



# Catalyst 4500 Series IOS Commands

## New Commands

auto security  
auto security-port  
show auto security

## Revised Commands

## A Commands

aaa accounting dot1x default start-stop group radius  
aaa accounting system default start-stop group radiusclear mac-address-table  
access-group mode  
access-list hardware capture mode  
access-list hardware entries  
access-list hardware region  
action  
apply  
anyp client server  
anyp mode client  
apply  
arp access-list  
attach module  
authentication control-direction  
authentication critical recovery delay  
authentication event  
authentication fallback  
authentication host-mode

authentication open  
authentication order  
authentication periodic  
authentication port-control  
authentication priority  
authentication timer  
authentication violation  
auto qos classify  
auto qos classify police  
auto qos srnd4  
auto qos trust  
auto qos video  
auto qos voip  
auto qos voip cisco-softphone  
auto security  
auto security-port  
auto-sync  
average-packet-size (netflow-lite monitor submode)

## **C Commands**

call-home (global configuration)  
call-home request  
call-home send  
call-home send alert-group  
call-home test  
channel-group  
channel-protocol  
cisp enable  
class-map  
clear counters  
clear errdisable interface  
clear hw-module slot password  
clear interface gigabitethernet  
clear interface vlan  
clear ip access-template  
clear ip arp inspection log  
clear ip arp inspection statistics

clear ip dhcp snooping binding  
clear ip dhcp snooping database  
clear ip dhcp snooping database statistics  
clear ip igmp group  
clear ip mfib counters  
clear ip mfib fastdrop  
clear ip wecp  
clear lacp counters  
clear netflow-lite exporter statistics  
clear netflow-lite monitor statistics interface  
clear nmsp statistics  
clear mac-address-table dynamic  
clear pagp  
clear port-security  
clear pppoe intermediate-agent statistics  
clear qos  
clear switch virtual dual-active fast-hello  
clear vlan counters  
clear vmps statistics  
control-plane  
cos (netflow-lite exporter submode)  
counter

## D Commands

debug adjacency  
debug backup  
debug condition interface  
debug condition standby  
debug condition vlan  
debug device-sensor  
debug dot1x  
debug etherchnl  
debug interface  
debug ip dhcp snooping event  
debug ip dhcp snooping packet  
debug ip verify source packet  
debug ipc

debug lacp  
debug monitor  
debug nmsp  
debug nvram  
debug pagp  
debug platform packet protocol lacp  
debug platform packet protocol pagp  
debug pm  
debug port-security  
debug pppoe intermediate-agent  
debug redundancy  
debug spanning-tree  
debug spanning-tree backbonefast  
debug spanning-tree switch  
debug spanning-tree uplinkfast  
debug sw-vlan  
debug sw-vlan ifs  
debug sw-vlan notification  
debug sw-vlan vtp  
debug udld  
debug vqpc  
define interface-range  
deny  
destination (netflow-lite exporter submode)  
device-sensor filter-list  
device-sensor filter-list dhcp  
device-sensor filter-spec  
device-sensor notify  
diagnostic fpga soft-error recover  
diagnostic monitor action  
diagnostic start  
dot1x auth-fail max-attempts  
dot1x auth-fail vlan  
dot1x credentials (global configuration)  
dot1x critical  
dot1x critical eapol  
dot1x critical recovery delay  
dot1x critical vlan

dot1x control-direction  
dot1x guest-vlan  
dot1x guest-vlan supplicant  
dot1x host-mode  
dot1x initialize  
dot1x mac-auth-bypass  
dot1x max-reauth-req  
dot1x max-req  
dot1x port-control  
dot1x re-authenticate  
dot1x re-authentication  
dot1x system-auth-control  
dot1x timeout  
dscp (netflow-lite exporter submode)  
dual-active detection (virtual switch)  
duplex  
dual-active recovery ip address  
duplex

## **E Commands**

erase  
errdisable detect cause  
errdisable recovery  
export-protocol (netflow-lite exporter submode)  
exporter (netflow-lite monitor submode)

## **F Commands**

flowcontrol

## **H Commands**

hardware statistics  
hw-module beacon  
hw-module module start  
hw-module module stop  
hw-module port-group  
hw-module power  
hw-module system max-port-num-mode 1/2

hw-module system max-port-num-mode 1/2 switch 1/2/all

hw-module system max-queue-limit

hw-module uplink mode

hw-module uplink select

## I Commands

instance

interface

interface (virtual switch)

interface port-channel

interface range

interface vlan

ip admission proxy http refresh-all

ip arp inspection filter vlan

ip arp inspection limit (interface)

ip arp inspection log-buffer

ip arp inspection trust

ip arp inspection validate

ip arp inspection vlan

ip arp inspection vlan logging

ip cef load-sharing algorithm

ip dhcp snooping

ip dhcp snooping binding

ip dhcp snooping database

ip dhcp snooping information option

ip dhcp snooping information option allow-untrusted

ip dhcp snooping limit rate

ip dhcp snooping trust

ip dhcp snooping vlan

ip device tracking maximum

ip igmp filter

ip igmp max-groups

ip igmp profile

ip igmp query-interval

ip igmp snooping

ip igmp snooping report-suppression  
ip igmp snooping vlan  
ip igmp snooping vlan explicit-tracking  
ip igmp snooping vlan immediate-leave  
ip igmp snooping vlan mrouter  
ip igmp snooping vlan static  
ip local-proxy-arp  
ip mfib fastdrop  
ip name-server  
ip route-cache flow  
ip source binding  
ip sticky-arp  
ip verify header vlan all  
ip verify source  
ip verify unicast source reachable-via  
ip wccp  
ip wccp check services all  
ip wccp group-listen  
ip wccp redirect  
ip wccp redirect exclude in  
ipv6 mld snooping  
ipv6 mld snooping last-listener-query-count  
ipv6 mld snooping last-listener-query-interval  
ipv6 mld snooping listener-message-suppression  
ipv6 mld snooping robustness-variable  
ipv6 mld snooping tcn  
ipv6 mld snooping vlan  
issu abortversion  
issu acceptversion  
issu commitversion  
redundancy config-sync mismatched-commands  
issu loadversion  
issu runversion  
issu set rollback-timer

## L Commands

l2protocol-tunnel

l2protocol-tunnel cos  
l2protocol-tunnel drop-threshold  
l2protocol-tunnel shutdown-threshold  
lACP port-priority  
lACP system-priority  
license right-to-use activate  
license right-to-use deactivate  
lldp tlv-select power-management  
logging event trunk-status global (global configuration)  
logging event link-status global (global configuration)  
logging event trunk-status global (global configuration)  
logging event link-status global (global configuration)  
logging event link-status (interface configuration)  
logging event trunk-status (interface configuration)

## M Commands

mac access-list extended  
mac-address (virtual switch)  
mac-address-table aging-time  
mac-address-table dynamic group protocols  
mac-address-table learning vlan  
mac-address-table notification  
mac-address-table static  
macro apply cisco-desktop  
macro apply cisco-phone  
macro apply cisco-router  
macro apply cisco-switch  
macro auto device  
macro auto execute (built-in function)  
macro auto execute (remotely-defined trigger)  
macro auto execute (user-defined function)  
macro auto global processing  
macro auto mac-address-group  
macro auto monitor  
macro auto processing  
macro auto sticky  
macro global apply cisco-global



macro global apply system-cpp  
macro global description  
macsec network-link  
mka  
mka policy  
main-cpu  
match  
match flow ip  
mdix auto  
media-type  
mode  
monitor capture { access-list | class-map }  
monitor capture [clear | export]  
monitor capture [interface | vlan | control-plane]  
monitor capture file location buffer-size  
monitor capture limit  
monitor capture mycap match  
monitor capture start  
monitor session  
mtu  
mvr (global configuration)  
mvr (interface configuration)

## N Commands

name  
netflow-lite exporter  
netflow-lite monitor  
netflow-lite sampler  
nmsp  
nmsp attachment suppress

## O Commands

options timeout (netflow-lite exporter submode)

## P Commands

packet-offset (netflow-lite sampler submode)  
packet-rate (netflow-lite sampler submode)

packet-section size (netflow-lite sampler submode)  
pagp learn-method  
pagp port-priority  
passive-interface  
permit  
policy-map  
port-channel load-balance  
port-channel standalone-disable  
port-security mac-address  
port-security mac-address sticky  
port-security maximum  
power dc input  
power efficient-ethernet auto  
power inline  
power inline consumption  
power inline four-pair forced  
power inline logging global  
power inline police  
power redundancy combined max inputs  
power redundancy-mode  
pppoe intermediate-agent (global)  
pppoe intermediate-agent (interface)  
pppoe intermediate-agent (interface vlan-range)  
pppoe intermediate-agent format-type (global)  
pppoe intermediate-agent limit rate  
pppoe intermediate-agent trust  
pppoe intermediate-agent vendor-tag strip  
priority  
private-vlan  
private-vlan mapping  
private-vlan synchronize  
profile  
profile flow

## Q Commands

qos account layer-all encapsulation  
qos account layer2 encapsulation

qos trust  
queue-limit

## R Commands

redundancy  
redundancy force-switchover  
redundancy reload  
remote login module  
remote-span  
renew ip dhcp snooping database  
reset  
revision

## S Commands

sampler (netflow-lite monitor submode)  
service-policy (interface configuration)  
service-policy (policy-map class)  
service-policy input (control-plane)  
session module  
set  
set cos  
set dscp  
set precedence  
set qos-group  
shape (interface configuration)  
shell trigger  
snmp ifindex clear  
snmp ifindex persist  
snmp-server enable traps  
snmp-server ifindex persist  
snmp-server ifindex persist compress  
snmp trap mac-notification change  
source (netflow-lite exporter submode)  
spanning-tree backbonefast  
spanning-tree bpdudfilter  
spanning-tree bpduguard  
spanning-tree bridge assurance

spanning-tree cost  
spanning-tree etherchannel guard misconfig  
spanning-tree extend system-id  
spanning-tree guard  
spanning-tree link-type  
spanning-tree loopguard default  
spanning-tree mode  
spanning-tree mst  
spanning-tree mst configuration  
spanning-tree mst forward-time  
spanning-tree mst hello-time  
spanning-tree mst max-age  
spanning-tree mst max-hops  
spanning-tree mst simulate pvst global  
spanning-tree mst simulate pvst (interface configuration mode)  
spanning-tree mst root  
spanning-tree pathcost method  
spanning-tree portfast (interface configuration mode)  
spanning-tree portfast edge bpdudfilter default  
spanning-tree portfast edge bpduguard default  
spanning-tree portfast  
spanning-tree port-priority  
spanning-tree uplinkfast  
spanning-tree vlan  
speed  
storm-control  
storm-control broadcast include multicast  
switch (virtual switch)  
switch convert mode (virtual switch)  
switch virtual domain (virtual switch)  
switch virtual link (virtual switch)  
switchport  
switchport access vlan  
switchport autostate exclude  
switchport block  
switchport mode  
switchport port-security  
switchport private-vlan association trunk

switchport private-vlan host-association  
switchport private-vlan mapping  
switchport private-vlan trunk allowed vlan  
switchport private-vlan trunk native vlan tag  
switchport trunk  
switchport vlan mapping  
system mtu

## Show Commands

show access-group mode interface  
show adjacency  
show ancp multicast  
show arp access-list  
show authentication  
show auto install status  
show auto qos  
show auto security  
show bootflash:  
show bootvar  
show cable-diagnostics tdr  
show call-home  
show cdp neighbors  
show class-map  
show device-sensor cache  
show diagnostic content  
show diagnostic result module  
show diagnostic result module test  
show diagnostic result module test 2  
show diagnostic result module test 3  
show dot1x  
show eigrp plugins  
show errdisable detect  
show errdisable recovery  
show etherchannel  
show flowcontrol  
show hw-module port-group  
show hw-module system max-port-num-mode

show hw-module uplink  
show idprom  
show interfaces  
show interfaces (virtual switch)  
show interfaces counters  
show interfaces counters (virtual switch)  
show interfaces description  
show interfaces link  
show interfaces mtu  
show interfaces private-vlan mapping  
show interfaces status  
show interfaces switchport  
show interfaces transceiver  
show interfaces trunk  
show ip arp inspection  
show ip arp inspection log  
show ip cef vlan  
show ip dhcp snooping  
show ip dhcp snooping binding  
show ip dhcp snooping database  
show ip igmp interface  
show ip igmp profile  
show ip igmp snooping  
show ip igmp snooping membership  
show ip igmp snooping mrouter  
show ip igmp snooping vlan  
show ip interface  
show ip mfib  
show ip mfib fastdrop  
show ip mroute  
show ip source binding  
show ip verify source  
show ip wccp  
show ipc  
show ipv6 mld snooping  
show ipv6 mld snooping mrouter  
show ipv6 mld snooping querier  
show ipv6 snooping counters

show issu capability  
show issu clients  
show issu comp-matrix  
show issu endpoints  
show issu entities  
show issu fsm  
show issu message  
show issu negotiated  
show issu rollback-timer  
show issu sessions  
show issu state  
show l2protocol-tunnel  
show lacp  
show license  
show mab  
show mac access-group interface  
show mac-address-table address  
show mac-address-table aging-time  
show mac-address-table count  
show mac-address-table dynamic  
show mac-address-table interface  
show mac address-table learning  
show mac-address-table multicast  
show mac-address-table notification  
show mac-address-table protocol  
show mac-address-table static  
show mac-address-table vlan  
show macro auto mac-address-group  
show macro auto device  
show macro auto interface  
show macro auto monitor clients  
show macro auto monitor device  
show macro auto monitor type  
show module  
show monitor  
show monitor capture  
show monitor capture file  
show mvr

show mvr interface  
show mvr members  
show netflow-lite exporter  
show netflow-lite monitor  
show netflow-lite sampler  
show nmsp  
show pagp  
show pagp dual-active (virtual switch)  
show policy-map  
show policy-map control-plane  
show policy-map interface  
show policy-map interface vlan  
show port-security  
show power  
show power inline police  
show qos  
show pppoe intermediate-agent interface  
show qos  
show qos aggregate policer  
show qos dbl  
show qos interface  
show qos maps  
show redundancy  
show redundancy config-sync  
show running-config  
show slavebootflash:  
show slaveslot0:  
show slot0:  
show spanning-tree  
show spanning-tree mst  
show storm-control  
show switch virtual (virtual switch)  
show system mtu  
show tech-support  
show udd  
show vlan  
show vlan access-map  
show vlan counters



show vlan dot1q tag native  
show vlan group  
show vlan internal usage  
show vlan mapping  
show vlan mtu  
show vlan private-vlan  
show vlan remote-span  
show vmps  
show vslp (virtual switch)  
show vtp

## T Commands

template data timeout (netflow-lite exporter submode)  
test cable-diagnostics tdr  
traceroute mac  
traceroute mac ip  
transport udp (netflow-lite exporter submode)  
trust  
ttl (netflow-lite exporter submode)  
tx-queue

## U Commands

udld (global configuration mode)  
udld (interface configuration mode)  
udld reset  
unidirectional  
username

## V Commands

verify  
vlan (VLAN Database mode)  
vlan access-map  
vlan configuration  
vlan database  
vlan dot1q tag native  
vlan filter  
vlan group

vlan internal allocation policy  
vmps reconfirm (global configuration)  
vmps reconfirm (privileged EXEC)  
vmps retry  
vmps server  
vrf (netflow-lite exporter submode)  
vslp interval (virtual switch)  
vtp (global configuration mode)  
vtp client  
vtp domain  
vtp password  
vtp pruning  
vtp server  
vtp transparent  
vtp v2-mode