

## Chapter 12

# DTD for Connectivity Fault Management Response Tags

This chapter contains the Extensible Markup Language (XML) document type definition (DTD) called `junos-cfm.dtd`, which lists the JUNOS XML tags that contain connectivity fault management information. The associated XML namespace is <http://xml.juniper.net/junos/9.3R1/junos-cfm>. To review reference pages for the tags, see “Summary of Connectivity Fault Management Response Tags” on page 464.

```
<!-- Copyright (c) 2000-2008, Juniper Networks, Inc. -->
```

```
<!-- All rights reserved. -->
```

```
<!-- junos-cfm.dtd -->
```

```
<!ELEMENT cfm-continuity-check-interval (#PCDATA)>
```

```
<!ATTLIST cfm-continuity-check-interval junos:format CDATA #IMPLIED>
```

```
<!ELEMENT cfm-continuity-check-loss-threshold (#PCDATA)>
```

```
<!ELEMENT cfm-continuity-check-status (#PCDATA)>
```

```
<!ELEMENT cfm-counters-route-socket-operations  
(cfm-route-socket-message-counters)*>
```

```
<!ELEMENT cfm-counters-route-socket-received (cfm-route-socket-message-counters)*>
```

```
<!ELEMENT cfm-cross-connect-session (cfm-session-defect-type |  
cfm-session-defect-description | cfm-level | cfm-maintenance-domain-name |  
cfm-maintenance-domain-name-format | cfm-maintenance-association-name |  
cfm-maintenance-association-name-format | cfm-mep-identifier |  
cfm-continuity-check-interval)*>
```

```
<!ELEMENT cfm-cross-connect-session-count (#PCDATA)>
```

```
<!ELEMENT cfm-cross-connect-sessions (cfm-cross-connect-session-count |  
cfm-cross-connect-session)*>
```

```
<!ELEMENT cfm-defect-cross-connect-ccm (#PCDATA)>
```

```
<!ELEMENT cfm-defect-error-ccm (#PCDATA)>
```

```
<!ELEMENT cfm-defect-rdi-in-some-mep (#PCDATA)>
```

```
<!ELEMENT cfm-defect-remote-mep-no-ccm (#PCDATA)>
```

```

<!ELEMENT cfm-dfwd-connection-state (#PCDATA)>

<!ELEMENT cfm-dfwd-requests (#PCDATA)>

<!ELEMENT cfm-entry (cfm-interface-entry | cfm-interface-sessions |
cfm-mep-database-session | cfm-mep-database-continuity-check |
cfm-mep-database-interface | cfm-local-mep | cfm-local-mep-defects |
cfm-local-mep-statistics | cfm-remote-meps | cfm-cross-connect-sessions |
cfm-error-sessions)*>

<!ELEMENT cfm-error-session (cfm-session-defect-type | cfm-session-defect-description
| cfm-level | cfm-maintenance-domain-name | cfm-maintenance-domain-name-format |
cfm-maintenance-association-name | cfm-maintenance-association-name-format |
cfm-continuity-check-interval | cfm-mep-identifier)*>

<!ELEMENT cfm-error-session-count (#PCDATA)>

<!ELEMENT cfm-error-sessions (cfm-error-session-count | cfm-error-session)*>

<!ELEMENT cfm-filter (cfm-filter-name | cfm-filter-state | cfm-filter-term-count |
cfm-filter-term-attachment)*>
<!ATTLIST cfm-filter junos:style CDATA #IMPLIED>

<!ELEMENT cfm-filter-action (#PCDATA)>

<!ELEMENT cfm-filter-name (#PCDATA)>

<!ELEMENT cfm-filter-state (#PCDATA)>

<!ELEMENT cfm-filter-term (cfm-filter-term-name | cfm-filter-term-id | cfm-filter-term-state
| cfm-filter-term-key | cfm-filter-term-action | cfm-filter-term-action-details |
cfm-flood-nexthop-components)*>
<!ATTLIST cfm-filter-term junos:style CDATA #IMPLIED>

<!ELEMENT cfm-filter-term-action (#PCDATA)>

<!ELEMENT cfm-filter-term-action-details (#PCDATA)>

<!ELEMENT cfm-filter-term-attachment (#PCDATA)>

<!ELEMENT cfm-filter-term-count (#PCDATA)>

<!ELEMENT cfm-filter-term-id (#PCDATA)>

<!ELEMENT cfm-filter-term-key (#PCDATA)>

<!ELEMENT cfm-filter-term-name (#PCDATA)>

<!ELEMENT cfm-filter-term-state (#PCDATA)>

<!ELEMENT cfm-firewall-filter-instance-information (cfm-instance-name | cfm-filter |
cfm-filter-term)*>
<!ATTLIST cfm-firewall-filter-instance-information junos:style CDATA #IMPLIED>

<!ELEMENT cfm-firewall-filter-interface-information (cfm-interface-name |
cfm-instance-name | cfm-filter | cfm-filter-term)*>

```

```

<!ATTLIST cfm-firewall-filter-interface-information junos:style CDATA #IMPLIED>

<!ELEMENT cfm-flood-instance-information (cfm-instance-name |
cfm-num-active-customer-endpoint-iffs | cfm-num-active-vpn-endpoint-iffs |
cfm-flood-maintenance-domain-level)*>
<!ATTLIST cfm-flood-instance-information junos:style CDATA #IMPLIED>

<!ELEMENT cfm-flood-interface-information (cfm-interface-name | cfm-instance-name |
cfm-flood-maintenance-domain-level)*>
<!ATTLIST cfm-flood-interface-information junos:style CDATA #IMPLIED>

<!ELEMENT cfm-flood-maintenance-domain-level (cfm-level | cfm-local-mep-direction |
cfm-filter-action | cfm-nexthop-type | cfm-nexthop-index |
cfm-flood-nexthop-components)*>
<!ATTLIST cfm-flood-maintenance-domain-level junos:style CDATA #IMPLIED>

<!ELEMENT cfm-flood-nexthop-components (cfm-interface-name | cfm-interface-type |
cfm-interface-nexthop-type | cfm-interface-nexthop-index)*>

<!ELEMENT cfm-forwarding-table-filtering-simulation (#PCDATA)>

<!ELEMENT cfm-gres-flood-resynchronization (#PCDATA)>

<!ELEMENT cfm-hardware-assist-flooding (#PCDATA)>

<!ELEMENT cfm-instance-name (#PCDATA)>

<!ELEMENT cfm-interface (cfm-interface-snapshot | cfm-entry)*>

<!ELEMENT cfm-interface-continuity-check (cfm-continuity-check-status |
cfm-continuity-check-interval | cfm-continuity-check-loss-threshold)*>

<!ELEMENT cfm-interface-entry (cfm-interface-name | cfm-interface-status |
cfm-interface-link-status)*>

<!ELEMENT cfm-interface-link-status (#PCDATA)>

<!ELEMENT cfm-interface-local-mep-defects (cfm-defect-remote-mep-no-ccm |
cfm-defect-error-ccm | cfm-defect-cross-connect-ccm | cfm-defect-rdi-in-some-mep)*>

<!ELEMENT cfm-interface-local-mep-info (cfm-local-mep-identifier |
cfm-local-mep-direction | cfm-local-mep-mac-address | cfm-local-mep-status)*>

<!ELEMENT cfm-interface-local-mep-statistics (cfm-total-ccm-sent |
cfm-out-of-sequence-ccm-received | cfm-lbm-sent | cfm-lbr-sent | cfm-lbr-received |
cfm-lbr-received-out-of-order | cfm-lbr-bad-msdu | cfm-total-ltm-sent |
cfm-total-ltm-received | cfm-total-ltr-sent | cfm-total-ltr-received |
cfm-next-ltm-sequence-number)*>

<!ELEMENT cfm-interface-name (#PCDATA)>

<!ELEMENT cfm-interface-nexthop-index (#PCDATA)>

<!ELEMENT cfm-interface-nexthop-type (#PCDATA)>

<!ELEMENT cfm-interface-remote-meps (cfm-remote-mep-count | cfm-remote-mep)*>
<!ATTLIST cfm-interface-remote-meps junos:style CDATA #IMPLIED>

```

```

<!ELEMENT cfm-interface-session (cfm-interface-session-identifier |
cfm-interface-continuity-check | cfm-interface-local-mep-info |
cfm-interface-local-mep-defects | cfm-interface-local-mep-statistics |
cfm-interface-remote-meps)*>

<!ELEMENT cfm-interface-session-identifier (cfm-level | cfm-maintenance-domain-name |
cfm-maintenance-domain-name-format | cfm-maintenance-association-name |
cfm-maintenance-association-name-format)*>

<!ELEMENT cfm-interface-session-snapshot (cfm-level | cfm-mep-identifier |
cfm-remote-mep-count)*>

<!ELEMENT cfm-interface-sessions (cfm-interface-session)*>

<!ELEMENT cfm-interface-snapshot (cfm-interface-name | cfm-interface-link-status |
cfm-interface-status | cfm-interface-session-snapshot)*>
<IATTLIST cfm-interface-snapshot junos:style CDATA #IMPLIED>

<!ELEMENT cfm-interface-status (#PCDATA)>

<!ELEMENT cfm-interface-type (#PCDATA)>

<!ELEMENT cfm-internal-interface-state (#PCDATA)>

<!ELEMENT cfm-internal-session-state (#PCDATA)>

<!ELEMENT cfm-lbm-sent (#PCDATA)>

<!ELEMENT cfm-lbr-bad-msdu (#PCDATA)>

<!ELEMENT cfm-lbr-received (#PCDATA)>

<!ELEMENT cfm-lbr-received-out-of-order (#PCDATA)>

<!ELEMENT cfm-lbr-sent (#PCDATA)>

<!ELEMENT cfm-level (#PCDATA)>

<!ELEMENT cfm-linktrace-path-database (cfm-ltm-request-snapshot |
cfm-ltr-reply-entry)*>

<!ELEMENT cfm-local-mep (cfm-local-mep-identifier | cfm-local-mep-direction |
cfm-local-mep-mac-address | cfm-local-mep-auto-discovery | cfm-local-mep-priority |
cfm-local-mep-status)*>

<!ELEMENT cfm-local-mep-auto-discovery (#PCDATA)>

<!ELEMENT cfm-local-mep-defects (cfm-defect-remote-mep-no-ccm |
cfm-defect-error-ccm | cfm-defect-cross-connect-ccm | cfm-defect-rdi-in-some-mep)*>

<!ELEMENT cfm-local-mep-direction (#PCDATA)>

<!ELEMENT cfm-local-mep-identifier (#PCDATA)>

<!ELEMENT cfm-local-mep-mac-address (#PCDATA)>

```

```

<!ELEMENT cfm-local-mep-priority (#PCDATA)>

<!ELEMENT cfm-local-mep-statistics (cfm-total-ccm-sent |
cfm-out-of-sequence-ccm-received | cfm-lbm-sent | cfm-lbr-sent | cfm-lbr-received |
cfm-lbr-received-out-of-order | cfm-lbr-bad-msdu | cfm-total-ltm-sent |
cfm-total-ltm-received | cfm-total-ltr-sent | cfm-total-ltr-received |
cfm-next-ltm-sequence-number)*>

<!ELEMENT cfm-local-mep-status (#PCDATA)>

<!ELEMENT cfm-ltm-request-snapshot (cfm-interface-name | cfm-level |
cfm-maintenance-domain-name | cfm-maintenance-association-name |
cfm-local-mep-identifier | cfm-ltm-target-mac-address)*>

<!ELEMENT cfm-ltm-target-mac-address (#PCDATA)>

<!ELEMENT cfm-ltm-transaction-identifier (#PCDATA)>

<!ELEMENT cfm-ltr-mep-mip-mac-address (#PCDATA)>

<!ELEMENT cfm-ltr-next-hop-mac-address (#PCDATA)>

<!ELEMENT cfm-ltr-reply-entry (cfm-ltm-transaction-identifier |
cfm-ltr-request-hop-identifier | cfm-ltr-reply-ttl | cfm-ltr-mep-mip-mac-address |
cfm-ltr-next-hop-mac-address)*>

<!ELEMENT cfm-ltr-reply-ttl (#PCDATA)>

<!ELEMENT cfm-ltr-request-hop-identifier (#PCDATA)>

<!ELEMENT cfm-maintenance-association-name (#PCDATA)>

<!ELEMENT cfm-maintenance-association-name-format (#PCDATA)>

<!ELEMENT cfm-maintenance-domain-name (#PCDATA)>

<!ELEMENT cfm-maintenance-domain-name-format (#PCDATA)>

<!ELEMENT cfm-mep-database (cfm-entry)*>

<!ELEMENT cfm-mep-database-continuity-check (cfm-continuity-check-status |
cfm-continuity-check-interval | cfm-continuity-check-loss-threshold)*>

<!ELEMENT cfm-mep-database-interface (cfm-interface-name | cfm-interface-status |
cfm-interface-link-status)*>

<!ELEMENT cfm-mep-database-session (cfm-maintenance-domain-name |
cfm-maintenance-domain-name-format | cfm-level | cfm-maintenance-association-name |
cfm-maintenance-association-name-format)*>

<!ELEMENT cfm-mep-identifier (#PCDATA)>

<!ELEMENT cfm-next-ltm-sequence-number (#PCDATA)>

<!ELEMENT cfm-nexthop-index (#PCDATA)>

```

```

<!ELEMENT cfm-nexthop-information (cfm-nexthop-index | cfm-nexthop-type |
cfm-nexthop-last-operation | cfm-nexthop-last-error | cfm-nexthop-statistics |
cfm-nexthop-reference-count | cfm-nexthop-owner | cfm-level |
cfm-flood-nexthop-components)*>
<!ATTLIST cfm-nexthop-information junos:style CDATA #IMPLIED>

<!ELEMENT cfm-nexthop-last-error (#PCDATA)>

<!ELEMENT cfm-nexthop-last-operation (#PCDATA)>

<!ELEMENT cfm-nexthop-owner (#PCDATA)>

<!ELEMENT cfm-nexthop-reference-count (#PCDATA)>

<!ELEMENT cfm-nexthop-statistics (#PCDATA)>

<!ELEMENT cfm-nexthop-type (#PCDATA)>

<!ELEMENT cfm-num-active-customer-endpoint-iffs (#PCDATA)>

<!ELEMENT cfm-num-active-vpn-endpoint-iffs (#PCDATA)>

<!ELEMENT cfm-out-of-sequence-ccm-received (#PCDATA)>

<!ELEMENT cfm-ppmd-blocked-count (#PCDATA)>

<!ELEMENT cfm-ppmd-connection-state (#PCDATA)>

<!ELEMENT cfm-ppmd-flow-state (#PCDATA)>

<!ELEMENT cfm-ppmd-job-state (#PCDATA)>

<!ELEMENT cfm-remote-mep (cfm-remote-mep-identifier | cfm-remote-mep-state |
cfm-remote-mep-mac-address | cfm-remote-mep-interface | cfm-remote-mep-type |
cfm-remote-mep-rdi | cfm-remote-mep-last-flapped | cfm-remote-mep-port-status-tlv |
cfm-remote-mep-interface-status-tlv)*>

<!ELEMENT cfm-remote-mep-count (#PCDATA)>

<!ELEMENT cfm-remote-mep-identifier (#PCDATA)>

<!ELEMENT cfm-remote-mep-interface (#PCDATA)>

<!ELEMENT cfm-remote-mep-interface-status-tlv (#PCDATA)>

<!ELEMENT cfm-remote-mep-last-flapped (#PCDATA)>

<!ELEMENT cfm-remote-mep-mac-address (#PCDATA)>

<!ELEMENT cfm-remote-mep-port-status-tlv (#PCDATA)>

<!ELEMENT cfm-remote-mep-rdi (#PCDATA)>

<!ELEMENT cfm-remote-mep-state (#PCDATA)>

<!ELEMENT cfm-remote-mep-type (#PCDATA)>

```

```

<!ELEMENT cfm-remote-meps (cfm-remote-mep-count | cfm-remote-mep)*>
<!--ATTLIST cfm-remote-meps junos:style CDATA #IMPLIED-->

<!ELEMENT cfm-route-information (cfm-route-prefix | cfm-nexthop-index |
cfm-route-last-operation | cfm-route-last-error | cfm-route-statistics | cfm-level |
cfm-route-table-index | cfm-route-owner | cfm-flood-nexthop-components)*>
<!--ATTLIST cfm-route-information junos:style CDATA #IMPLIED-->

<!ELEMENT cfm-route-last-error (#PCDATA)>

<!--ELEMENT cfm-route-last-operation (#PCDATA)-->

<!--ELEMENT cfm-route-maintenance-domain-level (cfm-level | cfm-local-mep-direction |
cfm-transmit-route-prefix | cfm-nexthop-index | cfm-flood-nexthop-components)*-->
<!--ATTLIST cfm-route-maintenance-domain-level junos:style CDATA #IMPLIED-->

<!--ELEMENT cfm-route-owner (#PCDATA)-->

<!--ELEMENT cfm-route-prefix (#PCDATA)-->

<!--ELEMENT cfm-route-socket-message-add (#PCDATA)-->

<!--ELEMENT cfm-route-socket-message-change (#PCDATA)-->

<!--ELEMENT cfm-route-socket-message-counters (cfm-route-socket-message-type |
cfm-route-socket-message-add | cfm-route-socket-message-change |
cfm-route-socket-message-delete)*-->

<!--ELEMENT cfm-route-socket-message-delete (#PCDATA)-->

<!--ELEMENT cfm-route-socket-message-type (#PCDATA)-->

<!--ELEMENT cfm-route-statistics (#PCDATA)-->

<!--ELEMENT cfm-route-table-index (#PCDATA)-->

<!--ELEMENT cfm-session-count (#PCDATA)-->

<!--ELEMENT cfm-session-created-count (#PCDATA)-->

<!--ELEMENT cfm-session-defect-description (#PCDATA)-->

<!--ELEMENT cfm-session-defect-type (#PCDATA)-->

<!--ELEMENT cfm-session-deleted-count (#PCDATA)-->

<!--ELEMENT cfm-session-freed-count (#PCDATA)-->

<!--ELEMENT cfm-shared-interface-filters (#PCDATA)-->

<!--ELEMENT cfm-token-based-forwarding (#PCDATA)-->

<!--ELEMENT cfm-total-ccm-sent (#PCDATA)-->

<!--ELEMENT cfm-total-ltm-received (#PCDATA)-->

<!--ELEMENT cfm-total-ltm-sent (#PCDATA)-->

```

```
<!ELEMENT cfm-total-ltr-received (#PCDATA)>

<!ELEMENT cfm-total-ltr-sent (#PCDATA)>

<!ELEMENT cfm-transmit-interface-information (cfm-interface-name | cfm-instance-name
| cfm-route-maintenance-domain-level)*>
<!ATTLIST cfm-transmit-interface-information junos:style CDATA #IMPLIED>

<!ELEMENT cfm-transmit-route-prefix (#PCDATA)>

<!ELEMENT cfm-vpls (#PCDATA)>

<!ELEMENT cfmd-clear-path-database (#PCDATA)>

<!ELEMENT cfmd-clear-statistics (#PCDATA)>

<!ELEMENT cfmd-internal-state (cfm-session-count | cfm-session-created-count |
cfm-session-deleted-count | cfm-session-freed-count | cfm-vpls |
cfm-token-based-forwarding | cfm-forwarding-table-filtering-simulation |
cfm-hardware-assist-flooding | cfm-gres-flood-resynchronization |
cfm-shared-interface-filters | cfm-ppmd-connection-state | cfm-ppmd-flow-state |
cfm-ppmd-job-state | cfm-ppmd-blocked-count | cfm-dfwd-connection-state |
cfm-dfwd-requests)*>
```