

Diagnostics Command Reference

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OAM Commands

Base Operational Commands

GLOBAL

- **ping** *[ip-address | dns-name]* [**rapid** | **detail**] [**ttl** *time-to-live*] [**tos** *type-of-service*] [**size** *bytes*] [**pattern** *pattern*] [**source** *ip-address | ipv6-address | dns-name*] [**interval** *seconds*] [{**next-hop** *ip-address*} | {**interface** *interface-name*} | **bypass-routing**] [**count** *requests*] [**do-not-fragment**] [**router** *router-instance*] [**time-out** *timeout*]
- **traceroute** *[ip-address | dns-name]* [**ttl** *tll*] [**wait** *milli-seconds*] [**no-dns**][**source** *src-ip-address*] [**tos** *type-of-service*] [**router** *[router-instance]*]
- **oam**
 - **dns** **target-addr** *dns-name* **name-server** *ip-address* [**source** *ip-address*] [**send-count** *send-count*] [**timeout** *timeout*] [**interval** *interval*] [**record-type** {**ipv4-a-record** | **ipv6-aaaa-record**}]
 - **saa** *test-name* [**owner** *test-owner*] {**start** | **stop**} [**no-accounting**]

ATM Diagnostics

GLOBAL

- **oam**
 - **atm-ping** *port-id:vpi/vci* [**end-to-end** | **segment**] [**dest** *destination-id*][**send-count** *send-count*][**timeout** *seconds*][**interval** *seconds*]

IGMP Snooping

GLOBAL

- **oam**
 - **mfib-ping** **service** *service-id* **source** *src-ip* **destination** *mcast-address* [**size** *size*] [**ttl** *vc-label-ttl*] [**return-control**] [**interval** *interval*] [**send-count** *send-count*] [**timeout** *timeout*]

LDP Diagnostics

GLOBAL

- **oam**
 - **ldp-treetrace** {**prefix** *ip-prefix/mask*} [**max-ttl** *ttl-value*] [**max-path** *max-paths*] [**timeout** *timeout*] [**retry-count** *retry-count*] [**fc** *fc-name*] [**profile** *profile*] [**downstream-map-tlv** {*dsmap* | *ddmap*}]
- **config**
 - **test-oam**
 - [**no**] **ldp-treetrace**
 - **fc** *fc-name* [**profile** {*in*|*out*}]
 - **no fc**
 - **path-discovery**
 - **interval** *minutes*
 - **no interval**
 - **max-path** *max-paths*
 - **no max-path**
 - **max-ttl** *ttl-value*
 - **no max-ttl**
 - **policy-statement** *policy-name*[...(up to 5 max)]
 - **no policy-statement**
 - **retry-count** *retry-count*
 - **no retry-count**
 - **timeout** *timeout*
 - **no timeout**
 - **path-probing**
 - **interval** *minutes*
 - **no interval**
 - **retry-count** *retry-count*
 - **no retry-count**
 - **timeout** *timeout*
 - **no timeout**
 - [**no**] **shutdown**
 - **mpls-echo-request-downstream-map** {*dsmap* | *ddmap*}
 - **no mpls-echo-request-downstream-map**
 - **mpls-time-stamp-format** {*rfc4379* | *unix*}

LSP Diagnostics

GLOBAL

- **oam**
 - **lsp-ping** *lsp-name* [**path** *path-name*]
 - **lsp-ping** **bgp-label** **prefix** *ip-prefix/mask* [**path-destination** *ip-address* [**interface** *if-name* | **next-hop** *ip-address*]]
 - **lsp-ping** **prefix** *ip-prefix/mask* [**path-destination** *ip-address* [**interface** *if-name* | **next-hop** *ip-address*]]
 - **lsp-ping** **static** *lsp-name* [**assoc-channel** {*ipv4* | *non-ip* | *none*}] [**dest-global-id** *global-id* **dest-node-id** *node-id*] [**force**] [**path-type** *active* | *working* | *protect*]
 - **lsp-trace** *lsp-name* [**path** *path-name*]
 - **lsp-trace** **bgp-label** **prefix** *ip-prefix/mask* [**path-destination** *ip-address* [**interface** *if-name* | **next-hop** *ip-address*]]
 - **lsp-trace** **prefix** *ip-prefix/mask* [**path-destination** *ip-address* [**interface** *if-name* | **next-hop** *ip-address*]]
 - **lsp-trace** **static** *lsp-name* [**assoc-channel** {*ipv4* | *non-ip* | *none*}] [**path-type** *active* | *working* | *protect*]

- **p2mp-lsp-ping** *{lsp-name [p2mp-instance instance-name [s2l-dest-address ip-address [...(up to 5 max)]]] [ttl label-ttl]} [fc fc-name [profile {in | out}]] [size octets] [timeout timeout] [detail]*
- **p2mp-lsp-ping ldp** *p2mp-identifier [sender-addr ip-address] [leaf-addr ip-address [... up to 5 max]] [fc fc-name [profile {in | out}]] [size octets] [timeout timeout] [detail]*
- **p2mp-lsp-ping** *{ldp-ssm source {ip-address | ipv6-address} group {mcast-address | mcastv6-address} [router {router-instance | service-name service-name}]} [sender-addr ip-address] [leaf-addr ip-address [...up-to-5 max]]} [fc fc-name [profile {in | out}]] [size octets] [timeout timeout] [detail]*
- **p2mp-lsp-trace** *lsp-name p2mp-instance instance-name s2l-dest-address ip-address [fc fc-name [profile {in | out}]] [size octets] [max-fail no-response-count] [probe-count probes-per-hop] [min-ttl min-label-ttl] [max-ttl max-label-ttl] [timeout timeout] [interval interval] [detail]*

SDP Diagnostics

GLOBAL

— oam

- **sdp-mtu** *orig-sdp-id size-inc start-octets end-octets [step step-size] [timeout seconds] [interval seconds]*
- **sdp-ping** *orig-sdp-id [resp-sdp resp-sdp-id] [fc fc-name [profile {in | out}]] [timeout seconds] [interval seconds] [size octets] [send-count send-count]*

Common Service Diagnostics

GLOBAL

— oam

- **anep** {subscriber *sub-ident-string* | **anep-string** *anep-string*} **loopback** [count *count*] [timeout *seconds*] [alarm]
- **anep** subscriber *sub-ident-string* **loopback** [send-count *send-count*] [timeout *seconds*] [alarm]
- **svc-ping** {*ip-addr* | *dns-name*} **service** *service-id* [local-sdp] [remote-sdp]
- **host-connectivity-verify** **service** *service-id* [sap *sap-id*]
- **host-connectivity-verify** subscriber *sub-ident-string* [sla-profile *sla-profile-name*]
- **dns** **target-addr** *dns-name* **name-server** *ip-address* [source *ip-address*] [send-count *send-count*] [timeout *timeout*] [interval *interval*]
- **vprn-ping** *service-id* **source** *src-ip* **destination** *ip-address* [fc *fc-name*] [profile {in | out}] [size *size*] [ttl *vc-label-ttl*] [return-control] [interval *interval*] [send-count *send-count*] [timeout *timeout*]
- **vprn-trace** *service-id* **source** *src-ip* **destination** *ip-address* [fc *fc-name*] [profile {in | out}] [size *size*] [min-ttl *vc-label-ttl*] [max-ttl *vc-label-ttl*] [return-control] [probe-count *send-count*] [interval *seconds*] [timeout *timeout*]

VLL Diagnostics

GLOBAL

— oam

- **vccv-ping** *sdp-id:vc-id* [reply-mode *ip-routed*|control-channel][src-ip-address *ip-addr* **dst-ip-address** *ip-addr* **pw-id** *pw-id*][target-fec-type **static-pw-fec** **agi** *agi-value* **pw-path-id-saii** *src-global-id:src-node-id:src-ac-id* **pw-path-id-taii** *dest-global-id:dest-node-id:dest-ac-id*] [count *send-count*] [fc *fc-name*] [profile in|out]] [interval *interval*] [size *octets*] [timeout *timeout*] [ttl *vc-label-ttl*]
- **vccv-ping** **static** *sdp-id:vc-id* [target-fec-type **pw-id-fec** **sender-src-address** *ip-address* **remote-dst-address** *ip-address* **pw-id** *value* **pw-type** *value*] [dest-global-id *global-id* **dest-node-id** *node-id*] [assoc-channel **ipv4** | **non-ip**] [fc *fc-name*] [profile {in|out}]] [size *octets*] [count *send-count*] [timeout *timeout*] [interval *interval*] [ttl *vc-label-ttl*][src-ip-address *ip-address*]
- **vccv-ping** **spoke-sdp-fec** *spoke-sdp-fec-id* [saii-type2 *global-id:prefix:ac-id* **taii-type2** *global-id:prefix:ac-id*] [src-ip-address *ip-addr* **dst-ip-address** *ip-addr*] [reply-mode {**ip-routed** | **control-channel**}] [fc *fc-name*] [profile {in | out}]] [size *octets*] [count *send-count*] [timeout *timeout*] [interval *interval*] [ttl *vc-label-ttl*]
- **vccv-ping** **saii-type2** *global-id:prefix:ac-id* **taii-type2** *global-id:prefix:ac-id* [src-ip-address *ip-addr* **dst-ip-address** *ip-addr*] [reply-mode {**ip-routed** | **control-channel**}] [fc *fc-name*] [profile {in | out}]] [size *octets*] [count *send-count*] [timeout *timeout*] [interval *interval*] [ttl *vc-label-ttl*]
- **vccv-trace** *sdp-id:vc-id* [reply-mode **ip-routed**|control-channel] [target-fec-type **static-pw-fec** **agi** *agi-value* **pw-path-id-saii** *src-global-id:src-node-id:src-ac-id* **pw-path-id-taii-type2** *dest-global-id:dest-node-id:dest-ac-id*] [detail] [fc *fc-name*] [profile in|out]] [interval *interval-value*] [max-fail *no-response-count*] [max-ttl *max-vc-label-ttl*] [min-ttl *min-vc-label-ttl*] [probe-count *probe-count*] [size *octets*] [timeout *timeout-value*]
- **vccv-trace** **static** *sdp-id:vc-id* [assoc-channel **ipv4** | **non-ip**] [src-ip-address *ipv4-address*] [target-fec-type **pw-id** **sender-src-address** *ip-address* **remote-dst-address** *ip-address* **pw-id** *value* **pw-type** *value*] [detail] [fc *fc-name*] [profile in|out]] [interval *interval-value*] [max-fail *no-response-count*] [max-ttl *max-vc-label-ttl*] [min-ttl *min-vc-label-ttl*] [probe-count *probe-count*] [size *octets*] [timeout *timeout-value*]
- **vccv-trace** **spoke-sdp-fec** **poke-sdp-fec** *spoke-sdp-fec-id* [saii-type2 *global-id:prefix:ac-id* **taii-type2** *global-id:prefix:ac-id*][size *octets*][min-ttl *min-vc-label-ttl*][max-ttl *max-vc-label-ttl*][max-fail *no-response-count*][probe-count *probe-count*][reply-mode **ip-routed** | **control-**

- channel][timeout *timeout-value*][interval *interval-value*][fc *fc-name* [profile {in | out}]]][detail]
- **vccv-trace saii-type2** *global-id:prefix:ac-id taii-type2 global-id:prefix:ac-id* [size *octets*][min-ttl *min-vc-label-ttl*][max-ttl *max-vc-label-ttl*][max-fail *no-response-count*][probe-count *probe-count*][reply-mode *ip-routed*| **control-channel**][timeout *timeout-value*][interval *interval-value*][fc *fc-name* [profile {in | out}]]][detail]

GLOBAL

— oam

- **cpe-ping service** *service-id destination dst-ieee-address source ip-address* [source-mac *ieee-address*][ttl *vc-label-ttl*] [send-count *send-count*] [return-control] [interval *interval*]
- **mac-ping service** *service-id destination dst-ieee-address* [source *src-ieee-address*] [fc *fc-name* [profile in | out]] [size *octets*] [fc *fc-name*] [ttl *vc-label-ttl*] [send-count *send-count*] [return-control] [interval *interval*] [timeout *timeout*]
- **mac-populate** *service-id mac ieee-address* [flood] [age *seconds*] [force] [target-sap *sap-id*]
- **mac-purge** *service-id target ieee-address* [flood] [register]
- **mac-trace service** *service-id destination ieee-address* [source *ieee-address*] [fc *fc-name* [profile in | out]] [size *octets*] [min-ttl *vc-label-ttl*] [max-ttl *vc-label-ttl*] [probe-count *send-count*] [return-control] [interval *interval*] [timeout *timeout*]

GLOBAL

— oam

- **vxlan-ping test-id** *test-id service vpls-service-id dest-vni vxlan-network-id outer-ip-destination ipv4-address* [outer-ip-source-udp *udp-port-number*] [outer-ip-ttl *time-to-live*][inner-l2 *ieee-address*] [inner-ip-source *ipv4-address*][inner-ip-destination *ipv4-address*] [i-flag-on] [end-system *ieee-address*] [send-count *packets*] [interval *interval-time*][timeout *timeout-time*] [padding *tlv-size*] [reflect-pad] [fc *fc-name*] [profile {in|out}] [reply-mode {overlay|udp}]

Ethernet in the First Mile (EFM) Commands

GLOBAL

— oam

- **efm** *port-id local-loopback* {start | stop}
- **efm** *port-id remote-loopback* {start | stop}

ETH-CFM OAM Commands

oam

- **eth-cfm eth-test** *mac-address mep mep-id domain md-index association ma-index* [priority *priority*] [data-length *data-length*]
- **eth-cfm linktrace** *mac-address mep mep-id domain md-index association ma-index* [ttl *tll-value*]
- **eth-cfm loopback** {*mac-address*}**multicast** mep *mep-id domain md-index association ma-index* [send-count *send-count*] [size *data-size*] [priority *priority*]
- **eth-cfm one-way-delay-test** *mac-address mep mep-id domain md-index association ma-index* [priority *priority*]
- **eth-cfm two-way-delay-test** *mac-address mep mep-id domain md-index association ma-index* [priority *priority*]

— eth-cfm **two-way-slm-test** *mac-address* mep *mep-id* domain *md-index* association *ma-index* [*priority* *priority*]] [**send-count** *send-count*][[**size** *data-size*][**timeout** *timeout*] [**interval** *interval*]

oam

— eth-cfm

— domain

— association

— bridge

— **id-permission** *chassis*

— **no id-permission**

— **facility-id-permission** *chassis*

— **no facility-id-permission**

— system

— **sender-id**[*system* | local *local-name*]

— **no sender-id**

SAA Commands

GLOBAL

— **oam**— **[no] saa test-name [owner test-owner] (start | stop) [no-accounting]**

config

— **saa**— **[no] test test-name [owner test-owner]**— **accounting-policy acct-policy-id**— **no accounting-policy**— **[no] continuous**— **description description-string**— **no description**— **[no] jitter-event rising-threshold threshold [falling-threshold threshold] [direction]**— **[no] latency-event rising-threshold threshold [falling-threshold threshold] [direction]**— **[no] loss-event rising-threshold threshold [falling-threshold threshold] [direction]**— **probe-history [auto | drop | keep]**— **[no] shutdown**— **trap-gen**— **{[no] probe-fail-enable**— **[no] probe-fail-threshold 0..15**— **[no] test-completion-enable**— **[no] test-fail-enable**— **[no] test-fail-threshold 0..15**— **[no] type**— **cpe-ping service service-id destination ip-address source ip-address [source-mac ieee-address] [fc fc-name [profile {in | out}]] [ttl vc-label-ttl] [send-count send-count] [send-control] [return-control] [time-out interval] [interval interval]**— **dns target-addr dns-name name-server ip-address [source ip-address] [send-count send-count] [time-out timeout] [interval interval]**— **eth-cfm-linktrace mac-address mep mep-id domain md-index association ma-index [ttl ttl-value] [fc {fc-name} [profile {in|out}]] [send-count send-count] [time-out interval] [interval interval]**— **eth-cfm-loopback mac-address mep mep-id domain md-index association ma-index [size data-size] [fc {fc-name} [profile {in|out}]] [send-count send-count] [time-out interval] [interval interval]**— **eth-cfm-two-way-delay mac-address mep mep-id domain md-index association ma-index [fc {fc-name}] [send-count send-count] [time-out interval] [interval interval]**— **eth-cfm-two-way-slm mac-address mep mep-id domain md-index association ma-index [fc {fc-name}] [send-count send-count] [size data-size] [time-out timeout] [interval interval]**— **icmp-ping mac-address mep mep-id domain md-index association ma-index [fc {fc-name} [profile {in|out}]] [send-count send-count] [time-out interval] [interval interval]**— **icmp-ping [ip-address | dns-name] [rapid | detail] [ttl time-to-live] [tos type-of-service] [size bytes] [pattern pattern] [source ip-address | dns-name] [interval interval] [{next-hop ip-address}] {interface interface-name} [bypass-routing] [count requests] [do-not-fragment] [router router-instance] [time-out interval]**

- **icmp-trace** *ip-address dns-name* [ttl *time-to-live*] [wait *milli-seconds*] [tos *type-of-service*] [source *ip-address*] [tos *type-of-service*] [router *router-instance*]
- **lsp-ping** *lsp-name* [path *path-name*]
- **lsp-ping static** *lsp-name* [dest-global-id *global-id* dest-node-id *node-id*] [control-channel *none | non-ip*] [path-type *active | working | protect*] [fc *fc-name* [profile *in | out*] [interval *interval*] [send-count *send-count*] [size *octets*] [src-ip-address *ip-address*] [timeout *timeout*] [ttl *label-ttl*] [detail]
- **lsp-ping bgp-label-prefix** *ip-prefix/mask* [path-destination *ip-address* [interface *if-name* | next-hop *ip-address*]]
- **lsp-ping prefix** *ip-prefix/mask* [path-destination *ip-address* [interface *if-name* | next-hop *ip-address*]]
- **lsp-ping static** *lsp-name* [assoc-channel *none|non-ip*] [dest-global-id *global-id* dest-node-id *node-id*] [path-type *active | working | protect*]
- **lsp-trace** *lsp-name* [path *path-name*]
- **lsp-trace static** *lsp-name* [control-channel *non | non-ip*] [force] [path-type *active | working | protect*] [detail] [fc *fc-name* [profile *in|out*]] [interval *interval*] [max-fail *no-response-count*] [max-ttl *max-label-ttl*] [min-ttl *min-label-ttl*] [probe-count *probes-per-hop*] [size *octets*] [src-ip-address *ip-address*] [timeout *timeout*] [downstream-map-tlv *dsmap | ddmap*] [detail]
- **lsp-trace bgp-label-prefix** *ip-prefix/mask* [path-destination *ip-address* [interface *if-name* | next-hop *ip-address*]]
- **lsp-trace prefix** *ip-prefix/mask* [path-destination *ip-address* [interface *if-name* | next-hop *ip-address*]]
- **lsp-trace static** *lsp-name* [assoc-channel *none|non-ip*] [path-type *active | working | protect*]
- **mac-ping service** *service-id destination ieee-address* [source *src-ieee-address*] [fc *fc-name* [profile {*in | out*}]] [size *octets*] [ttl *vc-label-ttl*] [send-count *send-count*] [send-control] [return-control] [interval *interval*] [time-out *interval*]
- **mac-trace service** *service-id destination ieee-address* [source *src-ieee-address*] [fc *fc-name* [profile {*in | out*}]] [size *octets*] [min-ttl *min-label-ttl*] [max-ttl *max-label-ttl*] [probe-count *send-count*] [send-control] [return-control] [interval *interval*] [time-out *timeout*]
- **sdp-ping** *orig-sdp-id [resp-sdp resp-sdp-id]* [fc *fc-name* [profile {*in | out*}]] [size *octets*] [send-count *send-count*][time-out *interval*] [interval *interval*]
- **vccv-ping** *sdp-id:vc-id [src-ip-address ip-addr dst-ip-address ip-addr pw-id pw-id]*[reply-mode {*ip-routed | control-channel*}] [fc *fc-name* [profile {*in | out*}]] [size *octets*] [send-count *send-count*][time-out *time-out*] [interval *interval*][ttl *vc-label-ttl*]
- **vccv-trace** *sdp-id:vc-id* [size *octets*][min-ttl *vc-label-ttl*] [max-ttl *vc-label-ttl*][max-fail *no-response-count*][probe-count *probe-count*][reply-mode *ip-routed|control-channel*][time-out *timeout-value*][interval *interval-value*][fc *fc-name* [profile {*in | out*}]][detail]
- **vprn-ping** *service-id source src-ip destination dst-ip* [fc *fc-name* [profile *in | out*]] [size *size*] [ttl *vc-label-ttl*] [send-count *send-count*] [return-control] [time-out *timeout*] [interval *seconds*]
- **vprn-trace** *service-id source src-ip destination dst-ip* [fc *fc-name* [profile *in | out*]] [size *size*] [min-ttl *vc-label-ttl*] [max-ttl *vc-label-ttl*] [probe-count *send-count*] [return-control] [time-out *timeout*] [interval *interval*]

OAM Performance Monitoring and Binning Commands

GLOBAL

- **oam**
- **oam-pm session** *session-name* {**dmm** | **lmm** | **slm** | **twamp-light**} {**start** | **stop**}

config

- **oam-pm**
- **bin-group** *bin-group-number* [**fd-bin-count** *fd-bin-count* **fdr-bin-count** *fdr-bin-count* **ifdv-bin-count** *ifdv-bin-count* **create**]
- **bin-type** {**fd** | **fdr** | **ifdv**}
- **bin** *bin-number* **lower-bound** *microseconds*
- **delay-event** {**forward** | **backward** | **round-trip**} **lowest-bin** *bin-number* **threshold** *raise-threshold* [**clear** *clear-threshold*]
- **no delay-event** {**forward** | **backward** | **round-trip**}
- [**no**] **description** *description-string*
- [**no**] **shutdown**
- **session** *session-name* **test-family** *ethernet* [**session-type** {**proactive** | **on-demand**}] **create**
- **no session** *session-name*
- **bin-group** *bin-group-name*
- **no bin-group**
- **description** *description-string*
- **no description**
- **ethernet**
- **dest-mac** *ieee-address*
- **no dest-mac**
- **dmm** [**test-id** *test-id*] **create**
- **no dmm**
- **data-tlv-size** *octets*
- **no data-tlv-size**
- **interval** *milliseconds*
- **no interval**
- [**no**] **shutdown**
- **test-duration** *seconds*
- **no test-duration**
- **lmm** [**test-id** *test-id*] **create**
- **no lmm**
- **interval** *milliseconds*
- **no interval**
- **loss-events**
- **avg-flr-event** {**forward** | **backward**} **threshold** *raise-threshold-percent* [**clear** *clear-threshold-percent*]
- [**no**] **avg-flr-event**
- [**no**] **shutdown**
- **test-duration** *seconds*
- **no test-duration**
- **priority** *priority*
- **no priority**
- **slm** [**test-id** *test-id*] **create**
- **no slm**
- **data-tlv-size** *octets*
- **no data-tlv-size**
- **flr-threshold** *percentage*
- **no flr-threshold**
- **loss-events**

- **avg-flr-event** {forward | backward} threshold raise-threshold-percent [clear clear-threshold-percent]
- [no] **avg-flr-event**
- **chli-event** {forward|backward|aggregate} threshold raise-threshold [clear clear-threshold]
- [no] **chli-event**
- [no] **flr-threshold** percentage
- **hli-event** {forward|backward|aggregate} threshold raise-threshold [clear clear-threshold]
- [no] **hli-event**
- **unavailability-event** {forward|backward|aggregate} threshold raise-threshold [clear clear-threshold]
- [no] **unavailability-event**
- **undet-availability-event** {forward|backward|aggregate} threshold raise-threshold [clear clear-threshold]
- [no] **undet-availability-event**
- **undet-unavailability-event** {forward|backward|aggregate} threshold raise-threshold [clear clear-threshold]
- [no] **undet-unavailability-event**
- [no] **shutdown**
- **test-duration** seconds
- no **test-duration**
- **timing** frames-per-delta-t frames consec-delta-t deltas interval milliseconds chli-threshold threshold
- no **timing**
- **source** mep mep-id domain md-index association ma-index
- no **source**
- **meas-interval** {5-mins | 15-mins | 1-hour | 1-day} create
- no **meas-interval** {5-mins | 15-mins | 1-hour | 1-day}
 - **accounting-policy** account-policy-id
 - no **accounting-policy**
 - **boundary-type** {clock-aligned|test-relative}
 - no **boundary-type**
 - **clock-offset** seconds
 - no **clock-offset**
 - **event-mon**
 - **delay-events**
 - [no] **delay-events**
 - **loss-events**
 - [no] **loss-events**
 - [no] **shutdown**
- **intervals-stored** intervals-stored intervals
- no **intervals-stored**

IP Performance Monitoring Commands

TWAMP

```

Configure
  — test-oam
    — twamp
      — server
        — [no] prefix {address/prefix-length} [create]
        — description text
        — no description
        — max-conn-prefix count
        — no max-conn-prefix
        — max-sess-prefix count
        — no max-sess-prefix
        — [no] shutdown
        — inactivity-timeout seconds
        — no inactivity-timeout
        — max-conn-server count
        — no max-conn-server
        — max-sess-server count
        — no max-sess-server
        — [no] shutdown

```

TWAMP Light

```

Configure
  — router
    — twamp-light
      — reflector [udp-port udp-port-number][create]
      — no reflector
        — description description
        — no description
        — prefix {ip-prefix/prefix-length} [create]
        — no prefix
        — description description
        — no description
        — [no] shutdown

Configure
  — service
    — vprn
      — [no] twamp-light
        — reflector [udp-port udp-port-number][create]
        — no reflector
        — description description
        — no description
        — prefix {ip-prefix/prefix-length} [create]
        — no prefix
        — description description
        — no description
        — [no] shutdown

Configure
  — test-oam

```

```

    — twamp
      — twamp-light
        — inactivity-timeout seconds
        — no inactivity-timeout
Configure
  — oam-pm
    — session
      — ip
        — destination ip-address
        — no destination
        — dest-udp-port udp-port-number
        — no dest-udp-port
        — fc fc-name
        — no fc
        — forwarding {next-hop ip-address | interface interface-name | bypass-
          routing}
        — no forwarding
        — profile {in | out}
        — no profile
        — router {base | routing-instance | service-name service-name}
        — no router
        — source ip-address
        — no source
        — source-udp-port udp-port-number
        — no source-udp-port
        — ttl time-to-live
        — no ttl
        — twamp-light [test-id test-id][create]
        — no twamp-light
          — interval milliseconds
          — no interval
          — loss
            — flr-threshold percentage
            — [no] flr-threshold
            — timing frames-per-delta-t frames consec-delta-t deltas chli-
              threshold threshold
            — [no] timing
          — loss-events
            — avg-flr-event {forward | backward} threshold raise-thresh-
              old-percent [clear clear-threshold-percent]
            — [no] avg-flr-event
            — chli-event {forward|backward|aggregate} threshold raise-
              threshold [clear clear-threshold]
            — [no] chli-event
            — hli-event {forward|backward|aggregate} threshold raise-
              threshold [clear clear-threshold]
            — [no] hli-event
            — unavailability-event {forward|backward|aggregate} thresh-
              old raise-threshold [clear clear-threshold]
            — [no] unavailability-event
            — undet-availability-event {forward|backward|aggregate}
              threshold raise-threshold [clear clear-threshold]
            — [no] undet-availability-event
            — undet-unavailability-event {forward|backward|aggregate}
              threshold raise-threshold [clear clear-threshold]

```

- [no] **undet-unavailability-event**
- **pad-size** *octets*
- **no pad-size**
- **pad-size**
- **record-stats** {**delay** | **loss** | **delay-and-loss**}
- [no] **record-stats**
- [no] **shutdown**
- **test-duration** *seconds*
- **no test-duration**

Show Commands

show

— eth-cfm

- association [*ma-index*] [detail]
- cfm-stack-table
- cfm-stack-table port [{all-ports | all-sdps | all-virtuals}][level 0..7][direction up | down]
- cfm-stack-table *port-id* [vlan *qtag* [*qtag*]] [level 0..7] [direction up | down]
- cfm-stack-table sdp *sdp-id*[:*vc-id*] [level 0..7][direction up | down]
- cfm-stack-table virtual *service-id* [level 0..7]
- cfm-stack-table facility [{all-ports|all-lags|all-lag-ports|all-tunnel-meps| all-router-inter-faces}] [level 0..7] [direction up|down]
- cfm-stack-table facility collect-lmm-stats
- cfm-stack-table facility lag *id* [tunnel 1..4094] [level 0..7] [direction up|down]
- cfm-stack-table facility port *id* [level 0..7] [direction up|down]
- cfm-stack-table facility router-interface *ip-int-name* [level 0..7] [direction up|down]
- domain [*md-index*] [association *ma-index* | all-associations] statistics [detail]
- mep *mep-id* domain *md-index* association *ma-index* [loopback] [linktrace]
- mep *mep-id* domain *md-index* association *ma-index* [remote-mepid *mep-id* | all-remote-mepids]
- mep *mep-id* domain *md-index* association *ma-index* eth-test-results [remote-peer *mac-address*]
- mep *mep-id* domain *md-index* association *ma-index* one-way-delay-test [remote-peer *mac-address*]
- mep *mep-id* domain *md-index* association *ma-index* two-way-delay-test [remote-peer *mac-address*]
- mep *mep-id* domain *md-index* association *ma-index* two-way-slm-test [remote-peer *mac-address*]
- mip
- statistics
- system-config

— saa [*test-name* [owner *test-owner*]]

— test-oam

- ldp-treetrace [prefix *ip-prefix/mask*] [detail]
- twamp
 - server {all | prefix *ip-prefix/prefix-length*}
 - twamp-light
 - twamp-light

show

— oam-pm

- bin-group [*bin-group-number*]
- bin-group-using [bin-group *bin-group-number*]
- session *session-name* [all | base | bin-group | event-mon | meas-interval]
- sessions [test-family {ethernet | ip}] event-mon
- statistics session *session-name* {dmm| lmm | slm | twamp-light} meas-interval {raw | 5mins |15-min | 1-hour | 1-day}[all | bins | summary] interval-number *interval-number* [delay | loss]

Clear Commands

```
clear
  — saa [test-name [owner test-owner]]
```

```
clear
  — oam-pm
    — session session-name {dmm|lmm | slm | twamp-light}
```

```
clear
  — eth-cfm
    — auto-mep-discovered mep-id domain md-index association
```

Monitor Commands

```
monitor
  — oam-pm
    — session session-name {dmm|lmm | slm | twamp-light}
```

Debug Commands

```
debug
  — oam
    — lsp-ping-trace [tx | rx | both] [raw | detail]
    — no lsp-ping-trace
```

Tools Commands

```
tools
  — dump
    — eth-cfm top-active-meps [rx-sort | tx-sort] [clear]
```

Show Commands