <term>...</term>     <!-- mandatory -->
        </ftp-rule>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description FTP rule.

Contents <name>—Rule name.

<term>—Define a service identification term.

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

Usage

```
<configuration>
  <services>
    <ggsn>
      <service-identification>
        <ftp-rule-set>
          <name>name</name>     <!-- identifier -->
          <rule>...</rule>
        </ftp-rule-set>
      </service-identification>
    </ggsn>
  </services>
</configuration>
```

Description Define a set of FTP rules.

Contents <name>—Name of the rule set.

<rule>—Rule to be included in this rule set.