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# Global Services Command Reference

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## Customer Commands

```

config
  — service
    — [no] customer customer-id [create]
      — contact contact-information
      — no contact
      — description description-string
      — no description
      — multi-service-site customer-site-name
      — no multi-service-site customer-site-name
        — assignment {port port-id | card slot-number}
        — no assignment
        — description description-string
        — no description
        — egress
          — agg-rate-limit agg-rate [queue-frame-based-accounting]
          — no agg-rate-limit
          — [no] scheduler-override
            — [no] scheduler scheduler-name
              — rate pir-rate [cir cir-rate]
              — no rate
            — scheduler-policy scheduler-policy-name
            — no scheduler-policy

```

- **ingress**
  - **[no] scheduler-override**
    - **[no] scheduler** *scheduler-name*
    - **rate** *pir-rate* [**cir** *cir-rate*]
    - **no rate**
  - **scheduler-policy** *scheduler-policy-name*
  - **no scheduler-policy**
- **tod-suite** *tod-suite-name*
- **no tod-suite**
- **[no] phone** *phone-number*

## MRP Commands

- config**
  - **service**
    - **mrp**
      - **[no] mrp-policy** *policy-name*
        - **description** *description-string*
        - **no description**
        - **scope** {**exclusive** | **template**}
        - **no scope**
        - **default-action** {**block** | **allow**}
      - **[no] entry** *entry-id*
        - **description** *description-string*
        - **no description**
        - **[no] match**
          - **[no] isid** *value* | **from** *value* **to** *higher-value*
        - **action** {**block** | **allow** | **end-station**}
        - **no action**
    - **copy mrp-policy** *source-name* **to** *dest-name*
      - **renum** *old-entry-id* **to** *new-entry-id*

## Oper Group Commands

```

config
— service
— oper-group group-name [create]
— no oper-group group-name
— hold-time
— group up time | no group up
— group down time | no group down

config
— service
— ies service-id (See IES Services Command Reference on page 1271)
— [no] interface ip-int-name
— monitor-oper-group name
— no monitor-oper-group name

config
— service
— vpls service-id (See VPLS Service Commands on page 855)
— [no] interface ip-int-name
— monitor-oper-group name
— no monitor-oper-group

config
— service
— vprn service-id (See VPRN Service Configuration Commands on page 1586)
— site name [create]
— monitor-oper-group name
— no monitor-oper-group name

```

## Pseudowire (PW) Commands

```

config
— service
— pw-routing
— [no] block-on-peer-fault
— boot-timer secs
— no boot-timer
— local-prefix local-prefix [create]
— no local-prefix local-prefix
— advertise-bgp route-distinguisher rd [community community]
— no advertise-bgp route-distinguisher rd
— path name [create]
— no path name
— hop hop-index ip-address
— no hop hop-index
— [no] shutdown
— retry-count [10..10000]
— no retry-count
— retry-timer secs
— no retry-timer
— spe-address global-id:prefix

```

- **no spe-address**
- **[no] static-route** *route-name*
- config
  - service
    - **[no] pw-template** *policy-id* [**use-provisioned-sdp**] [**create**]
      - **[no] auto-learn-mac-protect**
      - **accounting-policy** *acct-policy-id*
      - **no accounting-policy**
      - **[no] collect-stats**
      - **[no] control-word**
      - **[no] control-word**
      - **[no] disable-learning**
      - **[no] discard-unknown-source**
      - **egress**
        - **filter ip** *ip-filter-id*
        - **filter ipv6** *ipv6-filter-id*
        - **filter mac** *mac-filter-id*
        - **no filter** [**ip** *ip-filter-id*] [**mac** *mac-filter-id*] [**ipv6** *ipv6-filter-id*]
        - **mfib-allowed-mds-destinations**
          - **[no] mda** *mda-id*
        - **qos** *network-policy-id* **port-redirect-group** *queue-group-name* [**instance** *instance-id*]
        - **no qos**
      - **hash-label** [**signal-capability**]
      - **no hash-label**
      - **[no] force-vlan-vc-forwarding**
      - **igmp-snooping**
        - **[no] fast-leave**
        - **import** *policy-name*
        - **no import**
        - **last-member-query-interval** *1/10 seconds*
        - **no last-member-query-interval**
        - **max-num-groups** *max-num-groups*
        - **no max-num-groups**
        - **query-interval** *seconds*
        - **no query-interval**
        - **query-response-interval** *seconds*
        - **no query-response-interval**
        - **robust-count** *robust-count*
        - **no robust-count**
        - **[no] send-queries**
        - **version** *version*
        - **no version**
      - **ingress**
        - **filter ip** *ip-filter-id*
        - **filter ipv6** *ipv6-filter-id*
        - **filter mac** *mac-filter-id*
        - **no filter** [**ip** *ip-filter-id*] [**mac** *mac-filter-id*] [**ipv6** *ipv6-filter-id*]
        - **qos** *network-policy-id* **fp-redirect-group** *queue-group-name* **instance** *instance-id*
        - **no qos**
        - **vc-label** *ingress-vc-label*
        - **no vc-label**
      - **limit-mac-move** {**blockable** | **non-blockable**}
      - **no limit-mac-move**

- **[no] mac-pinning**
- **max-nbr-mac-addr** *table-size*
- **no max-nbr-mac-addr**
- **restrict-protected-src** **alarm-only**
- **restrict-protected-src** [**discard-frame**]
- **no restrict-protected-src**
- **[no] sdp-include** *group-name*
- **[no] sdp-exclude** *group-name*
- **split-horizon-group** *group-name* [**residential-group**]
- **no split-horizon-group**
  - **description** *description-string*
  - **no description**
  - **restrict-protected-src** **alarm-only**
  - **restrict-protected-src** [**discard-frame**]
  - **no restrict-protected-src**
  - **[no] restrict-unprotected-dst**
- **vc-type** {**ether** | **vlan**}
- **vlan-vc-tag** *0..4094*
- **no vlan-vc-tag**

## SDP Commands

```

config
  — service
    — sdp sdp-id [gre | mpls]
    — no sdp sdp-id
      — accounting-policy acct-policy-id
      — no accounting-policy
      — [no] adv-mtu-override
      — binding
        — port [port-id | lag-id]
        — no port
        — pw-port pw-port-id [vc-id vc-id] [create]
        — no pw-port pw-port-id
          — egress
            — [no] shaper int-dest-id int-dest-id
            — encap-type {dot1q|qinq}
            — no encap-type
            — [no] shutdown
            — vc-type {ether | vlan}
            — no vc-type
            — vlan-vc-tag vlan-id
            — no vlan-vc-tag
        — [no] bgp-tunnel
      — booking-factor percentage
      — no booking-factor
      — class-forwarding [default-lsp lsp-name]
      — no class-forwarding
        — [no] enforce-diffserv-lsp-fc
        — fc {be | l2 | af | l1 | h2 | ef | h1 | nc} lsp lsp-name
        — no fc {be | l2 | af | l1 | h2 | ef | h1 | nc}
        — multicast-lsp lsp-name
        — no multicast-lsp
        — [no] shutdown
      — [no] collect-stats
      — description description-string
      — no description
      — far-end ip-address | {node-id node-id} [global-id global-id]
      — no far-end
      — keep-alive
        — hello-time seconds
        — no hello-time
        — hold-down-time seconds
        — no hold-down-time
        — max-drop-count count
        — no max-drop-count
        — message-length octets
        — no message-length
        — [no] shutdown
        — timeout timeout
        — no timeout
      — [no] ldp
      — [no] lsp lsp-name
      — metric metric
      — no metric

```

- **[no] mixed-lsp-mode**
  - **[no] sdp-revert-time** *seconds* | **infinite**
- **network-domain** *network-domain-name*
- **no network-domain**
- **path-mtu** *octets*
- **no path-mtu**
- **pbb-etype** [0x0600..0xffff]
- **no pbb-etype**
- **[no] shutdown**
- **[no] sdp-group** *group-name*
- **signaling** [off | tldp|bgp]
- **tunnel-far-end** *ip-address*
- **no tunnel-far-end** [*ip-address*]
- **vlan-vc-etype** 0x0600..0xffff
- **sdp-group**
  - **group-name** *group-name* **value** *group-value*
  - **no group-name** *group-name*

## SAP Commands

```

config
  — service
    — apipe
      — sap sap-id [create] [no-endpoint]
      — sap sap-id [create] endpoint endpoint-name
      — no sap sap-id
    — epipe
      — sap sap-id [create] [no-endpoint]
      — sap sap-id [create] endpoint endpoint-name
      — no sap sap-id
    — fpipe
      — sap sap-id [create] [no-endpoint]
      — sap sap-id [create] endpoint endpoint-name
      — no sap sap-id
    — ies
      — sap sap-id [create]
      — no sap sap-id
    — ipipe
      — sap sap-id [create] [no-endpoint]
      — sap sap-id [create] endpoint endpoint-name
      — no sap sap-id
    — vpls
      — sap sap-id [split-horizon-group group-name] [create]
      — no sap sap-id
    — vprn
      — sap sap-id [create]
      — no sap sap-id
  — system
    — ethernet
      — [no] new-qinq-untagged-sap

```



## ETH-CFM Configuration Commands

```

config
  — eth-cfm
    — domain md-index [format {dns | mac | none | string}] name md-name level level
    — domain md-index
    — no domain md-index
      — association ma-index [format {icc-based| integer | string | vid | vpn-id}] name ma-name
      — association ma-index
      — no association ma-index
        — [no] bridge-identifier bridge-id
          — mhf-creation {default | none | explicit | static}
          — no mhf-creation
          — mip-ltr-priority priority
          — no mip-ltr-priority
          — vlan vlan-id
          — no vlan
        — ccm-interval {10ms | 100ms | 1 | 10 | 60 | 600}
        — no ccm-interval
        — [no] ccm-hold-time
        — ccm-hold-time
        — remote-mep mep-id remote-mac {unicast-da | default}
        — [no] remote-mepid mep-id
      — redundancy
        — mc-lag
          — [no] propagate-hold-time seconds
          — [no] standby-mep-shutdown
      — slm
        — [no] inactivity-timer timeout
      — system
        — grace-tx-enable
  
```

## ETH Tunnel Commands

```

config
  — eth-tunnel tunnel-index
  — no eth-tunnel tunnel-index
    — ccm-hold-time {down down-timeout | up up-timeout}
    — no ccm-hold-time
    — description long-description-string
    — no description
    — ethernet
      — encap-type {dot1q|qinq}
      — no encap-type
      — mac ieee-address
      — no mac
    — lag-emulation
      — access
        — adapt-qos {distribute | link}
        — no adapt-qos
        — [no] per-fp-ing-queuing
      — path-threshold num-paths
  
```

- **no path-threshold**
- **path**
  - **control-tag** *qtag* [*.qtag*]
  - **no control-tag**
  - **description** *description-string*
  - **no description**
  - **eth-cfm**
    - **[no] mep** *mep-id domain md-index association ma-index*
      - **[no] ccm-enable**
      - **ccm-ltm-priority** *priority*
      - **no ccm-ltm-priority**
      - **ccm-padding-size** *ccm-padding*
      - **no ccm-padding-size**
      - **[no] control-mep**
      - **description** *description-string*
      - **no description**
      - **[no] eth-test-enable**
        - **bit-error-threshold** *bit-errors*
        - **test-pattern** {*all-zeros* | *all-ones*} [*crc-enable*]
        - **no test-pattern**
      - **low-priority-defect** {*allDef*|*macRemErrXcon*|*remErrXcon*|*errXcon*|*xcon*|*noXcon*}
      - **mac-address** *mac-address*
      - **no mac-address**
      - **one-way-delay-threshold** *seconds*
      - **[no] shutdown**
    - **member** *port-id*
    - **no member**
    - **precedence** {*primary*|*secondary*}
    - **[no] shutdown**
  - **protection-type** {*g8031-1to1*|*loadsharing*}
  - **revert-time** *time*
  - **no revert-time**
  - **[no] shutdown**

## Show Commands

```

show
  — service
    — customer [customer-id] [site customer-site-name]
    — id id base
      — l2-route-table [detail] [bgp-ad] [multi-homing] [bgp-vpls] [bgp-vpws] [all-
        routes]
      — provider-tunnel
      — sdp
    — id sap base
    — id service vpls-group
    — id service vpls-group vpls-group-id non-template-saps
    — id mac-notification
    — id mrp
    — id sap mrp
    — id mvrp vlan
    — id mvrp vlan detailed
    — isid-using [ISID]
    — l2-route-table [detail] [bgp-ad] [multi-homing] [bgp-vpls][bgp-vpws] [all-routes]
    — sap-using
    — sap-using [msap] [dyn-script] [description]
    — sap-using [sap sap-id] [vlan-transaction | anti-spoof]
    — sap-using app-profile app-profile name
    — sap-using authentication-policy policy-name [msap]
    — sap-using encap-type encap-type
    — sap-using eth-ring [ring-id eth-ring-id]
    — sap-using eth-tunnel [tunnel-id eth-tunnel-id]
    — sap-using ingress|egress atm-td-profile td-profile-id
    — sap-using ingress|egress filter filter-id
    — sap-using ingress|egress qos-polify qos-policy-id [msap]
    — sap-using interface ip-address|ip-int-name [msap]
    — sap-using mc-ring peer ip-address ring sync-tag
    — oper-group group-name
    — pw-routing {local-prefix|static-route|paths|all}
    — pw-routing route-table [all-routes]
    — pw-routing route-table summary
    — pw-template
    — saii-type2-using global-id[:prefix[:ac-id]]
    — sdp sdp-id pw-port [pw-port-id]
    — sdp [consistent|inconsistent|na] egressifs
    — sdp sdp-id keep-alive-history
    — sdp far-end ip-address keep-alive-history
    — sdp [sdp-id] [detail]
    — sdp far-end ip-address [detail]
    — sdp-group group-name
    — sdp-group-using
    — sdp-group [sdp-id[:vc-id] | far-end ip-address]
    — service-using [epipe] [ies] [vpls] [vprn] [mirror] [b-vpls] [i-vpls] [m-vpls] [apipe] [fpipe]
      [ipipe] [sdp sdp-id] [customer customer-id]
    — tair-type2-using global-id[:prefix[:ac-id]]
    — template
      — vpls-template

```

- **vpls-template** *template-name*
- **vpls-template-using** *template-name*
- **vpls-sap-template**
- **vpls-sap-template** *template-name*
- **vpls-sap-template-using** *template-name*
- **eth-tunnel** {**aps**|**status**}
- **eth-tunnel** *tunnel-index* [**path** *path-index*] [**detail**]
- **eth-tunnel**
- **eth-cfm**
  - **association** [*ma-index*] [**detail**]
  - **cfm-stack-table** [**port** [*port-id* [**vlan** *vlan-id*]]|**sdp** *sdp-id*[:*vc-id*]][**level** 0..7] [**direction** **up** | **down**]
  - **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-interfaces**}] [**level** 0..7] [**direction** **up**|**down**]
  - **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**] [**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**
  - **system-config**

## Tools Perform Commands

```
tools
  — perform
    — service
      — id service-id
        — loopback
          — sap sap-id start mode [mac-swap [mac ieee-address [all]]]
          — sap sap-id stop
          — sdp sdp-id:vc-id start mode [mac-swap [mac ieee-address
            [all]]]
          — sdp sdp-id:vc-id stop
```

