

PICOS Routing and Switching Command Reference

Command-Line Interface Commands

- copy running-config startup-config
- set cli idle-timeout
- set cli screen-length
- set cli terminal
- syslog monitor
- syslog notify
- hwclock

System Management Commands

- NAC Configuration Commands
 - set protocols dot1x aaa radius authentication server-ip
 - set protocols dot1x aaa radius authentication server-ip priority
 - set protocols dot1x aaa radius authentication server-ip retry-num
 - set protocols dot1x aaa radius authentication server-ip retry-interval
 - set protocols dot1x aaa radius authentication server-ip detect-interval
 - set protocols dot1x aaa web server-ip port
 - set protocols dot1x interface auth-mode 802.1x
 - set protocols dot1x interface auth-mode 802.1x fallback-to-web disable
 - set protocols dot1x interface auth-mode mac-radius
 - set protocols dot1x interface auth-mode web
 - set protocols dot1x interface authentication-open disable
 - set protocols dot1x aaa radius dynamic-author client
 - set protocols dot1x aaa radius dynamic-author client shared-key
 - set protocols dot1x aaa radius nas-ip
 - set protocols dot1x aaa radius accounting disable
 - set protocols dot1x interface host-mode
 - set protocols dot1x block-vlan-id
 - set protocols dot1x server-fail-vlan-id
 - set protocols dot1x filter sequence from destination-mac-address
 - set protocols dot1x filter sequence from destination-address-ipv4
 - set protocols dot1x filter sequence from destination-address-ipv6
 - set protocols dot1x filter sequence from destination-port
 - set protocols dot1x filter sequence from ether-type
 - set protocols dot1x filter sequence from source-address-ipv4
 - set protocols dot1x filter sequence from source-address-ipv6
 - set protocols dot1x filter sequence from source-port
 - set protocols dot1x filter sequence from protocol
 - set protocols dot1x filter sequence from vlan
 - set protocols dot1x filter sequence then action
 - run show dot1x all
 - run show dot1x interface
 - run show dot1x server
 - run show dot1x dynamic filter
 - run show dot1x downloadable filter
 - run show dot1x interface statistics gigabit-ethernet
 - set protocols dot1x interface session-timeout
 - set protocols dot1x interface recovery-timeout
 - set protocols dot1x server-fail recovery-method
 - set protocols dot1x aaa radius authentication server-ip consecutive-detect-num
 - set protocols dot1x aaa vrf
- SNMP Configuration Commands
 - protocols snmpv3 trap-group targets <IPv4> security-name <text>
 - set protocols lldp snmp-trap
 - set protocols snmp trap-group event cpu-threshold enable
 - set protocols snmp trap-group event cpu-threshold high
 - set protocols snmp trap-group event cpu-threshold interval
 - set protocols snmp trap-group event cpu-threshold low
 - set protocols snmp trap-group event mac-threshold enable
 - set protocols snmp trap-group event mac-threshold interval
 - set protocols snmp trap-group event mac-threshold limit
 - set protocols snmp trap-group vrf
 - protocols snmp trap-group version <version>
 - protocols snmp v3 enable <boolean>
 - protocols snmp v3 usm-user <text>
 - protocols snmp v3 usm-user <text> group <text>
 - protocols snmp v3 group <text> notify-view <text>
 - protocols snmp v3 group <text> read-view <text>
 - protocols snmp v3 group <text> write-view <text>
 - protocols snmp v3 group group1 security-level
 - protocols snmp v3 usm-user user1 authentication-mode <authentication-mode >
 - protocols snmp v3 usm-user <text1> authentication-key <text2>
 - protocols snmp v3 usm-user <text> privacy-mode <privacy-mode >

- protocols snmp v3 usm-user <text1> privacy-key <text2>
- protocols snmp v3 mib-view <text1> subtree <text2> mask <text3>
- protocols snmp v3 mib-view <text1> subtree <text2> type <type>
- show system boot-messages
- show system connections
- show system core-dumps
- show system cpu-usage
- show system date
- show system fan
- show system memory-usage
- show system name
- show system ntp-status
- show system os
- show system processes brief
- show system processes detail
- show system rollback compare to
- show system rollback file
- show system rollback list
- show system rpsu
- show system serial-number
- show system temperature
- show system uptime
- show system users
- set system aaa local disable
- set system aaa radius accounting disable
- set system aaa radius accounting server-ip
- set system aaa radius accounting server-ip port
- set system aaa radius accounting server-ip shared-key
- set system aaa radius accounting server-ip timeout
- set system aaa radius authorization disable
- set system aaa radius authorization server-ip
- set system aaa radius authorization server-ip port
- set system aaa radius authorization server-ip shared-key
- set system aaa radius authorization server-ip timeout
- set system aaa radius vrf
- set system aaa tacacs-plus accounting
- set system aaa tacacs-plus authorization
- set system aaa tacacs-plus auth-type
- set system aaa tacacs-plus disable
- set system aaa tacacs-plus key
- set system aaa tacacs-plus port-number
- set system aaa tacacs-plus timeout
- set system aaa tacacs-plus server-ip
- set system aaa tacacs-plus source-interface
- set system aaa local-auth-fallback disable
- set system aaa tacacs-plus vrf
- system hostname
- set system inband enable
- set system inband vlan-interface
- system login-acl network
- system login announcement
- system login user
- system login user admin authentication plain-text-password
- system login user admin class
- system login user authentication plain-text-password
- system login user class
- system timezone
- set system ntp server-ip
- set system ntp source-interface
- set system ntp vrf
- set interface gigabit-ethernet ptp mode
- system remote-config allow-client
- system services ssh connection-limit
- system services ssh disable
- system services ssh protocol-version v2
- system services ssh rate-limit
- system services ssh root-login
- set system services ssh idle-timeout
- set system snmp-acl security-name network
- system syslog host
- set system syslog local-file
- system syslog port-number
- system syslog port-protocol
- set system syslog server-ip <IP> source-interface <text>
- set system syslog vrf
- set system usb disable
- set system management-ethernet eth0 ip-address {IPv4 | IPv6}
- set system management-ethernet eth0 ip-gateway {IPv4 | IPv6}
- set system management-ethernet eth1 ip-address {IPv4 | IPv6}

- set system management-ethernet eth1 ip-gateway {IPv4 | IPv6}
- show system management-ethernet
- run request system reboot
- run show system hwnfo
- ping
- ping6
- traceroute
- traceroute6
- tftp
- set protocols sflow collector vrf

Interface Configuration Commands

- Port Security Commands
 - set interface gigabit-ethernet port-security mac-address vlan
 - set interface gigabit-ethernet port-security mac-limit
 - set interface gigabit-ethernet port-security sticky
 - set interface gigabit-ethernet port-security violation
 - set interface gigabit-ethernet port-security block
 - set interface ethernet-switching-options port-error-discard timeout
 - run show port-security brief
 - run show port-security address
 - run show port-security interface
 - run clear port-security port-error
 - run clear port-security sticky interface
 - run clear port-security sticky address
 - run clear port-security dynamic interface
 - run clear port-security dynamic address
- interface aggregate-balancing hash-mapping field ethernet-destination-address disable
- interface aggregate-balancing hash-mapping field ethernet-source-address disable
- interface aggregate-balancing hash-mapping field ethernet-type disable
- interface aggregate-balancing hash-mapping field ingress-interface disable
- interface aggregate-balancing hash-mapping field ip-destination disable
- interface aggregate-balancing hash-mapping field ip-protocol disable
- interface aggregate-balancing hash-mapping field ip-source disable
- interface aggregate-balancing hash-mapping field port-destination disable
- interface aggregate-balancing hash-mapping field port-source disable
- interface aggregate-balancing hash-mapping field vlan disable
- interface aggregate-ethernet <lag_name>
- interface aggregate-ethernet <lag_name> description
- interface aggregate-ethernet <lag_name> disable
- interface aggregate-ethernet <lag_name> aggregated-ether-options flow-control
- interface aggregate-ethernet <lag_name> aggregated-ether-options lacp enable
- interface aggregate-ethernet <lag_name> aggregated-ether-options min-selected-port
- interface aggregate-ethernet <lag_name> backup-port delay
- interface aggregate-ethernet <lag_name> backup-port interface
- interface aggregate-ethernet <lag_name> backup-port mode
- interface aggregate-ethernet <lag_name> crossflow enable
- interface aggregate-ethernet <lag_name> crossflow local-control
- interface aggregate-ethernet <lag_name> family ethernet-switching dot1q-tunneling egress
- interface aggregate-ethernet <lag_name> family ethernet-switching dot1q-tunneling ether-type
- interface aggregate-ethernet <lag_name> family ethernet-switching dot1q-tunneling ingress
- interface aggregate-ethernet <lag_name> family ethernet-switching dot1q-tunneling mode
- interface aggregate-ethernet <lag_name> family ethernet-switching native-vlan-id
- interface aggregate-ethernet <lag_name> family ethernet-switching port-mode
- interface aggregate-ethernet <lag_name> family ethernet-switching vlan members
- interface aggregate-ethernet <lag_name> hash-mapping mode
- interface aggregate-ethernet <lag_name> mtu
- interface aggregate-ethernet <lag_name> snmp-trap
- interface aggregate-ethernet <lag_name> static-ethernet-switching mac-address <macaddr> vlan
- interface aggregate-ethernet <lag_name> storm-control <mode> pps
- set interface bpd-tunneling destination-mac
- interface cut-through-mode
- interface ecmp hash-mapping field ingress-interface disable
- interface ecmp hash-mapping field ip-destination disable
- interface ecmp hash-mapping field ip-protocol disable
- interface ecmp hash-mapping field ip-source disable
- interface ecmp hash-mapping field port-destination disable
- interface ecmp hash-mapping field port-source disable
- interface ecmp hash-mapping field vlan disable
- interface ecmp max-path
- interface ethernet-switching-options buffer queue-limit
- interface ethernet-switching-options mac-table-aging-time
- interface gigabit-ethernet <port> backup-port delay
- interface gigabit-ethernet <port> backup-port interface
- interface gigabit-ethernet <port> backup-port mode
- interface gigabit-ethernet <port> crossflow enable
- interface gigabit-ethernet <port> crossflow local-control
- interface gigabit-ethernet <port> description
- interface gigabit-ethernet <port> disable

- interface gigabit-ethernet <port> ether-options 802.3ad
- interface gigabit-ethernet <port> ether-options flow-control
- set interface gigabit-ethernet family ethernet-switching bpdu-tunneling protocol
- interface gigabit-ethernet <port> family ethernet-switching dot1q-tunneling egress
- interface gigabit-ethernet <port> family ethernet-switching dot1q-tunneling ether-type
- interface gigabit-ethernet <port> family ethernet-switching dot1q-tunneling ingress
- interface gigabit-ethernet <port> family ethernet-switching dot1q-tunneling mode
- interface gigabit-ethernet <port> family ethernet-switching native-vlan-id
- interface gigabit-ethernet <port> family ethernet-switching port-mode
- interface gigabit-ethernet <port> family ethernet-switching vlan members
- interface gigabit-ethernet <port> mtu
- interface gigabit-ethernet <port> power-preemphasis-level
- interface gigabit-ethernet <port> snmp-trap
- set interface gigabit-ethernet speed
- set interface gigabit-ethernet auto-speeds
- interface gigabit-ethernet <port> static-ethernet-switching mac-address <mac-address> vlan <vlan-id>
- interface gigabit-ethernet <port> storm-control <mode> pps
- interface gigabit-ethernet <port> wred queue <value> drop_probability
- interface gigabit-ethernet <port> wred queue <value> ecn_thresh
- interface gigabit-ethernet <port> wred queue <value> enable
- interface gigabit-ethernet <port> wred queue <value> max_thresh
- interface gigabit-ethernet <port> wred queue <value> min_thresh
- interface max-acl-rule-limit <egress/ingress>
- interface max-route-limit
- set interface ethernet-switching-options analyzer input
- show interface aggregate-ethernet <lag_name>
- show interface aggregate-ethernet <lag_name> dot1q-tunneling
- show interface bpdu-tunneling
- show interface brief
- show interface detail
- show interface diagnostics optics all
- show interface flexlink
- show interface gigabit-ethernet <interface>
- interface gigabit-ethernet <port> family ethernet-switching vlan members <vlan-id> untagged
- interface gigabit-ethernet <port> link-fault-signaling ignore-local-fault <boolean>
- interface gigabit-ethernet <port> link-fault-signaling ignore-remote-fault <boolean>
- interface gigabit-ethernet <port> up-mode <boolean>
- set interface gigabit-ethernet breakout
- interface gigabit-ethernet <port> storm-control <mode> ratio <value>
- interface gigabit-ethernet <port> fec <boolean>
- show interface ecmp max-path
- interface gigabit-ethernet <port> mac-learning <boolean>
- interface gigabit-ethernet <port> storm-control <mode> kbps
- run show interface diagnostics tdr
- set interface ethernet-switching-options analyzer output
- set interface gigabit-ethernet cdr
- set interface gigabit-ethernet duplex auto

Voice VLAN Configuration Commands

- set interface gigabit-ethernet voice-vlan mode
- set interface gigabit-ethernet voice-vlan tagged mode
- set interface gigabit-ethernet voice-vlan vlan-id
- set vlans voice-vlan aging
- set vlans voice-vlan dscp
- set vlans voice-vlan local-priority
- set vlans voice-vlan mac-address mask
- set vlans voice-vlan mac-address description
- show vlans voice-vlan
- show vlans voice-vlan oui
- show vlans voice-vlan vlan-id <text>

Firewall Configuration Commands

- set firewall filter description
- set firewall filter input vlan-interface
- set firewall filter output interface
- set firewall filter output vlan-interface
- set firewall filter sequence description
- set firewall filter sequence from destination-address-ipv4
- set firewall filter sequence from destination-address-ipv6
- set firewall filter sequence from destination-mac-address
- set firewall filter sequence from destination-port
- set firewall filter sequence from ether-type
- set firewall filter sequence from ip trust-mode
- set firewall filter sequence from ip value
- set firewall filter sequence from protocol icmp
- set firewall filter sequence from protocol igmp
- set firewall filter sequence from protocol ip
- set firewall filter sequence from protocol ospf

- set firewall filter sequence from protocol others
- set firewall filter sequence from protocol tcp
- set firewall filter sequence from protocol tcp flags
- set firewall filter sequence from protocol udp
- set firewall filter sequence from source-address-ipv4
- set firewall filter sequence from source-address-ipv6
- set firewall filter sequence from source-mac-address
- set firewall filter sequence from source-port
- set firewall filter sequence from vlan
- set firewall filter sequence log interval
- set firewall filter sequence then action
- set firewall system-output disable
- set firewall filter input interface
- set firewall filter sequence then forwarding-class
- run show filter

QoS Configuration Commands

- class-of-service classifier <classifier-name>
- class-of-service classifier <classifier-name> forwarding-class <forwarding-class-name> code-point <code-point>
- class-of-service classifier <classifier-name> trust-mode <trust-mode>
- class-of-service forwarding-class <forwarding-class-name> local-priority <local-priority>
- class-of-service interface <port> classifier <classifier-name>
- class-of-service scheduler <scheduler-name> guaranteed-rate <guaranteed-rate>
- class-of-service scheduler <scheduler-name> mode SP
- class-of-service scheduler <scheduler-name> mode WFQ
- class-of-service scheduler <scheduler-name> mode WRR
- class-of-service scheduler <scheduler-name> weight <weight-id>
- class-of-service scheduler-profile <scheduler-profile-name> forwarding-class <forwarding-class-name> schedule <schedule-name>
- show class-of-service <text>
- set class-of-service interface scheduler-profile
- class-of-service interface <port> default-priority <default-priority-type> <default-priority-int>
- class-of-service pfc-profile <profile-name> code-point <code-point> drop <boolean>
- class-of-service interface <port> pfc-profile <profile-name>
- set firewall filter sequence then dscp
- set class-of-service scheduler max-rate
- CoPP Commands
 - set class-of-service forwarding-class local-priority
 - set class-of-service scheduler max-bandwidth-pps
 - set class-of-service scheduler min-bandwidth-pps
 - set class-of-service scheduler-profile copp-profile forwarding-class scheduler
 - set class-of-service scheduler weight
 - set firewall filter copp sequence from destination-address-ipv4
 - set firewall filter copp sequence from destination-address-ipv6
 - set firewall filter copp sequence from destination-mac-address
 - set firewall filter copp sequence from destination-port
 - set firewall filter copp sequence from ether-type
 - set firewall filter copp sequence from protocol
 - set firewall filter copp sequence from source-address-ipv4
 - set firewall filter copp sequence from source-address-ipv6
 - set firewall filter copp sequence from source-mac-address
 - set firewall filter copp sequence from source-port
 - set firewall filter copp sequence from vlan
 - set firewall filter copp sequence then forwarding-class
 - set firewall filter copp sequence then dscp
 - run show copp bandwidth
 - run show copp statistics
 - run show filter copp
 - run show interface stm
 - run clear copp statistics
- Buffer Management Commands
 - set interface ethernet-switching-options buffer egress-queue shared-ratio
 - set interface ethernet-switching-options buffer egress-queue mc-queue-dynamic-shared
 - run show gigabit-ethernet egress-queues
 - run show interface egress-buffer
- Interface-based Rate Limiting Commands
 - set interface gigabit-ethernet rate-limiting ingress kilobits
 - set interface gigabit-ethernet rate-limiting ingress ratio
 - set interface gigabit-ethernet rate-limiting ingress burst
 - set interface gigabit-ethernet rate-limiting egress kilobits
 - set interface gigabit-ethernet rate-limiting egress ratio
 - set interface gigabit-ethernet rate-limiting egress burst
- ACL-based Traffic Policer Commands
 - set firewall policer if-exceeding count-mode
 - set firewall policer if-exceeding rate-limit
 - set firewall policer if-exceeding burst-limit
 - set firewall filter sequence then policer
 - set firewall policer if-exceeding action discard
 - run show policer

Layer 3 Unicast Routing Commands

- run show arp
- run show neighbors
- run show route
- run show route forward-host
- run show route forward-route
- run show vrf
- set ip vrf
- set ip routing enable
- set system management-vrf enable

IP Multicast Commands

- show multicast interface
- set multicast-interface interface vif disable
- IGMP Snooping Configuration Commands
 - run show igmp-snooping
 - run show igmp-snooping groups
 - run show igmp-snooping mrouter
 - run show igmp-snooping querier
 - set protocols igmp-snooping enable
 - set protocols igmp-snooping last-member-query-count
 - set protocols igmp-snooping last-member-query-interval
 - set protocols igmp-snooping max-response-time
 - set protocols igmp-snooping query-interval
 - set protocols igmp-snooping report-suppression
 - set protocols igmp-snooping robustness-variable
 - set protocols igmp-snooping vlan-id enable
 - set protocols igmp-snooping vlan-id fast-leave
 - set protocols igmp-snooping vlan-id mrouter interface
 - set protocols igmp-snooping vlan-id querier address
 - set protocols igmp-snooping vlan-id querier enable
 - set protocols igmp-snooping vlan-id querier other-querier-timer
 - set protocols igmp-snooping vlan-id querier version
 - set protocols igmp-snooping vlan-id static group interface
- PIM Configuration Commands
 - run show pim bootstrap
 - run show pim bootstrap rps
 - run show pim interface
 - run show pim join
 - run show pim mfc
 - run show pim mrib
 - run show pim neighbors
 - run show pim rps
 - run show pim rps mapping
 - run show pim traffic
 - set protocols pimsm4 bootstrap cand-bsr scope-zone
 - set protocols pimsm4 bootstrap cand-bsr scope-zone bsr-priority
 - set protocols pimsm4 bootstrap cand-bsr scope-zone cand-bsr-by-vif-addr
 - set protocols pimsm4 bootstrap cand-bsr scope-zone cand-bsr-by-vif-name
 - set protocols pimsm4 bootstrap cand-bsr scope-zone hash-mask-len
 - set protocols pimsm4 bootstrap cand-rp group-prefix
 - set protocols pimsm4 bootstrap cand-rp group-prefix cand-rp-by-vif-addr
 - set protocols pimsm4 bootstrap cand-rp group-prefix cand-rp-by-vif-name
 - set protocols pimsm4 bootstrap cand-rp group-prefix is-scope-zone
 - set protocols pimsm4 bootstrap cand-rp group-prefix rp-holdtime
 - set protocols pimsm4 bootstrap cand-rp group-prefix rp-priority
 - set protocols pimsm4 bootstrap disable
 - set protocols pimsm4 disable
 - set protocols pimsm4 interface vif alternative-subnet
 - set protocols pimsm4 interface vif disable
 - set protocols pimsm4 interface vif dr-priority
 - set protocols pimsm4 interface vif hello-period
 - set protocols pimsm4 interface vif hello-triggered-delay
 - set protocols pimsm4 static-rps rp
 - set protocols pimsm4 static-rps rp group-prefix
 - set protocols pimsm4 static-rps rp group-prefix hash-mask-len
 - set protocols pimsm4 static-rps rp group-prefix rp-priority
 - set protocols pimsm4 switch-to-spt-threshold bytes
 - set protocols pimsm4 switch-to-spt-threshold disable
 - set protocols pimsm4 switch-to-spt-threshold interval

Protocol Configuration Commands

- protocols arp aging-time
- protocols arp interface <interface> address <ipv4-addr> mac-address
- protocols arp interface <interface> proxy disable
- set protocols arp inspection vlan disable
- set protocols arp inspection access-list ip mac-address

- set protocols arp inspection vlan access-list
- set protocols arp inspection trust-port
- run show arp inspection dhcp-binding
- run show arp inspection interface
- run show arp inspection vlan
- run show arp inspection access-list
- run show arp inspection statistics vlan
- protocols bfd interface <interface> detect-multiplier
- protocols bfd interface <interface> disable
- protocols bfd interface <interface> min-echo-receive-interval
- protocols bfd interface <interface> min-receive-interval
- protocols bfd interface <interface> min-transmit-interval
- protocols bfd mode
- protocols bgp aggregate <network> <IPV?net> suppress-detail
- protocols bgp aggregate network4 <IPV4net> brief-mode
- protocols bgp auto-summary
- protocols bgp bgp-id
- protocols bgp confederation disable
- protocols bgp confederation identifier
- protocols bgp damping disable
- protocols bgp damping half-life
- protocols bgp damping max-suppress
- protocols bgp damping reuse
- protocols bgp damping suppress
- protocols bgp enable-4byte-as-numbers
- protocols bgp export
- protocols bgp fast-external-fallover disable
- protocols bgp import
- protocols bgp local-as
- protocols bgp local-preference
- protocols bgp med
- protocols bgp multipath disable
- protocols bgp multipath path-relax
- protocols bgp network4 <ipv4net>
- protocols bgp network6 <ipv6net>
- protocols bgp peer <text> advertise community disable
- protocols bgp peer <text> advertise community-ext disable
- protocols bgp peer <text> allow-as-loop
- protocols bgp peer <text> as
- protocols bgp peer <text> bfd disable
- protocols bgp peer <text> client
- protocols bgp peer <text> confederation-member
- protocols bgp peer <text> default-route-advertise disable
- protocols bgp peer <text> delay-open-time
- protocols bgp peer <text> disable
- protocols bgp peer <text> export
- protocols bgp peer <text> holdtime
- protocols bgp peer <text> import
- protocols bgp peer <text> ipv4-multicast
- protocols bgp peer <text> ipv4-unicast
- protocols bgp peer <text> ipv6-multicast
- protocols bgp peer <text> ipv6-unicast
- protocols bgp peer <text> local-ip
- protocols bgp peer <text> md5-password
- protocols bgp peer <text> next-hop-self
- protocols bgp peer <text> prefix-limit maximum
- protocols bgp peer <text> public-as-only
- protocols bgp route-reflector cluster-id
- protocols bgp route-reflector disable
- protocols bgp synchronization
- protocols igmp disable
- protocols igmp interface <text> vif <text> disable
- protocols igmp interface <text> vif <text> enable-ip-router-alert-option-check
- protocols igmp interface <text> vif <text> query-interval
- protocols igmp interface <text> vif <text> query-last-member-interval
- protocols igmp interface <text> vif <text> query-response-interval
- protocols igmp interface <text> vif <text> robust-count
- protocols igmp interface <text> vif <text> version
- protocols lACP interface <interface> priority
- protocols lACP priority
- set protocols ospf4 area interface vif address neighbor router-id
- set protocols ospf4 area virtual-link transmit-area
- set protocols ospf4 area area-range advertise
- set protocols ospf4 area area-type
- set protocols ospf4 area default-lsa disable
- set protocols ospf4 area default-lsa metric
- set protocols ospf4 area interface link-type
- set protocols ospf4 area interface vif address
- set protocols ospf4 area interface vif address authentication md5 end-time

- set protocols ospf4 area interface vif address authentication md5 max-time-drift
- set protocols ospf4 area interface vif address authentication md5 password
- set protocols ospf4 area interface vif address authentication md5 simple-password
- set protocols ospf4 area interface vif address bfd disable
- set protocols ospf4 area interface vif address disable
- set protocols ospf4 area interface vif address hello-interval
- set protocols ospf4 area interface vif address interface-cost
- set protocols ospf4 area interface vif address passive disable
- set protocols ospf4 area interface vif address priority
- set protocols ospf4 area interface vif address retransmit-interval
- set protocols ospf4 area interface vif address router-dead-interval
- set protocols ospf4 area interface vif address transmit-delay
- set protocols ospf4 area interface vif address authentication md5 start-time
- set protocols ospf4 area interface vif address passive host
- set protocols ospf4 area summaries disable
- set protocols ospf4 area virtual-link authentication md5 end-time
- set protocols ospf4 area virtual-link authentication md5 max-time-drift
- set protocols ospf4 area virtual-link authentication md5 password
- set protocols ospf4 area virtual-link authentication md5 simple-password
- set protocols ospf4 area virtual-link authentication md5 start-time
- set protocols ospf4 area virtual-link hello-interval
- set protocols ospf4 area virtual-link retransmit-interval
- set protocols ospf4 area virtual-link router-dead-interval
- set protocols ospf4 area virtual-link transmit-delay
- set protocols ospf4 export
- set protocols ospf4 import
- set protocols ospf4 ip-router-alert
- set protocols ospf4 rfc1583-compatibility
- set protocols ospf4 router-id
- set protocols ospf6 area interface vif neighbor router-id
- set protocols ospf6 area virtual-link transmit-area
- set protocols ospf6 area area-range advertise
- set protocols ospf6 area area-type
- set protocols ospf6 area default-lsa disable
- set protocols ospf6 area default-lsa metric
- set protocols ospf6 area interface link-type
- set protocols ospf6 area interface vif address disable
- set protocols ospf6 area interface vif bfd disable
- set protocols ospf6 area interface vif disable
- set protocols ospf6 area interface vif hello-interval
- set protocols ospf6 area interface vif interface-cost
- set protocols ospf6 area interface vif passive
- set protocols ospf6 area interface vif priority
- set protocols ospf6 area interface vif retransmit-interval
- set protocols ospf6 area interface vif router-dead-interval
- set protocols ospf6 area interface vif transmit-delay
- set protocols ospf6 area summaries disable
- set protocols ospf6 area virtual-link hello-interval
- set protocols ospf6 area virtual-link retransmit-interval
- set protocols ospf6 area virtual-link router-dead-interval
- set protocols ospf6 area virtual-link transmit-delay
- set protocols ospf6 export
- set protocols ospf6 import
- set protocols ospf6 instance-id
- set protocols ospf6 ip-router-alert
- set protocols ospf6 router-id
- protocols rip export
- protocols rip import
- protocols rip interface vif address accept-default-route
- protocols rip interface vif address accept-non-rip-requests
- protocols rip interface vif address advertise-default-route
- protocols rip interface vif address authentication md5 end-time
- protocols rip interface vif address authentication md5 password
- protocols rip interface vif address authentication md5 start-time
- protocols rip interface vif address authentication simple-password
- protocols rip interface vif address deletion-delay
- protocols rip interface vif address disable
- protocols rip interface vif address horizon
- protocols rip interface vif address interpacket-delay
- protocols rip interface vif address metric
- protocols rip interface vif address passive
- protocols rip interface vif address request-interval
- protocols rip interface vif address route-timeout
- protocols rip interface vif address triggered-delay
- protocols rip interface vif address triggered-jitter
- protocols rip interface vif address update-interval
- protocols rip interface vif address update-jitter
- protocols sflow agent-id
- protocols sflow collector <IPv4> udp-port

- protocols sflow disable
- protocols sflow header-len
- protocols sflow interface <port> disable
- protocols sflow interface <port> header-len
- protocols sflow interface <port> polling-interval
- protocols sflow interface <port> sampling-rate egress
- protocols sflow interface <port> sampling-rate ingress
- protocols sflow polling-interval
- protocols sflow sampling-rate egress
- protocols sflow sampling-rate ingress
- protocols sflow source-address
- set protocols dhcp snooping vlan
- set protocols dhcp snooping trust-port
- set protocols dhcp snooping vlan option82-policy
- set protocols dhcp snooping option82 circuit-id
- set protocols dhcp snooping option82 remote-id
- set protocols dhcp snooping option82 trust-all
- set protocols dhcp snooping binding file
- set protocols dhcp snooping binding write-delay
- run show dhcp snooping binding
- set protocols dhcp relay interface disable
- set protocols dhcp relay interface dhcp-server-address
- set protocols dhcp relay interface relay-agent-address
- set protocols dhcp relay interface option82-policy
- set protocols dhcp relay option82 circuit-id
- set protocols dhcp relay option82 remote-id
- set protocols dhcp relay option82 trust-all
- set protocols static route next-hop
- set protocols static route metric

OpenFlow Commands in CrossFlow Mode

VLAN Configuration Commands

- vlan-interface interface <interface-name> router-advertisement disable
- vlan-interface interface vif address prefix-length
- vlan-interface interface vif description
- vlan-interface loopback address <ip-address> prefix-length
- vlans dot1q-tunneling egress from
- vlans dot1q-tunneling egress then action
- vlans dot1q-tunneling egress then service-vlan
- vlans dot1q-tunneling ingress from double-tag service-vlan
- vlans dot1q-tunneling ingress from one-tag customer-vlan-list
- vlans dot1q-tunneling ingress from untag enabled
- vlans dot1q-tunneling ingress then
- vlans vlan-id
- vlans vlan-id description
- vlans vlan-id I3-interface
- vlans vlan-id vlan-name
- show vlan-interface
- show vlan-interface interface
- show vlans
- run clear vlan-interface statistics loopback
- vlan-interface interface <interface-name> dhcp <boolean>
- set vlan-interface interface mtu
- set vlan-interface interface rate-limit
- set vlan-interface interface vrf

VXLAN Commands

- vxlans source-interface <interface> address
- vxlans udp-port
- set vxlans vni <text> decapsulation mode
- vxlans vni <text> encapsulation mode
- vxlans vni <text> encapsulation vlan
- vxlans vni <text> flood vtep
- vxlans vni <text> flood vtep <ipv4-addr> bfd
- vxlans vni <text> flood vtep <ipv4-addr> mac-address
- vxlans vni <text> flood vtep <ipv4-addr> traffic-type
- vxlans vni <text> interface
- vxlans vni <text> interface <port> vlan <vlan-id>
- set vxlans vni <text> vlan
- set vxlans vni-map-vlan
- set vxlans tunnel-mac-learning disable
- OVSDb VTEP command
 - set protocols ovssdb controller <controller-name> address
 - set protocols ovssdb controller <controller-name> inactivity-probe-duration 30000
 - set protocols ovssdb controller <controller-name> maximum-backoff-duration
 - set protocols ovssdb controller <controller-name> port
 - set protocols ovssdb controller c1 protocol

- set protocols ovsdb interface
- set protocols ovsdb management-ip
- set protocols ovsdb ssl bootstrap
- set protocols ovsdb ssl ca-cert
 - set protocols ovsdb ssl certificate
- set protocols ovsdb ssl private-key
- set vxlans ovsdb-managed
- set protocols ovsdb controller vrf

PoE Configuration Commands

- set poe interface max-power
- set poe interface detection-type
- set poe interface enable
- set poe interface mode
- set poe interface priority
- set poe interface threshold-mode
- set poe power management-mode
- set poe power mode
- set poe interface lldp-negotiation
- run show poe interface
- run show poe power

VRRP Commands

- set protocols vrrp interface vif vrid
- set protocols vrrp interface vif vrid disable
- set protocols vrrp interface vif vrid version
- set protocols vrrp interface vif vrid ip
- set protocols vrrp interface vif vrid priority
- set protocols vrrp interface vif vrid interval
- set protocols vrrp interface vif vrid preempt enable
- set protocols vrrp interface vif vrid load-balance disable
- set protocols vrrp interface vif vrid load-balance virtual-mac time-interval
- set protocols vrrp interface vif vrid accept disable
- set protocols vrrp interface vif vrid authentication type
- set protocols vrrp interface vif vrid simple-key
- set protocols vrrp interface vif vrid md5-key
- run show vrrp

Spanning Tree Protocol Commands

- set protocols spanning-tree enable
- set protocols spanning-tree force-version
- set protocols spanning-tree mstp bridge-priority
- set protocols spanning-tree mstp configuration-name
- set protocols spanning-tree mstp forward-delay
- set protocols spanning-tree mstp hello-time
- set protocols spanning-tree mstp interface bpdu-filter
- set protocols spanning-tree mstp interface bpdu-guard
- set protocols spanning-tree mstp interface edge
- set protocols spanning-tree mstp interface external-path-cost
- set protocols spanning-tree mstp interface internal-path-cost
- set protocols spanning-tree mstp interface manual-forwarding
- set protocols spanning-tree mstp interface mode
- set protocols spanning-tree mstp interface port-priority
- set protocols spanning-tree mstp interface root-guard
- set protocols spanning-tree mstp interface tcn-guard
- set protocols spanning-tree mstp max-age
- set protocols spanning-tree mstp max-hops
- set protocols spanning-tree mstp msti bridge-priority
- set protocols spanning-tree mstp msti interface cost
- set protocols spanning-tree mstp msti interface port-priority
- set protocols spanning-tree mstp msti vlan
- set protocols spanning-tree mstp revision-level
- set protocols spanning-tree pvst interface bpdu-guard
- set protocols spanning-tree pvst interface manual-forwarding
- set protocols spanning-tree pvst interface mode
- set protocols spanning-tree pvst interface root-guard
- set protocols spanning-tree pvst vlan bridge-priority
- set protocols spanning-tree pvst vlan enable
- set protocols spanning-tree pvst vlan forward-delay
- set protocols spanning-tree pvst vlan hello-time
- set protocols spanning-tree pvst vlan interface path-cost
 - set protocols spanning-tree pvst vlan interface port-priority
- set protocols spanning-tree pvst vlan max-age
- set protocols spanning-tree rstp bridge-priority
- set protocols spanning-tree rstp forward-delay
- set protocols spanning-tree rstp hello-time
- set protocols spanning-tree rstp interface bpdu-filter

- set protocols spanning-tree rstp interface bpdu-guard
- set protocols spanning-tree rstp interface edge
- set protocols spanning-tree rstp interface mode
- set protocols spanning-tree rstp interface path-cost
- set protocols spanning-tree rstp interface port-priority
- set protocols spanning-tree rstp interface root-guard
- set protocols spanning-tree rstp interface tcn-guard
- set protocols spanning-tree rstp max-age
- set protocols spanning-tree stp bridge-priority
- set protocols spanning-tree stp forward-delay
- set protocols spanning-tree stp hello-time
- set protocols spanning-tree stp interface bpdu-filter
- set protocols spanning-tree stp interface bpdu-guard
- set protocols spanning-tree stp interface edge
- set protocols spanning-tree stp interface mode
- set protocols spanning-tree stp interface path-cost
- set protocols spanning-tree stp interface port-priority
- set protocols spanning-tree stp interface root-guard
- set protocols spanning-tree stp interface tcn-guard
- set protocols spanning-tree stp max-age

MLAG Commands

- set protocols mlag domain
- set protocols mlag domain node
- set protocols mlag domain interface link
- set protocols mlag domain peer-ip peer-link
- set protocols mlag domain peer-ip peer-vlan
- run show mlag domain
- run show mlag link
- run show mlag consistency-parameter