



Cisco IOS Master Command List, All Releases

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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 1: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

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aaa accounting delay-start [SEC](#)

aaa accounting gigawords [SEC](#)

aaa accounting include auth-profile [SEC](#)

aaa accounting jitter maximum [SEC](#)

aaa accounting multicast default [IPV6](#)

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aaa accounting redundancy [SEC](#), [ISG](#)

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bridge circuit-group source-based **BR, IBM**
bridge cmf **BR, IBM**
bridge crb **BR, IBM**
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bridge-group output-pattern-list **BR, IBM**
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bsc dial-contention **IBM**
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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 2: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference
CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference

IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference

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SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

C

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cable acfe enable CBL

cable acfe max-bonus-bandwidth CBL

cable acfe max-eir-ratio CBL

cable admission-control CBL

cable admission-control ds-bandwidth CBL

cable admission-control event CBL

cable admission-control max-reserved-bandwidth CBL

cable admission-control preempt priority-voice CBL

cable admission-control us-bandwidth CBL

cable application-type include CBL

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cable clock dti clear-counters **CBL**
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cable clock upgrade **CBL**
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cdma pdsn ipv6 [IPV6](#), [MWP](#)
cdma pdsn maximum pcf [MWP](#)
cdma pdsn maximum sessions [MWP](#)
cdma pdsn mobile-advertisement-burst [MWP](#)
cdma pdsn msid-authentication [MWP](#)
cdma pdsn pcf default closed-rp [MWP](#)
cdma pdsn radius disconnect [MWP](#)
cdma pdsn redundancy [MWP](#)
cdma pdsn redundancy accounting send vsa swact [MWP](#)
cdma pdsn redundancy accounting update-periodic [MWP](#)
cdma pdsn retransmit a11-update [MWP](#)
cdma pdsn secure cluster [MWP](#)
cdma pdsn secure pcf [MWP](#)
cdma pdsn selection interface [MWP](#)
cdma pdsn selection keepalive [MWP](#)
cdma pdsn selection load-balancing [MWP](#)
cdma pdsn selection session-table-size [MWP](#)
cdma pdsn send-agent-adv [MWP](#)
cdma pdsn timeout [MWP](#)
cdma pdsn timeout mobile-ip-registration [MWP](#)
cdma pdsn virtual-template [MWP](#)
cdp advertise-v2 [CDP](#)
cdp advertise-v2 through show cdp traffic [CDP](#)
cdp enable [CDP](#)
cdp holdtime [CDP](#)
cdp log mismatch duplex [CDP](#)
cdp run [CDP](#)
cdp source-interface [CDP](#)
cdp timer [CDP](#)
cdp tlv [CDP](#)
cdp-url [SEC](#)
cdr [SBCD](#)

cdr alarm (XML Billing) **SBCD**
cdr path **SBCD**
cdr suppression **MWG**
cdr suppression prepaid **MWG**
cdr-format **VR**
cef table consistency-check **ISW, IPV6**
cef table consistency-check through clear pxf **ISW**
cef table download **ISW**
cef table output-chain build **ISW**
cef table rate-monitor-period **ISW**
cell-packing **MP, WAN**
cellular lte profile **DIA**
cellular lte sms delete **DIA**
cellular lte sms send **DIA**
cellular lte sms view summary **DIA**
cem **IR**
cem-group **IR**
certificate **SEC**
certificate reload **IBM**
ces **ATM**
ces aal1 clock **ATM**
ces aal1 service **ATM**
ces circuit **ATM**
ces dsx1 clock source **ATM**
ces dsx1 framing **ATM**
ces dsx1 lbo **ATM**
ces dsx1 linecode **ATM**
ces dsx1 loopback **ATM**
ces dsx1 signalmode robbedbit **ATM**
ces partial-fill **ATM**
ces pvc **ATM**
ces-cdv **ATM**
ces-clock **VR**
cfm encapsulation **CE**
cfm mep domain **CE**
cgma-agent **VR**

chain-validation [SEC](#)
chain-validation (ca-trustpool) [SEC](#)
channel [WL](#)
channel-group [IR](#), [CBL](#), [VR](#), [DIA](#)
channel-group (interface) [IR](#), [CE](#)
channel-id [VR](#)
channel-id (cable configuration file) [CBL](#)
channel-protocol [IBM](#)
channel-protocol (interface) [IR](#)
channelized [IR](#)
charging profile [MWG](#)
chat-script [DIA](#)
cifs-url-list [SEC](#)
cipher [WAN](#)
cipher-list [WAN](#)
cipherkey [SEC](#)
ciphervalue [SEC](#)
cisco (ips-auto-update) [SEC](#)
cisp enable [SEC](#)
citrix enabled [SEC](#)
class [MP](#), [WAN](#)
class (DHCP) [IAD](#)
class (EtherSwitch) [QOS](#)
class (MPLS) [MP](#)
class (controller) [DIA](#)
class (map-list) [WAN](#)
class (policy-map) [QOS](#)
class arp-peruser [QOS](#)
class type control [ISG](#)
class type inspect [SEC](#), [IPV6](#)
class type tag [QOS](#)
class type traffic [ISG](#)
class type urlfilter [SEC](#)
class-bundle [QOS](#)
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class-map [MP](#), [QOS](#), [MM](#)

class-map arp-peruser QOS
class-map type control ISG
class-map type inspect SEC, IPV6
class-map type multicast-flows IMC
class-map type traffic ISG
class-map type urlfilter SEC
class-map type waas WAN
class-range BBA
class-vc ATM
classname ISG
claw (backup) IBM
claw (primary) IBM
clear aaa cache filterserver acl SEC
clear aaa cache filterserver group SEC
clear aaa cache group SEC
clear aaa counters server sg MWG
clear aaa counters servers SEC
clear aaa local user fail-attempts SEC
clear aaa local user lockout SEC
clear access-list counters SEC, IPV6
clear access-template SEC
clear adjacency ISW
clear adjacency epoch ISW
clear aim IR
clear alps circuits IBM
clear alps counters IBM
clear appfw dns cache SEC
clear appletalk arp ATK
clear appletalk neighbor ATK
clear appletalk route ATK
clear appletalk traffic ATK
clear archive log config CF
clear arp interface IAD
clear arp-cache IAD
clear arp-cache counters ha IAD
clear ase signatures SEC

clear atm arp **ATM**
clear atm atm-vc **ATM**
clear atm signalling statistics **ATM**
clear atm vc **ATM**
clear authentication sessions **SEC**
clear autonomic **AN**
clear backhaul-session-manager group stats **VR**
clear bgp ipv6 **IPV6**
clear bgp ipv6 dampening **IPV6**
clear bgp ipv6 external **IPV6**
clear bgp ipv6 flap-statistics **IPV6**
clear bgp ipv6 peer-group **IPV6**
clear bgp l2vpn evpn **BGP**
clear bgp nsap **BGP**
clear bgp nsap dampening **BGP**
clear bgp nsap external **BGP**
clear bgp nsap flap-statistics **BGP**
clear bgp nsap peer-group **BGP**
clear bridge **IBM**
clear bridge multicast **IBM**
clear bridge-domain mac-table **CE**
clear cable admission control counters **CBL**
clear cable arp-filter **CBL**
clear cable bgsync counters **CBL**
clear cable dsg **CBL**
clear cable flap-list **CBL**
clear cable hop **CBL**
clear cable host **CBL**
clear cable ipc-stats **CBL**
clear cable load-balance **CBL**
clear cable logging **CBL**
clear cable modem attribute-masks **CBL**
clear cable modem cm-status **CBL**
clear cable modem counters **CBL**
clear cable modem delete **CBL**
clear cable modem flap-counters **CBL**

ca trust-point through clock mode

clear cable modem lock **CBL**
clear cable modem name **CBL**
clear cable modem rcs-counts **CBL**
clear cable modem reset **CBL**
clear cable modem rf-adapt **CBL**
clear cable modem service-type-id **CBL**
clear cable modem voice **CBL**
clear cable multicast ses-cache **CBL**
clear cable multicast statistics counter **CBL**
clear cable rf-status **CBL**
clear cable secondary-ip **CBL**
clear cable-diagnostics tdr **IR**
clear call admission statistics **BBA**
clear call application interface **VR**
clear call application stats **VR**
clear call fallback cache **VR**
clear call fallback stats **VR**
clear call threshold **VR**
clear call treatment stats **VR**
clear call voice **VR**
clear call-home diagnostic-signature statistics **HA**
clear call-router routes **VR**
clear callmon **VR**
clear catalyst6000 traffic-meter **CF, IR**
clear cdma pdsn cluster controller session records age **MWP**
clear cdma pdsn cluster controller statistics **MWP**
clear cdma pdsn cluster member statistics **MWP**
clear cdma pdsn redundancy statistics **MWP**
clear cdma pdsn selection **MWP**
clear cdma pdsn session **MWP**
clear cdma pdsn statistics **MWP**
clear cdp counters **CDP**
clear cdp table **CDP**
clear cef interface **ISW**
clear cef linecard **ISW**
clear cef load-balance statistics **ISW**

clear cef table **ISW, IPV6**
clear cem **IR**
clear class-map control **ISG**
clear clns cache **ISO**
clear clns es-neighbors **ISO**
clear clns is-neighbors **ISO**
clear clns neighbors **ISO**
clear clns route **ISO**
clear clns traffic **ISO**
clear cns config stats **CNS**
clear cns counters **CNS**
clear cns event stats **CNS**
clear cns image connections **CNS**
clear cns image status **CNS**
clear configuration lock **CF**
clear content-scan **SEC**
clear control-plane **QOS**
clear controller **IR**
clear controller call-counters **VR**
clear controller lex **IR**
clear controller t1 **VR**
clear controller vdsl **IR**
clear controller wanphy **IR**
clear cot summary **DIA**
clear counters **IR**
clear counters (async) **DIA**
clear counters line **DIA**
clear crypto call admission statistics **SEC**
clear crypto ctcp **SEC**
clear crypto datapath **SEC**
clear crypto engine accelerator counter **SEC**
clear crypto gdoi **SEC**
clear crypto gdoi ks cooperative role **SEC**
clear crypto ikev2 sa **SEC, IPV6**
clear crypto ikev2 stat **SEC**
clear crypto ikev2 stats **SEC**

ca trust-point through clock mode

clear crypto ipsec client ezvpn SEC
clear crypto isakmp SEC
clear crypto pki benchmarks SEC
clear crypto pki crls SEC
clear crypto sa SEC
clear crypto session SEC
clear csm-statistics modem VR
clear csm-statistics voice VR
clear data-store statistics MWG
clear decnet accounting DEC
clear decnet counters DEC
clear diagnostic event-log CF, IR
clear dialer DIA
clear dialer dnis DIA
clear dialer sessions DIA
clear dlsw circuit IBM
clear dlsw history IBM
clear dlsw local-circuit IBM
clear dlsw reachability IBM
clear dlsw statistics IBM
clear dlsw transparent IBM
clear dmvpn session SEC, IPV6
clear dmvpn statistics SEC
clear dot11 client WL
clear dot11 hold-list WL
clear dot11 statistics WL
clear dot1x SEC
clear drip counters IBM
clear dsip tracing IR, DIA
clear eap SEC
clear eigrp address-family neighbors EIGRP, IPV6
clear eigrp service-family SAF
clear entry TSV
clear eou SEC
clear ethernet cfm ais CE
clear ethernet cfm errors CE

clear ethernet cfm maintenance-points remote **CE**
clear ethernet cfm statistics **CE**
clear ethernet cfm traceroute-cache **CE**
clear ethernet event microwave data **CE**
clear ethernet event microwave statistics **CE**
clear ethernet lmi statistics **CE**
clear ethernet oam statistics **CE**
clear ethernet ring g8032 statistics **CE**
clear ethernet service instance **CE**
clear extended counters **IBM**
clear facility-alarm **IR, CBL**
clear flow exporter **FNF**
clear flow monitor **FNF**
clear fm netflow counters **NF**
clear fm performance-monitor counters **MM**
clear fm slb counters **SLB**
clear frame-relay-inarp **WAN, IPV6**
clear ggsn quota-server statistics **MWG**
clear gprs access-point statistics **MWG**
clear gprs charging cdr **MWG**
clear gprs charging cdr all no-transfer **MWG**
clear gprs gtp pdp-context **MWG**
clear gprs gtp statistics **MWG**
clear gprs iscsi statistics **MWG**
clear gprs redundancy statistics **MWG**
clear gprs service-aware statistics **MWG**
clear gprs slb statistics **MWG**
clear gprs statistics all **MWG**
clear gvrp statistics **LSW**
clear h323 gatekeeper call **VR**
clear h323 gatekeeper endpoint **VR**
clear h323 gatekeeper stats **VR**
clear h323 gateway **VR**
clear hccp counters **CBL**
clear hccp linecard **CBL**
clear host **IAD**

clear http client statistics **VR**
clear hub **IR**
clear hub counters **IR**
clear interface **IR**
clear interface cable-modem **VR**
clear interface cem **IR**
clear interface fastethernet **IR**
clear interface gigabitethernet **IR**
clear interface serial **IR**
clear interface virtual-access **DIA**
clear interface vlan **IR**
clear ip access-list counters **IPV6, SEC**
clear ip access-list counters through crl-cache none **SEC**
clear ip access-template **SEC**
clear ip accounting **IAP**
clear ip admission cache **SEC**
clear ip arp inspection log **IAD**
clear ip arp inspection statistics **IAD**
clear ip arp poll statistics **IAD**
clear ip audit configuration **SEC**
clear ip audit statistics **SEC**
clear ip auth-proxy cache **SEC**
clear ip auth-proxy watch-list **SEC**
clear ip bgp **BGP**
clear ip bgp dampening **BGP**
clear ip bgp external **BGP**
clear ip bgp flap-statistics **BGP**
clear ip bgp in prefix-filter **BGP**
clear ip bgp ipv4 **BGP**
clear ip bgp ipv6 **BGP**
clear ip bgp l2vpn **BGP**
clear ip bgp mvpn **BGP**
clear ip bgp peer-group **BGP**
clear ip bgp rpkı server **BGP**
clear ip bgp table-map **BGP**
clear ip bgp topology **MTR**

clear ip bgp update-group **BGP**
clear ip bgp vpnv4 **BGP**
clear ip bgp vpnv4 unicast dampening **BGP**
clear ip bgp vpnv6 **BGP**
clear ip bgp vpnv6 unicast dampening **BGP**
clear ip cache **ISW**
clear ip cef epoch **ISW**
clear ip cef epoch full **ISW**
clear ip cef event-log **ISW**
clear ip cef inconsistency **ISW**
clear ip cef prefix-statistics **ISW**
clear ip cgmp **IMC**
clear ip dhcp binding **IAD**
clear ip dhcp conflict **IAD**
clear ip dhcp limit lease **IAD**
clear ip dhcp server statistics **IAD**
clear ip dhcp snooping binding **IAD**
clear ip dhcp snooping database statistics **IAD**
clear ip dhcp snooping statistics **IAD**
clear ip dhcp subnet **IAD**
clear ip dvmrp route **IMC**
clear ip eigrp neighbors **EIGRP**
clear ip eigrp topology **MTR**
clear ip eigrp vrf neighbors **EIGRP**
clear ip flow stats **NF**
clear ip http client cache **CF**
clear ip http client cookie **HTTPS, BBA**
clear ip http client cookie through show ip http server secure status **HTTPS**
clear ip icmp rate-limit **IAP**
clear ip igmp group **IMC**
clear ip igmp snooping filter statistics **IMC**
clear ip igmp snooping statistics **IMC**
clear ip inspect ha **SEC**
clear ip inspect session **SEC**
clear ip interface **IAD, MTR**
clear ip ips configuration **SEC**

clear ip ips statistics SEC
clear ip iscsi statistics MWG
clear ip lisp map-cache LISP
clear ip lisp route-import LISP
clear ip lisp statistics LISP
clear ip mds ISW
clear ip mds forwarding ISW
clear ip mds linecard ISW
clear ip mfib counters IMC
clear ip mobile binding IMO, MWH
clear ip mobile host-counters IMO, MWH
clear ip mobile router agent IMO
clear ip mobile router registration IMO
clear ip mobile router traffic IMO
clear ip mobile secure IMO, MWH
clear ip mobile traffic IMO, MWH
clear ip mobile visitor IMO, MWP
clear ip mrm status-report IMC
clear ip mroute IMC
clear ip msdp peer IMC
clear ip msdp sa-cache IMC
clear ip msdp statistics IMC
clear ip multicast limit IMC
clear ip multicast redundancy statistics IMC
clear ip nat translation IAD
clear ip nat translation redundancy IAD
clear ip nbar QOS
clear ip nbar protocol-discovery QOS
clear ip nhrp IAD
clear ip ospf OSPF
clear ip ospf force-spf OSPF
clear ip ospf traffic OSPF
clear ip pgm host IMC
clear ip pgm router IMC
clear ip pim auto-rp IMC
clear ip pim interface count IMC

clear ip pim rp-mapping **IMC**
clear ip pim snooping statistics **IMC**
clear ip pim snooping vlan **IMC**
clear ip prefix-list **BGP**
clear ip route **IAD**
clear ip route dhcp **IAD**
clear ip route dhcp through ip arp entry learn **IAD**
clear ip route download **DIA**
clear ip route multicast **MTR**
clear ip route topology **MTR**
clear ip route vrf **MP**
clear ip rsvp authentication **QOS**
clear ip rsvp counters **QOS**
clear ip rsvp hello bfd **MP**
clear ip rsvp hello instance counters **MP, QOS**
clear ip rsvp hello instance statistics **MP, QOS**
clear ip rsvp hello statistics **MP, QOS**
clear ip rsvp high-availability counters **QOS, HA**
clear ip rsvp msg-pacing **MP, QOS**
clear ip rsvp reservation **QOS**
clear ip rsvp sender **QOS**
clear ip rsvp signalling fast-local-repair statistics **QOS**
clear ip rsvp signalling rate-limit **QOS**
clear ip rsvp signalling refresh reduction **QOS**
clear ip rtp header-compression **IMC**
clear ip sap **IMC**
clear ip sctp statistics **IAP**
clear ip sdee **SEC**
clear ip sdr **IMC**
clear ip slb connections **SLB**
clear ip slb counters **SLB**
clear ip slb sessions **SLB**
clear ip slb sticky asn msid **SLB**
clear ip slb sticky gtp imsi **SLB**
clear ip slb sticky radius **SLB**
clear ip snat sessions **IAD**

ca trust-point through clock mode

clear ip snat translation distributed **IAD**
clear ip snat translation peer **IAD**
clear ip subscriber **ISG**
clear ip tcp header-compression **IAP**
clear ip traffic **IAP, ISW**
clear ip traffic (MTR) **MTR**
clear ip translation peer **IAD**
clear ip trigger-authentication **SEC**
clear ip urlfilter cache **SEC**
clear ip wccp **IAP**
clear ipc statistics **IR**
clear ipv6 access-list **IPV6, SEC**
clear ipv6 dhcp **IAD, IPV6**
clear ipv6 dhcp binding **IAD, IPV6**
clear ipv6 dhcp client **IAD, IPV6**
clear ipv6 dhcp conflict **IAD, IPV6**
clear ipv6 dhcp relay binding **IAD, IPV6**
clear ipv6 dhcp route **IAD**
clear ipv6 dhcp-ldra statistics **IAD**
clear ipv6 eigrp **IPV6, EIGRP**
clear ipv6 flow stats **IPV6**
clear ipv6 inspect **IPV6, SEC**
clear ipv6 lisp map-cache **LISP**
clear ipv6 lisp route-import **LISP**
clear ipv6 lisp statistics **LISP**
clear ipv6 mfib counters **IPV6**
clear ipv6 mld counters **IPV6**
clear ipv6 mld traffic **IPV6**
clear ipv6 mobile binding **IPV6**
clear ipv6 mobile home-agents **IPV6**
clear ipv6 mobile pmipv6 lma **IMO**
clear ipv6 mobile pmipv6 mag **IMO**
clear ipv6 mobile traffic **IPV6**
clear ipv6 mtu **IPV6**
clear ipv6 multicast aaa authorization **IPV6**
clear ipv6 nat translation **IAD, IPV6**

clear ipv6 nd destination **IPV6**
clear ipv6 nd on-link prefix **IPV6**
clear ipv6 nd router **IPV6**
clear ipv6 neighbors **IPV6**
clear ipv6 nhrp **IPV6**
clear ipv6 ospf **IPV6**
clear ipv6 ospf counters **IPV6**
clear ipv6 ospf events **IPV6**
clear ipv6 ospf traffic **OSPF**
clear ipv6 pim counters **IPV6**
clear ipv6 pim limit **IPV6**
clear ipv6 pim reset **IPV6**
clear ipv6 pim topology **IPV6**
clear ipv6 pim traffic **IPV6**
clear ipv6 prefix-list **IPV6**
clear ipv6 rip **IPV6**
clear ipv6 route **IPV6**
clear ipv6 snooping counters **IPV6, SEC**
clear ipv6 spd **IPV6**
clear ipv6 traffic **IPV6**
clear ipv6 wccp **IPV6**
clear ipx accounting **IPX**
clear ipx cache **IPX**
clear ipx nhrp **IPX**
clear ipx nlsp neighbors **IPX**
clear ipx route **IPX**
clear ipx sap **IPX**
clear ipx traffic **IPX**
clear isis lsp-full **IRS**
clear isis rib redistribution **IRS**
clear issu state **HA**
clear kerberos creds **SEC**
clear l2tp **VPD**
clear l2tp counters session **VPD**
clear l2tp counters tunnel **VPD**
clear l2tun **WAN**

clear l2tun counters **WAN**
clear l2tun counters tunnel l2tp **WAN**
clear l2vpn atom fsm **MP**
clear l2vpn service **MP**
clear lacp counters **IR**
clear lane le-arp **ATM**
clear lane server **ATM**
clear ldap server **SEC**
clear license agent **CSA**
clear license agent through debug license **CSA**
clear line **DIA**
clear line async-queue **DIA**
clear lisp ddt **LISP**
clear lisp site **LISP**
clearlldp **CE**
clear logging **CF**
clear logging ip access-list cache **IAD, SEC**
clear logging system **CF**
clear logging xml **CF**
clear mac-address-table **LSW**
clear mcsa statistics **IMO**
clear mdns cache **IAD**
clear mdns statistics **IAD**
clear mediatrace incomplete-sessions **MM**
clear memory low-water-mark **CF**
clear mgcp src-stats **VR**
clear mgcp statistics **VR**
clear mls acl counters **IAP**
clear mls cef ip accounting per-prefix **ISW**
clear mls cef ipv6 accounting per-prefix **IPV6**
clear mls ip multicast bidir-rpcache **IMC**
clear mls ip multicast group **IMC**
clear mls ip multicast statistics **IMC**
clear mls nde flow counters **NF**
clear mls netflow **NF**
clear mls qos **QOS**

clear mls statistics **CF**
clear modem **DIA**
clear modem counters **DIA**
clear modem log **DIA**
clear modempool-counters **DIA**
clear mpf interface **BBA**
clear mpf punt **BBA**
clear mpls counters **MP**
clear mpls ip iprm counters **MP**
clear mpls ldp checkpoint **MP**
clear mpls ldp neighbor **MP**
clear mpls ldp nsr statistics **MP**
clear mpls traffic-eng auto-bw timers **MP**
clear mpls traffic-eng auto-tunnel backup tunnel **MP**
clear mpls traffic-eng auto-tunnel mesh tunnel **MP**
clear mpls traffic-eng auto-tunnel primary tunnel **MP**
clear mpls traffic-eng tunnel counters **MP**
clear mpoa client cache **ATM**
clear mpoa server cache **ATM**
clear mrcp client statistics **VR**
clear mvr counters **LSW**
clear mvrp statistics **LSW**
clear nat64 statistics **IAD**
clear nat64 translations **IAD**
clear nat64 ha statistics **IAD**
clear nat64 statistics **IAD**
clear ncia circuit **IBM**
clear ncia client **IBM**
clear ncia client registered **IBM**
clear netbios-cache **IBM**
clear netconf **CNS**
clear oer api **OER**
clear oer border **OER**
clear oer master **OER**
clear oer master appl tcp **OER**
clear oer master border **OER**

clear oer master prefix **OER**
clear oer master traffic-class **OER**
clear oer master traffic-class application nbar **OER**
clear ospfv3 counters **IPV6**
clear ospfv3 force-spf **IPV6**
clear ospfv3 process **IPV6**
clear ospfv3 redistribution **IPV6**
clear ospfv3 traffic **IPV6**
clear otv arp-nd **WAN**
clear otv isis **WAN**
clear otv isis lspfull **WAN**
clear otv isis neighbors **WAN**
clear otv isis rib **WAN**
clear packetcable gate counter commit **CBL**
clear packetcable rks **CBL**
clear pagp **LSW**
clear parameter-map type protocol-info **SEC**
clear parser cache **CF**
clear parser statistics **CF**
clear pfr border **PFR**
clear pfr master **PFR**
clear pfr master border **PFR**
clear pfr master export statistics **PFR**
clear pfr master prefix **PFR**
clear pfr master traffic-class **PFR**
clear pfr master traffic-class application nbar **PFR**
clear platform hardware capacity rewrite-engine counter **BSM**
clear platform hardware qfp active feature sbc sfx **SBCD**
clear platform netint **CF, IR**
clear platform software vnic-if-nvtble **IR**
clear platform software wccp **IAP, SBCD**
clear policy-firewall **SEC**
clear policy-firewall stats global **SEC**
clear policy-firewall stats vrf **SEC**
clear policy-firewall stats vrf global **SEC**
clear policy-firewall stats zone **SEC**

clear port **DIA**
clear port log **DIA**
clear port-security **SEC**
clear ppp mux **MWR**
clear ppp subscriber statistics **BBA**
clear pppatm interface atm **ATM, BBA**
clear pppatm statistics **BBA**
clear pppoe **BBA**
clear pppoe derived **BBA**
clear pppoe relay context **BBA**
clear pppoe statistics **BBA**
clear processes interrupt mask **CF**
clear pw-udp vc **MP**
clear pxf **ISW, CBL**
clear pxf statistics drl cable-wan-ip **CBL**
clear pxf statistics drl wan-non-ip **CBL**
clear radius **SEC**
clear radius local-server **SEC, WL**
clear radius-proxy client **ISG**
clear radius-proxy session **ISG**
clear rbscp **IR**
clear record-storage-module stats **MWG**
clear redundancy **CBL**
clear resource-pool **DIA**
clear rif-cache **IBM**
clear rlm group **VR**
clear router-guard ip multicast statistics **IMC**
clear rpms-proc counters **VR**
clear rudpv0 statistics **VR**
clear rudpv1 statistics **VR**
clear sampler **FNF**
clear sbc **SBCD**
clear sbc dbe media-stats **SBCD**
clear sbc dbe media-stats (session border controller) **SBCD**
clear sbc h248 bac **SBCD**
clear sbc sbe adjacency statistics **SBCD**

ca trust-point through clock mode

clear sbc sbe blacklist **SBCD**
clear sbc sbe cac-policy-set-stats **SBCD**
clear sbc sbe cac-rejection-stats **SBCD**
clear sbc sbe call **SBCD**
clear sbc sbe call-policy-set-stats **SBCD**
clear sbc sbe call-rate-stats **SBCD**
clear sbc sbe call-rejection-stats **SBCD**
clear sbc sbe call-stats **SBCD**
clear sbc sbe policy-failure-stats **SBCD**
clear sbc sbe policy-rejection-stats **SBCD**
clear sbc sbe radius-client **SBCD**
clear sbc sbe radius-client-stats **SBCD**
clear sbc sbe script-set-stats **SBCD**
clear sbc sbe sip statistics **SBCD**
clear sbc sbe sip subscriber aor **SBCD**
clear sbc sbe statistics **SBCD**
clear sbc sbe transcoding-stats **SBCD**
clear sccp server statistics **VR**
clear scp accounting **CF**
clear sctp statistics **IAP**
clear sdspfarm counters **VR**
clear service-group traffic-stats **QOS**
clear service-module serial **IR**
clear service-routing capabilities-manager **SAF**
clear service-routing xmcp client **SAF**
clear sgcp statistics **VR**
clear sip-ua statistics **VR**
clear sip-ua tcp connection **VR**
clear sip-ua tcp tls connection **VR**
clear sip-ua udp connection **VR**
clear smrp mcache **ATK**
clear snapshot quiet-time **DIA**
clear sockets **IAP**
clear source-bridge **IBM**
clear spanning-tree detected-protocol **LSW**
clear spe **DIA**

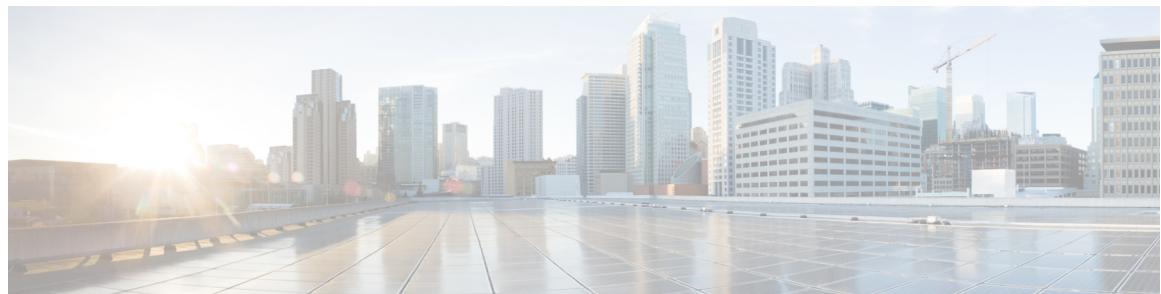
clear spe counters **DIA**
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clear ss7 sm-stats **VR**
clear sse **IBM**
clear ssg connection **SSG**
clear ssg host **SSG**
clear ssg next-hop **SSG**
clear ssg open-garden **SSG**
clear ssg pass-through-filter **SSG**
clear ssg pending-command **SSG**
clear ssg prepaid default-quota **SSG**
clear ssg radius-proxy client-address **SSG**
clear ssg radius-proxy nas-address **SSG**
clear ssg service **SSG**
clear ssg user transparent all **SSG**
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clear ssg user transparent suspect **SSG**
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clear subscriber policy dpm statistics **ISG**
clear subscriber policy peer **ISG**
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clear subscriber trace history **ISG**
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clear vsp statistics VR
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clid through credentials (sip-ua) **VR**
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client configuration address **SEC**
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clns cluster-alias **ISO**
clns configuration-time **ISO**
clns congestion-threshold **ISO**
clns dec-compatible **ISO**
clns enable **ISO**

ca trust-point through clock mode

clns erpdu-interval ISO
clns es-neighbor ISO
clns esct-time ISO
clns filter-expr ISO
clns filter-set ISO
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clock rate through cwmp wan default

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Finding IOS Command Information

First Published: February 2008

Last Updated: January 2014

This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 3: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

clock rate through cwmp wan default

C

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clock rate (interface ATM) [IR](#)
clock rate (interface serial) [IR](#)
clock rate network-clock [IR](#)
clock rate through cut-through [IR](#)
clock read-calendar [BSM](#)
clock save interval [BSM](#)
clock set [BSM](#)
clock source [IR](#)
clock source (AS5200) [IR](#)
clock source (CEM) [IR](#)
clock source (CT3IP) [IR](#)
clock source (J1 controller) [IR](#)
clock source (MC3810) [IR](#)
clock source (PTP) [CE](#)
clock source (SONET controller) [IR](#)
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codec preference VR
codec profile VR
codec system SBCD
codec variant SBCD
codec-list description SBCD
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collect application http FNF, MM
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collect application vendor MM
collect application version MM
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collect connection delay network MM
collect connection delay response MM
collect connection performance application-delay MM
collect connection performance initiator MM
collect connection performance network-delay MM
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collect connection performance responder **MM**
collect connection performance total-delay **MM**
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collect connection server **MM**
collect connection transaction **MM**
collect counter **FNF, MM**
collect datalink destination-vlan-id **MM**
collect datalink dot1q vlan **FNF**
collect datalink mac **FNF, MM**
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collect policy qos queue index **FNF**
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collect routing multicast replication-factor **FNF, MM**
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collect timestamp interval **MM**
collect timestamp sys-upptime **FNF, MM**
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collect transport **FNF, MM**
collect transport event packet-loss counter **MM**
collect transport icmp ipv4 **FNF, MM**
collect transport icmp ipv6 **FNF, MM**
collect transport initiator port **MM**
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collect transport responder port **MM**
collect transport rtp jitter **MM**
collect transport tcp **FNF, MM**
collect transport udp **FNF, MM**
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comfort-noise **VR**
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compress mppc **IR**
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conference-join custom-cptone **VR**
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config-exchange **SEC**
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configuration mode exclusive **CF**
configuration url **SEC**
configuration version **SEC**
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configure confirm **CF**
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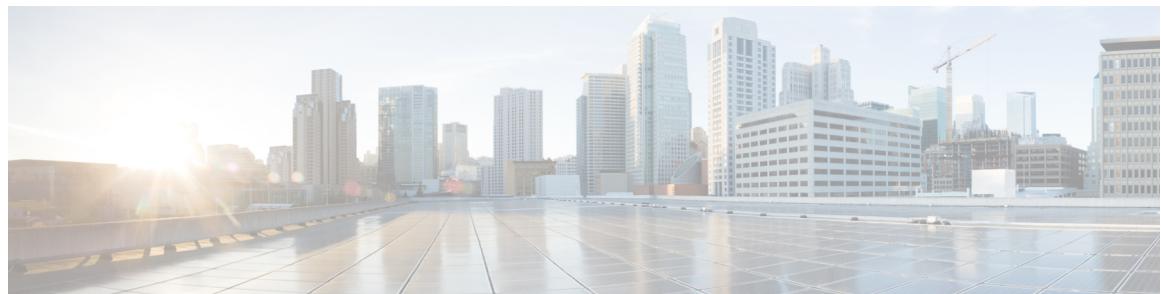
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current5minutes SBCD
currentday SBCD

currenthour [SBCD](#)
currentindefinite [SBCD](#)
custom-queue-list [QOS](#)
customer-id (call home) [HA](#)
cut-through [IR](#)
cwmp agent [BBA](#)
cwmp wan [BBA](#)
cwmp wan default [BBA](#)

clock rate through cwmp wan default



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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 4: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

dampening through debug smrp group

D

dampening [IRI](#)
dampening-change [EIGRP](#), [SAF](#)
dampening-interval [EIGRP](#), [SAF](#)
data [IAD](#), [SEC](#)
data-character-bits [CF](#)
data-glean [IPV6](#)
data-pattern [SLA](#)
data-privacy [HA](#)
data-protection [IR](#)
data-store [MWG](#)
data-strobe [IR](#)
database archive [SEC](#)
database archive through dns [SEC](#)
database level [SEC](#)
database url [SEC](#)
database username [SEC](#)
database-mapping (LISP EID-table) [LISP](#)
database-mapping (LISP dynamic-EID) [LISP](#)
databits [CF](#)
dbs enable [ATM](#)
dce-terminal-timing enable [IR](#)
ddns (DDNS-update-method) [IAD](#)
ddt [LISP](#)
ddt authoritative [LISP](#)
ddt root [LISP](#)
de-bit [WAN](#)
de-bit map-clp [WAN](#)
de-bit through exp [WAN](#)
deact-mode (XML Billing) [SBCD](#)
deact-mode (billing) [SBCD](#)
deactivation-mode [SBCD](#)
deactivation-mode (session border controller) [SBCD](#)

deadtime (server-group configuration) SEC
debounce-time rai DIA
debug ecfmpal DB
debug elb-pal-pd DB
debug epmpal DB
debug aaa accounting DB, MWH
debug aaa accounting through debug auto-config DB
debug aaa authentication DB
debug aaa authorization DB
debug aaa cache filterserver DB
debug aaa cache group DB
debug aaa coa MWG
debug aaa common-criteria DB
debug aaa dead-criteria transactions DB
debug aaa per-user DB
debug aaa pod DB, MWH
debug aaa redundancy DB
debug aaa sg-server selection DB
debug aaa test DB
debug acircuit DB
debug acircuit checkpoint DB
debug adjacency DB, IPV6
debug adjacency (vasi) DB
debug alarm-interface DB
debug alps ascu DB
debug alps circuit event DB
debug alps peer DB
debug alps peer event DB
debug alps snmp DB
debug ancp DB
debug appfw DB
debug apple arp DB
debug apple domain DB
debug apple eigrp-all DB
debug apple errors DB
debug apple events DB

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```
debug apple nbp DB
debug apple packet DB
debug apple remap DB
debug apple routing DB
debug apple zip DB
debug appn all DB
debug appn cs DB
debug appn ds DB
debug appn hpr DB
debug appn ms DB
debug appnnof DB
debug appn pc DB
debug appn ps DB
debug appn scm DB
debug appn ss DB
debug appn trs DB
debug arap DB
debug archive config timestamp DB
debug archive log config persistent DB
debug archive versioning DB
debug arp DB
debug ase DB
debug asnl events DB
debug asp packet DB
debug aspp event DB
debug aspp packet DB
debug async async-queue DB
debug atm autovc DB
debug atm bundle error DB
debug atm bundle events DB
debug atm cell-packing DB
debug atm events DB
debug atm ha-error DB
debug atm ha-events DB
debug atm ha-state DB
debug atm l2transport DB
```

```
debug atm lfi DB
debug atm native DB
debug atm nbma DB
debug atm oam cc DB
debug atm oc3 pom DB
debug atm t3e3 DB
debug audit DB
debug authentication DB
debug auto-config DB
debug autonomic AN
debug autoupgrade DB
debug backhaul-session-manager session DB
debug backhaul-session-manager session through debug channel packets DB
debug backhaul-session-manager set DB
debug backup DB
debug bert DB
debug bfd DB, IPV6
debug bgp ipv6 dampening DB, IPV6
debug bgp ipv6 updates DB, IPV6
debug bgp l2vpn vpls updates DB
debug bgp nsap DB
debug bgp nsap dampening DB
debug bgp nsap updates DB
debug bgp vpnv6 unicast DB, IPV6
debug bri-interface DB
debug bsc event DB
debug bsc packet DB
debug bstun events DB
debug bstun packet DB
debug bundle errors DB
debug bundle events DB
debug c10k-jacket CBL
debug cable CBL
debug cable acfe CBL
debug cable acfe filter CBL
debug cable admission-control CBL
```

debug cable admission-control flow-categorization [CBL](#)
debug cable arp [CBL](#)
debug cable arp filter [CBL](#)
debug cable bpiatp [CBL](#)
debug cable bundle [CBL](#)
debug cable classifiers [CBL](#)
debug cable cm-ctrl [CBL](#)
debug cable cm-status [CBL](#)
debug cable config-file [CBL](#)
debug cable dbs [CBL](#)
debug cable dcc [CBL](#)
debug cable dci [CBL](#)
debug cable dhcp [CBL](#)
debug cable dsg [CBL](#)
debug cable dynamic-qos subscriber [CBL](#)
debug cable dynamic-qos trace [CBL](#)
debug cable dynamic-secret [CBL](#)
debug cable dynsrv [CBL](#)
debug cable encapsulation [CBL](#)
debug cable envm [CBL](#)
debug cable error [CBL](#)
debug cable flap [CBL](#)
debug cable fn [CBL](#)
debug cable freqhop [CBL](#)
debug cable hw-spectrum [CBL](#)
debug cable interface [CBL](#)
debug cable ipv6 [CBL](#)
debug cable keyman [CBL](#)
debug cable l2-vpn [CBL](#)
debug cable load-balance [CBL](#)
debug cable mac-address [CBL](#)
debug cable mac-protocol [CBL](#)
debug cable mac-scheduler [CBL](#)
debug cable map [CBL](#)
debug cable md-sg [CBL](#)
debug cable mdd [CBL](#)

debug cable metering **CBL**
debug cable multicast counter clear **CBL**
debug cable multicast counter start **CBL**
debug cable multicast counter stop **CBL**
debug cable multicast forwarding **CBL**
debug cable multicast latency **CBL**
debug cable phs **CBL**
debug cable phy **CBL**
debug cable privacy **CBL**
debug cable qos **CBL**
debug cable range **CBL**
debug cable receive **CBL**
debug cable registration **CBL**
debug cable remote-query **CBL**
debug cable reset **CBL**
debug cable rfmib **CBL**
debug cable service-ds-selection **CBL**
debug cable specmgmt **CBL**
debug cable startalloc **CBL**
debug cable subscriber-monitoring **CBL**
debug cable telco-return **CBL**
debug cable telco-return msg **CBL**
debug cable tlvs **CBL**
debug cable tod **CBL**
debug cable transmit **CBL**
debug cable ubg **CBL**
debug cable ucc **CBL**
debug cable ucd **CBL**
debug cable upconverter **CBL**
debug cable us-adm-ctrl **CBL**
debug cable wbcmts **CBL**
debug cable wbcmts admission-control **CBL**
debug cable wbcmts resiliency **CBL**
debug cable-modem bpkm **CBL**
debug cable-modem bridge **CBL**
debug cable-modem error **CBL**

debug cable-modem interrupts **CBL**
debug cable-modem mac log **CBL**
debug cable-modem mac messages **CBL**
debug cable-modem mac messages dynsrv **CBL**
debug cable-modem map **CBL**
debug cable-modem up-dis **CBL**
debug call fallback detail **DB**
debug call fallback probe **DB**
debug call filter detail **DB**
debug call filter inout **DB**
debug call rsvp-sync events **DB**
debug call rsvp-sync func-trace **DB**
debug call threshold **DB**
debug call treatment action **DB**
debug call-home diagnostic-signature **DB**
debug call-mgmt **DB**
debug callback **DB**
debug capf-server **DB**
debug cas **DB**
debug ccaal2 session **DB**
debug cce dp named-db urlfilter **DB**
debug ccfrf11 session **DB**
debug cch323 **DB**
debug cch323 capacity **DB**
debug cch323 h225 **DB**
debug cch323 h245 **DB**
debug cch323 preauth **DB**
debug cch323 ras **DB**
debug cch323 video **DB**
debug ccm-manager **DB**
debug ccsip all **DB**
debug ccsip calls **DB**
debug ccsip dhcp **DB**
debug ccsip error **DB**
debug ccsip events **DB**
debug ccsip info **DB**

```
debug ccsip media DB
debug ccsip messages DB
debug ccsip preauth DB
debug ccsip states DB
debug ccsip transport DB
debug ccswvoice vo-debug DB
debug ccswvoice vo-session DB
debug ccswvoice vofr-debug DB
debug ccswvoice vofr-session DB
debug cdapi DB
debug cdma pdsn a10 ahdlc DB
debug cdma pdsn a10 gre DB, MWP
debug cdma pdsn a10 ppp DB, MWP
debug cdma pdsn a11 DB, MWP
debug cdma pdsn accounting DB, MWP
debug cdma pdsn accounting flow DB, MWP
debug cdma pdsn accounting time-of-day DB, MWP
debug cdma pdsn cluster DB, MWP
debug cdma pdsn ipv6 DB, MWP
debug cdma pdsn prepaid DB, MWP
debug cdma pdsn qos DB, MWP
debug cdma pdsn radius disconnect nai MWP
debug cdma pdsn redundancy attributes MWP
debug cdma pdsn redundancy errors MWP
debug cdma pdsn redundancy events MWP
debug cdma pdsn redundancy packets MWP
debug cdma pdsn resource-manager DB, MWP
debug cdma pdsn selection DB, MWP
debug cdma pdsn service-selection DB, MWP
debug cdma pdsn session DB, MWP
debug cdp DB
debug cdp ip DB
debug cef DB
debug cell-hwic driver DB
debug cell-hwic firmware DB
debug cell-hwic virt-con DB
```

dampening through debug smrp group

```
debug cellular messages all DB
debug cellular messages async DB
debug cellular messages data DB
debug cellular messages dm DB
debug cellular messages management DB
debug cem ls errors DB
debug cem ls events DB
debug ces-conn DB
debug cfm DB
debug channel events DB
debug channel ilan DB
debug channel love DB
debug channel packets DB
debug checkpoint CBL
debug clns esis events DB
debug clns esis events through debug dbconn tcp DB
debug clns esis packets DB
debug clns events DB
debug clns igrp packets DB
debug clns packet DB
debug clns routing DB
debug cls message DB
debug cls vdlc DB
debug cme-xml DB
debug cmts ipc-cable base CBL
debug cmts ipc-cable client CBL
debug cns config DB
debug cns events DB
debug cns exec DB
debug cns image DB
debug cns management DB
debug cns xml DB
debug cns xml-parser DB
debug compress DB
debug condition DB, MWH, MWP
debug condition application voice DB
```

debug condition calling MWG
debug condition glbp DB
debug condition interface DB
debug condition match-list DB
debug condition standby DB
debug condition voice-port DB
debug condition vrf DB, SBCD, EVN
debug condition xconnect DB
debug configuration lock DB
debug confmodem DB
debug conn DB
debug content-scan DB
debug control-plane DB
debug cops DB
debug cot DB
debug cpd CBL
debug cpp event DB
debug cpp negotiation DB
debug cpp packet DB
debug cr10k-rp CBL
debug cr10k-rp dbs-queue CBL
debug credentials DB
debug crm DB
debug crypto ace b2b DB
debug crypto ace boot DB
debug crypto ace cfgmon DB
debug crypto ace congestion-mgr DB
debug crypto ace dpd DB
debug crypto ace error DB
debug crypto ace hapi DB
debug crypto ace ikea DB
debug crypto ace invspi DB
debug crypto ace ipd DB
debug crypto ace mace DB
debug crypto ace pcp DB
debug crypto ace polo DB

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```
debug crypto ace propcfg DB
debug crypto ace qos DB
debug crypto ace rcon DB
debug crypto ace redundancy DB
debug crypto ace spi DB
debug crypto ace stats DB
debug crypto ace syslog DB
debug crypto ace tftp DB
debug crypto ace topn DB
debug crypto ace warning DB
debug crypto condition IPV6
debug crypto condition unmatched DB
debug crypto ctcp DB
debug crypto engine DB
debug crypto engine accelerator logs DB
debug crypto engine ism-vpn DB
debug crypto engine ism-vpn ssl DB
debug crypto engine ism-vpn traffic DB
debug crypto engine ism-vpn traffic selector DB
debug crypto error DB
debug crypto gdoi DB
debug crypto gdoi condition DB
debug crypto ha DB
debug crypto ikev2 DB
debug crypto ipsec DB
debug crypto ipsec client ezvpn DB
debug crypto ipsec ha DB
debug crypto ipv6 ipsec DB, IPV6
debug crypto ipv6 packet DB, IPV6
debug crypto isakmp DB
debug crypto isakmp ha DB
debug crypto key-exchange DB
debug crypto mib DB
debug crypto pki messages DB
debug crypto pki server DB
debug crypto pki transactions DB
```

debug crypto provisioning DB
debug crypto sesmgmt DB
debug csm neat DB
debug csm tgram DB
debug csm voice DB
debug ctl-client DB
debug ctunnel DB
debug custom-queue DB
debug cwmp DB
debug dampening DB
debug data-store DB, MWG
debug data-store detail DB, MWG
debug dbconn all DB
debug dbconn appc DB
debug dbconn config DB
debug dbconn drda DB
debug dbconn event DB
debug dbconn tcp DB
debug decnet adj DB
debug decnet adj through debug dss ipx event DB
debug decnet connects DB
debug decnet events DB
debug decnet packet DB
debug decnet routing DB
debug device-sensor DB
debug dhcp DB
debug dhcp redundancy DB
debug dialer events DB
debug dialer forwarding DB
debug dialer map DB
debug dialpeer DB
debug diameter DB, MWG
debug dlsw DB
debug dmsp doc-to-fax DB
debug dmsp fax-to-doc DB
debug dmvpn DB, IPV6

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```
debug dmvpn condition DB, IPV6
debug docsis ssd CBL
debug dot11 DB, WL
debug dot11 aaa DB, WL
debug dot11 cac DB
debug dot11 dot11radio DB, WL
debug dot11 ids DB
debug dot11 ids mfp DB
debug dot1x DB
debug dot1x (EtherSwitch) DB
debug drip event DB
debug drip packet DB
debug dsc clock DB
debug dsip DB
debug dspapi DB
debug dspfarm DB
debug dsru activation DB
debug dsru packet DB
debug dsru state DB
debug dsru trace DB
debug dss ipx event DB
debug eap DB
debug eap through debug hw-module subslot periodic DB
debug ehsa CBL
debug eigrp address-family neighbor DB
debug eigrp address-family notifications DB
debug eigrp frr DB
debug eigrp fsm DB, IPV6
debug eigrp neighbor DB, IPV6
debug eigrp notifications DB
debug eigrp nsf DB
debug eigrp packet IPV6
debug eigrp packets DB
debug eigrp service-family DB, SAF
debug eigrp transmit DB, IPV6
debug emm DB
```

```
debug eou DB
debug epc DB
debug ephone alarm DB
debug ephone blf DB
debug ephone ccm-compatible DB
debug ephone detail DB
debug ephone error DB
debug ephone extension-assigner DB
debug ephone keepalive DB
debug ephone loopback DB
debug ephone lpcor DB
debug ephone message DB
debug ephone mlpp DB
debug ephone moh DB
debug ephone mwı DB
debug ephone pak DB
debug ephone qov DB
debug ephone raw DB
debug ephone register DB
debug ephone sccp-state DB
debug ephone state DB
debug ephone statistics DB
debug ephone video DB
debug ephone vm-integration DB
debug ephone whisper-intercom DB
debug errors DB
debug eswilp DB
debug ethernet nid DB
debug ethernet cfm all DB
debug ethernet cfm diagnostic DB
debug ethernet cfm error DB
debug ethernet cfm errors DB
debug ethernet cfm ha DB
debug ethernet cfm packets DB
debug ethernet cfm pm DB
debug ethernet event microwave DB
```

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```
debug ethernet l2ctrl DB
debug ethernet lmi DB
debug ethernet oam DB
debug ethernet ring g8032 errors DB
debug ethernet ring g8032 events DB
debug ethernet ring g8032 fsm DB
debug ethernet ring g8032 packets DB
debug ethernet service DB
debug ethernet service instance dynamic DB
debug event manager DB
debug events DB
debug fax dmsp DB
debug fax fmsp DB
debug fax foip DB
debug fax mmoip aaa DB
debug fax mspl DB
debug fax mta DB
debug fax relay t30 DB
debug fddi smt-packets DB
debug filesystem DB
debug firewall DB
debug flow exporter DB, FNF
debug flow monitor DB, FNF
debug flow record DB, FNF
debug flow-sampler DB
debug fm ipv6 pbr DB, IPV6
debug fm performance-monitor MM
debug fm private-hosts DB
debug fm raguard DB, IPV6
debug fmsp receive DB
debug fmst send DB
debug foip off-ramp DB
debug foip on-ramp DB
debug format DB
debug fpm event DB
debug frame-relay DB
```

debug frame-relay adjacency DB
debug frame-relay callcontrol DB
debug frame-relay end-to-end keepalive DB
debug frame-relay events DB
debug frame-relay foresight DB
debug frame-relay fragment DB
debug frame-relay hqf DB
debug frame-relay informationelements DB
debug frame-relay ip tcp header-compression DB
debug frame-relay lapf DB
debug frame-relay lmi DB
debug frame-relay multilink DB, WAN
debug frame-relay networklayerinterface DB
debug frame-relay packet DB
debug frame-relay ppp DB
debug frame-relay pseudowire DB
debug frame-relay redundancy DB
debug frame-relay switching DB
debug frame-relay vc-bundle DB
debug frame-relay virtual DB
debug fras error DB
debug fras message DB
debug fras state DB
debug fras-host activation DB
debug fras-host error DB
debug fras-host packet DB
debug fras-host snmp DB
debug ftpserver DB
debug gatekeeper gup DB
debug gatekeeper load DB
debug gatekeeper server DB
debug ggsn quota-server DB, MWG
debug glbp errors DB
debug glbp events DB
debug glbp packets DB
debug glbp terse DB

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```
debug gprs category fsm event DB, MWG
debug gprs charging DB
debug gprs dcca DB, MWG
debug gprs dfp DB, MWG
debug gprs dhcp DB, MWG
debug gprs gtp DB, MWG
debug gprs gtp parsing DB, MWG
debug gprs gtp ppp DB, MWG
debug gprs gtp ppp-regeneration DB, MWG
debug gprs gtp-director DB
debug gprs iscsi MWG
debug gprs radius DB, MWG
debug gprs redundancy DB, MWG
debug gvrp DB
debug h225 DB
debug h225 asn1 DB
debug h225 events DB
debug h245 asn1 DB
debug h245 events DB
debug h245 srtp DB
debug h323-annexg DB
debug hccp authentication CBL
debug hccp channel-switch CBL
debug hccp docsis-recovery CBL
debug hccp events CBL
debug hccp fast-failure-detection CBL
debug hccp inter-db CBL
debug hccp plane CBL
debug hccp rfswitch CBL
debug hccp sync CBL
debug hccp timing DB, CBL
debug hpi DB
debug http client DB
debug http client cookie DB
debug hw-module all upgrade DB, CBL
debug hw-module bay CBL
```

```
debug hw-module subslot DB
debug hw-module subslot commands DB
debug hw-module subslot errors DB
debug hw-module subslot events DB
debug hw-module subslot interrupts DB
debug hw-module subslot ipcshim DB
debug hw-module subslot oir DB
debug hw-module subslot periodic DB
debug iapp DB
debug iapp through debug ip ftp DB
debug idmgr DB
debug if-mgr efp-ext DB
debug ima DB
debug installer DB
debug interface DB
debug interface counters exceptions DB
debug interface counters protocol memory DB
debug interface states DB
debug interface(vasi) DB
debug iosd issu DB
debug ip access-list hash-generation DB
debug ip access-list intstats DB
debug ip access-list turboacl DB
debug ip admission consent DB
debug ip admission eapoudp DB
debug ip auth-proxy DB
debug ip auth-proxy ezvpn DB
debug ip bgp DB
debug ip bgp event rpki BGP
debug ip bgp groups DB
debug ip bgp igrp-metric ignore DB, BGP, SBCD
debug ip bgp import DB, BGP
debug ip bgp range DB
debug ip bgp route-server BGP, SBCD
debug ip bgp sso DB
debug ip bgp updates DB
```

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```
debug ip bgp vpng4 checkpoint DB
debug ip bgp vpng4 nsf DB
debug ip bgp vpng4 unicast DB
debug ip bgp vpng6 unicast DB
debug ip casa affinities DB
debug ip casa packets DB
debug ip casa wildcards DB
debug ip cef DB
debug ip cef accounting non-recursive DB
debug ip cef fragmentation DB
debug ip cef hash DB
debug ip cef rrhash DB
debug ip cef subblock DB
debug ip cef table DB
debug ip ddns update DB
debug ip dfp agent DB
debug ip dhcp server DB
debug ip dhcp server redundancy DB
debug ip dhcp server snmp DB
debug ip dns name-list DB
debug ip dns view DB
debug ip dns view-list DB
debug ip drp DB
debug ip dvmrp DB
debug ip eigrp DB
debug ip eigrp notifications DB
debug ip error DB
debug ip flow cache DB, IPV6
debug ip flow export DB, IPV6
debug ip ftp DB
debug ip http all DB
debug ip http all through debug ip rsvp DB
debug ip http authentication DB
debug ip http client DB
debug ip http client cookie DB
debug ip http ezsetup DB
```

```
debug ip http secure-all DB
debug ip http secure-session DB
debug ip http secure-state DB
debug ip http ssi DB
debug ip http ssl error DB
debug ip http token DB
debug ip http transaction DB
debug ip http url DB
debug ip icmp DB
debug ip igmp DB
debug ip igmp snooping DB
debug ip igrp events DB
debug ip igrp transactions DB
debug ip inspect DB
debug ip inspect ha DB
debug ip ips DB
debug ip iscsi MWG
debug ip mbgp dampening DB
debug ip mbgp updates DB
debug ip mcache DB
debug ip mds ipc DB
debug ip mds mevent DB
debug ip mds mpacket DB
debug ip mds process DB
debug ip mfib adjacency DB
debug ip mfib db DB
debug ip mfib fs DB
debug ip mfib init DB
debug ip mfib interface DB
debug ip mfib mrib DB
debug ip mfib nat DB
debug ip mfib pak DB
debug ip mfib platform DB
debug ip mfib ppr DB
debug ip mfib ps DB
debug ip mfib signal DB
```

```
debug ip mfib table DB
debug ip mhbeat DB
debug ip mobile DB, MWH, MWP
debug ip mobile advertise DB, MWH
debug ip mobile cdma ipsec MWP
debug ip mobile dyn-pbr DB
debug ip mobile host DB, MWH
debug ip mobile mib DB
debug ip mobile redundancy DB, MWH
debug ip mobile router DB
debug ip mpacket DB
debug ip mrrib DB
debug ip mrm DB
debug ip mrouting DB
debug ip mrouting limits DB
debug ip msdp DB
debug ip msdp resets DB
debug ip multicast hardware-switching DB
debug ip multicast redundancy DB
debug ip multicast rpf tracked DB
debug ip multicast topology DB, SBCD
debug ip nat DB
debug ip nat redundancy DB
debug ip nbar clients DB
debug ip nbar config DB
debug ip nbar platform DB
debug ip nbar trace DB
debug ip ospf adj DB
debug ip ospf database-timer rate-limit DB
debug ip ospf events DB
debug ip ospf mpls traffic-eng advertisements DB
debug ip ospf nsf DB
debug ip ospf packet DB
debug ip ospf rib DB
debug ip ospf spf statistic DB
debug ip packet DB
```

```
debug ip pgm host DB
debug ip pgm router DB
debug ip pim DB
debug ip pim atm DB
debug ip pim auto-rp DB
debug ip policy DB
debug ip rbsep DB
debug ip rbsep ack-split DB
debug ip rgmp DB
debug ip rip DB
debug ip routing DB
debug ip routing static bfd DB
debug ip rsvp DB
debug ip rsvp aggregation DB
debug ip rsvp authentication DB
debug ip rsvp detail DB
debug ip rsvp dump-messages DB
debug ip rsvp errors DB
debug ip rsvp hello DB
debug ip rsvp high-availability DB
debug ip rsvp p2mp DB
debug ip rsvp policy DB
debug ip rsvp rate-limit DB
debug ip rsvp reliable-msg DB
debug ip rsvp sbm DB
debug ip rsvp sso DB
debug ip rsvp summary-refresh DB
debug ip rsvp traffic-control DB
debug ip rsvp wfq DB
debug ip rtp header-compression DB
debug ip rtp header-compression through debug ipv6 icmp DB
debug ip rtp packets DB
debug ip scp DB
debug ip sctp api DB
debug ip sctp congestion DB
debug ip sctp init DB
```

dampening through debug smrp group

```
debug ip sctp multihome DB
debug ip sctp performance DB
debug ip sctp rcvchunks DB
debug ip sctp rto DB
debug ip sctp segments DB
debug ip sctp segmentsv DB
debug ip sctp signal DB
debug ip sctp sndchunks DB
debug ip sctp state DB
debug ip sctp timer DB
debug ip sctp warnings DB
debug ip sd DB
debug ip sdee DB
debug ip security DB
debug ip sla error DB
debug ip sla ethernet-monitor DB
debug ip sla monitor error DB
debug ip sla monitor mpls-lsp-monitor DB
debug ip sla mpls-lsp-monitor DB
debug ip sla trace DB
debug ip sla trace mpls-lsp-monitor DB
debug ip slb DB
debug ip snat DB
debug ip socket DB
debug ip ssh DB
debug ip subscriber DB, ISG
debug ip subscriber redundancy DB
debug ip tcp congestion DB
debug ip tcp driver DB
debug ip tcp driver-pak DB
debug ip tcp ecn DB
debug ip tcp ha DB
debug ip tcp intercept DB
debug ip tcp packet DB
debug ip tcp transactions DB
debug ip traffic-export events DB
```

```
debug ip trigger-authentication DB
debug ip trm DB
debug ip urd DB
debug ip urlfilter DB
debug ip verify mib DB
debug ip virtual-reassembly DB
debug ip wccp DB, SBCD
debug ipc DB
debug ipc acks DB
debug ipc errors DB
debug ipc events DB
debug ipc fragments DB
debug ipc nacks DB
debug ipc packets DB
debug ipc rpc DB
debug iphc ipc DB
debug ipv6 cef drop DB, IPV6
debug ipv6 cef events DB, IPV6
debug ipv6 cef hash DB, IPV6
debug ipv6 cef receive DB, IPV6
debug ipv6 cef table DB, IPV6
debug ipv6 dhcp DB
debug ipv6 dhcp database DB, IPV6
debug ipv6 dhcp redundancy DB
debug ipv6 dhcp relay DB, IPV6
debug ipv6 eigrp DB, IPV6
debug ipv6 icmp DB, IPV6
debug ipv6 inspect DB, IPV6
debug ipv6 inspect through debug local-ack state DB
debug ipv6 mfib DB, IPV6
debug ipv6 mld DB, IPV6
debug ipv6 mld explicit DB, IPV6
debug ipv6 mld ssm-map DB, IPV6
debug ipv6 mobile DB, IPV6
debug ipv6 mobile lma IMO
debug ipv6 mobile mag DB
```

dampening through debug smrp group

debug ipv6 mobile networks DB, IPV6
debug ipv6 mobile packets DB
debug ipv6 mobile router DB, IPV6
debug ipv6 mrib client DB, IPV6
debug ipv6 mrib io DB, IPV6
debug ipv6 mrib proxy DB, IPV6
debug ipv6 mrib route DB, IPV6
debug ipv6 mrib table DB, IPV6
debug ipv6 multicast aaa DB
debug ipv6 multicast rpf DB
debug ipv6 multicast rwatch DB
debug ipv6 nat DB, IPV6
debug ipv6 nd DB, IPV6
debug ipv6 ospf DB, IPV6
debug ipv6 ospf database-timer rate-limit DB, IPV6
debug ipv6 ospf events DB, IPV6
debug ipv6 ospf graceful-restart DB, IPV6
debug ipv6 ospf lsdb DB, IPV6
debug ipv6 ospf monitor DB, IPV6
debug ipv6 ospf packet DB, IPV6
debug ipv6 ospf spf statistic DB, IPV6
debug ipv6 packet DB, IPV6
debug ipv6 pim DB, IPV6
debug ipv6 pim df-election DB, IPV6
debug ipv6 pim limit DB, IPV6
debug ipv6 policy DB, IPV6
debug ipv6 pool DB, IPV6
debug ipv6 rip DB, IPV6
debug ipv6 routing DB, IPV6
debug ipv6 snooping DB, IPV6
debug ipv6 snooping raguard DB, IPV6
debug ipv6 spd DB, IPV6
debug ipv6 static DB, IPV6
debug ipv6 wccp DB
debug ipx ipxwan DB
debug ipx nasi DB

```
debug ipx packet DB
debug ipx routing DB
debug ipx sap DB
debug ipx spoof DB
debug ipx spx DB
debug isdn DB
debug isdn event DB
debug isdn q921 DB
debug isdn q931 DB
debug isdn tgram DB
debug isis adj packets DB
debug isis authentication DB
debug isis ipv6 rib DB
debug isis mpls traffic-eng advertisements DB
debug isis mpls traffic-eng events DB
debug isis nsf DB
debug isis rib DB
debug isis rib redistribution DB
debug isis spf statistics DB
debug isis spf-events DB, IPV6
debug isis update-packets DB
debug iua as DB
debug iua asp DB
debug kerberos DB
debug kpml DB
debug kron DB
debug l2ctrl DB
debug l2fib DB
debug l2protocol-tunnel IR
debug l2relay events DB
debug l2relay packets DB
debug l2tp DB
debug l2tp redundancy DB
debug l2vpn acircuit DB
debug l2vpn atom checkpoint DB
debug l2vpn atom event-trace DB
```

dampening through debug smrp group

```
debug l2vpn atom fast-failure-detect DB
debug l2vpn atom signaling DB
debug l2vpn atom static-oam DB
debug l2vpn atom vc DB
debug l2vpn atom vc vccv DB
debug l2vpn pseudowire DB
debug l2vpn vfi DB
debug l2vpn xconnect DB
debug l3-mgr tunnel DB
debug l4f DB, WAN
debug lacp DB
debug lane client DB
debug lane config DB
debug lane finder DB
debug lane server DB
debug lane signaling DB
debug lapb DB
debug lapb-ta DB
debug lat packet DB
debug ldap DB
debug lex rcmd DB
debug license DB, CSA
debug link monitor DB
debug lisp control-plane all LISP
debug lisp control-plane configuration LISP
debug lisp control-plane etr-map-server LISP
debug lisp control-plane events LISP
debug lisp control-plane exceptions LISP
debug lisp control-plane forward-api-events LISP
debug lisp control-plane interface-address-watch LISP
debug lisp control-plane lig LISP
debug lisp control-plane local-eid-database LISP
debug lisp control-plane local-rloc LISP
debug lisp control-plane map-request LISP
debug lisp control-plane map-resolver LISP
debug lisp control-plane map-server LISP
```

```
debug lisp control-plane map-server-map-notify LISP
debug lisp control-plane map-server-map-request LISP
debug lisp control-plane map-server-registration LISP
debug lisp control-plane map-server-registration errors LISP
debug lisp control-plane messages LISP
debug lisp control-plane nsf LISP
debug lisp control-plane remote-eid-cache LISP
debug lisp control-plane remote-eid-persistent LISP
debug lisp control-plane remote-rloc-watch LISP
debug lisp control-plane rib-rloc-watch LISP
debug lisp control-plane rib-route-import LISP
debug lisp control-plane solicit-map-request LISP
debug lisp control-plane static-mapping LISP
debug lisp detail LISP
debug lisp filter eid LISP
debug lisp filter instance-id LISP
debug lisp filter rloc LISP
debug lisp filter router-lisp-id LISP
debug lisp forwarding adjacency LISP
debug lisp forwarding alt-prefix LISP
debug lisp forwarding data-signal-map-request LISP
debug lisp forwarding data-signal-status-bits LISP
debug lisp forwarding ipv4-traceroute LISP
debug lisp forwarding ipv6-traceroute LISP
debug lisp forwarding remote-eid-prefix LISP
debug lisp forwarding state LISP
debug lisp forwarding virtual-interface-address LISP
debug list DB
debug llc2 dynwind DB
debug llc2 errors DB
debug llc2 packet DB
debug llc2 state DB
debug lnm events DB
debug lnm llc DB
debug lnm mac DB
debug local-ack state DB
```

debug management event mib DB
debug management event through debug mpls ldp bindings DB
debug management expression DB
debug mdns DB
debug mdss DB
debug media resource provisioning all DB
debug media resource provisioning errors DB
debug media resource provisioning events DB
debug mediacard DB
debug memory DB
debug metadata DB, MD
debug mgcp DB
debug mgcp all DB
debug mgcp endpoint DB
debug mgcp endptdb DB
debug mgcp errors DB
debug mgcp events DB
debug mgcp gcfm DB
debug mgcp inout DB
debug mgcp media DB
debug mgcp nas DB
debug mgcp packets DB
debug mgcp parser DB
debug mgcp src DB
debug mgcp state DB
debug mgcp tracelevel-default DB
debug mgcp voipcac DB
debug mlrib common DB
debug mlrib layer2 DB
debug mls rp DB
debug mls rp ip multicast DB
debug mmoip aaa DB
debug mmoip send email DB
debug mmoip send fax DB
debug mmoip transfer DB
debug modem DB

```
debug modem csm DB
debug modem dsip DB
debug modem oob DB
debug modem relay errors DB
debug modem relay events DB
debug modem relay packetizer DB
debug modem relay physical DB
debug modem relay sprt DB
debug modem relay udp DB
debug modem relay v14 DB
debug modem relay v42 DB
debug modem trace DB
debug modem traffic DB
debug mpls adjacency DB
debug mpls atm-cos DB
debug mpls atm-ldp api DB
debug mpls atm-ldp failure DB
debug mpls atm-ldp routes DB
debug mpls atm-ldp states DB
debug mpls checkpoint label-binding DB
debug mpls events DB
debug mpls infra label-broker api DB
debug mpls infra label-broker api key DB
debug mpls infra lfd label-block DB
debug mpls infra lfd label-broker key DB
debug mpls ip iprm DB
debug mpls ip iprm cef DB
debug mpls ip iprm events DB
debug mpls ip iprm ldm DB
debug mpls ip iprm mfi DB
debug mpls l2transport checkpoint DB
debug mpls l2transport fast-reroute DB
debug mpls l2transport ipc DB
debug mpls l2transport packet DB
debug mpls l2transport signaling DB
debug mpls l2transport static-oam DB
```

dampening through debug smrp group

```
debug mpls l2transport vc DB
debug mpls l2transport vc subscriber DB
debug mpls l2transport vc vccv DB
debug mpls ldp advertisements DB
debug mpls ldp backoff DB
debug mpls ldp bindings DB
debug mpls ldp checkpoint DB
debug mpls ldp checkpoint through debug mwi relay events DB
debug mpls ldp graceful-restart DB
debug mpls ldp igp sync DB
debug mpls ldp messages DB
debug mpls ldp nsr DB
debug mpls ldp peer state-machine DB
debug mpls ldp prev-label DB
debug mpls ldp session io DB
debug mpls ldp session protection DB
debug mpls ldp session state-machine DB
debug mpls ldp targeted-neighbors DB
debug mpls ldp transport connections DB
debug mpls ldp transport events DB
debug mpls lfib cef DB
debug mpls lfib enc DB
debug mpls lfib fast-reroute database DB
debug mpls lfib fast-reroute events DB
debug mpls lfib fast-reroute reroutes DB
debug mpls lfib lsp DB
debug mpls lfib state DB
debug mpls lfib struct DB
debug mpls lspv DB
debug mpls mldp all DB
debug mpls mldp filter opaque_type DB
debug mpls mldp generic DB
debug mpls mldp gr DB
debug mpls mldp mfi DB
debug mpls mldp mrib DB
debug mpls mldp neighbor DB
```

```
debug mpls mldp packet DB
debug mpls netflow DB, NF
debug mpls packets DB
debug mpls static binding DB
debug mpls tp DB
debug mpls traffic-eng areas DB
debug mpls traffic-eng auto-tunnel backup DB
debug mpls traffic-eng auto-tunnel primary DB
debug mpls traffic-eng autoroute DB
debug mpls traffic-eng filter DB
debug mpls traffic-eng forwarding-adjacency DB
debug mpls traffic-eng ha sso DB
debug mpls traffic-eng link-management admission-control DB
debug mpls traffic-eng link-management advertisements DB
debug mpls traffic-eng link-management bandwidth-allocation DB
debug mpls traffic-eng link-management errors DB
debug mpls traffic-eng link-management events DB
debug mpls traffic-eng link-management igp-neighbors DB
debug mpls traffic-eng link-management links DB
debug mpls traffic-eng link-management preemption DB
debug mpls traffic-eng link-management routing DB
debug mpls traffic-eng load-balancing DB
debug mpls traffic-eng lsd-client DB
debug mpls traffic-eng path DB
debug mpls traffic-eng process-restart DB
debug mpls traffic-eng topology change DB
debug mpls traffic-eng topology lsa DB
debug mpls traffic-eng tunnels errors DB
debug mpls traffic-eng tunnels events DB
debug mpls traffic-eng tunnels labels DB
debug mpls traffic-eng tunnels reoptimize DB
debug mpls traffic-eng tunnels signalling DB
debug mpls traffic-eng tunnels state DB
debug mpls traffic-eng tunnels timers DB
debug mpls vpn ha DB
debug mpls xtagatm cross-connect DB
```

dampening through debug smrp group

```
debug mpls xtagatm errors DB
debug mpls xtagatm events DB
debug mpls xtagatm vc DB
debug mpoa client DB
debug mpoa server DB
debug mrsp DB
debug mspl receive DB
debug mspl send DB
debug mta receive all DB
debug mta send all DB
debug mta send rcpt-to DB
debug mvrp DB
debug mwi relay errors DB
debug mwi relay events DB
debug nat64 DB
debug ncia circuit DB
debug ncia circuit through debug pxf tbridge DB
debug ncia client DB
debug ncia server DB
debug netbios error DB
debug netbios packet DB
debug netbios-name-cache DB
debug netconf DB
debug nextport vsmgr detail DB
debug nhrp DB, IPV6
debug nhrp condition DB, IPV6
debug nhrp error DB, IPV6
debug nhrp extension DB
debug nhrp options DB
debug nhrp packet DB
debug nhrp rate DB
debug nls CBL
debug ntp DB, IPV6
debug oam DB
debug object-group event DB
debug oer api DB, OER
```

debug oer api client DB, OER
debug oer border DB, OER
debug oer border active-probe DB, OER
debug oer border learn DB, OER
debug oer border routes DB, OER
debug oer border traceroute reporting DB, OER
debug oer cc DB, OER
debug oer master border DB, OER
debug oer master collector DB, OER
debug oer master cost-minimization DB, OER
debug oer master exit DB, OER
debug oer master learn DB, OER
debug oer master prefix DB, OER
debug oer master prefix-list DB, OER
debug oer master process DB, OER
debug oer master traceroute reporting DB, OER
debug ospfv3 DB, IPV6
debug ospfv3 database-timer rate-limit DB, IPV6
debug ospfv3 events DB, IPV6
debug ospfv3 lsdb DB, IPV6
debug ospfv3 packet DB, IPV6
debug ospfv3 spf statistic DB, IPV6
debug otv DB
debug otv isis DB
debug packet DB
debug packet-capture DB
debug packetcable all CBL
debug packetcable cops CBL
debug packetcable gate CBL
debug packetcable hccp CBL
debug packetcable ipc CBL
debug packetcable subscriber CBL
debug pad DB
debug performance monitor MM
debug pfr api PFR
debug pfr border PFR

```
debug pfr border active-probe PFR
debug pfr border bandwidth-resolution PFR
debug pfr border learn PFR
debug pfr border routes PFR
debug pfr border rsvp PFR
debug pfr border traceroute reporting PFR
debug pfr border tunnel PFR
debug pfr cc PFR
debug pfr master bandwidth-resolution PFR
debug pfr master border PFR
debug pfr master collector PFR
debug pfr master cost-minimization PFR
debug pfr master exit PFR
debug pfr master export PFR
debug pfr master export active PFR
debug pfr master export border PFR
debug pfr master export config PFR
debug pfr master export cost-minimization PFR
debug pfr master export link PFR
debug pfr master export option PFR
debug pfr master export passive PFR
debug pfr master export process PFR
debug pfr master export traffic-class PFR
debug pfr master learn PFR
debug pfr master prefix PFR
debug pfr master prefix-list PFR
debug pfr master process PFR
debug pfr master rsvp PFR
debug pfr master target-discovery PFR
debug pfr master traceroute reporting PFR
debug pfr master tunnel PFR
debug pfr mib error PFR
debug pfr mib info PFR
debug pias events DB
debug platform 6rd DB
debug platform hardware qfp active feature evtmon DB
```

```
debug platform hardware qfp active feature ipsec DB
debug platform hardware qfp active feature wccp DB, SBCD
debug platform hardware qfp active interface frame-relay multilink WAN
debug platform hardware qfp feature DB
debug platform hardware qfp feature otv client DB
debug platform hardware qfp feature sbc SBCD
debug platform link-dc DB, IR
debug platform network-clock IR
debug platform software evtmon DB
debug platform software l2fib DB
debug platform software multicast DB
debug platform software multicast cgmp DB
debug platform software multicast igmp DB
debug platform software multicast ip cmfib DB
debug platform software multicast ip cmfib error DB
debug platform software multicast ip cmfib event DB
debug platform software multicast ip hal DB
debug platform software multicast ipv6 DB
debug platform software multicast ipv6 cmfib DB
debug platform software multicast ipv6 hal DB
debug platform software multicast lc DB
debug platform software multicast mld DB
debug platform software multicast mrouter DB
debug platform software multicast msc DB
debug platform software multicast rgmp DB
debug platform software multicast rpdf DB
debug platform software multicast titan DB
debug platform software otv DB
debug platform software ucse IR
debug platform software wccp DB, SBCD
debug policy-firewall DB
debug policy-firewall mib DB
debug port-channel load-balance DB
debug pots DB
debug pots csm DB
debug ppp DB
```

```
debug ppp bap DB
debug ppp ip address-save DB
debug ppp multilink events DB
debug ppp multilink fragments DB
debug ppp multilink negotiation DB
debug ppp redundancy DB
debug ppp unique address DB, IPV6
debug pppatm DB
debug pppatm redundancy DB
debug pppoe DB
debug pppoe redundancy DB
debug presence DB
debug priority DB
debug private-hosts DB
debug proxy h323 statistics DB
debug pvcd DB
debug pvdm2dm DB
debug pw-udp DB
debug pxf CBL
debug pxf atom DB, CBL
debug pxf backwalks DB
debug pxf bba DB
debug pxf cef DB
debug pxf dma DB
debug pxf iedge DB
debug pxf ipv6 DB
debug pxf l2less-error DB
debug pxf microcode DB
debug pxf mnode DB
debug pxf mpls DB
debug pxf mroute DB
debug pxf multilink DB
debug pxf netflow DB
debug pxf pbr DB
debug pxf qos DB
debug pxf stats DB
```

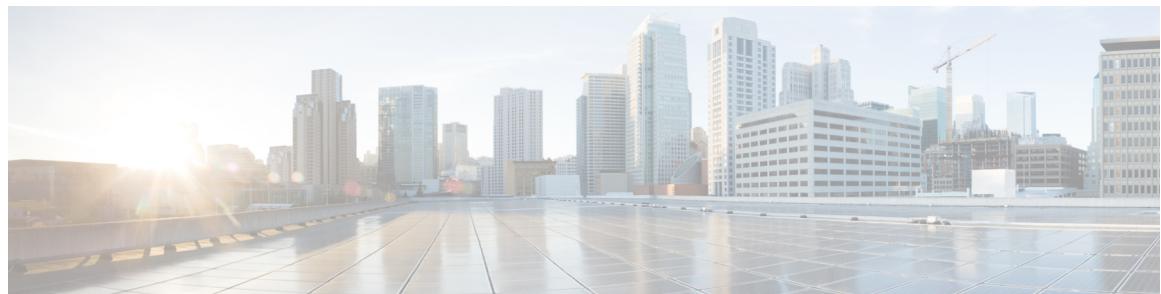
```
debug pxf subblocks DB
debug pxf tbridge DB
debug qbm DB
debug qbm through debug rudpv1 DB
debug qllc error DB
debug qllc event DB
debug qllc packet DB
debug qllc state DB
debug qllc timer DB
debug qllc x25 DB
debug qos accounting DB
debug qos dsmib error DB
debug qos dsmib event DB
debug qos dsmib stats DB
debug qos ha DB
debug radius DB, MWH
debug radius local-server DB, WL
debug radius-proxy DB, ISG
debug rai DB
debug ras DB
debug record-storage-module MWG
debug redundancy CBL
debug redundancy (RP) DB
debug redundancy application group asymmetric-routing DB
debug redundancy application group config DB
debug redundancy application group faults DB
debug redundancy application group media DB
debug redundancy application group protocol DB
debug redundancy application group rii DB
debug redundancy application group transport DB
debug redundancy application group vp DB
debug redundancy as5850 DB
debug registry DB
debug resource policy notification DB
debug resource policy registration DB
debug resource-pool DB
```

```
debug rgf detailed WAN
debug rgf errors WAN
debug rgf events WAN
debug rif DB
debug route-map ipc DB
debug rpms-proc preauth DB
debug rtspi all DB
debug rtspi errors DB
debug rtspi inout DB
debug rtspi send-nse DB
debug rtspi session DB
debug rtr error DB
debug rtr mpls-lsp-monitor DB
debug rtr trace DB
debug rtsp DB
debug rtsp all DB
debug rtsp api DB
debug rtsp client DB
debug rtsp client session DB
debug rtsp error DB
debug rtsp pmh DB
debug rtsp session DB
debug rtsp socket DB
debug rudpv1 DB
debug saa apm DB
debug saa apm through debug snmp sync DB
debug saa slm DB
debug saa xml DB
debug sampler DB, FNF
debug satellite DB
debug satellite firmware DB
debug sbc alarm-filter SBCD
debug sbc alarm-log-level SBCD
debug sbc asr log-level filter SBCD
debug sbc correlation-logs filter SBCD
debug sbc errors SBCD
```

debug sbc events **SBCD**
debug sbc filter **SBCD**
debug sbc filter (session border controller) **SBCD**
debug sbc filter billing_id **SBCD**
debug sbc filter bm **SBCD**
debug sbc filter cac **SBCD**
debug sbc filter call **SBCD**
debug sbc ha **SBCD**
debug sbc info **SBCD**
debug sbc ips **SBCD**
debug sbc ips (session border controller) **SBCD**
debug sbc log-level **SBCD**
debug sbc log-level console **SBCD**
debug sbc log-level file **SBCD**
debug sbc logging **SBCD**
debug sbc mem-trace dump **SBCD**
debug sbc mpf **SBCD**
debug sbc nbase **SBCD**
debug sbc off **SBCD**
debug sbc pd filter component **SBCD**
debug sbc pd filter context **SBCD**
debug sbc pd filter product **SBCD**
debug sbc pd log-level **SBCD**
debug sccp **DB**
debug sccp config **DB**
debug sdlc **DB**
debug sdlc local-ack **DB**
debug sdlc packet **DB**
debug serial interface **DB**
debug serial lead-transition **DB**
debug serial packet **DB**
debug service-group **DB**
debug service-module **DB**
debug sgbp dial-bids **DB**
debug sgbp error **DB**
debug sgbp hellos **DB**

dampening through debug smrp group

```
debug sgcp DB
debug sgcp errors DB
debug sgcp events DB
debug sgcp packet DB
debug sgi ISG
debug shared-line DB
debug smrp all DB
debug smrp group DB
```



debug smrp mcache through e

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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 5: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

debug smrp mcache through e

debug smrp mcache through e

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debug smrp mcache DB
debug smrp neighbor DB
debug smrp port DB
debug smrp route DB
debug smrp transaction DB
debug snasw dlc DB
debug snasw ips DB
debug snmp bulkstat DB
debug snmp detail DB
debug snmp mib nhrp DB
debug snmp overhead DB
debug snmp packet DB
debug snmp requests DB
debug snmp sync DB
debug snmp tunnel-mib DB, IR
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debug sntp adjust through debug tag-switching xtagatm vc DB
debug sntp packets DB
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debug software authenticity DB
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debug source error DB
debug source event DB
debug span DB
debug spanning-tree DB
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debug ss7 mtp2 DB
debug ss7 sm DB
debug sse DB
debug ssg ctrl-errors DB
debug ssg ctrl-events DB
debug ssg ctrl-packets DB

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debug ssg data DB
debug ssg data-nat DB
debug ssg dhcp DB
debug ssg errors DB
debug ssg events DB
debug ssg packets DB
debug ssg port-map DB
debug ssg tcp-redirect DB
debug ssg transparent login DB
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debug ssl openssl DB
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debug sss aaa authorization event DB
debug sss aaa authorization fsm DB
debug sss error DB
debug sss event DB
debug sss fsm DB
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debug subscriber lite-session events ISG
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debug tag-switching atm-tdp api DB
debug tag-switching atm-tdp routes DB
debug tag-switching atm-tdp states DB
debug tag-switching tdp advertisements DB
debug tag-switching tdp bindings DB
debug tag-switching tdp directed-neighbors DB
debug tag-switching tdp peer state-machine DB
debug tag-switching tdp pies received DB
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debug tgrep messages DB
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debug vfi checkpoint DB
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debug voice all DB
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debug voip application DB
debug voip application lpcor DB
debug voip application stcapp all DB
debug voip application stcapp buffer-history DB
debug voip application stcapp error DB
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```

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debug voip fpi call-rate DB
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debug voip ivr all DB
debug voip ivr applib DB
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debug voip ivr error DB
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debug voip ivr script DB
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debug waas accelerator cifs-express DB
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default (CEM) IR
default (Flexible NetFlow) FNF
default (IPv6 OSPF) IPV6
default (MGCP profile) VR
default (OSPFv3) IPV6
default (SAF) SAF
default (SIP) VR
default (VPDN) VPD
default (auto-config application) VR
default (auto-config application) through direct-inward-dial VR
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default (ca-trustpool) SEC
default (cs-server) SEC
default (tracking) IAP
default external-client SAF
default interface IR
default ip nbar protocol-pack QOS
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device-sensor filter-list dhcp SEC
device-sensor filter-list lldp SEC
device-sensor filter-spec SEC
device-sensor notify SEC
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dfs band block WL
dhcp (IKEv2) SEC
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distance (IPv6) **IPV6**

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domain-id **IBM, AN**
domain-id (OSPF) **OSPF**
domain-id (OSPFv3) **OSPF**
domain-name **SBCD**
domain-name (DHCP) **IAD**
domain-name (IPv6) **IAD, IPV6**
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domain-stripping **SEC**
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dot11 aaa authentication mac-authen filter-cache **WL**
dot11 aaa csid **WL**
dot11 aaa dot1x compliance **WL**
dot11 activity-timeout **WL**
dot11 extension aironet **WL**
dot11 holdoff-time **WL**
dot11 igmp snooping-helper **WL**
dot11 location isocc **WL**
dot11 mbssid **WL**
dot11 phone **WL**
dot11 priority-map avid **WL**
dot11 qos class **WL**
dot11 qos mode wmm **WL**
dot11 ssid **WL**
dot11 syslog **WL**
dot11 vlan-name **WL**
dot1q tunneling ethertype **IR, LSW**
dot1x client-timeout **WL**
dot1x control-direction **SEC**

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dot1x credentials SEC
dot1x critical (global configuration) SEC
dot1x critical (interface configuration) SEC
dot1x default SEC
dot1x guest-vlan SEC
dot1x guest-vlan supplicant SEC
dot1x host-mode SEC
dot1x initialize SEC
dot1x mac-auth-bypass SEC
dot1x max-reauth-req SEC
dot1x max-req SEC
dot1x max-start SEC
dot1x multi-hosts SEC
dot1x multiple-hosts SEC
dot1x pae SEC
dot1x port-control SEC
dot1x re-authenticate (EtherSwitch) SEC
dot1x re-authenticate (privileged EXEC) SEC
dot1x re-authentication (EtherSwitch) SEC
dot1x reauth-period WL
dot1x reauthentication SEC
dot1x supplicant interface SEC
dot1x system-auth-control SEC
dot1x timeout SEC
dot1x timeout (EtherSwitch) SEC
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downgrade bgp OER
downgrade bgp (PfR) PFR
download CBL
download exclude-profile (SSG PTA-MD) SSG
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downstream CBL
downstream cable CBL
downstream integrated-cable rf-channel (interface) CBL
downstream local upstream CBL

downstream modular-cable rf-channel **CBL**
downstream modular-cable rf-channel (interface) **CBL**
downward-compatible-config **CF**
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dre upload **WAN**
dre-hints enable **WAN**
drop **QOS**
drop (ISG) **ISG**
drop (type access-control) **SEC**
drop (zone-based policy) **SEC**
drop-last-conferee **VR**
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ds0 busyout (channel) **DIA**
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ds0 busyout-threshold **DIA**
ds0-group (E1) **VR**
ds0-group (J1 controller) **IR**
ds0-group (T1) **VR**
ds0-group (controller e1) **DIA**
ds0-num **VR**
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dscp (Flexible NetFlow) **FNF, MM**
dscp (Frame Relay VC-bundle-member) **WAN**
dscp (IP SLA video) **SLA**
dscp (IP SLA) **SLA**
dscp media **VR**
dscp-profile **VR**
dsl enable-training-log **BBA**
dsl equipment-type **BBA**
dsl gain-setting rx-offset **BBA**
dsl gain-setting tx-offset **BBA**
dsl linerate **BBA**
dsl lom **BBA**
dsl max-tone-bits **BBA**
dsl noise-margin **BBA**
dsl operating-mode **BBA**

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dsl operating-mode (ADSL over ISDN) **BBA**
dsl operating-mode gshdsl **BBA**
dsl power-cutback **BBA**
dsl-group **IR**
dsl-line-info-forwarding **VPD**
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dspfarm (DSP farm) **VR**
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dspfarm confbridge maximum **VR**
dspfarm connection interval **VR**
dspfarm profile **IPV6, VR**
dspfarm rtp timeout **VR**
dspfarm transcoder maximum sessions **VR**
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dspr activation-window **IBM**
dspr default-pu **IBM**
dspr enable-host (QLLC) **IBM**
dspr enable-host (SDLC) **IBM**
dspr enable-host (Token Ring **Ethernet**)
dspr enable-pu (Ethernet **Frame Relay**)
dspr enable-pu (QLLC) **IBM**
dspr enable-pu (SDLC) **IBM**
dspr host (Frame Relay) **IBM**
dspr host (QLLC) **IBM**
dspr host (SDLC) **IBM**
dspr host (Token Ring **Ethernet**)
dspr lu **IBM**
dspr ncia **IBM**
dspr ncia enable-pu **IBM**
dspr notification-level **IBM**
dspr pool **IBM**
dspr pu (Frame Relay) **IBM**
dspr pu (QLLC) **IBM**

dsru pu (SDLC) IBM
dsru pu (Token Ring Ethernet
dsru rsrb IBM
dsru rsrb enable-host IBM
dsru rsrb enable-pu IBM
dsru rsrb start IBM
dsru start IBM
dsru vdlc IBM
dsru vdlc enable-host IBM
dsru vdlc enable-pu IBM
dsru vdlc start IBM
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dst-address (editor) SBCD
dst-adjacency SBCD
dsu bandwidth IR
dsu mode IR
dte-invert-txc IR
dtls port SEC
dtmf disable sip SBCD
dtmf sip SBCD
dtmf timer inter-digit VR
dtmf-duration SBCD
dtmf-duration (session border controller) SBCD
dtmf-interworking VR
dtmf-relay (Voice over Frame Relay) VR
dtmf-relay (Voice over IP) VR
dualtone VR
duplex IR
duration CBL, SBCD
duration (IP SLA video) SLA
duration time SLA
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dxi map ATM
dxi pvc ATM
dxs3mode IR
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dynamic mag learning IMO

dynamic-eid LISP

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e164 VR

e2-clockrate IR

e911 VR

eap SEC

eap (IKEv2 profile) SEC

eap-user ignore-open-session ISG

early-media-deny SBCD

early-media-timeout SBCD

early-media-type SBCD

early-offer VR

early-token-release IR

echo IRI, MP

echo-cancel comfort-noise VR

echo-cancel compensation VR

echo-cancel coverage VR

echo-cancel enable VR

echo-cancel enable (controller) VR

echo-cancel erl worst-case VR

echo-cancel loopback VR

echo-cancel mode VR

echo-cancel suppressor VR

echo-interval MWG

eckeypair SEC

edit SBCD

edit-cic SBCD

edit-src SBCD

editing CF

editor SBCD

editor-list SBCD

editor-type SBCD

efci-bit WAN

efm-grp IR

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eid-notify key [LISP](#)
eid-prefix (LISP site) [LISP](#)
eid-table [LISP](#)
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eigrp default-route-tag [EIGRP](#)
eigrp delay [MTR](#)
eigrp event-log-size [EIGRP, IPV6](#)
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eigrp log-neighbor-changes [EIGRP, IPV6, SAF](#)
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eigrp next-hop-self [MTR](#)
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eigrp shutdown [MTR](#)
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enable (TN3270) [IBM](#)
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enable (event) [SNMP](#)
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```
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encapsulation cpp [DIA](#)
encapsulation default [WAN](#)
encapsulation dot1ah isid [CE](#)
encapsulation dot1q [MP](#), [LSW](#)
encapsulation dot1q (service instance) [WAN](#)
encapsulation dot1q second-dot1q [WAN](#)
encapsulation frame-relay [WAN](#)
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encapsulation gtp [MWG](#)
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encapsulation l2tpv3 [WAN](#)
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encapsulation priority-tagged [ATM](#)
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encapsulation sdlc [IBM](#)
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encapsulation untagged **WAN**
encapsulation untagged dot1q second-dot1q **ATM**
encapsulation uts **IBM**
encapsulation x25 **WAN**
encoding h450 call-identity **VR**
encoding h450 call-identity itu **VR**
encryption **VR**
encryption (IKE policy) **SEC, IPV6**
encryption (IKEv2 proposal) **SEC**
encryption key **WL**
encryption mode ciphers **WL**
encryption mode wep **WL**
encryption mppe **VPD**
encryptorder **IBM**
end **CF**
end (satellite initial configuration) **IR**
endpoint **SLA**
endpoint alt-ep collect **VR**
endpoint alt-ep h323id **VR**
endpoint circuit-id h323id **VR**
endpoint max-calls h323id **VR**
endpoint naming **VR**
endpoint resource-threshold **VR**
endpoint ttl **VR**
enforce-checksum **SEC**
enforced qos-profile **CBL**
enforcement **IPV6**
engine (IPS) **SEC**
enhanced-history **SLA**
enrollment **SEC**
enrollment command **SEC**
enrollment credential **SEC**
enrollment http-proxy **SEC**
enrollment mode ra **SEC**
enrollment profile **SEC**
enrollment retry count **SEC**

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enrollment retry period SEC
enrollment selfsigned SEC
enrollment terminal (ca-profile-enroll) SEC
enrollment terminal (ca-trustpoint) SEC, IPV6
enrollment url (ca-profile-enroll) SEC
enrollment url (ca-identity) SEC
enrollment url (ca-profile-enroll) SEC
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entry SBCD
entry (enum) SBCD
enum SBCD
environment (diagnostic signature) HA
environment temperature-controlled CF
environment-monitor shutdown temperature CF
eou allow SEC
eou clientless SEC
eou default SEC
eou initialize SEC
eou logging SEC
eou max-retry SEC
eou port SEC
eou rate-limit SEC
eou revalidate SEC
eou timeout SEC
equipment loopback IR
erase CF
erase bootflash CF
erase vfc VR
errdisable detect cause CF, IR
errdisable recovery CF, IR
errdisable recovery cause mac-security CE
errdisable recovery cause mlacp-minlink CE
error throttling IR
error-category VR
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error-msg SEC
error-profile SBCD
error-url SEC
escape-character CF
esmc mode ql-disabled IR
esmc process IR
estimate bandwidth QOS
ethernet cfm ais CE
ethernet cfm ais link-status CE
ethernet cfm ais link-status global CE
ethernet cfm alarm CE
ethernet cfm cc CE
ethernet cfm cc enable level evc CE
ethernet cfm cc enable level vlan CE
ethernet cfm distribution enable CE
ethernet cfm domain level CE
ethernet cfm enable CE
ethernet cfm enable (interface) CE
ethernet cfm global CE
ethernet cfm ieee CE
ethernet cfm interface CE
ethernet cfm logging CE
ethernet cfm mep crosscheck CE
ethernet cfm mep crosscheck start-delay CE
ethernet cfm mep crosscheck through location prefer CE
ethernet cfm mep domain mpid CE
ethernet cfm mep level mpid vlan CE
ethernet cfm mip CE
ethernet cfm mip level CE
ethernet cfm slm max CE
ethernet cfm slm timeout CE
ethernet cfm traceroute cache CE
ethernet cfm traceroute cache hold-time CE
ethernet cfm traceroute cache size CE
ethernet echo mpid SLA
ethernet evc WAN, CE

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ethernet event microwave **CE**
ethernet jitter mpid **SLA**
ethernet lmi **CE**
ethernet lmi ce-vlan map **CE**
ethernet lmi global **CE**
ethernet lmi interface **CE**
ethernet loopback local interface **CE**
ethernet loopback permit **CE**
ethernet mac limit action flooding disable **CE**
ethernet mac limit maximum addresses **CE**
ethernet mac-flush notification mirp **CE**
ethernet mac-tunnel virtual **CE**
ethernet oam **CE**
ethernet oam link-monitor frame **CE**
ethernet oam link-monitor frame-period **CE**
ethernet oam link-monitor frame-seconds **CE**
ethernet oam link-monitor high-threshold action **CE**
ethernet oam link-monitor on **CE**
ethernet oam link-monitor receive-crc **CE**
ethernet oam link-monitor supported **CE**
ethernet oam link-monitor symbol-period **CE**
ethernet oam link-monitor transmit-crc **CE**
ethernet oam mib log size **CE**
ethernet oam remote-loopback **CE**
ethernet oam remote-loopback (interface) **CE**
ethernet ring g8032 **CE**
ethernet ring g8032 profile **CE**
ethernet subscriber **CE**
ethernet subscriber session **CE**
ethernet subscriber static **CE**
ethernet tcn-propagation **CE**
ethernet uni **CE**
ethernet y1731 delay **SLA**
ethernet y1731 delay receive **SLA**
ethernet y1737 loss **SLA**
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evaluate [SEC](#)
evaluate (IPv6) [IPV6, SEC](#)
event application [EEM](#)
event cli [EEM](#)
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event ioswdsysmon [EEM](#)
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event manager directory user [EEM](#)
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event manager environment [EEM](#)
event manager history size [EEM](#)
event manager policy [EEM](#)
event manager run [EEM](#)
event manager scheduler [EEM](#)
event manager scheduler clear [EEM](#)
event manager scheduler hold [EEM](#)
event manager scheduler modify [EEM](#)
event manager scheduler release [EEM](#)
event manager scheduler script [EEM](#)
event manager scheduler suspend [EEM](#)
event manager session cli username [EEM](#)
event manager update user policy [EEM](#)
event mat [EEM](#)
event neighbor-discovery [EEM](#)
event nf [EEM](#)
event none [EEM](#)
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event owner [SNMP](#)
event process [EEM](#)
event resource [EEM](#)
event rf [EEM](#)
event routing [EEM](#)
event rpc [EEM](#)
event snmp [EEM](#)
event snmp-notification [EEM](#)
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event timer [EEM](#)
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event-log error-only [VR](#)
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exception crashinfo buffersize [BSM](#)
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exception crashinfo maximum files [BSM](#)
exception data-corruption [BSM](#)
exception delay-dump [BSM](#)
exception dump [BSM](#)
exception linecard [BSM](#)
exception memory [BSM](#)
exception memory ignore overflow [BSM](#)
exception protocol [BSM](#)
exception pfx [CBL](#)
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exception spurious-interrupt **BSM**
exclude **SSG**
exclude (SSG PTA-MD) **SSG**
exclude dnis-prefix **SSG**
exclude-address **MP**
exclusion-list **CE**
exclusive-domain **SEC**
exec **CF**
exec-banner **CF**
exec-character-bits **CF**
exec-timeout **CF**
execute (Flexible NetFlow) **FNF**
execute-on **CF**
exit (EXEC) **CF**
exit (LSP Attributes) **MP**
exit (global) **CF**
exit (satellite initial configuration) **IR**
exit-address-family **EIGRP, MP**
exit-af-interface **EIGRP**
exit-af-topology **EIGRP**
exit-bmp-server-mode (bmp) **BGP**
exit-global-af **MTR**
exit-if-topology **MTR**
exit-if-vnet **SBCD, EVN**
exit-peer-policy **BGP**
exit-peer-session **BGP**
exit-route-server-context **BGP, SBCD**
exit-service-family **SAF**
exit-sf-interface **SAF**
exit-sf-topology **SAF**
exit-topo **MTR**
exit-vrf-list **SBCD, EVN**
exp **MP, WAN**
exp (IP SLA) **SLA**
expect **SLB**
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expire after (PfR) PFR
expires-header SBCD
explicit-prefix IPV6
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export destination NF
export destination sctp (NetFlow aggregation cache) NF
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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 6: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

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fabric buffer-reserve [IR](#)
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fabric error-recovery fabric-switchover (virtual switch) [IR](#)
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fabric required [IR](#)
fabric switching-mode allow [IR](#), [IPV6](#)
fabric switching-mode force bus-mode [IR](#)
fabric timer [IR](#)
facility-alarm [IR](#)
facility-alarm (ubr10012) [CBL](#)
facility-alarm critical exceed-action shutdown [IR](#)
facility-alarm detect [IR](#)
failaction (firewall farm) [SLB](#)
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faildetect inband (real server) [SLB](#)
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fair-queue aggregate-limit [QOS](#)
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fast-reroute load-sharing disable (EIGRP) [EIGRP](#)
fast-reroute per-prefix [IRS](#), [IRI](#)
fast-reroute per-prefix (EIGRP) [EIGRP](#)
fast-reroute per-prefix enable (OSPF) [OSPF](#)
fast-reroute per-prefix remote-lfa maximum-cost [OSPF](#)
fast-reroute per-prefix remote-lfa tunnel [OSPF](#)
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fast-reroute tie-break [IRS](#), [IRI](#)
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fax rate (dial peer) [VR](#)
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fax rate (voice-service) [VR](#)
fax receive called-subscriber [VR](#)
fax send center-header [VR](#)
fax send coverpage comment [VR](#)
fax send coverpage e-mail-controllable [VR](#)
fax send coverpage enable [VR](#)
fax send coverpage show-detail [VR](#)
fax send left-header [VR](#)
fax send max-speed [VR](#)
fax send right-header [VR](#)
fax send transmitting-subscriber [VR](#)
fax-relay (dial peer) [VR](#)
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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 7: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference

CF	Cisco IOS Configuration Fundamentals Command Reference
CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

icmp idle-timeout through ipv6 nd autoconfig prefix

|

icmp idle-timeout [SEC](#)
icmp idle-timeout through ip http ezvpn [SEC](#)
icmp-echo [SLA](#)
icmp-jitter [SLA](#)
icpif [VR](#)
icpif through irq global-request [VR](#)
id [VR](#)
id (CFM) [CE](#)
id (expression) [SNMP](#)
id aa-group [IR](#)
id software group [IR](#)
id vsat [IR](#)
ida-client server url [SEC](#)
identifier [SEC](#)
identifier interface [ISG](#)
identifier ip src-addr [ISG](#)
identity (IKEv2 keyring) [IPV6, SEC](#)
identity (IKEv2 profile) [SEC](#)
identity address ipv4 [SEC](#)
identity local [IPV6, SEC](#)
identity number [SEC](#)
identity policy [SEC](#)
identity policy (policy-map) [QOS](#)
identity profile [SEC](#)
identity profile eapoudp [SEC](#)
idle (SSG-radius-proxy-timers) [SSG](#)
idle (firewall farm TCP protocol) [SLB](#)
idle (firewall farm datagram protocol) [SLB](#)
idle (virtual server) [SLB](#)
idle-pattern [IR](#)
idle-time [IBM](#)
idle-timeout [ATM](#)

idle-timeout (SSG) [SSG](#)
idle-timeout (WSMA) [WSMA](#)
idle-timeout (WebVPN) [SEC](#)
idle-voltage [VR](#)
ids-service-module monitoring [IR](#)
if upon network-service-found [ISG](#)
if-mgr delete [IR](#)
if-state nhrp [SEC](#)
ignore [VR](#)
ignore (ISG) [ISG](#)
ignore (interface) [IR](#), [VR](#)
ignore lsa mospf [OSPF](#)
ignore-dcd [IR](#)
ignore-error-duration [IR](#)
ignore-hw local-loopback [IR](#)
ignore-lsp-errors [ISO](#)
ilmi manage [ATM](#)
ima active-links-minimum [ATM](#)
ima autorestart [ATM](#)
ima clock-mode [ATM](#)
ima differential-delay-maximum [ATM](#)
ima frame-length [ATM](#)
ima restart [ATM](#)
ima test [ATM](#)
ima version [ATM](#)
ima-group [ATM](#)
image encoding [VR](#)
image resolution [VR](#)
imc access-port [IR](#)
imc config file [IR](#)
imc dns [IR](#)
imc ip address default-gateway [IR](#)
imc ip address dhcp [IR](#)
imc ip dhcp [IR](#)
imc remote-manager [IR](#)
imc vlan [IR](#)

impedance VR
import SEC
import all IAD
import dns-server IAD, IPV6
import domain-name IAD, IPV6
import information refresh IAD, IPV6
import ipv4 BGP
import map BGP, MP
import nis address IAD, IPV6
import nis domain-name IAD, IPV6
import nisp address IAD, IPV6
import nisp domain-name IAD, IPV6
import path limit BGP
import path selection BGP
import sip address IAD, IPV6
import sip domain-name IAD, IPV6
import sntp address IAD, IPV6
import topology MTR
import-map BGP, SBCD
ims media-service SBCD
ims pani SBCD
ims realm SBCD
ims rf SBCD
ims rx SBCD
ims rx preliminary-aar-forbid SBCD
inarp ATM
inarp (Frame Relay VC-bundle-member) WAN
inarp-vc ATM
inband-alerting VR
inbound SBCD
inbound secure SBCD
inbound ttl VR
include-local-lan SEC
inclusion-list CE
incoming SEC
incoming alerting VR

incoming called-number (call filter match list) **VR**
incoming called-number (dial peer) **VR**
incoming calling-number (call filter match list) **VR**
incoming dialpeer **VR**
incoming media local ipv4 **VR**
incoming media remote ipv4 **VR**
incoming port **VR**
incoming secondary-called-number **VR**
incoming signaling local ipv4 **VR**
incoming signaling remote ipv4 **VR**
incoming uri **VR**
index **MP**
index (voice class) **VR**
info-digits **VR**
information refresh **IAD, IPV6**
information-element ssidl **WL**
information-type **VR**
infrastructure client **WL**
infrastructure-ssid **WL**
ingress-class-map **QOS**
inherit peer-policy **BGP**
inherit peer-session **BGP**
inherit profile **SBCD**
init-tech-list **CBL**
init-tech-ovr **CBL**
initial-contact force **SEC**
initial-delay (bmp) **BGP**
initiate mode **SEC**
initiate-to **VPD**
initiator **ISG**
initiator unclassified vlan **CE**
inject guard-tone **VR**
inject pause **VR**
inject tone **VR**
inner-cos **SLA**
inner-vlan **SLA**

input IR, CE
input gain VR
input-queue RIP
insecure CF
inservice (DFP agent) SLB
inservice (WebVPN) SEC
inservice (firewall farm real server) SLB
inservice (firewall farm) SLB
inservice (server farm real server) SLB
inservice (server farm virtual server) SLB
inside bgp OER
inside bgp (PfR) PFR
inspect SEC, IPV6
inspect (config-profile) SEC
instance (Ethernet ring) CE
instance (MIB) SNMP
instance (VLAN) MP, LSW
instance (resource group) ERM
instance range SNMP
instance repetition SNMP
int att IMO
integrity SEC
intensity VR
inter-as-hybrid MP
inter-packet gap 6502-mode IR
interface IR, MWG
interface (OER) OER
interface (PfR) PFR
interface (RITE) SEC
interface (RLM server) VR
interface (VASI) SEC
interface (proxy mobile IPv6) IMO
interface analysis-module IR
interface atm ATM
interface atm ima ATM
interface auto-template MP

interface bri **DIA**
interface bvi **IBM**
interface cable **CBL**
interface cable-modem **CBL**
interface cbr **ATM**
interface channel **IBM**
interface content-engine **IR**
interface ctunnel **ISO**
interface dialer **DIA**
interface event-log dump ftp **VR**
interface event-log error only **VR**
interface event-log max-buffer-size **VR**
interface fastethernet **IR**
interface fr-atm **WAN**
interface gigabitethernet **IR, CBL**
interface group-async **IR**
interface integrated-cable **CBL**
interface integrated-service-engine **IR**
interface ism **IR**
interface max-server-records **VR**
interface mfr **WAN, IPV6**
interface modular-cable **CBL**
interface multilink **DIA**
interface multiservice **ISG**
interface overlay **WAN**
interface port-channel **IR, CBL**
interface pos **IR**
interface range **IR**
interface satellite **IR**
interface sbc **SBCD**
interface serial **DIA**
interface serial multipoint **WAN**
interface service-engine **IR**
interface sm **IR**
interface stats **VR**
interface tunnel-tp **MP**

■ icmp idle-timeout through ipv6 nd autoconfig prefix

interface usb **CBL**
interface vg-anylan **IR**
interface virtual-ethernet **MP**
interface virtual-ppp **DIA**
interface virtual-template **SEC, VPD, IPV6, DIA**
interface virtual-tokenring **IBM**
interface vlan **IBM**
interface vmi **IR**
interface wideband-cable **CBL**
interface wlan-controller **IR**
interface xtagatm **MP**
interface-id snmp-if-index **OSPF**
interim-interval **ISG**
internal (DDNS-update-method) **IAD**
international **CF**
international bit **IR**
interval **CBL**
interval (BFD) **IRI**
interval (DFP agent) **SLB**
interval (DNS probe) **SLB**
interval (HTTP probe) **SLB**
interval (LSP discovery) **SLA**
interval (MPLS-TP) **MP**
interval (TCP probe) **SLB**
interval (WSP probe) **SLB**
interval (custom UDP probe) **SLB**
interval (params) **SLA**
interval (ping probe) **SLB**
interval duration **MM**
interval maximum **IAD**
interval minimum **IAD**
interwork cost **SBCD**
interwork maximum **SBCD**
interworking **MP, WAN**
invert data **IR**
invert rxclock **IR**

invert txclock **IR**
invite-timeout **SBCD**
ip (iSCSI interface) **MWG**
ip (webvpn url rewrite) **SEC**
ip access-group **SEC, ISG**
ip access-list **SEC, SBCD**
ip access-list hardware permit fragments **SEC**
ip access-list log-update **SEC**
ip access-list logging hash-generation **SEC**
ip access-list logging interval **SEC**
ip access-list resequence **SEC**
ip accounting **IAP**
ip accounting mac-address **IAP**
ip accounting precedence **IAP**
ip accounting through ip sctp authenticate **IAP**
ip accounting-list **IAP**
ip accounting-threshold **IAP**
ip accounting-transits **IAP**
ip address **IAD, IPV6**
ip address (WebVPN) **SEC**
ip address (session border controller) **SBCD**
ip address authenticate trusted **VR**
ip address dhcp **IAD, SEC**
ip address docsis **CBL**
ip address negotiated **DIA**
ip address pool (DHCP) **IAD**
ip address-pool **DIA**
ip admission **SEC**
ip admission consent banner **SEC**
ip admission name **SEC**
ip admission name bypass regex **SEC**
ip admission name http-basic **SEC**
ip admission name method-list **SEC**
ip admission name ntlm **SEC**
ip admission name order **SEC**
ip admission proxy http **SEC**

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ip admission virtual-ip [SEC](#)
ip alias [TSV](#)
ip arp entry learn [IAD](#)
ip arp gratuitous [IAD](#)
ip arp gratuitous through ip dhcp ping packets [IAD](#)
ip arp incomplete [IAD](#)
ip arp inspection filter vlan [IAD](#)
ip arp inspection limit (interface configuration) [IAD](#)
ip arp inspection log-buffer [IAD](#)
ip arp inspection trust [IAD](#)
ip arp inspection validate [IAD](#)
ip arp inspection vlan [IAD](#)
ip arp inspection vlan logging [IAD](#)
ip arp poll [IAD](#)
ip arp proxy disable [IAD](#)
ip arp queue [IAD](#)
ip as-path access-list [BGP](#)
ip audit [SEC](#)
ip audit attack [SEC](#)
ip audit info [SEC](#)
ip audit name [SEC](#)
ip audit notify [SEC](#)
ip audit po local [SEC](#)
ip audit po max-events [SEC](#)
ip audit po protected [SEC](#)
ip audit po remote [SEC](#)
ip audit signature [SEC](#)
ip audit smtp [SEC](#)
ip auth-proxy (global configuration) [SEC](#)
ip auth-proxy (interface configuration) [SEC](#)
ip auth-proxy auth-proxy-banner [SEC](#)
ip auth-proxy max-login-attempts [SEC](#)
ip auth-proxy name [SEC](#)
ip auth-proxy watch-list [SEC](#)
ip authentication key-chain eigrp [EIGRP](#)
ip authentication mode eigrp [EIGRP](#)

ip bandwidth-percent eigrp EIGRP
ip bgp fast-external-failover BGP
ip bgp-community new-format BGP
ip bootp server CF
ip broadcast-address IAP
ip cache-invalidate-delay ISW
ip cache-invalidate-delay through monitor event-trace cef ipv6 global ISW
ip casa IAP
ip cef ISW
ip cef accounting ISW
ip cef linecard ipc memory ISW
ip cef load-sharing algorithm ISW
ip cef optimize neighbor resolution ISW
ip cef table adjacency-prefix ISW
ip cef table consistency-check ISW
ip cef table event-log ISW
ip cef table resolution-timer ISW
ip cef traffic-statistics IAP, ISW
ip cgmp IMC
ip circuit VR
ip classless IAD
ip community-list BGP
ip dampening-change eigrp IMO
ip dampening-interval eigrp IMO
ip ddns update hostname IAD
ip ddns update method IAD
ip default-gateway IAD
ip default-network IRI
ip device tracking probe SEC
ip dfbit set WAN
ip dfp agent SLB
ip dhcp aaa default username IAD
ip dhcp bootp ignore IAD
ip dhcp class IAD
ip dhcp client IAD
ip dhcp client authentication key-chain IAD

ip dhcp client authentication mode IAD
ip dhcp client broadcast-flag (interface) IAD, SEC
ip dhcp client class-id IAD
ip dhcp client client-id IAD
ip dhcp client default-router distance IAD
ip dhcp client hostname IAD
ip dhcp client lease IAD
ip dhcp client mobile renew IAD, IMO
ip dhcp client request IAD
ip dhcp client route IAD, DIA
ip dhcp client update dns IAD
ip dhcp compatibility lease-query client IAD
ip dhcp compatibility suboption link-selection IAD
ip dhcp conflict logging IAD
ip dhcp conflict resolution IAD
ip dhcp database IAD
ip dhcp debug ascii-client-id IAD
ip dhcp excluded-address IAD
ip dhcp global-options IAD
ip dhcp limit lease IAD
ip dhcp limit lease log IAD
ip dhcp limit lease per interface IAD
ip dhcp limited-broadcast-address IAD
ip dhcp ping packets IAD
ip dhcp ping timeout IAD
ip dhcp ping timeout through ip dhcp-client forcerenew IAD
ip dhcp pool IAD
ip dhcp relay bootp ignore IAD
ip dhcp relay forward spanning-tree IAD
ip dhcp relay information check IAD
ip dhcp relay information check-reply IAD
ip dhcp relay information option IAD
ip dhcp relay information option server-id-override IAD
ip dhcp relay information option subscriber-id IAD
ip dhcp relay information option vpn-id IAD
ip dhcp relay information option-insert IAD

ip dhcp relay information policy IAD
ip dhcp relay information policy-action IAD
ip dhcp relay information trust-all IAD
ip dhcp relay information trusted IAD
ip dhcp relay prefer known-good-server IAD
ip dhcp route connected IAD
ip dhcp server use subscriber-id client-id IAD
ip dhcp smart-relay IAD
ip dhcp snooping IAD
ip dhcp snooping binding IAD
ip dhcp snooping database IAD
ip dhcp snooping detect spurious IAD
ip dhcp snooping detect spurious interval IAD
ip dhcp snooping detect spurious vlan IAD
ip dhcp snooping information option IAD
ip dhcp snooping limit rate IAD
ip dhcp snooping packets IAD
ip dhcp snooping verify mac-address IAD
ip dhcp snooping vlan IAD
ip dhcp subscriber-id interface-name IAD
ip dhcp support option55-override IAD
ip dhcp support tunnel unicast IAD, SEC
ip dhcp update dns IAD
ip dhcp use IAD
ip dhcp use subscriber-id client-id IAD
ip dhcp-client broadcast-flag IAD
ip dhcp-client default-router distance IAD
ip dhcp-client forcerenew IAD, VR
ip dhcp-client network-discovery IAD, DIA
ip dhcp-client network-discovery through ip nat sip-sbc IAD
ip dhcp-client update dns IAD
ip dhcp-relay information option server-override IAD
ip dhcp-relay source-interface IAD
ip dhcp-server IAD, DIA
ip dhcp-server query lease IAD
ip directed-broadcast IAP, IPV6

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ip dns name-list IAD
ip dns primary IAD
ip dns server IAD
ip dns server queue limit IAD
ip dns server view-group IAD
ip dns spoofing IAD
ip dns view IAD
ip dns view-group IAD
ip dns view-list IAD
ip domain list IAD
ip domain lookup IAD
ip domain multicast IMC
ip domain name IAD
ip domain retry IAD
ip domain round-robin IAD
ip domain timeout IAD
ip domain-lookup nsap ISO
ip dscp IR
ip dvmrp accept-filter IMC
ip dvmrp auto-summary IMC
ip dvmrp default-information IMC
ip dvmrp interoperability IMC
ip dvmrp metric IMC
ip dvmrp metric-offset IMC
ip dvmrp output-report-delay IMC
ip dvmrp reject-non-pruners IMC
ip dvmrp route-limit IMC
ip dvmrp routehog-notification IMC
ip dvmrp summary-address IMC
ip dvmrp unicast-routing IMC
ip explicit-path MP
ip extcommunity-list BGP
ip fast-convergence IRS
ip finger CF
ip flow NF
ip flow layer2-switched NF

ip flow monitor **FNF**
ip flow-aggregation cache **NF**
ip flow-cache entries **NF**
ip flow-cache mpls label-positions **MP, NF**
ip flow-cache timeout **NF**
ip flow-capture **NF**
ip flow-egress input-interface **NF**
ip flow-export destination **NF**
ip flow-export destination sctp **NF**
ip flow-export hardware version **NF**
ip flow-export interface-names **NF**
ip flow-export source **NF**
ip flow-export template **NF**
ip flow-export version **NF**
ip flow-export version (Supervisor Engine 2) **NF**
ip flow-export version (Supervisor Engine 720) **NF**
ip flow-export version (Supervisor Engine 2) **NF**
ip flow-export version (Supervisor Engine 720) **NF**
ip flow-top-talkers **NF**
ip forward-protocol **IAP**
ip forward-protocol spanning-tree **IAP**
ip forward-protocol turbo-flood **IAP**
ip ftp passive **CF**
ip ftp password **CF**
ip ftp source-interface **CF**
ip ftp username **CF**
ip gdp **FHP, IRI**
ip gratuitous-arp **IAD**
ip header-compression disable-feedback **QOS**
ip header-compression max-header **QOS**
ip header-compression max-period **QOS**
ip header-compression max-time **QOS**
ip header-compression old-iphc-comp **QOS**
ip header-compression old-iphc-decomp **QOS**
ip header-compression recoverable-loss **QOS**
ip header-compression special-vj **IAP**

■ icmp idle-timeout through ipv6 nd autoconfig prefix

```
ip hello-interval eigrp EIGRP
ip helper-address IAP
ip hold-time eigrp EIGRP
ip host IAD, SBCD
ip host-list IAD
ip hostname strict IAD
ip http access-class HTTPS
ip http accounting commands HTTPS
ip http active-session-modules HTTPS
ip http authentication HTTPS
ip http cable-monitor CBL
ip http client cache HTTPS
ip http client connection HTTPS
ip http client password HTTPS
ip http client proxy-server HTTPS
ip http client response HTTPS
ip http client secure-ciphersuite HTTPS
ip http client secure-trustpoint HTTPS
ip http client source-interface HTTPS
ip http client username HTTPS
ip http digest algorithm HTTPS, BBA
ip http ezvpn SEC, CBL
ip http help-path HTTPS
ip http max-connections HTTPS
ip http path HTTPS
ip http port HTTPS
ip http secure-active-session-modules HTTPS
ip http secure-ciphersuite HTTPS
ip http secure-client-auth HTTPS
ip http secure-port HTTPS
ip http secure-server HTTPS
ip http secure-trustpoint HTTPS
ip http server HTTPS, IPV6
ip http session-module-list HTTPS
ip http timeout-policy HTTPS
ip icmp rate-limit unreachable IAP
```

ip icmp redirect [IAP](#)
ip idle-group [DIA](#)
ip igmp access-group [IMC](#)
ip igmp access-group through ip igmp v3lite [IMC](#)
ip igmp explicit-tracking [IMC](#)
ip igmp helper-address [IMC](#)
ip igmp helper-address (UDL) [IMC](#)
ip igmp immediate-leave [IMC](#)
ip igmp immediate-leave group-list [IMC](#)
ip igmp join-group [IMC](#)
ip igmp last-member-query-count [IMC](#)
ip igmp last-member-query-interval [IMC](#)
ip igmp limit (global) [IMC](#)
ip igmp limit (interface) [IMC](#)
ip igmp mroute-proxy [IMC](#)
ip igmp proxy-service [IMC](#)
ip igmp querier-timeout [IMC](#)
ip igmp query-interval [IMC](#)
ip igmp query-max-response-time [IMC](#)
ip igmp snooping [IMC](#)
ip igmp snooping access-group [IMC](#)
ip igmp snooping check [IMC](#)
ip igmp snooping explicit-tracking [IMC](#)
ip igmp snooping explicit-tracking limit [IMC](#)
ip igmp snooping fast-leave [IMC](#)
ip igmp snooping flooding [IMC](#)
ip igmp snooping immediate-leave [IMC](#)
ip igmp snooping l2-entry-limit [IMC](#)
ip igmp snooping last-member-query-count [IMC](#)
ip igmp snooping last-member-query-interval [IMC](#)
ip igmp snooping limit [IMC](#)
ip igmp snooping limit track [IMC](#)
ip igmp snooping minimum-version [IMC](#)
ip igmp snooping mrouter [IMC](#)
ip igmp snooping querier [IMC](#)
ip igmp snooping rate [IMC](#)

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ip igmp snooping report-suppression [IMC](#)
ip igmp snooping robustness-variable [IMC](#)
ip igmp snooping source-only-learning age-timer [IMC](#)
ip igmp snooping ssm-safe-reporting [IMC](#)
ip igmp snooping static [IMC](#)
ip igmp snooping tcn flood [IMC](#)
ip igmp snooping tcn query solicit [IMC](#)
ip igmp snooping tnc flood query count [IMC](#)
ip igmp snooping vlan [IMC](#)
ip igmp snooping vlan immediate-leave [IMC](#)
ip igmp snooping vlan mrouter [IMC](#)
ip igmp snooping vlan static [IMC](#)
ip igmp ssm-map [IMC](#)
ip igmp ssm-map enable [IMC](#)
ip igmp ssm-map query dns [IMC](#)
ip igmp ssm-map static [IMC](#)
ip igmp static-group [IMC](#)
ip igmp tcn query [IMC](#)
ip igmp unidirectional-link [IMC](#)
ip igmp v3lite [IMC](#)
ip igmp version [IMC](#)
ip information-reply [IAP](#)
ip inspect [SEC](#)
ip inspect alert-off [SEC](#)
ip inspect audit trail [SEC](#)
ip inspect audit-trail [SEC](#)
ip inspect dns-timeout [SEC](#)
ip inspect hashtable [SEC](#)
ip inspect log drop-pkt [SEC](#)
ip inspect max-incomplete high [SEC](#)
ip inspect max-incomplete low [SEC](#)
ip inspect name [SEC](#)
ip inspect one-minute high [SEC](#)
ip inspect one-minute low [SEC](#)
ip inspect tcp block-non-session [SEC](#)
ip inspect tcp finwait-time [SEC](#)

ip inspect tcp idle-time **SEC**
ip inspect tcp max-incomplete host **SEC**
ip inspect tcp reassembly **SEC**
ip inspect tcp synwait-time **SEC**
ip inspect tcp window-scale-enforcement loose **SEC**
ip inspect through ip security strip **SEC**
ip inspect udp idle-time **SEC**
ip interface **SEC**
ip ips **SEC**
ip ips auto-update **SEC**
ip ips config location **SEC**
ip ips deny-action ips-interface **SEC**
ip ips enable-clidelta **SEC**
ip ips event-action-rules **SEC**
ip ips fail closed **SEC**
ip ips inherit-obsolete-tunings **SEC**
ip ips memory regex chaining **SEC**
ip ips memory threshold **SEC**
ip ips name **SEC**
ip ips notify **SEC**
ip ips sdf location **SEC**
ip ips signature **SEC**
ip ips signature disable **SEC**
ip ips signature-category **SEC**
ip ips signature-definition **SEC**
ip irdp **FHP**
ip iscsi target-profile **MWG**
ip kerberos source-interface **SEC**
ip lisp source-locator **LISP**
ip load-sharing **ISW**
ip local interface **WAN**
ip local policy route-map **IRI**
ip local pool **MWG, DIA**
ip local-proxy-arp **IAD**
ip mask-reply **IAP**
ip mfib **IMC**

ip mfib cef IMC
ip mfib forwarding IMC
ip mfib through ip multicast-routing IMC
ip mobile arp IAD, IMO
ip mobile authentication ignore-spi IMO, MWP
ip mobile bindupdate IMO, MWP
ip mobile cdma ha-chap send attribute IMO
ip mobile cdma imsi dynamic MWP
ip mobile cdma ipsec MWP
ip mobile debug include username IMO
ip mobile foreign-agent IMO, MWP
ip mobile foreign-agent inject-mobile-networks IMO
ip mobile foreign-service IMO, MWP
ip mobile foreign-service revocation MWP
ip mobile home-agent IMO, MWH
ip mobile home-agent aaa user-password IMO
ip mobile home-agent accounting IMO, MWH
ip mobile home-agent dynamic-address IMO, MWH
ip mobile home-agent multi-path IMO
ip mobile home-agent nat traversal IMO
ip mobile home-agent redundancy IMO, MWH
ip mobile home-agent redundancy periodic-sync IMO, MWH
ip mobile home-agent reject-static-addr IMO, MWH
ip mobile home-agent resync-sa IMO, MWH
ip mobile home-agent revocation IMO, MWH
ip mobile home-agent template tunnel IMO, MWH
ip mobile host IMO, MWH
ip mobile mobile-networks IMO
ip mobile mobile-networks through multi-path (mobile router) IMO
ip mobile prefix-length IMO, MWP
ip mobile proxy-host IMO, MWP
ip mobile radius disconnect IMO, MWH
ip mobile realm IMO, MWH
ip mobile registration-lifetime IMO, MWP
ip mobile router IMO
ip mobile router-service IMO

ip mobile router-service collocated [IMO](#)
ip mobile router-service collocated registration nat traversal [IMO](#)
ip mobile router-service collocated registration retry [IMO](#)
ip mobile router-service description [IMO](#)
ip mobile router-service link-type [IMO](#)
ip mobile router-service roam [IMO](#)
ip mobile router-service tunnel mode [IMO](#)
ip mobile secure [IMO](#), [MWH](#), [MWP](#)
ip mobile secure aaa-download [IMO](#)
ip mobile secure foreign-agent [IMO](#)
ip mobile secure home-agent [IMO](#)
ip mobile secure host [IMO](#)
ip mobile secure mn-aaa [IMO](#)
ip mobile secure proxy-host [IMO](#)
ip mobile secure visitor [IMO](#)
ip mobile tunnel [IMO](#), [MWH](#), [MWP](#)
ip mobile virtual-network [IMO](#), [MWH](#)
ip mobile vpn-realm [IMO](#)
ip mpf [BBA](#)
ip mrm [IMC](#)
ip mrm accept-manager [IMC](#)
ip mrm manager [IMC](#)
ip mroute [IMC](#)
ip mroute-cache [IMC](#), [IPV6](#)
ip msdp border [IMC](#), [SEC](#)
ip msdp cache-rejected-sa [IMC](#)
ip msdp cache-sa-state [IMC](#)
ip msdp default-peer [IMC](#)
ip msdp description [IMC](#)
ip msdp filter-sa-request [IMC](#)
ip msdp keepalive [IMC](#)
ip msdp mesh-group [IMC](#)
ip msdp originator-id [IMC](#)
ip msdp password peer [IMC](#)
ip msdp peer [IMC](#)
ip msdp redistribute [IMC](#)

■ icmp idle-timeout through ipv6 nd autoconfig prefix

ip msdp rpf rfc3618 IMC
ip msdp sa-filter in IMC
ip msdp sa-filter out IMC
ip msdp sa-limit IMC
ip msdp sa-request IMC
ip msdp shutdown IMC
ip msdp timer IMC
ip msdp ttl-threshold IMC
ip mtu IAP, SEC
ip mtu adjust VPD
ip multicast boundary IMC
ip multicast cache-headers IMC
ip multicast default-rpf-distance IMC
ip multicast group-range IMC
ip multicast hardware-switching non-rpf aging IMC
ip multicast hardware-switching replication-mode IMC
ip multicast heartbeat IMC
ip multicast helper-map IMC
ip multicast limit IMC
ip multicast limit cost IMC
ip multicast mpls traffic-eng MP
ip multicast mrinfo-filter IMC
ip multicast multipath IMC
ip multicast netflow NF
ip multicast netflow output-counters NF
ip multicast netflow rpf-failure NF
ip multicast oif-per-mvrf-limit IMC
ip multicast rate-limit IMC
ip multicast redundancy routeflush maxtime IMC
ip multicast route-limit IMC
ip multicast rpf backoff IMC
ip multicast rpf interval IMC
ip multicast rpf mofrr IMC, SBCD
ip multicast rpf multitopology MTR
ip multicast rpf proxy vector IMC
ip multicast rpf select IMC

ip multicast rpf select topology [IMC](#), [SBCD](#)
ip multicast rsvp [IMC](#)
ip multicast source-per-group-limit [IMC](#)
ip multicast topology [IMC](#), [SBCD](#)
ip multicast total-oif-limit [IMC](#)
ip multicast ttl-threshold [IMC](#)
ip multicast use-functional [IMC](#)
ip multicast-routing [IMC](#), [SBCD](#)
ip mux [IMO](#)
ip mux cache [IMO](#)
ip mux policy [IMO](#)
ip mux profile [IMO](#)
ip mux udppport [IMO](#)
ip name-server [IAD](#), [IPV6](#)
ip nat [IAD](#)
ip nat create flow-entries [IAD](#)
ip nat enable [IAD](#)
ip nat inside destination [IAD](#)
ip nat inside source [IAD](#)
ip nat log translations flow-export [IAD](#)
ip nat log translations syslog [IAD](#)
ip nat outside source [IAD](#)
ip nat piggyback-support [IAD](#)
ip nat pool [IAD](#)
ip nat service [IAD](#)
ip nat service dns-reset-ttl [IAD](#)
ip nat service enable-sym-port [IAD](#)
ip nat service pptp [IAD](#)
ip nat settings mode [IAD](#)
ip nat settings pap [IAD](#)
ip nat settings support mapping outside [IAD](#)
ip nat sip-sbc [IAD](#)
ip nat source [IAD](#)
ip nat source through iterate-ip-addrs [IAD](#)
ip nat stateful id [IAD](#)
ip nat switchover replication http [IAD](#)

■ icmp idle-timeout through ipv6 nd autoconfig prefix

ip nat translation IAD
ip nat translation (timeout) IAD
ip nat translation max-entries IAD
ip nbar attribute-map QOS
ip nbar attribute-set QOS
ip nbar classification tunneled-traffic QOS
ip nbar custom QOS
ip nbar pdlm QOS
ip nbar port-map QOS
ip nbar protocol-discovery QOS
ip nbar protocol-pack QOS
ip nbar resources QOS
ip nbar resources protocol QOS
ip nbar resources system QOS
ip netmask-format IAD
ip next-hop-self eigrp EIGRP
ip nhrp authentication IAD
ip nhrp cache non-authoritative SEC
ip nhrp group IAD
ip nhrp holdtime IAD
ip nhrp interest IAD
ip nhrp map IAD
ip nhrp map group IAD
ip nhrp map multicast IAD
ip nhrp map multicast dynamic IAD
ip nhrp max-send IAD
ip nhrp network-id IAD
ip nhrp nhs IAD, SEC
ip nhrp record IAD
ip nhrp redirect IAD
ip nhrp registration IAD
ip nhrp registration no-unique IAD
ip nhrp responder IAD
ip nhrp server-only IAD
ip nhrp shortcut IAD
ip nhrp trigger-svc IAD

ip nhrp use **IAD**
ip options **IAD, QOS**
ip ospf area **OSPF**
ip ospf authentication **OSPF**
ip ospf authentication-key **OSPF**
ip ospf bfd **OSPF**
ip ospf cost **OSPF**
ip ospf cost (MTR) **MTR**
ip ospf database-filter all out **OSPF**
ip ospf dead-interval **OSPF**
ip ospf demand-circuit **OSPF**
ip ospf fast-reroute per-prefix **OSPF**
ip ospf flood-reduction **OSPF**
ip ospf hello-interval **OSPF**
ip ospf lls **OSPF**
ip ospf message-digest-key md5 **OSPF**
ip ospf mtu-ignore **OSPF**
ip ospf multi-area **OSPF**
ip ospf multi-area cost **OSPF**
ip ospf name-lookup **OSPF**
ip ospf network **OSPF**
ip ospf prefix-suppression **OSPF**
ip ospf priority **OSPF**
ip ospf resync-timeout **OSPF**
ip ospf retransmit-interval **OSPF**
ip ospf shutdown **OSPF**
ip ospf topology disable **MTR**
ip ospf transmit-delay **OSPF**
ip ospf ttl-security **OSPF**
ip ospf vnet area **EVN**
ip path-option **MP**
ip pgm host **IMC**
ip pgm host through ip pim version **IMC**
ip pgm router **IMC**
ip pim **IMC**
ip pim accept-register **IMC**

icmp idle-timeout through ipv6 nd autoconfig prefix

ip pim accept-rp IMC
ip pim allow-rp IMC
ip pim autorp listener IMC
ip pim bidir-enable IMC
ip pim bidir-neighbor-filter IMC
ip pim bidir-offer-interval IMC
ip pim bidir-offer-limit IMC
ip pim border IMC
ip pim bsr-border IMC
ip pim bsr-candidate IMC
ip pim bsr-candidate loopback IMC
ip pim dm-fallback IMC
ip pim dr-priority IMC
ip pim log-neighbor-changes IMC
ip pim maximum group-mappings IMC
ip pim minimum-vc-rate IMC
ip pim multipoint-signalling IMC
ip pim nbma-mode IMC
ip pim neighbor-filter IMC
ip pim passive IMC
ip pim query-interval IMC
ip pim redundancy IMC
ip pim register-rate-limit IMC
ip pim register-source IMC
ip pim rp-address IMC
ip pim rp-announce-filter IMC
ip pim rp-candidate IMC
ip pim send-rp-announce IMC
ip pim send-rp-discovery IMC
ip pim snooping (global configuration) IMC
ip pim snooping (interface configuration) IMC
ip pim snooping dr-flood IMC
ip pim snooping suppress sgr-prune IMC
ip pim sparse sg-expiry-timer IMC
ip pim spt-threshold IMC
ip pim ssm IMC

ip pim state-refresh disable [IMC](#)
ip pim state-refresh origination-interval [IMC](#)
ip pim v1-rp-reachability [IMC](#)
ip pim vc-count [IMC](#)
ip pim version [IMC](#)
ip pmtu [WAN](#), [VPD](#)
ip policy route-map [IRI](#)
ip policy-list [BGP](#)
ip port-map [SEC](#)
ip portbundle (global) [ISG](#)
ip portbundle (service policy-map) [ISG](#)
ip portbundle outside [ISG](#)
ip precedence [SBCD](#)
ip precedence (TN3270) [IBM](#)
ip precedence (VPDN) [VPD](#)
ip precedence (dial-peer) [VR](#)
ip prefix-list [BGP](#)
ip prefix-list description [BGP](#)
ip prefix-list sequence-number [BGP](#)
ip probe path [MWG](#)
ip protocol [WAN](#)
ip protocol (flow) [MM](#)
ip proxy-arp [IAD](#)
ip pxf [IR](#)
ip qos defending-priority [VR](#)
ip qos dscp [VR](#)
ip qos policy-locator [VR](#)
ip qos preemption-priority [VR](#)
ip radius source-interface [SEC](#)
ip rarp-server [CF](#)
ip rbSCP ack-split [IR](#)
ip rcmd domain-lookup [CF](#)
ip rcmd rcp-enable [CF](#)
ip rcmd remote-host [CF](#)
ip rcmd remote-username [CF](#)
ip rcmd rsh-enable [CF](#)

■ icmp idle-timeout through ipv6 nd autoconfig prefix

ip rcmd source-interface **CF**
ip redirects **IAP**
ip reflexive-list timeout **SEC**
ip rgmp **IMC**
ip rgmp through ipv6 multicast-routing **IMC**
ip rip advertise **RIP**
ip rip authentication key-chain **RIP**
ip rip authentication mode **RIP**
ip rip initial-delay **RIP**
ip rip receive version **RIP**
ip rip send version **RIP**
ip rip triggered **RIP**
ip rip v2-broadcast **RIP**
ip route **IAD, IRI, DIA**
ip route (large-scale dial-out) **DIA**
ip route (vasi) **SEC**
ip route priority high **IRS**
ip route profile **IRI**
ip route static adjust-time **IRI**
ip route static bfd **IRI**
ip route static install-routes-recurse-via-nexthop **IRI**
ip route static inter-vrf **MP**
ip route topology **MTR**
ip route vrf **IAD, MP**
ip route-cache **ISW, IPV6, ISG**
ip route-cache flow **NF**
ip route-cache policy **ISW**
ip router isis **IRS, IPV6**
ip routing **IAD, IRI**
ip routing protocol purge interface **IRI**
ip rsvp admission-control compression predict **QOS**
ip rsvp aggregation ip **QOS**
ip rsvp aggregation ip map **QOS**
ip rsvp aggregation ip reservation dscp **QOS**
ip rsvp aggregation ip role interior **QOS**
ip rsvp atm-peak-rate-limit **QOS**

ip rsvp authentication **QOS**
ip rsvp authentication challenge **QOS**
ip rsvp authentication key **QOS**
ip rsvp authentication key-chain **QOS**
ip rsvp authentication lifetime **QOS**
ip rsvp authentication neighbor **QOS**
ip rsvp authentication type **QOS**
ip rsvp authentication window-size **QOS**
ip rsvp bandwidth **QOS**
ip rsvp bandwidth ignore **QOS**
ip rsvp bandwidth percent **QOS**
ip rsvp burst policing **QOS**
ip rsvp data-packet classification none **QOS**
ip rsvp dsbm candidate **QOS**
ip rsvp dsbm non-resv-send-limit **QOS**
ip rsvp flow-assist **QOS**
ip rsvp layer2 overhead **QOS**
ip rsvp listener **QOS**
ip rsvp listener outbound **QOS**
ip rsvp msg-pacing **MP, QOS**
ip rsvp neighbor **QOS**
ip rsvp policy cops minimal **QOS**
ip rsvp policy cops report-all **QOS**
ip rsvp policy cops servers **QOS**
ip rsvp policy cops timeout **QOS**
ip rsvp policy default-reject **QOS**
ip rsvp policy identity **QOS**
ip rsvp policy local **QOS**
ip rsvp policy preempt **QOS**
ip rsvp policy vrf **QOS**
ip rsvp pq-profile **QOS**
ip rsvp precedence **QOS**
ip rsvp precedence through load protocol **QOS**
ip rsvp qos **QOS**
ip rsvp reservation **QOS**
ip rsvp reservation-host **QOS**

■ icmp idle-timeout through ipv6 nd autoconfig prefix

```
ip rsvp resource-provider QOS
ip rsvp sender QOS
ip rsvp sender-host QOS
ip rsvp signalling dscp QOS
ip rsvp signalling fast-local-repair notifications QOS
ip rsvp signalling fast-local-repair rate QOS
ip rsvp signalling fast-local-repair wait-time QOS
ip rsvp signalling hello (configuration) MP, QOS
ip rsvp signalling hello (interface) MP, QOS
ip rsvp signalling hello bfd (configuration) MP
ip rsvp signalling hello bfd (interface) MP
ip rsvp signalling hello dscp MP, QOS
ip rsvp signalling hello graceful-restart QOS
ip rsvp signalling hello graceful-restart dscp QOS
ip rsvp signalling hello graceful-restart mode QOS
ip rsvp signalling hello graceful-restart mode help-neighbor QOS
ip rsvp signalling hello graceful-restart neighbor QOS
ip rsvp signalling hello graceful-restart refresh interval QOS
ip rsvp signalling hello graceful-restart refresh misses QOS
ip rsvp signalling hello graceful-restart send QOS
ip rsvp signalling hello refresh interval MP, QOS
ip rsvp signalling hello refresh misses MP, QOS
ip rsvp signalling hello reroute dscp QOS
ip rsvp signalling hello reroute refresh interval QOS
ip rsvp signalling hello reroute refresh misses QOS
ip rsvp signalling hello statistics MP, QOS
ip rsvp signalling initial-retransmit-delay QOS
ip rsvp signalling patherr state-removal QOS
ip rsvp signalling rate-limit QOS
ip rsvp signalling refresh interval QOS
ip rsvp signalling refresh misses QOS
ip rsvp signalling refresh reduction QOS
ip rsvp signalling refresh reduction ack-delay QOS
ip rsvp snooping QOS
ip rsvp source QOS
ip rsvp svc-required QOS
```

ip rsvp tos **QOS**
ip rsvp transport **QOS**
ip rsvp transport sender-host **QOS**
ip rsvp tunnel overhead-percent **QOS**
ip rsvp udp neighbor **QOS**
ip rsvp udp-multicasts **QOS**
ip rtcp report interval **VR**
ip rtcp sub-rtcp **VR**
ip rtp compression-connections **QOS**
ip rtp compression-connections (mobile wireless) **MWR**
ip rtp header-compression **QOS**
ip rtp header-compression (mobile wireless) **MWR**
ip rtp priority **QOS**
ip rtp reserve **DIA**
ip sap cache-timeout **IMC**
ip sap listen **IMC**
ip scp server enable **SEC**
ip sctp asconf **IAP**
ip sctp authenticate **IAP**
ip sdee **SEC**
ip sdee events **SEC**
ip sdr cache-timeout **IMC**
ip sdr listen **IMC**
ip security add **SEC**
ip security aeso **SEC**
ip security dedicated **SEC**
ip security eso-info **SEC**
ip security eso-max **SEC**
ip security eso-min **SEC**
ip security extended-allowed **SEC**
ip security first **SEC**
ip security ignoreAuthorities **SEC**
ip security ignorecipso **SEC**
ip security implicit-labelling **SEC**
ip security multilevel **SEC**
ip security reserved-allowed **SEC**

■ icmp idle-timeout through ipv6 nd autoconfig prefix

ip security strip SEC
ip service reflect IMC, SBCD
ip sla SLA
ip sla auto discovery SLA
ip sla auto endpoint-list SLA
ip sla auto group SLA
ip sla auto schedule SLA
ip sla auto template SLA
ip sla enable reaction-alerts SLA
ip sla enable timestamp SLA
ip sla endpoint-list SLA
ip sla ethernet-monitor SLA
ip sla ethernet-monitor reaction-configuration SLA
ip sla ethernet-monitor schedule SLA
ip sla group schedule SLA
ip sla key-chain SLA
ip sla logging traps SLA
ip sla low-memory SLA
ip sla monitor SLA
ip sla monitor group schedule SLA
ip sla monitor key-chain SLA
ip sla monitor logging traps SLA
ip sla monitor low-memory SLA
ip sla monitor reaction-configuration SLA
ip sla monitor reaction-trigger SLA
ip sla monitor reset SLA
ip sla monitor responder SLA
ip sla monitor restart SLA
ip sla monitor schedule SLA
ip sla on-demand ethernet SLA
ip sla profile video SLA
ip sla reaction-configuration SLA
ip sla reaction-trigger SLA
ip sla reset SLA
ip sla responder SLA
ip sla responder auto-register SLA

ip sla responder tcp-connect ipaddress **SLA**
ip sla responder twamp **SLA**
ip sla responder udp-echo ipaddress **SLA**
ip sla restart **SLA**
ip sla schedule **SLA**
ip sla server twamp **SLA**
ip slb capp udp **SLB**
ip slb dfp **SLB**
ip slb entries **SLB**
ip slb firewallfarm **SLB**
ip slb map **SLB**
ip slb maxbuffers frag **SLB**
ip slb natpool **SLB**
ip slb probe custom udp **SLB**
ip slb probe dns **SLB**
ip slb probe http **SLB**
ip slb probe ping **SLB**
ip slb probe tcp **SLB**
ip slb probe wsp **SLB**
ip slb replicate slave rate **SLB**
ip slb route **SLB**
ip slb serverfarm **SLB**
ip slb static **SLB**
ip slb timers gtp gsn **SLB**
ip slb vserver **SLB**
ip source **ISG**
ip source binding **IAD**
ip source-address (telephony-service) **IPV6**
ip source-route **IAD**
ip source-track **SEC**
ip source-track address-limit **SEC**
ip source-track export-interval **SEC**
ip source-track syslog-interval **SEC**
ip source-track through ivrf **SEC**
ip split-horizon (RIP) **RIP**
ip split-horizon eigrp **EIGRP**

■ icmp idle-timeout through ipv6 nd autoconfig prefix

ip ssh SEC
ip ssh break-string SEC
ip ssh dh min size SEC
ip ssh dscp SEC
ip ssh maxstartups SEC
ip ssh port SEC
ip ssh precedence SEC
ip ssh pubkey-chain SEC
ip ssh rekey SEC
ip ssh rsa keypair-name SEC
ip ssh server authenticate user SEC
ip ssh source-interface SEC
ip ssh stricthostkeycheck SEC
ip ssh version SEC
ip sticky-arp (global configuration) IAD
ip sticky-arp (interface configuration) IAD
ip subnet-zero IAD
ip subscriber ISG
ip subscriber interface ISG
ip subscriber l2-roaming ISG
ip subscriber list ISG
ip summary-address eigrp EIGRP
ip summary-address rip RIP
ip tacacs source-interface SEC
ip tcp adjust-mss IAP, BBA
ip tcp adjust-mss through ipv6 tcp adjust-mss IAP
ip tcp async-mobility server DIA
ip tcp chunk-size IAP
ip tcp compression-connections IAP, QOS
ip tcpecn IAP
ip tcp header-compression IAP, QOS
ip tcp intercept connection-timeout SEC
ip tcp intercept drop-mode SEC
ip tcp intercept finrst-timeout SEC
ip tcp intercept list SEC
ip tcp intercept max-incomplete SEC

ip tcp intercept max-incomplete high SEC
ip tcp intercept max-incomplete low SEC
ip tcp intercept mode SEC
ip tcp intercept one-minute SEC
ip tcp intercept one-minute high SEC
ip tcp intercept one-minute low SEC
ip tcp intercept watch-timeout SEC
ip tcp keepalive IAP
ip tcp mss IAP
ip tcp path-mtu-discovery IAP
ip tcp queuemax IAP
ip tcp selective-ack IAP
ip tcp synwait-time IAP
ip tcp timestamp IAP
ip tcp window-size IAP
ip telnet comport DIA
ip telnet hidden DIA
ip telnet quiet DIA
ip telnet source-interface CF
ip telnet timeout retransmit DIA
ip telnet tos DIA
ip tftp blocksize CF
ip tftp boot-interface CF
ip tftp min-timeout CF
ip tftp source-interface CF
ip topology-accounting MTR
ip tos IBM
ip tos (L2TP) WAN
ip tos (VPDN) VPD
ip traffic-export apply SEC
ip traffic-export profile SEC
ip trigger-authentication (global) SEC
ip trigger-authentication (interface) SEC
ip ttl WAN
ip udp checksum VR
ip udptn source-interface DIA

■ icmp idle-timeout through ipv6 nd autoconfig prefix

ip unnumbered IAD, IPV6
ip unreachable IAP
ip urd IMC
ip urlfilter alert SEC
ip urlfilter allowmode SEC
ip urlfilter audit-trail SEC
ip urlfilter cache SEC
ip urlfilter exclusive-domain SEC
ip urlfilter max-request SEC
ip urlfilter max-resp-pak SEC
ip urlfilter server vendor SEC
ip urlfilter source-interface SEC
ip urlfilter truncate SEC
ip urlfilter urlf-server-log SEC
ip verify drop-rate compute interval SEC
ip verify drop-rate compute window SEC
ip verify drop-rate notify hold-down SEC
ip verify source vlan dhcp-snooping IAD
ip verify unicast notification threshold ISW, SEC
ip verify unicast reverse-path ISW, SEC
ip verify unicast source reachable-via ISW, SEC, IR
ip verify unicast vrf ISW, BGP
ip virtual-reassembly SEC
ip virtual-reassembly-out SEC
ip vrf IAP, MP, SEC
ip vrf (tracking) IAP
ip vrf autoclassify ISG
ip vrf forwarding SEC, MWG
ip vrf forwarding (interface configuration) MP
ip vrf forwarding (server-group) SEC
ip vrf forwarding (service policy map) ISG
ip vrf receive MP
ip vrf select source MP
ip vrf sitemap MP
ip wccp IAP
ip wccp check acl outbound IAP

ip wccp check services all [IAP](#)
ip wccp enable [IAP](#)
ip wccp group-listen [IAP](#)
ip wccp outbound-acl-check [IAP](#), [SBCD](#)
ip wccp redirect [IAP](#), [SBCD](#)
ip wccp redirect exclude in [IAP](#)
ip wccp redirect-list [IAP](#)
ip wccp source-interface [IAP](#), [SBCD](#)
ip wccp version [IAP](#), [SBCD](#)
ip wccp web-cache accelerated [IAP](#), [SEC](#), [CF](#)
ip-access-group [MWG](#)
ip-address (SSG-radius-proxy-timers) [SSG](#)
ip-address (ca-trustpoint) [SEC](#)
ip-address (controller) [CBL](#)
ip-address (endpoint list) [SLA](#)
ip-address-pool [MWG](#)
ip-extension [SEC](#), [IPV6](#)
ipc buffers [IR](#)
ipc header-cache [IR](#)
ipc holdq threshold [IR](#)
ipc master [IR](#)
ipc zone default [IR](#)
ipdr associate [CBL](#)
ipdr collector [CBL](#)
ipdr exporter ack-timeout [CBL](#)
ipdr exporter keepalive [CBL](#)
ipdr exporter max-unacked [CBL](#)
ipdr exporter start [CBL](#)
ipdr session [CBL](#)
ipdr session (global configuration) [CBL](#)
ipdr template [CBL](#)
ipdr type [CBL](#)
iphc-profile [QOS](#), [IR](#)
ips signature update cisco [SEC](#)
ipsec maximum [SBCD](#)
ipv4 [SBCD](#)

icmp idle-timeout through ipv6 nd autoconfig prefix

 ipv4 (SBE H.248) [SBCD](#)
 ipv4 (blacklist) [SBCD](#)
 ipv4 (ldap) [SEC](#)
 ipv4 alt-vrf [LISP](#)
 ipv4 etr [LISP](#)
 ipv4 etr accept-map-request-mapping [LISP](#)
 ipv4 etr map-cache-ttl [LISP](#)
 ipv4 etr map-server [LISP](#)
 ipv4 itr [LISP](#)
 ipv4 itr map-resolver [LISP](#)
 ipv4 map-cache-limit [LISP](#)
 ipv4 map-cache-persistent [LISP](#)
 ipv4 map-request-source [LISP](#)
 ipv4 map-resolver [LISP](#)
 ipv4 map-server [LISP](#)
 ipv4 path-mtu-discovery [LISP](#)
 ipv4 proxy-etr [LISP](#)
 ipv4 proxy-itr [LISP](#)
 ipv4 route-import map-cache [LISP](#)
 ipv4 route-import maximum-prefix [LISP](#)
 ipv4 solicit-map-request ignore [LISP](#)
 ipv4 use-petr [LISP](#)
 ipv4-address [IMO](#)
 ipv4-prefix [IAD](#)
 ipv6 (access point) [MWG](#)
 ipv6 access-class [IPV6](#)
 ipv6 access-list [IPV6](#)
 ipv6 access-list log-update threshold [IPV6](#)
 ipv6 address [IPV6](#)
 ipv6 address (session border controller) [SBCD](#)
 ipv6 address anycast [IPV6](#)
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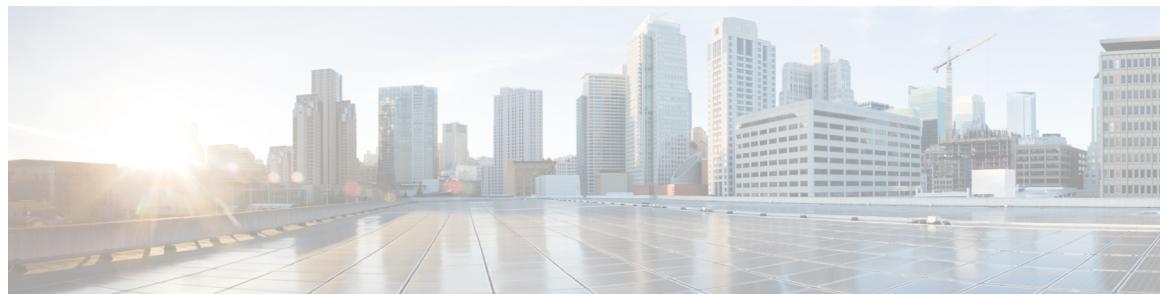
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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 8: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

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isakmp authorization list SEC
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isdn autodetect DIA
isdn bcac service audit DIA
isdn bcac service audit interface DIA
isdn bcac service audit trigger DIA
isdn bcac service retry in-serv-on-fail DIA
isdn bcac service retry max DIA
isdn bcac service timer DIA
isdn bcac service update linkup DIA
isdn bcac service update provision DIA
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lacp direct-loadswap **CE**
lacp failover **CE**
lacp fast-switchover **IR, CE**
lacp max-bundle **IR, CE**
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lacp port-priority **IR, CE**
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lane bus-atm-address ATM
lane client ATM
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lane client mpoa client name ATM
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lane config database ATM
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lane global-lecs-address ATM
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lane qos database QOS
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lapb interface-outage WAN
lapb k WAN
lapb modulo WAN
lapb n1 WAN
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lapb protocol WAN
lapb t1 WAN
lapb t2 WAN
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lat access-list TSV
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lat group-list TSV
lat host-buffers TSV
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lat remote-modification **TSV**
lat retransmit-limit **TSV**
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license call-home install pak **CSA**
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lmr duplex half [VR](#)
lmr e-lead [VR](#)
lmr ip-vad [VR](#)
lmr led-on [VR](#)
lmr m-lead [VR](#)
lnm alternate [IBM](#)

lnm crs [IBM](#)
lnm disabled [IBM](#)
lnm express-buffer [IBM](#)
lnm loss-threshold [IBM](#)
lnm password [IBM](#)
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loopback (T3 controller) IR
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loopback local (controller) DIA
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loopback remote (interface) IR
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lrq reject-resource-low VR
lrq reject-unknown-circuit VR
lrq reject-unknown-prefix VR
lrq timeout blast window VR
lrq timeout seq delay VR
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lsp-gen-interval (IS-IS) IRS
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lsp-mtu (IPX) IPX
lsp-mtu (ISO CLNS) ISO
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lsp-refresh-interval (IPX) IPX
lsp-refresh-interval (IS-IS) IRS
lsp-refresh-interval (OTV) WAN
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lsp-selector-base SLA
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lte gps nmea DIA
lte sim authenticate DIA
lte sim max-retry DIA
lte sim primary DIA
lte sim profile DIA
lte sim profile 3gpp 3gpp2 DIA
lte sms archive DIA
lu deletion IBM
lu termination IBM
lz entropy-check WAN



m

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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 9: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

m**M**

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mac address-group through revision [LSW](#)
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mac limit action flooding disable [CE](#)
mac limit maximum addresses [CE](#)
mac limit maximum addresses (service instance) [CE](#)
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```

mls rp ip (global) **LSW**
mls rp ip (interface) **LSW**
mls rp ip multicast **LSW**
mls rp ip multicast management-interface **LSW**
mls rp ipx (global) **LSW**
mls rp ipx (interface) **LSW**
mls rp locate ipx **LSW**
mls rp management-interface **LSW**
mls rp nde-address **LSW**
mls rp vlan-id **LSW**
mls rp vtp-domain **LSW**
mls sampling **NF**
mls switching **LSW**
mls switching unicast **LSW**
mls verify **IR**
mmoip aaa global-password **VR**
mmoip aaa method fax accounting **VR**
mmoip aaa method fax authentication **VR**
mmoip aaa receive-accounting enable **VR**
mmoip aaa receive-authentication enable **VR**
mmoip aaa receive-id primary **VR**
mmoip aaa receive-id secondary **VR**
mmoip aaa send-accounting enable **VR**
mmoip aaa send-authentication enable **VR**
mmoip aaa send-id primary **VR**
mmoip aaa send-id secondary **VR**
mn-profile-load-aaa **IMO**
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mobile-map (LMA) **IMO**
mobile-network (PMIPv6) **IMO**
mobile-network (mobile router) **IMO**
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mode (ATM/T1/E1 controller) through mwi-server **VR**
mode (Flexible NetFlow) **FNF**

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mode (IPSec) [SEC](#)
mode (OER) [OER](#)
mode (RSC redundancy) [IR](#)
mode (T1 E1 controller) [IR](#), [VR](#)
mode (flow sampler configuration) [NF](#)
mode (nat64) [IAD](#)
mode (redundancy) [CBL](#), [HA](#)
mode (session border controller) [SBCD](#)
mode auto-tunnels [PFR](#)
mode bles [VR](#)
mode border-element [VR](#)
mode bypass [IMC](#), [IR](#), [IMO](#)
mode c-12 [IR](#)
mode ccs [VR](#)
mode dad-proxy [IPV6](#)
mode dot1q-in-dot1q access-gateway [LSW](#)
mode download [IR](#)
mode extended [SSG](#)
mode monitor [PFR](#)
mode ra [SEC](#)
mode route [PFR](#)
mode secure [SEC](#)
mode select-exit [PFR](#)
mode sub-cs [SEC](#)
mode two-way [IR](#)
mode verify bidirectional [PFR](#)
mode vt-15 [IR](#)
mode y-cable [MWR](#)
modem always-on [DIA](#)
modem answer-timeout [DIA](#)
modem at-mode [DIA](#)
modem at-mode-permit [DIA](#)
modem autoconfigure discovery [DIA](#)
modem autoconfigure type [DIA](#)
modem autotest [DIA](#)

modem bad [DIA](#)
modem buffer-size [DIA](#)
modem busyout [DIA](#)
modem busyout-threshold [DIA](#)
modem call-record [DIA](#)
modem callin [DIA](#)
modem callout [DIA](#)
modem country mica [DIA](#)
modem country microcom_hdms [DIA](#)
modem country smart_acf [DIA](#)
modem country v12 [DIA](#)
modem cts-alarm [DIA](#)
modem cts-required [DIA](#)
modem dialin [DIA](#)
modem dialout controller [DIA](#)
modem dtr-active [DIA](#)
modem dtr-delay [IR](#)
modem enable [DIA](#)
modem firmware slot [DIA](#)
modem hold-reset [DIA](#)
modem host [DIA](#)
modem inout [DIA](#)
modem link-info poll time [DIA](#)
modem log [DIA](#)
modem min-speed max-speed [DIA](#)
modem passthrough (dial peer) [VR](#)
modem passthrough (voice-service) [VR](#)
modem poll retry [DIA](#)
modem poll time [DIA](#)
modem printer [DIA](#)
modem recovery action [DIA](#)
modem recovery maintenance [DIA](#)
modem recovery threshold [DIA](#)
modem recovery-time [DIA](#)
modem relay (dial peer) [VR](#)
modem relay (voice-service) [VR](#)

modem relay gateway-xid **VR**
modem relay latency **VR**
modem relay sprt retries **VR**
modem relay sprt v14 **VR**
modem relay sse **VR**
modem ri-is-cd **DIA**
modem shutdown **DIA**
modem startup-test **DIA**
modem status-poll **DIA**
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modemcap edit **DIA**
modemcap entry **DIA**
modemui **DIA**
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monitor call leg event-log **VR**
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monitor capture (interface/control plane) **EPC**
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monitor capture clear **EPC**
monitor capture export **EPC**
monitor capture limit **EPC**
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monitor capture point **EPC**
monitor capture point associate **EPC**
monitor capture point disassociate **EPC**
monitor capture point start **EPC**
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monitor capture start **EPC**
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monitor elog trigger position **ISW**
monitor event ipv6 static **IPV6**
monitor event-trace (EXEC) **ISW, MP, CF**
monitor event-trace (global) **ISW, MP, CF**

monitor event-trace cef (EXEC) **ISW**
monitor event-trace cef (global) **ISW**
monitor event-trace cef ipv4 (global) **ISW**
monitor event-trace cef ipv6 (global) **ISW, IPV6**
monitor event-trace cpu-report (EXEC) **BSM**
monitor event-trace cpu-report (global) **BSM**
monitor event-trace dmvpn **SEC**
monitor event-trace dump-traces **CF**
monitor event-trace gdoi **SEC**
monitor event-trace gdoi (global) **CF**
monitor event-trace gdoi (privileged EXEC) **SEC**
monitor event-trace ipv6 spd **IPV6, SEC**
monitor event-trace sbc (EXEC) **HA**
monitor event-trace sbc (global) **HA**
monitor event-trace sbc ha (EXEC) **SBCD**
monitor event-trace sbc ha (global) **SBCD**
monitor l2tun counters tunnel l2tp **WAN**
monitor loss counter **CE**
monitor metric ip-cbr **MM**
monitor metric rtp **MM**
monitor parameters **MM**
monitor pcm-tracer capture-destination **CF**
monitor pcm-tracer delayed-start **CF**
monitor pcm-tracer profile **CF**
monitor peer bfd **IRI, MP, WAN**
monitor permit-list **CF**
monitor pids **QOS**
monitor probe icmp-ping **VR**
monitor service instance **CE**
monitor session **LSW**
monitor session (VLAN) **LSW**
monitor session egress replication-mode **CF**
monitor session type **CF**
monitor traffic line **TSV**
monitor-interval **MM**
monitor-period **OER**

monitor-period (PfR) **PFR**
monitoring **IR**
monitoring-basics **CBL**
monitoring-duration **CBL**
mop device-code **CF**
mop enabled **IR, DEC**
mop retransmit-timer **CF**
mop retries **CF**
mop sysid **IR**
more **CF**
more url begin **CF**
more url exclude **CF**
more url include **CF**
more <url> begin **CF**
more <url> exclude **CF**
more <url> include **CF**
more flh:logfile **CF**
mos **OER**
mos (PfR) **PFR**
motd-banner **CF**
mpls atm control-vc **MP**
mpls atm cos **MP**
mpls atm disable-headend-vc **MP**
mpls atm multi-vc **MP**
mpls atm vp-tunnel **MP**
mpls atm vpi **MP**
mpls bgp forwarding **MP**
mpls control-word **MP**
mpls cos-map **MP**
mpls discovery vpn interval **SLA**
mpls discovery vpn next-hop **SLA**
mpls experimental **MP, QOS**
mpls export interval **MP**
mpls export vpng4 prefixes **MP**
mpls forwarding bgp **MP**
mpls ip (global configuration) **MP**

mpls ip (interface configuration) **MP**
mpls ip default-route **MP**
mpls ip encapsulate explicit-null **MP**
mpls ip propagate-ttl **MP**
mpls ip ttl-expiration pop **MP**
mpls ipv6 source-interface **MP, IPV6**
mpls l2transport route **MP**
mpls label **MP**
mpls label mode **MP**
mpls label mode (6VPE) **MP**
mpls label protocol (global configuration) **MP**
mpls label protocol (interface configuration) **MP**
mpls label range **MP**
mpls ldp address-message **MP**
mpls ldp advertise-labels **MP**
mpls ldp advertise-labels old-style **MP**
mpls ldp atm control-mode **MP**
mpls ldp atm vc-merge **MP**
mpls ldp atm vc-merge through mpls static binding ipv4 **MP**
mpls ldp autoconfig **MP**
mpls ldp backoff **MP**
mpls ldp discovery **MP**
mpls ldp discovery transport-address **MP**
mpls ldp explicit-null **MP**
mpls ldp graceful-restart **MP**
mpls ldp graceful-restart timers forwarding-holding **MP**
mpls ldp graceful-restart timers max-recovery **MP**
mpls ldp graceful-restart timers neighbor-liveness **MP**
mpls ldp holdtime **MP**
mpls ldp igp autoconfig **MP**
mpls ldp igp sync **MP**
mpls ldp igp sync holddown **MP**
mpls ldp label **MP**
mpls ldp logging neighbor-changes **MP**
mpls ldp logging password configuration **MP**
mpls ldp logging password rollover **MP**

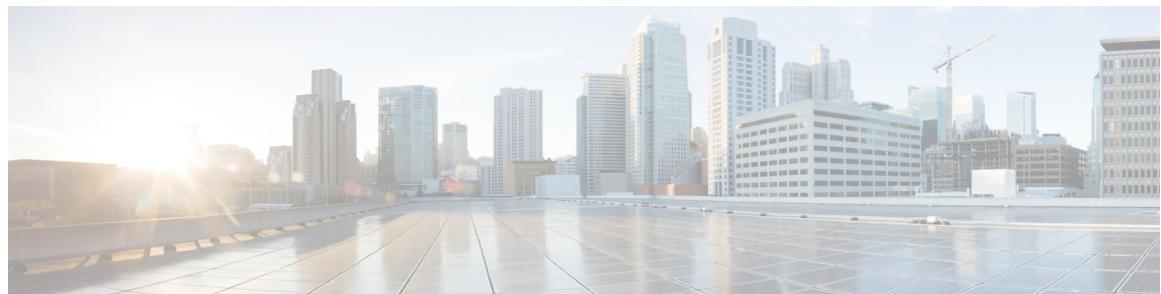
mpls ldp loop-detection **MP**
mpls ldp maxhops **MP**
mpls ldp neighbor implicit-withdraw **MP**
mpls ldp neighbor labels accept **MP**
mpls ldp neighbor password **MP**
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mpls ldp password fallback **MP**
mpls ldp password option **MP**
mpls ldp password required **MP**
mpls ldp password rollover duration **MP**
mpls ldp path-vector maxlen **MP**
mpls ldp router-id **MP, IPV6**
mpls ldp session protection **MP**
mpls ldp sync **MP**
mpls ldp tcp pak-priority **MP**
mpls load-balance per-label **MP**
mpls lsp ping ipv4 **SLA**
mpls lsp ping pseudowire **SLA**
mpls lsp trace ipv4 **SLA**
mpls mldp **IMC**
mpls mldp fec **IMC**
mpls mldp filter **IMC**
mpls mldp forwarding recursive **IMC**
mpls mldp logging notifications **IMC**
mpls mldp path **IMC**
mpls mtu **MP**
mpls netflow egress **MP, NF**
mpls oam **MP**
mpls prefix-map **MP**
mpls request-labels for **MP**
mpls static binding ipv4 **MP**
mpls static binding ipv4 vrf **MP**
mpls static binding ipv4 vrf through mpls traffic-eng logging tunnel **MP**
mpls static crossconnect **MP**
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mpls tp link **MP**
mpls tp lsp **MP**
mpls traffic-eng **MP**
mpls traffic-eng administrative-weight **MP**
mpls traffic-eng area **MP**
mpls traffic-eng atm cos global-pool **MP**
mpls traffic-eng atm cos sub-pool **MP**
mpls traffic-eng attribute-flags **MP**
mpls traffic-eng auto-bw timers **MP, IPV6**
mpls traffic-eng auto-tunnel backup **MP**
mpls traffic-eng auto-tunnel backup config **MP**
mpls traffic-eng auto-tunnel backup config affinity **MP**
mpls traffic-eng auto-tunnel backup nhop-only **MP**
mpls traffic-eng auto-tunnel backup srlg exclude **MP**
mpls traffic-eng auto-tunnel backup timers **MP**
mpls traffic-eng auto-tunnel backup tunnel-num **MP**
mpls traffic-eng auto-tunnel mesh **MP**
mpls traffic-eng auto-tunnel mesh tunnel-num **MP**
mpls traffic-eng auto-tunnel primary config **MP**
mpls traffic-eng auto-tunnel primary config mpls ip **MP**
mpls traffic-eng auto-tunnel primary onehop **MP**
mpls traffic-eng auto-tunnel primary timers **MP**
mpls traffic-eng auto-tunnel primary tunnel-num **MP**
mpls traffic-eng backup-path **MP**
mpls traffic-eng backup-path tunnel **MP**
mpls traffic-eng ds-te bc-model **MP**
mpls traffic-eng ds-te mode **MP**
mpls traffic-eng fast-reroute backup-prot-preemption **MP**
mpls traffic-eng fast-reroute promote **MP**
mpls traffic-eng fast-reroute timers **MP**
mpls traffic-eng flooding thresholds **MP**
mpls traffic-eng interface **MP**
mpls traffic-eng link timers bandwidth-hold **MP**
mpls traffic-eng link timers periodic-flooding **MP**
mpls traffic-eng link-management timers bandwidth-hold **MP**
mpls traffic-eng link-management timers periodic-flooding **MP**

mpls traffic-eng logging lsp **MP**
mpls traffic-eng logging tunnel **MP**
mpls traffic-eng lsp attributes **MP**
mpls traffic-eng lsp attributes through route-target **MP**
mpls traffic-eng mesh-group **MP**
mpls traffic-eng multicast-intact **MP**
mpls traffic-eng nsr **MP**
mpls traffic-eng passive-interface **MP**
mpls traffic-eng path-option list **MP**
mpls traffic-eng path-selection metric **MP**
mpls traffic-eng reoptimize **MP**
mpls traffic-eng reoptimize events **MP**
mpls traffic-eng reoptimize timers delay **MP**
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mpls traffic-eng router-id **MP**
mpls traffic-eng scanner **MP**
mpls traffic-eng signalling advertise explicit-null **MP**
mpls traffic-eng signalling advertise implicit-null **MP**
mpls traffic-eng srlg **MP**
mpls traffic-eng topology holddown sigerr **MP**
mpls traffic-eng tunnels (global configuration) **MP**
mpls traffic-eng tunnels (interface configuration) **MP**
mpls ttl-dec **MP**
mpoa client config name **ATM**
mpoa client name **ATM**
mpoa server config name **ATM**
mpoa server name **ATM**
mpoa server name trigger ip-address **ATM**
mrcp client rtpsetup enable **VR**
mrcp client session history duration **VR**
mrcp client session history records **VR**
mrcp client session nooffailures **VR**
mrcp client statistics enable **VR**
mrcp client timeout connect **VR**
mrcp client timeout message **VR**
mrinfo **IMC**

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msid (SSG-radius-proxy-timers) [SSG](#)
msisdn suppression [MWG](#)
mstat [IMC](#)
mta receive aliases [VR](#)
mta receive disable-dsn [VR](#)
mta receive generate [VR](#)
mta receive generate-mdn [VR](#)
mta receive maximum-recipients [VR](#)
mta send filename [VR](#)
mta send mail-from [VR](#)
mta send origin-prefix [VR](#)
mta send postmaster [VR](#)
mta send return-receipt-to [VR](#)
mta send server [VR](#)
mta send subject [VR](#)
mta send success-fax-only [VR](#)
mta send with-subject [VR](#)
mtrace [IMC](#)
mtu [MP](#), [SEC](#), [IR](#)
mtu (IP multiplexing) [IMO](#)
multi-homed [IMO](#)
multi-path (mobile networks) [IMO](#)
multi-path (mobile router) [IMO](#)
multi-topology [IPV6](#)
multicast [IPX](#)
multihop-hostname [BBA](#), [VPD](#)
multilink [DIA](#)
multilink bundle-name [DIA](#)
multilink max-fragments [DIA](#)
multilink virtual-template [DIA](#)
multilink-group [DIA](#)
multipath [IMO](#)
multiqueue [ATM](#)
multiring [IBM](#)
music-threshold [VR](#)

mvpn single-forwarder-selection highest-ip-address **BGP**
mvr **LSW**
mvr group **LSW**
mvr immediate **LSW**
mvr max-groups **LSW**
mvr querytime **LSW**
mvr type **LSW**
mvr vlan **LSW**
mvrp global **LSW**
mvrp mac-learning **LSW**
mvrp registration **LSW**
mvrp timer **LSW**
mvrp vlan creation **LSW**
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mwi (supplementary-service) **VR**
mwi-server **VR**



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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 10: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

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n3-requests [MWG](#)
na-carrier-id-table [SBCD](#)
na-dst-address-table [SBCD](#)
na-dst-prefix-table [SBCD](#)
na-src-account-table [SBCD](#)
na-src-address-table [SBCD](#)
na-src-adjacency-table [SBCD](#)
na-src-name-anonymous-table [SBCD](#)
na-src-prefix-table [SBCD](#)
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nai (proxy mobile IPv6) [IPV6](#), [IMO](#)
nai (proxy mobile ipv6) through tunnel mode gre [IMO](#)
name [IAD](#), [SEC](#), [MWG](#), [IBM](#), [CBL](#)
name (MST) [MP](#), [LSW](#)
name (dial peer cor custom) [VR](#), [DIA](#)
name (view) [SEC](#)
name elan-id [ATM](#)
name local-seg-id [ATM](#)
name preempt [ATM](#)
name server-atm-address [ATM](#)
name-connection [CF](#)
named-key [SEC](#)
nas [SEC](#), [WL](#)
nas-port format d (bba) [BBA](#)
nas-port-id format c [BBA](#)
nasi authentication [SEC](#), [IPX](#)
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nat (IKEv2 profile) [SEC](#)
nat (session border controller) [SBCD](#)
nat force-on [SBCD](#)
nat symmetric check-media-src [VR](#)
nat symmetric role [VR](#)

nat user-address SSG
nat64 enable IAD
nat64 logging IAD
nat64 logging translations IAD
nat64 map-t IAD
nat64 prefix IAD
nat64 prefix stateless IAD
nat64 prefix stateful IAD
nat64 route IAD
nat64 service ftp IAD
nat64 settings IAD
nat64 settings eif IAD
nat64 settings flow-entries disable IAD
nat64 settings mtu minimum IAD
nat64 switchover replicate http IAD
nat64 translation IAD
nat64 v4 IAD
nat64 v4v6 IAD
nat64 v6v4 IAD
national bit (controller) IR
national bit (interface) IR
national reserve IR
nbns primary MWG
nbns-list SEC
nbns-list (policy group) SEC
nbns-server SEC
ncia IBM
ncia client IBM
ncia rsrb IBM
ncia server IBM
negotiation IR
neighbor accept-route-legacy-rt BGP
neighbor bmp-activate BGP
neighbor translate-update BGP
neighbor (EIGRP) EIGRP, IPV6
neighbor (L2VPN Pseudowire Switching) WAN

neighbor (MPLS) [MP](#)
neighbor (OSPF) [OSPF](#)
neighbor (RIP) [RIP](#)
neighbor (VPLS transport mode) [MP](#)
neighbor (VPLS) [MP](#), [IR](#), [WAN](#)
neighbor (annex g) [VR](#)
neighbor (service-family) [SAF](#)
neighbor (tgrep) [VR](#)
neighbor activate [BGP](#), [MP](#), [IPV6](#)
neighbor additional-paths [BGP](#)
neighbor advertise additional-paths [BGP](#)
neighbor advertise best-external [BGP](#)
neighbor advertise diverse-path [BGP](#)
neighbor advertise-map [BGP](#)
neighbor advertisement-interval [BGP](#)
neighbor allow-policy [BGP](#)
neighbor allowas-in [MP](#)
neighbor announce rpk state [BGP](#)
neighbor as-override [MP](#)
neighbor capability orf prefix-list [BGP](#)
neighbor cluster-id [BGP](#)
neighbor database-filter all out [OSPF](#)
neighbor default-originate [BGP](#)
neighbor description [BGP](#), [EIGRP](#)
neighbor disable-connected-check [BGP](#)
neighbor distribute-list [BGP](#)
neighbor dmzlink-bw [BGP](#)
neighbor ebgp-multipath [BGP](#), [IPV6](#)
neighbor fall-over [BGP](#)
neighbor filter-list [BGP](#)
neighbor ha-mode graceful-restart [BGP](#)
neighbor ha-mode sso [BGP](#), [HA](#)
neighbor inherit peer-policy [BGP](#)
neighbor inherit peer-session [BGP](#)
neighbor inter-as-hybrid [MP](#)
neighbor internal-vpn-client [BGP](#)

neighbor local-as [BGP](#)
neighbor maximum-prefix [BGP](#)
neighbor maximum-prefix (BGP) [BGP](#)
neighbor maximum-prefix (EIGRP) [EIGRP](#)
neighbor next-hop-self [BGP](#)
neighbor next-hop-unchanged [BGP, IPV6](#)
neighbor override-capability-neg [IPV6, MP](#)
neighbor password [BGP](#)
neighbor path-attribute discard [BGP](#)
neighbor path-attribute treat-as-withdraw [BGP](#)
neighbor peer-group (assigning members) [BGP, IPV6](#)
neighbor peer-group (creating) [BGP, IPV6](#)
neighbor prefix-length-size [BGP](#)
neighbor prefix-list [BGP](#)
neighbor remote-as [BGP, MP, IPV6](#)
neighbor remove-private-as [BGP](#)
neighbor route-map [BGP, IPV6](#)
neighbor route-reflector-client [BGP, IPV6](#)
neighbor route-server-client [BGP](#)
neighbor send-community [BGP, MP, IPV6](#)
neighbor send-label [IPV6, MP](#)
neighbor send-label explicit-null [MP](#)
neighbor shutdown [BGP](#)
neighbor slow-peer detection [BGP](#)
neighbor slow-peer split-update-group dynamic [BGP](#)
neighbor slow-peer split-update-group static [BGP](#)
neighbor soft-reconfiguration [BGP](#)
neighbor soo [BGP](#)
neighbor suppress-signaling-protocol [BGP, MP](#)
neighbor timers [BGP](#)
neighbor translate-topology [MTR](#)
neighbor translate-update [IPV6](#)
neighbor transport [BGP, MTR](#)
neighbor ttl-security [BGP](#)
neighbor unsuppress-map [BGP](#)
neighbor update-source [BGP, MP, IPV6](#)

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neighbor weight **BGP**
net **IRS**
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ppp multilink ncp sequenced [DIA](#)
ppp multilink slippage [DIA](#)
ppp mux [MWR](#)
ppp mux delay [MWR](#)
ppp mux frame [MWR](#)
ppp mux pid [MWR](#)
ppp mux subframe count [MWR](#)
ppp mux subframe length [MWR](#)
ppp ncp override local [IPV6](#), [BBA](#)
ppp pap refuse [SEC](#)
ppp pap sent-username [SEC](#)
ppp pap wait [DIA](#)
ppp pfc local [DIA](#)
ppp pfc remote [DIA](#)
ppp quality [DIA](#)
ppp reliable-link [DIA](#)
ppp timeout aaa [DIA](#)
ppp timeout authentication [DIA](#)
ppp timeout idle [DIA](#)
ppp timeout idle (template) [DIA](#)
ppp timeout multilink link add [DIA](#)
ppp timeout multilink link remove [DIA](#)
ppp timeout multilink lost-fragment [DIA](#)
ppp timeout ncp [BBA](#), [IPV6](#), [DIA](#)

ppp timeout retry **DIA**
ppp unique address accept-access **BBA, IPV6**
ppp-regeneration **MWG**
pppoe enable **BBA**
pppoe limit max-sessions **BBA**
pppoe limit per-mac **BBA**
pppoe limit per-vc **BBA**
pppoe limit per-vlan **BBA**
pppoe max-sessions **BBA**
pppoe server circuit-id delay **BBA**
pppoe server remote-id delay **BBA**
pppoe service **BBA**
pppoe-client control-packets vlan cos **BBA**
pppoe-client dial-pool-number **BBA**
pppoe-sessions threshold **BBA**
pptp flow-control receive-window **VPD**
pptp flow-control static-rtt **VPD**
pptp tunnel echo **VPD**
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prc-interval (IPX) **IPX**
prc-interval (IPv6) **IPV6**
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pre-shared-key (IKEv2 keyring) **SEC**
preamble-short **WL**
precedence **QOS**
precedence (Frame Relay VC-bundle-member) **WAN**
precedence (WRED group) **QOS**
precedence (session border controller) **SBCD**
precision **SLA**
predictor **SLB**
predictor hash address (firewall farm) **SLB**
preempt **IAD, SEC**
preempt-priority **QOS**
preemption enable **VR**

preemption guard timer **VR**
preemption level **VR**
preemption tone timer **VR**
preference (DHCPv6 Guard) **IAD**
preference (dial-peer) **VR**
preferred-nnserver **IBM**
preferred-path **MP**
preferred-transport **SBCD**
prefix **CBL, VR**
prefix (Annex G) **VR**
prefix (session border controller) **SBCD**
prefix (stcapp-fac) **VR**
prefix (stcapp-fsd) **VR**
prefix object **SNMP**
prefix-delegation **IAD, IPV6**
prefix-delegation aaa **IAD, IPV6**
prefix-delegation pool **IAD, IPV6**
prefix-glean **IPV6**
prefix-length-size **BGP**
prefix-suppression **OSPF**
prefixes **OER**
prefixes (PfR) **PFR**
preloaded-route **VR**
prepaid config **ISG**
presence **VR**
presence call-list **VR**
presence enable **VR**
pri-group **IR**
pri-group (pri-slt) **VR**
pri-group nec-fusion **VR**
pri-group timeslots **VR, DIA**
primary **SEC**
primary (gateway accounting file) **VR**
printer **CF**
priority **QOS**
priority (10000 series) **QOS**

priority (LSP Attributes) [MP](#)
priority (OSPF) [MTR](#)
priority (SIP400) [QOS](#)
priority (firewall) [IAD](#), [SEC](#)
priority (session border controller) [SBCD](#)
priority level [QOS](#)
priority(firewall) [SEC](#)
priority-group [QOS](#)
priority-list default [QOS](#)
priority-list interface [QOS](#)
priority-list protocol [QOS](#)
priority-list protocol bstun [IBM](#)
priority-list protocol ip tcp [IBM](#)
priority-list protocol stun address [IBM](#)
priority-list queue-limit [QOS](#)
priority-queue cos-map [QOS](#)
priority-queue queue-limit [QOS](#)
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priority2 [IR](#), [CE](#)
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privacy (session border controller) [SBCD](#)
privacy (supplementary-service) [VR](#)
privacy restrict outbound [SBCD](#)
privacy-policy [VR](#)
private [CF](#)
private-hosts [SEC](#)
private-hosts layer3 [SEC](#)
private-hosts mac-list [SEC](#)
private-hosts mode [SEC](#)
private-hosts promiscuous [SEC](#)
private-hosts vlan-list [SEC](#)
private-vlan [LSW](#)
private-vlan association [LSW](#)
private-vlan mapping [LSW](#)
private-vlan synchronize [LSW](#)
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proactive rvrt-threshold [IR](#)
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probe (server farm) [SLB](#)
probe-interval [SLA](#)
probe-packet priority [SLA](#)
probing interval [VR](#)
probing max-failures [VR](#)
process cpu statistics limit entry-percentage [CF](#)
process cpu threshold type [CF](#)
process-max-time [CF](#)
process-min-time percent [OSPF, IPV6](#)
profile [CE, IBM](#)
profile (GDOI local server) [SEC](#)
profile (call home) [HA](#)
profile (diagnostic signature) [HA](#)
profile (profile map configuration) [SEC](#)
profile (session border controller) [SBCD](#)
profile flow [MSP](#)
profile flow port-map [MSP](#)
profile incoming [DIA](#)
profile packet [SLA](#)
profile perf-monitor [MM](#)
profile system [MM](#)
profile traffic [SLA](#)
profile-description [CBL](#)
progress_ind [VR](#)
prompt [CF](#)
prompt config [CF](#)
propagate sgt [SEC](#)
propagate sgt (config-if-cts-dot1x) [SEC](#)
proposal [SEC](#)

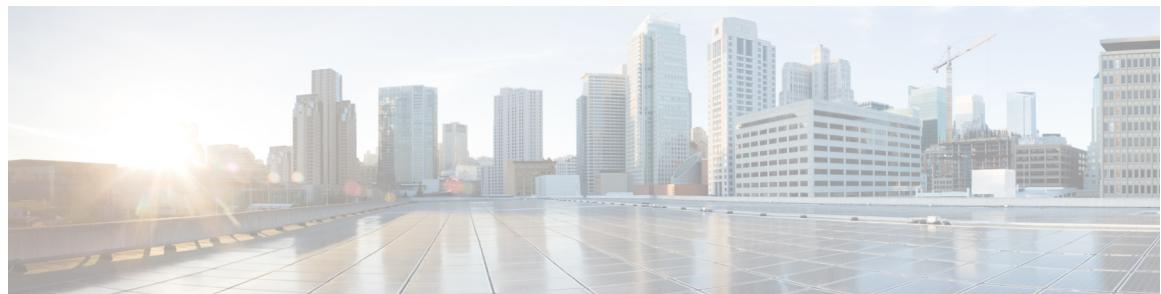
protect ATM
protect (Frame Relay VC-bundle-member) WAN
protect-tunnel CBL
protection (LSP Attributes) MP
protection (zone) SEC
protection local-prefixes MP
protocol IAD, SEC
protocol (ATM) ATM
protocol (IPv6) IPV6
protocol (L2TP) WAN
protocol (OER) OER
protocol (VPDN) VPD
protocol datagram SLB
protocol gre IR
protocol ipv6 (ATM) IPV6
protocol mode IPV6, VR
protocol pppoe (ATM VC) BBA
protocol pppovlan dot1q BBA
protocol rlm port VR
protocol shutdown IRS
protocol tcp SLB
provider VR
provision code BBA
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proxy (ISG RADIUS proxy) ISG
proxy (RADIUS proxy) ISG
proxy h323 VR
psc refresh interval MP
pseudowire MP, WAN
pseudowire (Layer 2) CE
pseudowire routing MP
pseudowire type MP
pseudowire-class MP, WAN
pseudowire-static-oam class MP
pseudowire-tlv template MP
ptp clock IR, CE

pu (DLUR) **IBM**
pu (TN3270) **IBM**
pu (listen-point) **IBM**
pu dlur (listen-point) **IBM**
publickey **SEC**
pulse-digit-detection **VR**
pulse-time **IR**
purge connection **SLB**
purge radius framed-ip acct on-off (virtual server) **SLB**
purge radius framed-ip acct stop (virtual server) **SLB**
purge sticky **SLB**
pvc **ATM**
pvc (Frame Relay VC-bundle) **WAN**
pvc-bundle **ATM, QOS**
pvc-in-range **BBA**
pwd **CF**

Q

q850-cause **VR**
qllc accept-all-calls **IBM**
qllc dlsw **IBM**
qllc largest-packet **IBM**
qllc npsi-poll **IBM**
qllc partner **IBM**
qllc sap **IBM**
qllc srb **IBM**
qllc xid **IBM**
qos fax **SBCD**
qos police order parent-first **QOS**
qos pre-classify **QOS**
qos shape-timer **QOS**
qos sig **SBCD**
qos video **SBCD**
qos voice **SBCD**
qos-group (ATM VC bundle member) **ATM**
qos-group (PVS Bundle Member) **SEC**
qos-profile enforced **CBL**

qos-profile registered **CBL**
qsig decode **VR**
query certificate **SEC**
query ip dhcp **SSG**
query url **SEC**
query-interval **VR**
queue-depth **QOS**
queue-depth (OSPFv3) **IPV6**
queue-limit **QOS**
queue-limit atm clp **QOS**
queue-list default **QOS**
queue-list interface **QOS**
queue-list lowest-custom **QOS**
queue-list protocol **QOS**
queue-list protocol bstun **IBM**
queue-list protocol ip tcp **IBM**
queue-list queue byte-count **QOS**
queue-list queue limit **QOS**
quit **SEC**



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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 11: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

R

radius acct local-ack key **SLB**
radius attribute acct-session-id charging-id **MWG**
radius attribute nas-id **MWG**
radius attribute nas-port-type **SEC**
radius attribute nas-port-type through rd **SEC**
radius attribute suppress imsi **MWG**
radius attribute suppress qos **MWG**
radius attribute suppress sgsn-address **MWG**
radius attribute user-name msisdn **MWG**
radius filter **ISG**
radius inject acct key **SLB**
radius inject auth **SLB**
radius inject auth timer **SLB**
radius inject auth vsa **SLB**
radius ip-input-bypass **SEC**
radius local-server pac-generate expiry **SEC**
radius server **SEC**
radius-server accounting system host-config **SEC**
radius-server attribute 11 default direction **SEC**
radius-server attribute 188 format non-standard **SEC**
radius-server attribute 25 **SEC**
radius-server attribute 30 original-called-number **SEC**
radius-server attribute 31 **SEC, ISG**
radius-server attribute 31 mac format **SEC**
radius-server attribute 31 remote-id **VPD**
radius-server attribute 32 include-in-access-req **SEC, MWH**
radius-server attribute 4 **SEC**
radius-server attribute 44 extend-with-addr **SEC**
radius-server attribute 44 include-in-access-req **SEC**
radius-server attribute 44 sync-with-client **SEC**
radius-server attribute 55 include-in-acct-req **SEC**
radius-server attribute 6 **SEC, VR**

radius-server attribute 60 include-in-access-req SEC
radius-server attribute 61 extended SEC
radius-server attribute 66 include-in-access-req SEC
radius-server attribute 67 include-in-access-req SEC
radius-server attribute 69 clear SEC
radius-server attribute 77 SEC
radius-server attribute 8 include-in-access-req SEC
radius-server attribute 87 circuit-id VPD
radius-server attribute data-rate send 0 SEC
radius-server attribute list SEC, IPV6
radius-server attribute nas-port extended SEC
radius-server attribute nas-port format SEC
radius-server attribute nas-port-id include ISG
radius-server authorization SEC
radius-server backoff exponential SEC
radius-server challenge-noecho SEC
radius-server configure-nas SEC
radius-server dead-criteria SEC
radius-server deadtime SEC
radius-server directed-request SEC
radius-server domain-stripping SEC, VPD
radius-server extended-portnames SEC
radius-server host SEC, MWH, IPV6
radius-server host non-standard SEC
radius-server key SEC, IPV6
radius-server load-balance SEC
radius-server local SEC, WL
radius-server optional-passwords SEC
radius-server retransmit SEC, IPV6
radius-server retry method reorder SEC
radius-server source-ports extended SEC
radius-server throttle SEC
radius-server timeout SEC
radius-server transaction max-tries SEC
radius-server unique-ident SEC
radius-server vsa disallow unknown SEC

radius-server vsa send SEC, BBA, IPV6
rai target VR
random-contact VR
random-detect QOS
random-detect (per VC) QOS
random-detect aggregate QOS
random-detect atm-clp-based QOS
random-detect clp QOS
random-detect cos-based QOS
random-detect discard-class QOS
random-detect discard-class-based QOS
random-detect dscp QOS
random-detect dscp (aggregate) QOS
random-detect ecn QOS
random-detect exponential-weighting-constant QOS
random-detect flow QOS
random-detect flow average-depth-factor QOS
random-detect flow count QOS
random-detect prec-based QOS
random-detect precedence QOS
random-detect precedence (aggregate) QOS
random-detect-group QOS
random-request-uri validate VR
range DIA
range (session border controller) SBCD
range pvc BBA
ras retry VR
ras retry (session border controller) SBCD
ras retry lrq VR
ras rrq SBCD
ras rrq dynamic prefixes VR
ras rrq ttl VR
ras timeout VR
ras timeout (session border controller) SBCD
ras timeout decisec VR
ras timeout lrq VR

rat **IMO**
rate **SLB**
rate layer3 **MM**
rate-limit **QOS**
rate-limit (call home) **HA**
rate-limit (firewall) **SEC**
rbe nasip **IAD, BBA**
rbs-zero **VR**
rcapi number **DIA**
rcapi server **DIA**
rcp-id **CBL**
rcv-queue bandwidth **QOS**
rcv-queue cos-map **QOS**
rcv-queue queue-limit **QOS**
rcv-queue random-detect **QOS**
rcv-queue threshold **QOS**
rd **MP, SEC, IPV6**
rd (VPLS) **MP, WAN**
re-authenticate do-not-apply **ISG**
react (policy) **MM**
react (tplt-icmp-ech) **SLA**
react (tplt-icmp-jtr) **SLA**
react (tplt-tcp-conn) **SLA**
react (tplt-udp-ech) **SLA**
react (tplt-udp-jtr) **SLA**
read-ahead **WAN**
real (firewall farm) **SLB**
real (server farm) **SLB**
real (static NAT) **SLB**
real-address **MWG**
realm **SBCD**
realm (H.248 BAC) **SBCD**
realm (Rf billing) **SBCD**
realm (diameter) **SBCD**
reason **SBCD**
reason-header override **VR**

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reauthentication time **SEC, WL**
reauthentication time through rsa-pubkey **SEC**
receive-channel **CBL**
receive-module **CBL**
receive-window **WAN**
receivers **IMC**
reconnect **SEC, WSMA**
record **FNF**
record (Performance Monitor) **MM**
record-route (LSP Attributes) **MP**
recorder profile **VR**
recoverable-loss **QOS**
redial **VR**
redirect (identity policy) **SEC**
redirect access-list **SSG**
redirect all ip **MWG**
redirect captive advertising default group **SSG**
redirect captive initial default group **SSG**
redirect contact order **VR**
redirect gateway **SEC**
redirect identifier **VPD**
redirect interface **QOS**
redirect intermobile ip **MWG**
redirect ip2ip (dial peer) **VR**
redirect ip2ip (voice service) **VR**
redirect log translations **ISG**
redirect permanent http to **SSG**
redirect prepaid-user to **SSG**
redirect server-group **ISG**
redirect session-limit **ISG**
redirect smtp group **SSG**
redirect to **SSG**
redirect to (ISG) **ISG**
redirect unauthenticated-user to **SSG**
redirect unauthorized-service service to **SSG**

redirect unauthorized-service to **SSG**
redirect-limit **SBCD**
redirect-mode **SBCD**
redirection (SIP) **VR**
redistribute (BGP to ISO IS-IS) **BGP**
redistribute (IP) **BGP, IRI**
redistribute (IPX) **IPX**
redistribute (IPv6) **IPV6**
redistribute (ISO IS-IS to BGP) **BGP**
redistribute (ISO CLNS) **ISO**
redistribute (OSPFv3) **IPV6**
redistribute dvmrp **BGP**
redistribute eigrp **EIGRP**
redistribute isis **IRS**
redistribute isis (IPv6) **IPV6, IRS**
redistribute maximum-prefix **OSPF**
redistribute maximum-prefix (EIGRP) **EIGRP**
redistribute vrf **EVN**
redundancy **IAD, IR, MWR, HA, DIA**
redundancy (GDOI) **SEC**
redundancy (cs-server) **SEC**
redundancy (firewall) **SEC**
redundancy asymmetric-routing enable **IAD, SEC**
redundancy config-sync **HA**
redundancy delay (xconnect) **MP**
redundancy force-failover main-cpu **CBL**
redundancy force-switchover **IR, HA**
redundancy force-switchover main-cpu **CBL**
redundancy group **IAD, SEC, IMO**
redundancy group (interface) **IAD, SEC**
redundancy handover **IR**
redundancy inter-device **SEC**
redundancy predictive **MP**
redundancy reload **CBL**
redundancy reload peer **HA**
redundancy rii **SEC**

redundancy stateful [SEC](#), [IR](#)
redundancy switch-activity [CBL](#)
redundant peer [SBCD](#)
refer-ood enable [VR](#)
referto-passing [VR](#)
refresh max-period [QOS](#)
refresh max-time [QOS](#)
refresh rtp [QOS](#)
refresh-buffer [SBCD](#)
refuse-message [CF](#)
reg-min-expiry [SBCD](#)
regenerate [SEC](#)
regexp (profile map configuration) [SEC](#)
regexp optimize [CF](#)
register (mobile networks) [IMO](#)
register (mobile router) [IPV6](#), [IMO](#)
register e164 [VR](#)
register-rate [SBCD](#)
registered qos-profile [CBL](#)
registered-caller ring [VR](#)
registrar [IPV6](#), [VR](#)
registrar server [VR](#)
registration aggregate [SBCD](#)
registration contact username [SBCD](#)
registration interface [SEC](#)
registration monitor [SBCD](#)
registration outgoing timer [SBCD](#)
registration passthrough [VR](#)
registration periodic crl trustpoint [SEC](#)
registration required [SBCD](#)
registration retries [VR](#)
registration retry count [SEC](#)
registration retry interval [SEC](#)
registration retry-interval (TIDP) [SEC](#)
registration rewrite-register [SBCD](#)
registration target address [SBCD](#)

registration target port **SBCD**
registration timeout **VR**
registration unencrypted-convert **SBCD**
reject-threshold **SBCD**
rekey address ipv4 **SEC**
rekey algorithm **SEC**
rekey authentication **SEC**
rekey lifetime **SEC**
rekey retransmit **SEC**
rekey sig-hash algorithm **SEC**
rekey transport unicast **SEC**
rel1xx **VR**
relay agent information **IAD**
relay destination **IAD**
relay pppoe bba-group **BBA**
relay source **IAD**
relay target **IAD**
relay-information hex **IAD**
release dhcp **IAD**
reliability (NetFlow SCTP) **NF**
reload **CF**
reload components **DIA**
remark **SEC**
remark (IPv6) **IPV6, SEC**
remote command **IAD, CF, IR**
remote login **IAD, CF, IR**
remote-address ipv4 **SBCD**
remote-ip (IPC transport-SCTP remote) **IAD**
remote-neighbors **SAF**
remote-neighbors source **SAF**
remote-neighbors source (EIGRP) **EIGRP**
remote-party-id **VR**
remote-port **IAD, SBCD**
remote-port (session border controller) **SBCD**
remote-span **IAD, CF, IR**
remote-url **VR**

remove vsa **SSG**
rename **CF**
rename (policy) **MM**
rename profile **HA**
renew deny unknown **IAD**
renew dhcp **IAD**
rep admin vlan **LSW**
rep block port **LSW**
rep lsl-age-timer **LSW**
rep lsl-ageout timer **LSW**
rep lsl-retries **LSW**
rep preempt delay **LSW**
rep preempt segment **LSW**
rep segment **LSW**
rep stcn **LSW**
repeat **CBL**
replay counter window-size **SEC**
replay time window-size **SEC**
replay-protection **IMO**
replicate casa (firewall farm) **SLB**
replicate casa (virtual server) **SLB**
replicate interval (firewall farm) **SLB**
replicate interval (virtual server) **SLB**
replicate slave (firewall farm) **SLB**
replicate slave (virtual server) **SLB**
reply-dscp-bits **SLA**
reply-mode **SLA**
req-qos **VR**
req-timeout **SBCD**
request **VR**
request (HTTP probe) **SLB**
request (XML transport) **VR**
request (custom UDP probe) **SLB**
request license new-udi **CSA**
request outstanding **BBA**
request peer-header **VR**

request platform software package describe file **CF**
request platform software package expand file **CF**
request platform software package install commit **CF**
request platform software package install file **CF**
request platform software package install rollback **CF**
request platform software package install snapshot **CF**
request platform software package verify rp file **HA**
request platform software process release **CF**
request platform software shell session output format **CF**
request platform software snapshot **CF**
request platform software system shell **CF**
request platform software vty attach **CF**
request-data-size **SLA**
request-data-size (Ethernet) **SLA**
request-dialin **VPD**
request-dialout **VPD**
request-line **SBCD**
request-line request-uri rewrite **SBCD**
request-method **SEC**
request-queue (GTP) **SEC**
request-timeout **SEC**
reserve dsp **SLA**
reserved-only **IAD**
reserved-only through show ip irdp **IAD**
reset **CBL, VR**
reset (alarm-interface) **IR**
reset (policy-map) **SEC**
reset (zone-based policy) **SEC**
reset timer expires **VR**
resolution **SLA**
resolve **OER**
resolve (PfR) **PFR**
resource **DIA**
resource (voice) **VR**
resource policy **ERM**
resource threshold **VR**

resource-pool [DIA](#)
resource-pool (mediacard) [VR](#)
resource-pool aaa accounting ppp [DIA](#)
resource-pool aaa protocol [DIA](#)
resource-pool call treatment [DIA](#)
resource-pool call treatment discriminator [DIA](#)
resource-pool group resource [DIA](#)
resource-pool profile customer [DIA](#)
resource-pool profile discriminator [DIA](#)
resource-pool profile service [DIA](#)
resource-pool profile vpdn [VPD](#), [DIA](#)
resource-priority [SBCD](#)
resource-priority-set [SBCD](#)
responder-only [SEC](#)
response [SLB](#)
response (XML application) [VR](#)
response (voice) [VR](#)
response peer-header [VR](#)
response size (XML transport) [VR](#)
response-code-mapping [SBCD](#)
response-data-size [SLA](#)
response-time group [IBM](#)
response-timeout [VR](#)
response-timeout (session parameters) [MM](#)
restrict authenticated [IAD](#)
restrict name-group [IAD](#)
restrict source access-group [IAD](#)
restricted [CBL](#)
resume (setting X.3 PAD parameters) [TSV](#)
resume (switching sessions) [TSV](#)
retain [SNMP](#)
retired (IPS) [SEC](#)
retransmit [WAN](#)
retransmit (config-radius-server) [SEC](#)
retries (auto-config application) [VR](#)
retry [IR](#)

retry (SVC) [ATM](#)
retry (bulk statistics) [SNMP](#)
retry (real server) [SLB](#)
retry bye [VR](#)
retry cancel [VR](#)
retry comet [VR](#)
retry interval [VR](#)
retry invite [VR](#)
retry keepalive [DIA](#)
retry keepalive (SIP) [VR](#)
retry notify [VR](#)
retry prack [VR](#)
retry refer [VR](#)
retry register [IPV6](#), [VR](#)
retry re1xx [VR](#)
retry response [VR](#)
retry subscribe [VR](#)
retry window [VR](#)
retry-count [SBCD](#)
retry-delay [VR](#)
retry-interval [SBCD](#)
retry-interval (registration) [SBCD](#)
retry-limit [VR](#)
retry-limit (radius) [SBCD](#)
retry-limit (routing table) [SBCD](#)
reverse-route [SEC](#)
reverse-tunnel [IMO](#)
revertive [CBL](#)
revision [MP](#), [CF](#), [LSW](#)
revocation-check [SEC](#), [IPV6](#)
revocation-check (ca-trustpool) [SEC](#)
rewrite egress tag [CE](#)
rewrite ingress tag [WAN](#), [CE](#)
rf [SBCD](#)
rf-channel cable downstream channel-id [CBL](#)
rf-channel depi-tunnel [CBL](#)

rf-channel description **CBL**
rf-channel frequency **CBL**
rf-channel ip-address mac-address udp-port **CBL**
rf-channel network-delay **CBL**
rf-channel rf-power **CBL**
rf-channel rf-shutdown **CBL**
rf-channel stacking **CBL**
rf-switch auxport enable **CBL**
rif **BR, IBM**
rif timeout **BR, IBM**
rif validate-age **BR, IBM**
rif validate-enable **BR, IBM**
rif validate-enable-age **BR, IBM**
rif validate-enable-route-cache **BR, IBM**
ring **VR**
ring cadence **VR**
ring frequency **VR**
ring number **VR**
ring-speed **IR**
ringing-timeout **VR**
rising (test threshold) **SNMP**
rj45-auto-detect-polarity **IR**
rloc-prefix **LISP**
rlogin **TSV**
rlogin trusted-localuser-source **TSV**
rlogin trusted-remoteuser-source local **TSV**
rmdir **CF**
rmon **RMON**
rmon alarm **RMON**
rmon capture-userdata **RMON**
rmon collection history **RMON**
rmon collection host **RMON**
rmon collection matrix **RMON**
rmon collection rmon1 **RMON**
rmon event **RMON**
rmon hc-alarms **RMON**

rmon queuesize **RMON**
roaming interface **IMO**
roaming (dial peer) **VR**
roaming (settlement) **VR**
role **IMO**
role 3gma **IMO**
rommon-pref **CF**
root **SEC**
rotary **DIA**
rotary-group **DIA**
route accept **SEC**
route set **SEC**
route set remote **SEC**
route-aggregation (NLSP) **IPX**
route-change reaction-time **MM**
route-converge-interval **CF**
route-map **IRI, IPV6**
route-map (ISO CLNS) **ISO**
route-replicate **MTR**
route-replicate (VRF address family) **EVN**
route-server-context **BGP**
route-tag list **EIGRP, IRI**
route-tag notation **EIGRP, IRI**
route-target **MP, IPV6**
route-target (VPLS) **MP, WAN**
router bgp **BGP, MP, IPV6**
router eigrp **EIGRP**
router eigrp (MTR) **MTR**
router isis **IRS**
router iso-igrp **ISO**
router lisp **LISP**
router mobile **IMO, MWH**
router odr **ODR**
router ospf **OSPF**
router ospfv3 **IPV6**
router rip **RIP**

router-guard ip multicast efps **IMC**
router-guard ip multicast switchports **IMC**
router-id **OSPF, MP**
router-id (IPv6) **IPV6**
router-id (OSPFv3) **IPV6**
router-preference maximum **IPV6, SEC**
routing dynamic **IRI**
routing-context **EVN**
rpl **CE**
rrq dynamic-prefixes-accept **VR**
rsa keypair-name **TSV**
rsa-pubkey **SEC**
rsakeypair **SEC, IPV6**
rsh **CF**
rsrb remote-peer lsap-output-list **IBM**
rsrb remote-peer netbios-output-list **IBM**
rsvp **VR**
rsvp (PfR) **PFR**
rsvp post-dial-delay **PFR**
rsvp signaling-retries **PFR**
rtcp keepalive **VR**
rtcp-mux **SBCD**
rtcp-regenerate **WAN, SBCD**
rtg-carrier-id-table **SBCD**
rtg-category-table **SBCD**
rtg-dst-address-table **SBCD**
rtg-dst-domain-table **SBCD**
rtg-dst-trunk-group-id-table **SBCD**
rtg-least-cost-table **SBCD**
rtg-round-robin-table **SBCD**
rtg-src-account-table **SBCD**
rtg-src-address-table **SBCD**
rtg-src-adjacency-table **SBCD**
rtg-src-domain-table **SBCD**
rtg-src-trunk-group-id-table **SBCD**
rtg-time-table **SBCD**

rtp QOS
rtp (VO profile) SLA
rtp payload-type VR
rtp send-recv VR
rtp-ssrc multiplex VR
rtr SLA
rtr group schedule SLA
rtr key-chain SLA
rtr logging traps SLA
rtr low-memory SLA
rtr mpls-lsp-monitor SLA
rtr mpls-lsp-monitor reaction-configuration SLA
rtr mpls-lsp-monitor schedule SLA
rtr reaction-configuration SLA
rtr reaction-trigger SLA
rtr reset SLA
rtr responder SLA
rtr restart SLA
rtr schedule SLA
rtr-locator-set LISP
rts WL
rtsp client rtpsetup enable VR
rtsp client session history duration VR
rtsp client session history records VR
rtsp client timeout connect VR
rtsp client timeout message VR
rule (ENUM configuration) VR
rule (voice translation-rule) VR
rx-speed BBA
rxspeed TSV



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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 12: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

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sa ipsec through show dxi pvc interface

S

sa ipsec SEC

sa ipsec through sessions maximum SEC

sa receive-only SEC

sample (event trigger) SNMP

sample (event trigger) through snmp mib event sample SNMP

sample (expression) SNMP

sampler FNF

samples-of-history-kept SLA

sampling-interval MM

sap mode-list (config-if-cts-dot1x) SEC

sap-priority IBM

sap-priority-list IBM

save-password SEC

sbc SBCD

sbcdbe SBCD

sbc dump-alarms SBCD

sbc dump-diagnostics SBCD

sbc interface-id SBCD

sbc periodic-dump-alarms SBCD

sbc redundancy-group tcp (session border controller) SBCD

sc-cold-boot-delay SBCD

scan-interval SLA

scan-period SLA

sccp VR

sccp blf-speed-dial retry-interval VR

sccp ccm IPV6, VR

sccp ccm group IPV6, VR

sccp codec mask VR

sccp ip precedence VR

sccp local VR

sccp plar VR

sccp switchback timeout guard VR

sccp through service-type call-check VR
scenario-cause VR
schedule SLA
scheduler allocate CF
scheduler heapcheck enable CF
scheduler heapcheck poll CF
scheduler heapcheck process CF
scheduler interrupt mask profile CF
scheduler interrupt mask size CF
scheduler interrupt mask time CF
scheduler interval CF
scheduler isr-watchdog CF
scheduler max-sched-time CF
scheduler process-watchdog CF
scheduler timercheck process CF
scheduler timercheck system context CF
schema SNMP
scheme SEC
sck-pool-size SBCD
scope BGP, MTR
scramble IR
scramble through service-module t1 lbo IR
scrambling cell-payload ATM
scrambling cell-payload through show lane ATM
scrambling-payload ATM
script SBCD
script activation DIA
script arap-callback DIA
script callback DIA
script connection DIA
script dialer DIA
script reset DIA
script startup DIA
script-set lua SBCD
scripting tcl encdir IOS_TCL
scripting tcl init IOS_TCL

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scripting tcl low-memory **IOS_TCL**
scripting tcl secure-mode **IOS_TCL**
scripting tcl trustpoint name **IOS_TCL**
scripting tcl trustpoint untrusted **IOS_TCL**
sctp **IAP**
sctp through show ip sctp statistics **IAP**
sdlc address **IBM**
sdlc dlsw **IBM**
sdlc dte-timeout **IBM**
sdlc frmr-disable **IBM**
sdlc holdq **IBM**
sdlc k **IBM**
sdlc line-speed **IBM**
sdlc n1 **IBM**
sdlc n2 **IBM**
sdlc partner **IBM**
sdlc poll-limit-value **IBM**
sdlc poll-pause-timer **IBM**
sdlc poll-wait-timeout **IBM**
sdlc qllc-prtnr **IBM**
sdlc role **IBM**
sdlc saps **IBM**
sdlc sdlc-largest-frame **IBM**
sdlc simultaneous **IBM**
sdlc slow-poll **IBM**
sdlc snrm-timer **IBM**
sdlc t1 **IBM**
sdlc test serial **IBM**
sdlc virtual-multidrop **IBM**
sdlc vmac **IBM**
sdlc xid **IBM**
sdlc xid-pause-timer **IBM**
sdllc partner **IBM**
sdllc ring-largest-frame **IBM**
sdllc sap **IBM**
sdllc sdlc-largest-frame **IBM**

sdlle traddr **IBM**
sdlle xid **IBM**
sdpr repeat answer **SBCD**
sdspfarm tag **VR**
sdspfarm transcode sessions **VR**
sdspfarm units **VR**
search-filter **SEC**
search-type nested **SEC**
sec-level minimum **IPV6, SEC**
sec-profile **IBM**
secondary **VR**
secondary aux **CBL**
secondary-color **SEC**
secondary-frequency **SLA**
secondary-text-color **SEC**
secret **SEC**
secret-key **SEC**
secure boot-config **SEC**
secure boot-image **SEC**
secure cipher **SEC**
secure-media **SBCD**
secure-server **TSV**
security **MWG, VR**
security (Diameter peer) **SEC**
security (TN3270) **IBM**
security (session border controller) **SBCD**
security acl **VR**
security authentication failure rate **SEC**
security ipsec **SEC**
security izct **VR**
security mode **VR**
security passwords min-length **SEC**
security verify **MWG**
security-group **SEC**
select **SSG**
select-topology **MTR**

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selection-method **ATM**
self-identity **SEC, IPV6**
send **CF**
send qdm message **QOS**
send qdm message through show atm bundle svc statistics **QOS**
send-lifetime **IRI, IPV6, SAF**
send-nat-address **IPV6**
sender **HA**
sender-id **CE**
sender-id (CFM-srv) **CE**
senders **IMC**
sequence-interval **WAN**
sequence-interval through show platform software otv fp **WAN**
sequence-numbers **VR**
sequencing **MP, WAN**
sequencing through show ip traffic-engineering configuration **MP**
serial restart-delay **IR**
serial-number (ca-trustpoint) **SEC, IPV6**
serial-number (cs-server) **SEC**
serial-number (pubkey) **SEC**
server **SEC, ISG**
server (RADIUS) **SEC**
server (RLM) **VR**
server (SSG) **SSG**
server (TACACS+) **SEC**
server (application firewall policy) **SEC**
server (auto-config application) **VR**
server (ldap) **SEC**
server (p-cscf) **MWG**
server (parameter-map) **SEC**
server (presence) **VR**
server (psd)2 **MWG**
server (session border controller) **SBCD**
server (transport map) **TSV**
server absent reject **VR**
server address ipv4 **SEC**

server flow-control VR
server ip SEC, ISG
server ip address IR
server ipv4 SBCD
server local SEC
server name (IPv6 TACACS+) IPV6, SEC
server registration-port VR
server routing VR
server scansafe SEC
server trigger arq VR
server trigger brq VR
server trigger drq VR
server trigger irr VR
server trigger lcf VR
server trigger lrj VR
server trigger lrq VR
server trigger rai VR
server trigger rrq VR
server trigger urq VR
server vendor SEC
server-group SSG
server-key SEC, ISG
server-port SSG
server-private (RADIUS) SEC
server-private (TACACS+) SEC
server-private (RADIUS) IPV6, SEC
server-private (TACACS+) IPV6, SEC
server-retry disable SBCD
server_(Diameter) SEC
servercert IBM
serverfarm SLB
service VR
service (CFM-srv) CE
service (ISG) ISG
service (proxy mobile IPv6) IMO
service action SEC

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service alignment **DIA**
service call-home **HA**
service cdma pdsn **MWP**
service compress-config **CF**
service config **CF**
service counters max age **CF**
service decimal-tty **CF**
service declassify **IR**
service deny **BBA**
service deny (ISG) **ISG**
service dhcp **IAD**
service divert-rate-limit **CBL**
service divert-rate-limit ip **CBL**
service divert-rate-limit ip trusted-site **CBL**
service divert-rate-limit ipv6 **CBL**
service divert-rate-limit non-ip **CBL**
service divert-rate-limit trusted-site **CBL**
service divert-rate-limit trusted-site-ipv6 **CBL**
service dsapp **VR**
service evc **CE**
service exec-callback **TSV**
service exec-wait **CF**
service finger **CF**
service hide-telnet-address **CF**
service icc **CE**
service image-version compatibility **HA**
service image-version efsu **HA**
service instance **CBL**
service instance dynamic **CE**
service instance ethernet **CE**
service instance ethernet (mac-tunnel) **CE**
service instance trunk **LSW**
service linenumber **CF**
service local **BBA**
service local (ISG) **ISG**
service nagle **CF**

service name match **BBA**
service netflow timeout **BBA**
service old-slip-prompts **TSV**
service pad **WAN, IPV6**
service pad from-xot **WAN**
service pad to-xot **WAN**
service password-encryption **SEC, IPV6**
service password-recovery **SEC**
service performance **SLA**
service profile **BBA**
service prompt config **CF**
service pt-vty-logging **TSV**
service relay **BBA**
service relay (ISG) **ISG**
service sbc sbe radius accounting **SBCD**
service sequence-numbers **CF**
service single-slot-reload-enable **IR**
service slave-log **CF**
service tcp-keepalives-in **CF**
service tcp-keepalives-out **CF**
service tcp-small-servers **CF**
service telnet-zeroidle **CF**
service timestamps **CF, IPV6**
service translation **WAN**
service udp-small-servers **CF**
service udp-small-servers max-servers no-limit **CBL**
service vlan **CE**
service vpdn group **BBA, VPD**
service vpdn group (ISG) **ISG**
service-aware **MWG**
service-class **CBL**
service-class (cmts-tag) **CBL**
service-class (enforce-rule) **CBL**
service-engine default-gateway **IR**
service-engine hostname **IR**
service-engine ip address **IR**

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service-engine nameserver **IR**
service-engine wma-passcode **IR**
service-engine wma-token **IR**
service-engine wma-url **IR**
service-family **SAF**
service-family external-client listen **SAF**
service-flow primary upstream **VR**
service-group **QOS**
service-list mdns-sd **IAD**
service-mode **MWG**
service-module **IR**
service-module 56k clock rate **IR**
service-module 56k clock source **IR**
service-module 56k data-coding **IR**
service-module 56k network-type **IR**
service-module 56k remote-loopback **IR**
service-module 56k switched-carrier **IR**
service-module analysis-module reload **IR**
service-module analysis-module reset **IR**
service-module analysis-module session **IR**
service-module analysis-module shutdown **IR**
service-module analysis-module status **IR**
service-module apa traffic-management **CF**
service-module backup interface **IR**
service-module backup mode **IR**
service-module content-engine reload **IR**
service-module content-engine reset **IR**
service-module content-engine session **IR**
service-module content-engine shutdown **IR**
service-module content-engine status **IR**
service-module external ip address **IR**
service-module heartbeat-reset disable **IR**
service-module ids bootmode **SEC**
service-module ids heartbeat-reset **SEC**
service-module ids-sensor **IR**
service-module integrated-service-engine default-boot **IR**

service-module integrated-service-engine reload **IR**
service-module integrated-service-engine reset **IR**
service-module integrated-service-engine session **IR**
service-module integrated-service-engine shutdown **IR**
service-module integrated-service-engine statistics **IR**
service-module integrated-service-engine status **IR**
service-module ip address **IR**
service-module ip default-gateway **IR**
service-module ip redundancy **FHP, IR**
service-module ip redundancy through show vrss summary **FHP**
service-module ip rip relay **RIP**
service-module ism default-boot **IR**
service-module ism heartbeat-reset **IR**
service-module ism install **IR**
service-module ism install abort **IR**
service-module ism reload **IR**
service-module ism reset **IR**
service-module ism session **IR**
service-module ism shutdown **IR**
service-module ism statistics **IR**
service-module ism status **IR**
service-module ism uninstall **IR**
service-module mgf ip address **IR**
service-module mgf ip default-gateway **IR**
service-module mgf ipv6 address **IR**
service-module routing redistribute **IR**
service-module satellite backup **IR**
service-module satellite configuration **IR**
service-module satellite cw-mode **IR**
service-module satellite status **IR**
service-module service-engine **IR**
service-module sm default-boot **IR**
service-module sm heartbeat-reset **IR**
service-module sm install **IR**
service-module sm install abort **IR**
service-module sm reload **IR**

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service-module sm reset **IR**
service-module sm session **IR**
service-module sm shutdown **IR**
service-module sm statistics **IR**
service-module sm status **IR**
service-module sm uninstall **IR**
service-module t1 cablelength short **IR**
service-module t1 clock source **IR**
service-module t1 data-coding **IR**
service-module t1 fdl **IR**
service-module t1 framing **IR**
service-module t1 lbo **IR**
service-module t1 linecode **IR**
service-module t1 linecode through show controllers satellite **IR**
service-module t1 remote-alarm-enable **IR**
service-module t1 remote-loopback **IR**
service-module t1 timeslots **IR**
service-module wlan-ap bootimage **CF, IR**
service-module wlan-ap reload **CF, IR**
service-module wlan-ap reset **CF, IR**
service-module wlan-ap session **CF, IR**
service-module wlan-ap statistics **CF, IR**
service-module wlan-ap status **CF, IR**
service-monitor **ISG**
service-policy **IAD, QOS, MWG, ISG**
service-policy (class-map) **QOS**
service-policy (control-plane) **QOS**
service-policy (policy-map class) **QOS**
service-policy (policy-map) **SEC**
service-policy (service group) **QOS**
service-policy (zones) **SEC**
service-policy inspect **SEC**
service-policy type class-routing **MTR**
service-policy type control **ISG**
service-policy type control policy **CE**
service-policy type inspect **SEC, IPV6**

service-policy type performance-monitor **MM**
service-policy type qos **QOS**
service-policy type service **ISG**
service-policy-query **IAD**
service-relationship **VR**
service-routing mdns-sd **IAD**
service-routing xmcp listen **SAF**
service-type call-check **VR**
service-type-id **CBL**
service-type-id (cmts-tag) **CBL**
services host-service peering **WAN**
session **VR**
session packet **SEC**
session group **VR**
session idle-time **MWG**
session protocol (Voice over Frame Relay) **VR**
session protocol (dial peer) **IPV6, VR**
session protocol aal2 **VR**
session protocol multicast **VR**
session refresh **VR**
session retry limit **BBA**
session slot **CF, IR**
session start **VR**
session target (MMoIP dial peer) **VR**
session target (POTS dial peer) **VR**
session target (VoATM dial peer) **VR**
session target (VoFR dial peer) **VR**
session target (VoIP dial peer) **IPV6, VR**
session through sgcp tse payload **VR**
session transport **VR**
session transport (H.323 voice-service) **VR**
session transport (SIP) **VR**
session-failover **MWG**
session-identifier **SSG**
session-identifier (ISG) **ISG**
session-limit **TSV**

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session-limit (VPDN) [VPD](#)
session-params [MM](#)
session-range [CBL](#)
session-refresh renegotiation [SBCD](#)
session-set [VR](#)
session-timeout [TSV](#)
session-timeout (LSP discovery) [SLA](#)
sessionmgr [IMO](#)
sessions auto cleanup [SSG](#)
sessions max limit [BBA](#)
sessions maximum [SEC, IPV6](#)
sessions per-mac iwf limit [BBA](#)
sessions per-mac limit [BBA](#)
sessions per-vc limit [BBA](#)
sessions per-vlan limit [BBA](#)
sessions per-vlan throttle [BBA](#)
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set aggressive-mode client-endpoint [SEC, IPV6](#)
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set cos cos-inner (policy-map configuration) QOS
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set extcomm-list delete BGP, MP
set extcommunity IPV6, BGP
set extcommunity cost BGP
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set fr-de QOS
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set group SEC
set holddown OER
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set http client cache stale VR
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set interface (OER) OER
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set ip access-group SEC
set ip default next-hop IRI
set ip default next-hop verify-availability IRI
set ip df IR
set ip dscp QOS
set ip dscp (bmp) BGP
set ip dscp (policy-map configuration) QOS
set ip dscp tunnel QOS
set ip global IRI

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set ip next-hop IRI, IPV6
set ip next-hop (BGP) BGP
set ip next-hop dynamic dhcp IAD, DIA
set ip next-hop self (BGP) BGP
set ip next-hop verify-availability IRI
set ip precedence (policy-map configuration) QOS
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set ip precedence (route-map) QOS
set ip precedence tunnel QOS
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set ip vrf IRI
set ipv6 default next-hop IPV6, IRI, MP
set ipv6 next-hop (BGP) IPV6, BGP
set ipv6 next-hop (PBR) IPV6, IRI, MP
set ipv6 precedence IPV6, IRI
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set jitter OER
set jitter (PfR) PFR
set level (IP) IRI
set level (ISO CLNS) ISO
set link-group OER
set link-group (PfR) PFR
set link-type IMO
set local-preference IRI
set loss OER
set loss (PfR) PFR
set memory debug incremental starting-time DB, CF
set metric (BGP-OSPF-RIP) BGP, IRI
set metric (EIGRP) EIGRP
set metric (ISO CLNS) ISO
set metric-type IRI
set metric-type (ISO CLNS) ISO
set metric-type internal BGP
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set mos OER

set mos (PfR) **PFR**
set mpls experimental **MP**
set mpls experimental topmost **MP**
set mpls experimental imposition **MP**
set mpls-label **MP, IPV6**
set nat demux **SEC**
set next-hop **IRI**
set next-hop (OER) **OER**
set next-hop (PfR) **PFR**
set origin (BGP) **BGP**
set ospf router-id **MP**
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set platform hardware qfp active feature ipsec event-monitor **IR**
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set port flowcontrol through show udld **LSW**
set precedence **QOS, IPV6**
set probe **OER**
set probe (PfR) **PFR**
set pstn-cause **VR**
set qos-group **QOS**
set resolve **OER**
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set reverse-route **SEC**
set security-association dummy **SEC**
set security-association idle-time **SEC**
set security-association level per-host **SEC**
set security-association lifetime **SEC, IPV6**
set security-association replay disable **SEC**
set security-association replay window-size **SEC**
set security-policy limit **SEC**
set session-key **SEC**
set sip-status **VR**

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set tag (IP) EIGRP, IRI
set tag (ISO CLNS) ISO
set traceroute reporting OER
set traceroute reporting (PfR) PFR
set traffic-index BGP
set transform-set SEC, IPV6
set trap-enable PFR
set unreachable OER
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set variable (control policy-map class) VPD
set vlan LSW
set vlan inner QOS
set vlan mapping LSW
set vrf MP, IPV6
set weight BGP
set-attached-bit IRS
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set-timer ISG
settle-call VR
settlement VR
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setup CF
sf-interface SAF
sg-service-group ISG
sg-service-type ISG
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sgbp aaa authentication SEC
sgbp dial-bids DIA
sgbp group DIA
sgbp member DIA
sgbp ppp-forward DIA
sgbp protocol DIA
sgbp seed-bid DIA
sgbp source-ip DIA
sgcp VR
sgcp call-agent VR

sgcp graceful-shutdown VR
sgcp max-waiting-delay VR
sgcp modem passthru VR
sgcp quarantine-buffer disable VR
sgcp request retries VR
sgcp request timeout VR
sgcp restart VR
sgcp retransmit timer VR
sgcp timer VR
sgcp tse payload VR
sgi beep listener ISG
shape QOS
shape (percent) QOS
shape (policy-map class) QOS
shape adaptive QOS
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shape max-buffers QOS
shdsl annex IR
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shelf-id IR, DIA
shell environment load IOS_SHL
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shell init IOS_SHL
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shortcut-frame-count ATM
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show CF, LSW
show command append CF
show command begin CF
show command exclude CF
show command include CF
show command redirect CF
show command section CF
show command tee CF
show <command> append CF

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show <command> begin **CF**
show <command> exclude **CF**
show <command> include **CF**
show <command> redirect **CF**
show <command> section **CF**
show <command> tee **CF**
show (Flash file system) **CF**
show (ca-trustpool) **SEC**
show (cs-server) **SEC**
show (satellite initial configuration) **IR**
show aaa attributes **SEC**
show aaa cache filterserver **SEC**
show aaa cache group **SEC**
show aaa common-criteria policy **SEC**
show aaa dead-criteria **SEC**
show aaa local user lockout **SEC**
show aaa memory **SEC**
show aaa method-lists **SEC**
show aaa servers **SEC**
show aaa servers sg **MWG**
show aaa service-profiles **SEC**
show aaa subscriber profile **SEC**
show aaa user **SEC**
show aal2 profile **VR**
show aal2 profile through show call filter match-list **VR**
show aal2 xgcpspi **ATM**
show access-expression **BR, IBM**
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show access-list template through vpn service **BBA**
show access-lists **SEC, IPV6**
show access-lists compiled **SEC**
show access-lists rate-limit **QOS**
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show adjacency **ISW, IPV6**

show adjacency through show ip cef with source **ISW**
show alarm-interface **IR**
show alg sip **IAD**
show aliases **CF**
show alignment **CF**
show alps ascu **IBM**
show alps circuits **IBM**
show alps peers **IBM**
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show appfw **SEC**
show appletalk access-lists **ATK**
show appletalk adjacent-routes **ATK**
show appletalk arp **ATK**
show appletalk aurp events **ATK**
show appletalk aurp topology **ATK**
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show archive **CF**
show archive config differences **CF**
show archive config incremental-diffs **CF**
show archive config rollback timer **CF**
show archive log config **CF**
show arp **IAD**
show arp application **IAD**
show arp ha **IAD**
show arp summary **IAD**
show as5400 **CF**
show ase **SEC**
show asic-version **IR**
show async bootp **CF**
show async status **DIA**
show atm arp-server **ATM**
show atm bundle **QOS**
show atm bundle stat **QOS**
show atm bundle svc **QOS**
show atm bundle svc stat **QOS**
show atm cell-packing **ATM, MP**
show atm class-links **ATM**
show atm ilmi-configuration **ATM**
show atm ilmi-status **ATM**
show atm interface atm **ATM**
show atm map **ATM, IPV6**
show atm pvc **ATM**
show atm pvc dbs **ATM**
show atm signalling statistics **ATM**
show atm svc **ATM**
show atm svc ppp **BBA**
show atm traffic **ATM**
show atm vc **ATM, MP**
show atm video-voice address **VR**
show atm vp **ATM**
show audit **SEC**

show authentication interface SEC
show authentication registrations SEC
show authentication sessions SEC
show auto discovery qos QOS
show auto discovery qos through show ip rsvp hello client lsp detail QOS
show auto qos QOS
show auto secure config SEC
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show autonomic control-plane AN
show autonomic device AN
show autonomic interfaces AN
show autonomic neighbor AN
show autonomic registrar AN
show autonomic service AN
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show backhaul-session-manager group VR
show backhaul-session-manager session VR
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show backup DIA
show bcm560x CF
show bfd drops IRI
show bfd neighbors IPV6, IRI
show bfd summary IPV6
show bgp all community BGP
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show bgp ipv6 IPV6, BGP
show bgp ipv6 community IPV6
show bgp ipv6 community-list IPV6
show bgp ipv6 dampened-paths IPV6
show bgp ipv6 filter-list IPV6
show bgp ipv6 flap-statistics IPV6
show bgp ipv6 inconsistent-as IPV6
show bgp ipv6 labels IPV6
show bgp ipv6 neighbors IPV6
show bgp ipv6 paths IPV6

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show bgp ipv6 peer-group **IPV6**
show bgp ipv6 prefix-list **IPV6**
show bgp ipv6 quote-regexp **IPV6**
show bgp ipv6 regexp **IPV6**
show bgp ipv6 route-map **IPV6**
show bgp ipv6 summary **IPV6**
show bgp l2vpn evpn **BGP**
show bgp l2vpn vpls **BGP**
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show bgp nsap **BGP**
show bgp nsap community **BGP**
show bgp nsap community-list **BGP**
show bgp nsap dampened-paths **BGP**
show bgp nsap dampening **BGP**
show bgp nsap filter-list **BGP**
show bgp nsap flap-statistics **BGP**
show bgp nsap inconsistent-as **BGP**
show bgp nsap neighbors **BGP**
show bgp nsap paths **BGP**
show bgp nsap quote-regexp **BGP**
show bgp nsap regexp **BGP**
show bgp nsap summary **BGP**
show bgp vpng6 multicast **BGP**
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show bootflash: **CF**
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show bridge **BR, IBM**
show bridge cable-modem **CBL**
show bridge circuit-group **BR, IBM**
show bridge group **BR, IBM**
show bridge multicast **BR, IBM**
show bridge vlan **BR, IBM**
show bridge-domain **MP, CE**
show bsc **IBM**
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show buffers **CF**

show buffers leak **BSM**
show buffers summary **CF**
show buffers tune **BSM**
show buffers usage **BSM**
show busyout **DIA**
show c2600 **CF**
show c7200 **CF**
show c7300 **IR**
show c7300 errorlog **IR**
show c7300 pxf accounting **IR**
show c7300 pxf interfaces **IR**
show c7300 slot **IR**
show cable acfe controller **CBL**
show cable acfe interface **CBL**
show cable acfe summary **CBL**
show cable active-reman **CBL**
show cable admission-control **CBL**
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show cable bgsync **CBL**
show cable bundle **IR, CBL**
show cable bundle multicast **CBL**
show cable burst-profile **CBL**
show cable calls **CBL**
show cable cgd-associations **CBL**
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show cable clock dti counters **CBL**
show cable clock dti status **CBL**
show cable device access-group **CBL**
show cable dsg **CBL**
show cable dsg cfr **CBL**
show cable dsg host **CBL**
show cable dsg static-group bundle **CBL**
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show cable filter **CBL**
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show cable host access-group **CBL**
show cable ib-ipc **CBL**
show cable ipc-stats **CBL**
show cable l2-vpn dot1q-vc-map **CBL**
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show cable leasequery-filter **CBL**
show cable licenses all **CBL**
show cable load-balance **CBL**
show cable load-balance docsis-group **CBL**
show cable logging **CBL**
show cable mac-domain cable forwarding **CBL**
show cable mac-domain cgd-associations **CBL**
show cable mac-domain downstream-service-group **CBL**
show cable mac-domain rcc **CBL**
show cable mac-domain upstream-service-group **CBL**
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show cable modem **CBL**
show cable modem access-group **CBL**
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show cable modem calls **CBL**
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show cable modem cnr **CBL**
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show cable modem errors **CBL**
show cable modem extended-power **CBL**
show cable modem flap **CBL**

show cable modem ipv6 **CBL**
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show cable modem partial-mode **CBL**
show cable modem partial-service **CBL**
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show cable modem rf-adapt **CBL**
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show cable modem service-flow **CBL**
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show cable multicast db **CBL**
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show cable throttle-modem **CBL**
show cable upstream service-flow summary **CBL**
show cable urn **CBL**
show cable us-sg **CBL**
show cable-diagnostics tdr **IR**
show calendar **BSM**
show call accounting-template voice **VR**
show call active fax **IPV6, VR**
show call active media **VR**
show call active video **VR**
show call active voice **IPV6, VR**
show call admission statistics **SEC, BBA**
show call application app-level **VR**
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show call application interface **VR**
show call application services registry **VR**

show call application session-level VR
show call application sessions VR
show call application voice VR
show call calltracker active DIA
show call calltracker handle DIA
show call calltracker history DIA
show call calltracker summary DIA
show call fallback cache VR
show call fallback config VR
show call fallback stats VR
show call filter components VR
show call filter match-list VR
show call history fax IPV6, VR
show call history fax through show debug condition VR
show call history media VR
show call history video VR
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show call history voice IPV6, VR
show call language voice VR
show call leg VR
show call media forking VR
show call progress tone DIA
show call prompt-mem-usage VR
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show call rsvp-sync conf VR
show call rsvp-sync stats VR
show call spike status VR
show call threshold VR
show call treatment VR
show call-home HA
show call-home diagnostic-signature HA
show call-home through vrrp sso HA
show call-router routes VR
show call-router status VR
show caller DIA

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show callmon VR
show catalyst6000 CF, IR
show cca DIA
show ccm clients BBA
show ccm group WAN
show ccm queues BBA
show ccm sessions WAN, BBA
show ccm-manager VR
show cdapi VR
show cdma pdsn MWP
show cdma pdsn accounting MWP
show cdma pdsn accounting detail MWP
show cdma pdsn accounting session MWP
show cdma pdsn accounting session detail MWP
show cdma pdsn accounting session flow MWP
show cdma pdsn accounting session flow user MWP
show cdma pdsn ahdlc MWP
show cdma pdsn cluster controller MWP
show cdma pdsn cluster controller configuration MWP
show cdma pdsn cluster controller member MWP
show cdma pdsn cluster controller session MWP
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show cdma pdsn cluster member MWP
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show cdma pdsn redundancy statistics MWP
show cdma pdsn resource MWP
show cdma pdsn selection MWP
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show cdma pdsn statistics MWP
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show cdp CDP
show cdp entry CDP, IPV6
show cdp interface CDP

show cdp neighbors CDP, IPV6
show cdp tlv CDP
show cdp traffic CDP
show cef ISW, IPV6
show cef drop ISW
show cef events ISW
show cef features global ISW
show cef interface ISW, IPV6
show cef interface policy-statistics ISW
show cef linecard ISW, IPV6
show cef memory ISW
show cef not-cef-switched ISW
show cef nsf HA
show cef state ISW, HA
show cef subtree context client ISW
show cef table ISW, IPV6
show cef table download priority ISW
show cef timers ISW
show cef vrf ISW
show cellular gps DIA
show cellular sms DIA
show cem IR
show cem circuit IR
show ces ATM
show ces circuit ATM
show ces clock-select VR
show ces interface cbr ATM
show ces status ATM
show cfmpal CE
show chassis IR
show checkpoint BBA, CBL
show class cem IR
show class-map QOS
show class-map type control ISG
show class-map type inspect SEC
show class-map type nat QOS

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show class-map type port-filter QOS
show class-map type traffic ISG
show class-map type urlfilter SEC
show clns ISO
show clns cache ISO
show clns es-neighbors ISO
show clns filter-expr ISO
show clns filter-set ISO
show clns interface IRS, ISO
show clns is-neighbors IRS, ISO
show clns neighbor areas ISO
show clns neighbors ISO, IPV6
show clns protocol ISO
show clns route ISO
show clns traffic IRS, ISO
show clock BSM, IPV6
show cls CF
show cmts ipc-cable client base CBL
show cns config connections CNS
show cns config outstanding CNS
show cns config stats CNS
show cns config status CNS
show cns event connections CNS
show cns event gateway CNS
show cns event stats CNS
show cns event status CNS
show cns event subject CNS
show cns image connections CNS
show cns image inventory CNS
show cns image status CNS
show compress IR
show config id CF
show configuration id CF
show configuration lock CF
show connect VR
show connect (FR-ATM) WAN

show connection MP, WAN
show content-scan SEC
show context CF
show control-plane cef-exception counters QOS
show control-plane cef-exception features QOS
show control-plane counters QOS
show control-plane features QOS
show control-plane host counters QOS
show control-plane host features QOS
show control-plane host open-ports QOS
show control-plane transit counters QOS
show control-plane transit features QOS
show controller dsl IR
show controller dwdm IR
show controller gigabitethernet CBL
show controller integrated-cable CBL
show controller vdsl IR
show controllers (GRP image) CF
show controllers (line card image) CF
show controllers analysis-module IR
show controllers atm ATM
show controllers bri DIA
show controllers cable CBL
show controllers cable jib CBL
show controllers cable upstream spectrum CBL
show controllers cable-modem CBL
show controllers cable-modem bpkm CBL
show controllers cable-modem classifiers CBL
show controllers cable-modem cmcert CBL
show controllers cable-modem crypto des CBL
show controllers cable-modem filters CBL
show controllers cable-modem lookup-table CBL
show controllers cable-modem mac CBL
show controllers cable-modem manuf-cert CBL
show controllers cable-modem phs CBL
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show controllers cable-modem qos **CBL**
show controllers cable-modem service-flows **CBL**
show controllers cable-modem tuner **CBL**
show controllers cbus **IR**
show controllers channel **IBM**
show controllers clock-reference **CBL**
show controllers content-engine **IR**
show controllers dsx3 **IR**
show controllers e1 **IR**
show controllers e1 call-counters **DIA**
show controllers e1 cas-data **DIA**
show controllers e3 **IR**
show controllers ethernet **IR**
show controllers fastethernet **IR, LSW**
show controllers fddi **IR**
show controllers gigabitethernet **IR**
show controllers integrated-service-engine **IR**
show controllers ism **IR**
show controllers j1 **IR**
show controllers jacket **CBL**
show controllers lex **IR**
show controllers logging **CF**
show controllers mci **IR**
show controllers modular-cable **CBL**
show controllers pcbus **IR**
show controllers pos **IR**
show controllers rs366 **VR**
show controllers satellite **IR**
show controllers serial **IR**
show controllers serial bert **IR**
show controllers serial through show hw-module slot proc cpu **IR**
show controllers shdsl **BBA**
show controllers sm **IR**
show controllers sonet **IR**
show controllers t1 **IR**
show controllers t1 bert **IR**

show controllers t1 call-counters **DIA**
show controllers t1 cas-data **DIA**
show controllers t1 clock **DIA**
show controllers t1 firmware-status **DIA**
show controllers t1 timeslots **DIA**
show controllers t3 **IR**
show controllers t3 bert **IR**
show controllers tech-support **CF**
show controllers timeslots **VR**
show controllers token **IR**
show controllers token (IBM) **BR, IBM**
show controllers usb **CBL**
show controllers vg-anylan **IR**
show controllers voice **VR**
show controllers vsi control-interface **MP**
show controllers vsi descriptor **MP**
show controllers vsi session **MP**
show controllers vsi status **MP**
show controllers vsi traffic **MP**
show controllers wanphy **IR**
show controllers wlan-controller **IR**
show controllers xtagatm **MP**
show cops servers **QOS**
show cot dsp **DIA**
show cot request **DIA**
show cot summary **DIA**
show counters interface **IR**
show coverage history **CF**
show cpd **CBL**
show cr10k-rp cable **CBL**
show cr10k-rp controller **CBL**
show cr10k-rp queue **CBL**
show cr10k-rp slots **CBL**
show crm **VR**
show crypto ace redundancy **SEC**
show crypto ace redundancy through show cts sxp **SEC**

sa ipsec through show dxi pvc interface

show crypto ca certificates SEC, CBL
show crypto ca crls SEC
show crypto ca roots SEC
show crypto ca timers SEC
show crypto ca trustpoints SEC, CBL
show crypto call admission statistics SEC
show crypto ctcp SEC
show crypto datapath SEC
show crypto debug-condition DB, SEC
show crypto dynamic-map SEC
show crypto eli SEC
show crypto eng qos QOS, SEC
show crypto engine SEC, IPV6
show crypto engine accelerator logs SEC
show crypto engine accelerator ring SEC
show crypto engine accelerator sa-database SEC
show crypto engine accelerator statistic SEC
show crypto entropy status QOS
show crypto gdoi SEC
show crypto ha SEC
show crypto identity SEC
show crypto ikev2 stats SEC
show crypto ikev2 cluster SEC
show crypto ikev2 diagnose error SEC
show crypto ikev2 policy SEC, IPV6
show crypto ikev2 profile SEC, IPV6
show crypto ikev2 proposal SEC
show crypto ikev2 sa SEC, IPV6
show crypto ikev2 session SEC, IPV6
show crypto ikev2 stats SEC
show crypto ipsec client ezvpn SEC
show crypto ipsec default transform-set SEC
show crypto ipsec policy IPV6
show crypto ipsec sa SEC, IPV6
show crypto ipsec security-association idle-time SEC
show crypto ipsec security-association lifetime SEC

show crypto ipsec transform-set SEC
show crypto ipsec transform-set default SEC
show crypto isakmp default policy SEC
show crypto isakmp diagnose error SEC
show crypto isakmp key SEC, IPV6
show crypto isakmp peers SEC, IPV6
show crypto isakmp policy SEC, IPV6
show crypto isakmp profile SEC, IPV6
show crypto isakmp sa SEC
show crypto key mypubkey rsa SEC
show crypto key pubkey-chain rsa SEC
show crypto map (IPsec) SEC, IPV6
show crypto mib ipsec flowmib endpoint SEC
show crypto mib ipsec flowmib failure SEC
show crypto mib ipsec flowmib global SEC
show crypto mib ipsec flowmib history SEC
show crypto mib ipsec flowmib history failure size SEC
show crypto mib ipsec flowmib history tunnel size SEC
show crypto mib ipsec flowmib spi SEC
show crypto mib ipsec flowmib tunnel SEC
show crypto mib ipsec flowmib version SEC
show crypto mib isakmp flowmib failure SEC
show crypto mib isakmp flowmib global SEC
show crypto mib isakmp flowmib history SEC
show crypto mib isakmp flowmib peer SEC
show crypto mib isakmp flowmib tunnel SEC
show crypto pki benchmarks SEC
show crypto pki certificates SEC
show crypto pki certificates storage SEC
show crypto pki counters SEC
show crypto pki crls SEC
show crypto pki server SEC
show crypto pki server certificates SEC
show crypto pki server crt SEC
show crypto pki server requests SEC
show crypto pki timers SEC

sa ipsec through show dxi pvc interface

show crypto pki token SEC
show crypto pki trustpoints SEC
show crypto pki trustpool SEC
show crypto route SEC
show crypto ruleset SEC
show crypto session SEC, IPV6
show crypto session group SEC
show crypto session summary SEC
show crypto socket SEC, IPV6
show crypto tech-support SEC
show crypto vlan SEC
show csm VR
show csm call VR
show cts credentials SEC
show cts interface SEC
show cts server-list SEC
show cts sxp SEC
show cube status VR
show cwan LSW
show cwan qinq LSW
show cwan qinq bridge-domain LSW
show cwan qinq interface LSW
show cwan qinq load-balance LSW
show cwan qinq port-channel LSW
show cwmp map BBA
show cwmp methods BBA
show cwmp parameter BBA
show cwmp persistent BBA
show cwmp session BBA
show cwtlc qinq LSW
show dampening interface IRI
show data-corruption CF
show data-store MWG
show data-store statistics MWG
show database data ISG
show debug CBL

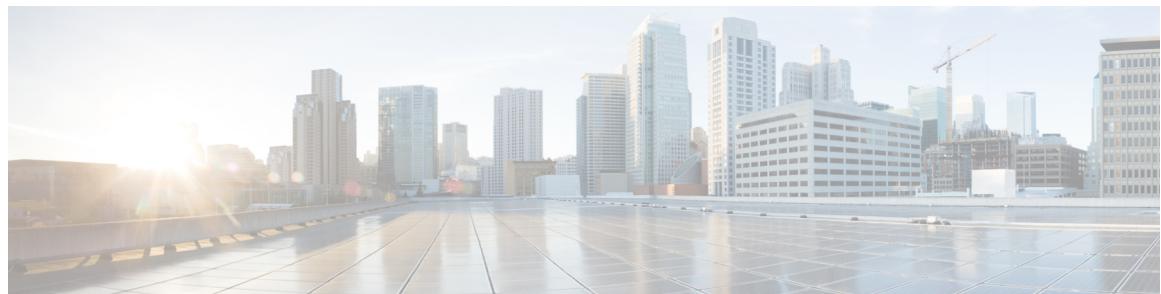
show debug condition VR
show debugging DB, IAP, CF, SBCD
show debugging condition DB
show declassify CF
show decnet DEC
show decnet accounting DEC
show decnet interface DEC
show decnet map DEC
show decnet neighbors DEC
show decnet route DEC
show decnet static DEC
show decnet traffic DEC
show depi CBL
show depi session CBL
show depi tunnel CBL
show derived-config CF
show device-sensor cache SEC
show dhcp CBL, DIA
show diag IR
show diagnostic bootup CBL
show diagnostic bootup level IR
show diagnostic cns CF, IR
show diagnostic content CBL
show diagnostic content module IR
show diagnostic description module IR
show diagnostic events IR
show diagnostic health IR
show diagnostic ondemand settings IR
show diagnostic ood-status CBL
show diagnostic result CBL
show diagnostic result module IR
show diagnostic result slot IR
show diagnostic sanity CF, IR
show diagnostic schedule CBL
show diagnostic schedule module IR
show diagnostic simulation failure IR

sa ipsec through show dxi pvc interface

show diagnostic status **IR**
show dial-peer **VR**
show dial-peer through show gatekeeper zone prefix **VR**
show dial-peer video **VR**
show dial-peer voice **IPV6, VR**
show dial-shelf **DIA**
show dial-shelf split **DIA**
show dialer **DIA**
show dialer dnis **DIA**
show dialer interface bri **DIA**
show dialer maps **DIA**
show dialer sessions **DIA**
show dialplan dialpeer **VR**
show dialplan in-carrier **VR**
show dialplan in-trunk-group-label **VR**
show dialplan incall **VR**
show dialplan incall uri **VR**
show dialplan number **VR**
show dialplan uri **VR**
show diameter peer **SEC, MWG**
show diameter peer through show object-group **SEC**
show disk **CF**
show disk0: **CF**
show disk1: **CF**
show dlsw capabilities **IBM**
show dlsw circuits **IBM**
show dlsw circuits history **IBM**
show dlsw fastcache **IBM**
show dlsw local-circuit **IBM**
show dlsw peers **IBM**
show dlsw reachability **IBM**
show dlsw statistics **IBM**
show dlsw transparent cache **IBM**
show dlsw transparent map **IBM**
show dlsw transparent neighbor **IBM**
show dmvpn **SEC, IPV6**

show dn-numbers **VR**
show dnsix **SEC**
show dot11 aaa authentication mac-authen filter-cache **WL**
show dot11 associations **WL**
show dot11 carrier busy **WL**
show dot11 statistics client-traffic **WL**
show dot11 statistics interface **WL**
show dot11 vlan-name **WL**
show dot1q-tunnel **LSW**
show dot1x **SEC**
show drip **BR, IBM**
show dsc clock **IR, DIA**
show dsi **IR, DIA**
show dsip **IR, DIA**
show dsip clients **IR, DIA**
show dsip nodes **IR, DIA**
show dsip ports **IR, DIA**
show dsip queue **IR, DIA**
show dsip tracing **IR, DIA**
show dsip transport **IR, DIA**
show dsip version **IR, DIA**
show dsl interface atm **BBA**
show dsp-group **VR**
show dspfarm **VR**
show dspfarm profile **VR**
show dspu **IBM**
show dss log **SEC**
show dtp interface **IR**
show dwnld_mngr **ISG**
show dxi map **ATM**
show dxi pvc **ATM**
show dxi pvc interface **ATM**

sa ipsec through show dxi pvc interface



show eap registrations through show mvr source ports

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Finding IOS Command Information

First Published: February 2008

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 13: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference

CF	Cisco IOS Configuration Fundamentals Command Reference
CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

show eap registrations through show mvr source ports

show eap registrations through show mvr source ports

S

show eap registrations SEC
show eap sessions SEC
show echo-cancel VR
show eigrp address-family accounting EIGRP, IPV6
show eigrp address-family events EIGRP, IPV6
show eigrp address-family interfaces EIGRP, IPV6
show eigrp address-family neighbors EIGRP, IPV6
show eigrp address-family timers EIGRP, IPV6
show eigrp address-family topology EIGRP, IPV6
show eigrp address-family traffic EIGRP, IPV6
show eigrp plugins EIGRP, SAF
show eigrp protocols EIGRP, SAF
show eigrp service-family SAF
show eigrp service-family external-client SAF
show eigrp service-family ipv4 topology SAF
show eigrp service-family ipv6 topology SAF
show eigrp tech-support EIGRP, SAF
show entry TSV
show environment CF
show environment alarm CF
show environment connector CF
show environment cooling CF
show environment status CF
show environment temperature CF
show eobc IR
show eou SEC
show epm session SEC
show erm statistics IPV6
show errdisable detect CF, IR
show errdisable flap-values LSW
show errdisable recovery CF, IR
show esmc IR

show etherchannel **IR**
show etherchannel load-balancing **IR**
show ethernet cfm domain **CE**
show ethernet cfm errors **CE**
show ethernet cfm maintenance-points local **CE**
show ethernet cfm maintenance-points local through weight **CE**
show ethernet cfm maintenance-points remote **CE**
show ethernet cfm maintenance-points remote crosscheck **CE**
show ethernet cfm maintenance-points remote detail **CE**
show ethernet cfm mpdb **CE**
show ethernet cfm pm **CE**
show ethernet cfm smep **CE**
show ethernet cfm statistics **CE**
show ethernet cfm traceroute-cache **CE**
show ethernet event microwave statistics **CE**
show ethernet event microwave status **CE**
show ethernet lmi **CE**
show ethernet loopback **CE**
show ethernet mac-tunnel engine slot **CE**
show ethernet oam debug link-monitor **CE**
show ethernet oam discovery **CE**
show ethernet oam runtime **CE**
show ethernet oam statistics **CE**
show ethernet oam status **CE**
show ethernet oam summary **CE**
show ethernet ring g8032 brief **CE**
show ethernet ring g8032 configuration **CE**
show ethernet ring g8032 port status **CE**
show ethernet ring g8032 profile **CE**
show ethernet ring g8032 statistics **CE**
show ethernet ring g8032 status **CE**
show ethernet ring g8032 summary **CE**
show ethernet ring g8032 trace **CE**
show ethernet service dynamic **CE**
show ethernet service evc **WAN, CE**
show ethernet service instance **WAN, CE**

show eap registrations through show mvr source ports

show ethernet service interface **WAN, CE**
show ethernet service mac-tunnel **CE**
show event manager detector **EEM**
show event manager directory user **EEM**
show event manager environment **EEM**
show event manager history events **EEM**
show event manager history traps **EEM**
show event manager metric processes **EEM**
show event manager policy active **EEM**
show event manager policy available **EEM**
show event manager policy pending **EEM**
show event manager policy registered **EEM**
show event manager scheduler **EEM**
show event manager session cli username **EEM**
show event manager statistics **EEM**
show event manager version **EEM**
show event-manager consumers **VR**
show extended channel backup **IBM**
show extended channel cmgr **IBM**
show extended channel cmpc **IBM**
show extended channel connection-map llc2 **IBM**
show extended channel csna **IBM**
show extended channel icmp-stack **IBM**
show extended channel ip-stack **IBM**
show extended channel lan **IBM**
show extended channel llc2 **IBM**
show extended channel max-llc2-sessions **IBM**
show extended channel packing names **IBM**
show extended channel packing stats **IBM**
show extended channel statistics **IBM**
show extended channel subchannel **IBM**
show extended channel tcp-connections **IBM**
show extended channel tcp-stack **IBM**
show extended channel tg **IBM**
show extended channel tn3270-server **IBM**
show extended channel tn3270-server client-ip-address **IBM**

show extended channel tn3270-server client-name **IBM**
show extended channel tn3270-server dlur **IBM**
show extended channel tn3270-server dlurlink **IBM**
show extended channel tn3270-server nailed-domain **IBM**
show extended channel tn3270-server nailed-ip **IBM**
show extended channel tn3270-server nailed-name **IBM**
show extended channel tn3270-server pu **IBM**
show extended channel tn3270-server pu lu **IBM**
show extended channel tn3270-server response-time application **IBM**
show extended channel tn3270-server response-time global **IBM**
show extended channel tn3270-server response-time link **IBM**
show extended channel tn3270-server response-time listen-point **IBM**
show extended channel tn3270-server response-time subnet **IBM**
show extended channel tn3270-server security **IBM**
show extended channel udp-listeners **IBM**
show extended channel udp-stack **IBM**
show fabric **IR**
show facility-alarm status **CBL**
show fastblk **CF**
show file descriptors **CF**
show file information **CF**
show file systems **CF**
show firewall vlan-group **SEC**
show flh-log **CF**
show flow exporter **FNF**
show flow interface **FNF**
show flow monitor **FNF**
show flow monitor cache aggregate **FNF**
show flow monitor cache filter **FNF**
show flow monitor cache sort **FNF**
show flow monitor type mace **WAN**
show flow record **FNF**
show flow record type **WAN, MM**
show flow-sampler **NF**
show fm features **IR**
show fm inband-counters **IR**

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show fm inspect **CF**
show fm interface **CF**
show fm ipv6 pbr all **IPV6, IRI**
show fm ipv6 pbr interface **IPV6, IRI**
show fm ipv6 traffic-filter **IPV6**
show fm nat netflow data **NF**
show fm netflow **NF**
show fm private-hosts **SEC**
show fm raguard **IPV6, SEC**
show fm reflexive **CF**
show fm slb counters **SLB**
show fm summary **CF**
show format **XMLPI**
show fpm package-group **SEC**
show fpm package-info **SEC**
show frame-clocks **CBL**
show frame-relay end-to-end keepalive **WAN**
show frame-relay fragment **WAN**
show frame-relay ip rtp header-compression **QOS**
show frame-relay ip tcp header-compression **QOS, WAN**
show frame-relay iphc **WAN**
show frame-relay lapf **WAN**
show frame-relay lmi **WAN, IPV6**
show frame-relay map **WAN, IPV6**
show frame-relay multilink **WAN, IPV6**
show frame-relay pvc **WAN, IPV6**
show frame-relay qos-autosense **WAN**
show frame-relay route **WAN**
show frame-relay svc maplist **WAN**
show frame-relay traffic **WAN**
show frame-relay vc-bundle **WAN**
show frame-relay voff **VR**
show fras **IBM**
show fras map **IBM**
show fras-host **IBM**
show funi **CF**

show gatekeeper calls VR
show gatekeeper circuits VR
show gatekeeper cluster VR
show gatekeeper endpoint circuits VR
show gatekeeper endpoints VR
show gatekeeper gw-type-prefix VR
show gatekeeper performance statistics VR
show gatekeeper servers VR
show gatekeeper status VR
show gatekeeper status cluster VR
show gatekeeper zone cluster VR
show gatekeeper zone prefix VR
show gatekeeper zone status VR
show gateway VR
show gateway through show modem relay statistics VR
show ggsn csig MWG
show ggsn quota-server MWG
show glbp FHP, IPV6
show gprs MWG
show gprs access-point MWG
show gprs access-point statistics MWG
show gprs access-point throughput statistics MWG
show gprs bandwidth-pool status MWG
show gprs charging parameters MWG
show gprs charging statistics MWG
show gprs charging status MWG
show gprs gtp ms MWG
show gprs gtp parameters MWG
show gprs gtp path MWG
show gprs gtp path statistics history MWG
show gprs gtp path statistics remote-address MWG
show gprs gtp path throughput MWG
show gprs gtp pdp-context MWG
show gprs gtp statistics MWG
show gprs gtp status MWG
show gprs memory threshold statistics MWG

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show gprs ms-address exclude-range MWG
show gprs pescf MWG
show gprs plmn MWG
show gprs plmn ip address MWG
show gprs qos status MWG
show gprs redundancy MWG
show gprs service-aware statistics MWG
show gprs service-mode MWG
show gprs slb detail MWG
show gprs slb mode MWG
show gprs slb statistics MWG
show gprs slb vservers MWG
show gprs umts-qos map traffic-class MWG
show gprs umts-qos police pdp-context tid MWG
show gprs umts-qos profile pdp tid MWG
show gsr CF
show gsr through show monitor event trace CF
show gt64010 (7200) CF
show gtp IR
show gvRP interface LSW
show gvRP summary LSW
show h323 calls preserved VR
show h323 gateway VR
show h323 gateway prefixes VR
show hardware CF
show hcCP CBL
show hcCP channel-switch CBL
show hcCP group CBL
show hcCP interface CBL
show hcCP linecard CBL
show health-monitor CF
show history CF
show history all CF
show hosts IAD, CF
show html CF
show http client cache VR

show http client cookie **VR**
show http client history **VR**
show http client secure status **VR**
show http client statistics **VR**
show hub **IR**
show hw-module all fpd **IR**
show hw-module bay **CBL**
show hw-module bay oir **CBL**
show hw-module bay transceiver **CBL**
show hw-module slot (6500) **IR**
show hw-module slot align **IR**
show hw-module slot fpd **IR**
show hw-module slot logging **IR**
show hw-module slot proc cpu **IR**
show hw-module slot tech-support **IR**
show hw-module slot tech-support through show interfaces vg-anylan **IR**
show hw-module subslot **IR**
show hw-module subslot fpd **IR**
show hw-module subslot oir **IR**
show hw-module subslot service-engine status **IR**
show hw-module subslot transceiver **IR**
show hw-programmable **IR**
show icc **IR**
show idb **CF**
show identity policy **CF**
show identity profile **CF**
show idmgr **SEC, ISG**
show idprom **CF**
show ima interface atm **ATM**
show interface bundle **CBL**
show interface cable **CBL**
show interface cable admission-control reservation **CBL**
show interface cable cable-monitor **CBL**
show interface cable downstream **CBL**
show interface cable dsg downstream **CBL**
show interface cable dsg downstream tg **CBL**

show eap registrations through show mvr source ports

show interface cable dynamic-service statistics **CBL**
show interface cable intercept **CBL**
show interface cable mac-scheduler **CBL**
show interface cable modem **CBL**
show interface cable monitor **CBL**
show interface cable multicast-sessions **CBL**
show interface cable packetcable statistics **CBL**
show interface cable privacy **CBL**
show interface cable qos paramset **CBL**
show interface cable service-flow **CBL**
show interface cable sid **CBL**
show interface cable signal-quality **CBL**
show interface cable upstream **CBL**
show interface cable upstream debug **CBL**
show interface cbr **ATM**
show interface dampening **IRI**
show interface dspfarm **VR**
show interface gigabitethernet **CBL**
show interface history **IR**
show interface integrated-cable **CBL**
show interface integrated-cable queue **CBL**
show interface mac **IAP**
show interface modular-cable **CBL**
show interface modular-cable accounting **CBL**
show interface modular-cable description **CBL**
show interface modular-cable dlm **CBL**
show interface modular-cable downstream **CBL**
show interface modular-cable intercept **CBL**
show interface modular-cable multicast-sessions **CBL**
show interface modular-cable stats **CBL**
show interface modular-cable summary **CBL**
show interface modular-cable switching **CBL**
show interface monitor **ISG**
show interface multicast-gcr **CBL**
show interface port-channel **CBL**
show interface precedence **IAP**

show interface pseudowire **MP**
show interface rf-status **CBL**
show interface sbc **SBCD**
show interface sdcc **IR**
show interface stats **ISW**
show interface tunnel configuration **MP**
show interface virtual-access **SEC**
show interface virtual-ethernet **MP**
show interface wideband-cable **CBL**
show interface wideband-cable multicast-sessions **CBL**
show interface wideband-cable queue **CBL**
show interface xtagatm **MP**
show interfaces **IR**
show interfaces accounting **IR, IPV6**
show interfaces analysis-module **IR**
show interfaces atm **ATM**
show interfaces bdi **IR**
show interfaces bri **DIA**
show interfaces cable-modem **CBL, VR**
show interfaces capabilities **IR**
show interfaces cem **IR**
show interfaces channel **IBM**
show interfaces content-engine **IR**
show interfaces counters nonzero **IR**
show interfaces crb **BR, IBM**
show interfaces ctunnel **IR**
show interfaces debounce **IR**
show interfaces description **IR**
show interfaces ethernet **IR**
show interfaces fair-queue **QOS**
show interfaces fastethernet **IR**
show interfaces fddi **IR**
show interfaces flowcontrol **IR**
show interfaces gigabitethernet **IR**
show interfaces hssi **IR**
show interfaces integrated-service-engine **IR**

show eap registrations through show mvr source ports

show interfaces irb **BR, IBM**
show interfaces ism **IR**
show interfaces lex **IR**
show interfaces loopback **IR**
show interfaces port-channel **IR**
show interfaces port-channel etherchannel **IR**
show interfaces pos **IR**
show interfaces private-vlan mapping **IR**
show interfaces random-detect **QOS**
show interfaces rate-limit **QOS**
show interfaces satellite **IR**
show interfaces serial **IR**
show interfaces serial bchannel **DIA**
show interfaces sm **IR**
show interfaces status **IR**
show interfaces summary **IR**
show interfaces switching **ISW**
show interfaces switchport **IR**
show interfaces switchport backup **IR**
show interfaces tokenring **IR**
show interfaces tokenring (IBM) **BR, IBM**
show interfaces transceiver **IR**
show interfaces trunk **IR**
show interfaces tunnel **IR**
show interfaces ucse **IR**
show interfaces unidirectional **IR**
show interfaces vg-anylan **IR**
show interfaces virtual-access **VPD, DIA**
show interfaces vlan mapping **IR**
show interfaces vlan mapping through show scp **IR**
show interfaces wlan-controller **IR**
show inventory **CF**
show ip access-lists **SEC**
show ip accounting **IAP**
show ip admission **SEC**
show ip aliases **IAD**

show ip arp IAD
show ip arp inspection IAD
show ip arp inspection log IAD
show ip arp poll IAD
show ip arp vrf CBL
show ip as-path-access-list BGP
show ip audit configuration SEC
show ip audit interface SEC
show ip audit statistics SEC
show ip auth-proxy SEC
show ip auth-proxy watch-list SEC
show ip bgp BGP, HA
show ip bgp bmp BGP
show ip bgp all dampening BGP
show ip bgp cidr-only BGP
show ip bgp cluster-ids BGP
show ip bgp community BGP
show ip bgp community-list BGP
show ip bgp dampened-paths BGP
show ip bgp dampening dampened-paths BGP
show ip bgp dampening flap-statistics BGP
show ip bgp dampening parameters BGP
show ip bgp extcommunity-list BGP
show ip bgp filter-list BGP
show ip bgp flap-statistics BGP
show ip bgp inconsistent-as BGP
show ip bgp injected-paths BGP
show ip bgp ipv4 BGP
show ip bgp ipv4 multicast BGP
show ip bgp ipv4 multicast summary BGP
show ip bgp ipv6 multicast BGP
show ip bgp ipv6 unicast BGP
show ip bgp l2vpn BGP, MP
show ip bgp labels MP, SEC
show ip bgp neighbors BGP, MP, HA
show ip bgp path-attribute discard BGP

■ show eap registrations through show mvr source ports

show ip bgp path-attribute unknown **BGP**
show ip bgp paths **BGP**
show ip bgp peer-group **BGP**
show ip bgp quote-regexp **BGP**
show ip bgp regexp **BGP**
show ip bgp replication **BGP**
show ip bgp rib-failure **BGP**
show ip bgp rpkı servers **BGP**
show ip bgp rpkı table **BGP**
show ip bgp rtfilter **BGP**
show ip bgp summary **BGP**
show ip bgp template peer-policy **BGP**
show ip bgp template peer-session **BGP**
show ip bgp topology **MTR**
show ip bgp unicast route-server **BGP**
show ip bgp update-group **BGP**
show ip bgp vpng4 **BGP, MP, HA**
show ip bgp vpng4 all dampening **BGP**
show ip bgp vpng4 all sso summary **BGP, HA**
show ip bgp vpng6 unicast all dampening **BGP**
show ip cache **ISW**
show ip cache flow **NF**
show ip cache flow aggregation **NF**
show ip cache policy **IRI**
show ip cache verbose flow **NF**
show ip cache verbose flow aggregation **NF**
show ip casa affinities **IAP**
show ip casa oper **IAP**
show ip casa stats **IAP**
show ip casa wildcard **IAP**
show ip cef **ISW**
show ip cef exact-route **ISW**
show ip cef adjacency **ISW**
show ip cef epoch **ISW**
show ip cef events **ISW**
show ip cef exact-route **ISW**

show ip cef inconsistency **ISW**
show ip cef non-recursive **ISW**
show ip cef platform **ISW, IRI**
show ip cef summary **ISW**
show ip cef switching statistics **ISW**
show ip cef traffic prefix-length **ISW**
show ip cef tree **ISW**
show ip cef unresolved **ISW**
show ip cef vlan **ISW**
show ip cef vrf **ISW**
show ip cef with epoch **ISW**
show ip cef with source **ISW**
show ip community-list **BGP**
show ip ddns update **IAD**
show ip ddns update method **IAD**
show ip device tracking **SEC**
show ip dfp **SLB**
show ip dhcp binding **IAD**
show ip dhcp conflict **IAD**
show ip dhcp database **IAD**
show ip dhcp import **IAD**
show ip dhcp limit lease **IAD**
show ip dhcp pool **IAD**
show ip dhcp relay information trusted-sources **IAD**
show ip dhcp server statistics **IAD**
show ip dhcp snooping **IAD**
show ip dhcp snooping binding **IAD**
show ip dhcp snooping database **IAD**
show ip dhcp vrf **IAD**
show ip dns name-list **IAD**
show ip dns primary **IAD**
show ip dns statistics **IAD**
show ip dns view **IAD**
show ip dns view-list **IAD**
show ip dvmrp route **IMC**
show ip dvmrp route through show ip sdr **IMC**

■ show eap registrations through show mvr source ports

show ip eigrp accounting **EIGRP**
show ip eigrp events **EIGRP**
show ip eigrp interfaces **EIGRP**
show ip eigrp neighbors **EIGRP**
show ip eigrp topology **EIGRP, MTR**
show ip eigrp traffic **EIGRP**
show ip eigrp vrf accounting **EIGRP**
show ip eigrp vrf interfaces **EIGRP**
show ip eigrp vrf neighbors **EIGRP**
show ip eigrp vrf topology **EIGRP**
show ip eigrp vrf traffic **EIGRP**
show ip explicit-paths **MP**
show ip extcommunity-list **BGP**
show ip flow export **NF**
show ip flow top **NF**
show ip flow top-talkers **NF**
show ip helper-address **IAP**
show ip host-list **IAD**
show ip http client **HTTPS**
show ip http client connection **HTTPS**
show ip http client cookie **HTTPS, BBA**
show ip http client history **HTTPS**
show ip http client secure status **HTTPS**
show ip http client session-module **HTTPS**
show ip http help-path **HTTPS**
show ip http server **HTTPS**
show ip http server secure status **HTTPS**
show ip icmp rate-limit **IAP**
show ip igmp groups **IMC**
show ip igmp interface **IMC**
show ip igmp membership **IMC**
show ip igmp snooping **IMC**
show ip igmp snooping explicit-tracking **IMC**
show ip igmp snooping filter **IMC**
show ip igmp snooping mrouter **IMC**
show ip igmp snooping rate-limit **IMC**

show ip igmp snooping statistics **IMC**
show ip igmp ssm-mapping **IMC**
show ip igmp static-group class-map **IMC**
show ip igmp udllr **IMC**
show ip inspect **SEC**
show ip inspect ha **SEC**
show ip interface **IAD, SEC, IR**
show ip interface (MTR) **MTR**
show ip interface brief **CBL**
show ip interface unnumbered **IAD**
show ip interface virtual-access **DIA**
show ip ips **SEC**
show ip ips auto-update **SEC**
show ip ips category **SEC**
show ip ips event-action-rules **SEC**
show ip ips sig-clidelta **SEC**
show ip ips signature-category **SEC**
show ip irdp **IAD**
show ip iscsi name **MWG**
show ip iscsi session **MWG**
show ip iscsi stats **MWG**
show ip iscsi target **MWG**
show ip lisp **LISP**
show ip lisp database **LISP**
show ip lisp forwarding **LISP**
show ip lisp instance-id **LISP**
show ip lisp locator-table **LISP**
show ip lisp map-cache **LISP**
show ip lisp route-import **LISP**
show ip lisp statistics **LISP**
show ip local policy **IRI**
show ip local pool **DIA**
show ip masks **IAD**
show ip mcache **IMC**
show ip mds forwarding **ISW**
show ip mds forwarding through show monitor event-trace merged-list **ISW**

■ show eap registrations through show mvr source ports

show ip mds interface ISW
show ip mds stats ISW
show ip mds summary ISW
show ip mfib IMC
show ip mfib active IMC
show ip mfib count IMC
show ip mfib interface IMC
show ip mfib route IMC
show ip mfib status IMC
show ip mfib summary IMC
show ip mobile aaa requests host IMO
show ip mobile binding IMO, MWH
show ip mobile cdma ipsec MWP
show ip mobile cdma ipsec profile MWP
show ip mobile globals IMO, MWH
show ip mobile host IMO, MWH
show ip mobile interface IMO
show ip mobile mobile-networks IMO
show ip mobile proxy IMO, MWP
show ip mobile router IMO
show ip mobile router agent IMO
show ip mobile router interface IMO
show ip mobile router registration IMO
show ip mobile router traffic IMO
show ip mobile secure IMO, MWH, MWP
show ip mobile traffic IMO, MWH, MWP
show ip mobile tunnel IMO, MWH
show ip mobile violation IMO, MWH, MWP
show ip mobile visitor IMO, MWP
show ip mobile vpn-realm IMO
show ip mpacket IMC
show ip mr proxy IMC
show ip mrib client IMC
show ip mrib route IMC
show ip mrib route summary IMC
show ip mrm interface IMC

show ip mrm manager [IMC](#)
show ip mrm status-report [IMC](#)
show ip mroute [IMC](#)
show ip msdp count [IMC](#)
show ip msdp peer [IMC](#)
show ip msdp rpf-peer [IMC](#)
show ip msdp sa-cache [IMC](#)
show ip msdp summary [IMC](#)
show ip multicast [IMC](#)
show ip multicast interface [IMC](#)
show ip multicast mpls vif [MP](#)
show ip multicast redundancy state [IMC](#)
show ip multicast redundancy statistics [IMC](#)
show ip multicast rpf tracked [IMC](#)
show ip multicast topology [IMC](#)
show ip nat limits all-host [IAD](#)
show ip nat limits all-vrf [IAD](#)
show ip nat nvi statistics [IAD](#)
show ip nat nvi translations [IAD](#)
show ip nat redundancy [IAD](#)
show ip nat statistics [IAD](#)
show ip nat translations [IAD](#)
show ip nat translations redundancy [IAD](#)
show ip nat translations rsvp [QOS](#)
show ip nbar attribute [QOS](#)
show ip nbar link-age [QOS](#)
show ip nbar pdlm [QOS](#)
show ip nbar port-map [QOS](#)
show ip nbar protocol activated [QOS](#)
show ip nbar protocol-attribute [QOS](#)
show ip nbar protocol-discovery [QOS](#)
show ip nbar protocol-id [QOS](#)
show ip nbar protocol-pack [QOS](#)
show ip nbar resources flow [QOS](#)
show ip nbar statistics [QOS](#)
show ip nbar trace [QOS](#)

show eap registrations through show mvr source ports

show ip nbar unclassified-port-stats **QOS**
show ip nbar version **QOS**
show ip nhrp **IAD**
show ip nhrp group-map **IAD**
show ip nhrp multicast **IAD**
show ip nhrp nhs **IAD, SEC**
show ip nhrp summary **IAD**
show ip nhrp traffic **IAD**
show ip ospf **OSPF**
show ip ospf border-routers **OSPF**
show ip ospf database **OSPF**
show ip ospf database opaque-area **MP**
show ip ospf events **OSPF**
show ip ospf fast-reroute **OSPF**
show ip ospf flood-list **OSPF**
show ip ospf interface **OSPF, MTR**
show ip ospf max-metric **OSPF**
show ip ospf mpls ldp interface **MP**
show ip ospf mpls traffic-eng **MP**
show ip ospf multi-area **OSPF**
show ip ospf neighbor **OSPF**
show ip ospf nsf **OSPF, HA**
show ip ospf nsr **OSPF**
show ip ospf request-list **OSPF**
show ip ospf retransmission-list **OSPF**
show ip ospf rib **OSPF**
show ip ospf sham-links **OSPF**
show ip ospf statistics **OSPF**
show ip ospf summary-address **OSPF**
show ip ospf timers rate-limit **OSPF**
show ip ospf topology-info **MTR**
show ip ospf traffic **OSPF**
show ip ospf virtual-links **OSPF**
show ip pgm host defaults **IMC**
show ip pgm host sessions **IMC**
show ip pgm host traffic **IMC**

show ip pgm router [IMC](#)
show ip pim boundary [IMC](#)
show ip pim bsr-router [IMC](#)
show ip pim interface [IMC](#)
show ip pim mdt bgp [IMC](#)
show ip pim mdt history [IMC](#)
show ip pim mdt receive [IMC](#)
show ip pim mdt send [IMC](#)
show ip pim neighbor [IMC](#)
show ip pim rp [IMC](#)
show ip pim rp mapping [IMC](#)
show ip pim rp-hash [IMC](#)
show ip pim rp-hash (BSR) [IMC](#)
show ip pim snooping [IMC](#)
show ip pim tunnel [IMC](#)
show ip pim vc [IMC](#)
show ip policy [IRI](#)
show ip policy-list [BGP](#)
show ip port-map [SEC](#)
show ip portbundle ip [ISG](#)
show ip portbundle status [ISG](#)
show ip prefix-list [BGP](#)
show ip protocols [IRI](#)
show ip protocols topology [MTR](#)
show ip protocols vrf [MP](#)
show ip redirects [IAP](#)
show ip rip database [RIP](#)
show ip rip neighbors [RIP](#)
show ip route [BGP, IRI, MP](#)
show ip route dhcp [IAD](#)
show ip route loops [IRI](#)
show ip route multicast [MTR](#)
show ip route profile [IRI](#)
show ip route summary [IRI](#)
show ip route supernets-only [IRI](#)
show ip route tag [EIGRP, IRI](#)

show eap registrations through show mvr source ports

show ip route topology **MTR**
show ip route track-table **IRI**
show ip route vrf **BGP, IRI, MP, MWH**
show ip rpf **IMC**
show ip rpf events **IMC**
show ip rpf select **IMC**
show ip rsvp **QOS**
show ip rsvp aggregation ip **QOS**
show ip rsvp aggregation ip endpoints **QOS**
show ip rsvp atm-peak-rate-limit **QOS**
show ip rsvp authentication **QOS**
show ip rsvp counters **QOS**
show ip rsvp counters state teardown **QOS**
show ip rsvp fast bw-protect **MP, QOS**
show ip rsvp fast detail **MP, QOS**
show ip rsvp fast-reroute **QOS**
show ip rsvp fast-reroute bw-protect **QOS**
show ip rsvp fast-reroute detail **QOS**
show ip rsvp hello **MP, QOS**
show ip rsvp hello bfd nbr **MP**
show ip rsvp hello bfd nbr detail **MP**
show ip rsvp hello bfd nbr summary **MP**
show ip rsvp hello client lsp detail **QOS**
show ip rsvp hello client lsp summary **QOS**
show ip rsvp hello client lsp summary through show lane qos database **QOS**
show ip rsvp hello client nbr detail **QOS**
show ip rsvp hello client neighbor detail **QOS**
show ip rsvp hello client neighbor summary **QOS**
show ip rsvp hello graceful-restart **QOS**
show ip rsvp hello instance detail **MP, QOS**
show ip rsvp hello instance summary **MP, QOS**
show ip rsvp hello statistics **MP, QOS**
show ip rsvp high-availability counters **QOS, HA**
show ip rsvp high-availability database **MP, QOS**
show ip rsvp high-availability summary **QOS**
show ip rsvp host **MP, QOS**

show ip rsvp host vrf **QOS**
show ip rsvp ingress **QOS**
show ip rsvp installed **QOS**
show ip rsvp interface **QOS**
show ip rsvp interface detail **MP, QOS, HA**
show ip rsvp listeners **QOS**
show ip rsvp neighbor **QOS**
show ip rsvp p2mp counters **QOS**
show ip rsvp policy **QOS**
show ip rsvp policy cops **QOS**
show ip rsvp policy identity **QOS**
show ip rsvp policy local **QOS**
show ip rsvp policy vrf **QOS**
show ip rsvp precedence **QOS**
show ip rsvp request **QOS**
show ip rsvp reservation **QOS**
show ip rsvp sbm **QOS**
show ip rsvp sender **QOS**
show ip rsvp signalling **QOS**
show ip rsvp signalling blockade **QOS**
show ip rsvp signalling fast-local-repair **QOS**
show ip rsvp signalling rate-limit **QOS**
show ip rsvp signalling refresh **QOS**
show ip rsvp snooping **QOS**
show ip rsvp tos **QOS**
show ip rsvp transport **QOS**
show ip rsvp transport sender **QOS**
show ip rtp header-compression **QOS**
show ip rtp header-compression (mobile wireless) **MWR**
show ip sap **IMC**
show ip sctp association list **IAP**
show ip sctp association parameters **IAP**
show ip sctp association statistics **IAP**
show ip sctp errors **IAP**
show ip sctp instances **IAP**
show ip sctp statistics **IAP**

show eap registrations through show mvr source ports

show ip sdee SEC
show ip sdr IMC
show ip sla application SLA
show ip sla authentication SLA
show ip sla auto discovery SLA
show ip sla auto endpoint-list SLA
show ip sla auto group SLA
show ip sla auto schedule SLA
show ip sla auto summary-statistics SLA
show ip sla auto template SLA
show ip sla configuration SLA
show ip sla endpoint-list SLA
show ip sla enhanced-history collection-statistics SLA
show ip sla enhanced-history distribution-statistics SLA
show ip sla ethernet-monitor configuration SLA
show ip sla event-publisher SLA
show ip sla group schedule SLA
show ip sla history SLA
show ip sla history interval SLA
show ip sla monitor application SLA
show ip sla monitor authentication SLA
show ip sla monitor collection-statistics SLA
show ip sla monitor configuration SLA
show ip sla monitor distributions-statistics SLA
show ip sla monitor enhanced-history collection-statistics SLA
show ip sla monitor enhanced-history distribution-statistics SLA
show ip sla monitor group schedule SLA
show ip sla monitor history SLA
show ip sla monitor mpls-lsp-monitor collection-statistics SLA
show ip sla monitor mpls-lsp-monitor configuration SLA
show ip sla monitor mpls-lsp-monitor lpd operational-state SLA
show ip sla monitor mpls-lsp-monitor neighbors SLA
show ip sla monitor mpls-lsp-monitor scan-queue SLA
show ip sla monitor mpls-lsp-monitor summary SLA
show ip sla monitor reaction-configuration SLA
show ip sla monitor reaction-trigger SLA

show ip sla monitor responder **SLA**
show ip sla monitor statistics **SLA**
show ip sla monitor statistics aggregated **SLA**
show ip sla monitor totals-statistics **SLA**
show ip sla mpls-lsp-monitor collection-statistics **SLA**
show ip sla mpls-lsp-monitor configuration **SLA**
show ip sla mpls-lsp-monitor lpd operational-state **SLA**
show ip sla mpls-lsp-monitor neighbors **SLA**
show ip sla mpls-lsp-monitor scan-queue **SLA**
show ip sla mpls-lsp-monitor summary **SLA**
show ip sla profile video **SLA**
show ip sla reaction-configuration **SLA**
show ip sla reaction-trigger **SLA**
show ip sla responder **SLA**
show ip sla statistics **SLA**
show ip sla statistics aggregated **SLA**
show ip sla summary **SLA**
show ip sla twamp connection **SLA**
show ip sla twamp session **SLA**
show ip sla twamp standards **SLA**
show ip slb connslb
show ip slb dfp **SLB**
show ip slb firewallfarm **SLB**
show ip slb fragments **SLB**
show ip slb gtp **SLB**
show ip slb map **SLB**
show ip slb natpool **SLB**
show ip slb probe **SLB**
show ip slb reals **SLB**
show ip slb replicate **SLB**
show ip slb serverfarms **SLB**
show ip slb sessions **SLB**
show ip slb static **SLB**
show ip slb stats **SLB**
show ip slb sticky **SLB**
show ip slb vServers **SLB**

show eap registrations through show mvr source ports

show ip slb wildcard **SLB**
show ip snat **IAD**
show ip sockets **IAP, IPV6**
show ip sockets through show sockets **IAP**
show ip source binding **IAD**
show ip source-track **SEC**
show ip source-track export flows **SEC**
show ip ssh **SEC**
show ip static route **IRI, MTR**
show ip static route bfd **IRI, MTR**
show ip static route summary **MTR**
show ip subscriber **ISG**
show ip tcp header-compression **IAP, QOS**
show ip through show rtr **SLA**
show ip traffic **IAP, ISW**
show ip traffic (MTR) **MTR**
show ip traffic-engineering **MP**
show ip traffic-engineering configuration **MP**
show ip traffic-engineering routes **MP**
show ip traffic-engineering routes through show mpls memory **MP**
show ip traffic-export **SEC**
show ip trigger-authentication **SEC**
show ip trm config **SEC**
show ip trm subscription status **SEC**
show ip urlfilter **SEC**
show ip urlfilter cache **SEC**
show ip urlfilter config **SEC**
show ip verify source **IAD**
show ip virtual-reassembly **SEC**
show ip vrf **MP, QOS**
show ip wccp **IAP**
show ip wccp global counters **IAP**
show ip wccp web-caches **IAP**
show ipc **IR**
show ipc hog-info **IR**
show ipc sctp **MWP**

show ipdr collector [CBL](#)
show ipdr exporter [CBL](#)
show ipdr session [CBL](#)
show ipdr session collector [CBL](#)
show ipdr session template [CBL](#)
show iphc-profile [QOS](#)
show ipv6 access-list [IPV6](#), [SEC](#)
show ipv6 cef [IPV6](#)
show ipv6 cef adjacency [IPV6](#)
show ipv6 cef events [IPV6](#)
show ipv6 cef exact-route [IPV6](#)
show ipv6 cef neighbor discovery throttling [IPV6](#)
show ipv6 cef non-recursive [IPV6](#)
show ipv6 cef platform [IPV6](#)
show ipv6 cef summary [IPV6](#)
show ipv6 cef switching statistics [IPV6](#)
show ipv6 cef traffic prefix-length [IPV6](#)
show ipv6 cef tree [IPV6](#)
show ipv6 cef unresolved [IPV6](#)
show ipv6 cef vrf [IPV6](#), [MP](#)
show ipv6 cef with epoch [ISW](#), [IPV6](#)
show ipv6 cef with source [ISW](#), [IPV6](#)
show ipv6 cga address-db [IPV6](#), [SEC](#)
show ipv6 cga modifier-db [IPV6](#), [SEC](#)
show ipv6 destination-guard policy [IPV6](#)
show ipv6 dhcp [IAD](#), [IPV6](#)
show ipv6 dhcp binding [IAD](#), [IPV6](#)
show ipv6 dhcp conflict [IAD](#), [IPV6](#)
show ipv6 dhcp database [IAD](#), [IPV6](#)
show ipv6 dhcp guard policy [IAD](#), [IPV6](#)
show ipv6 dhcp interface [IAD](#), [IPV6](#)
show ipv6 dhcp pool [IAD](#), [IPV6](#)
show ipv6 dhcp relay binding [IAD](#), [IPV6](#)
show ipv6 dhcp route [IAD](#)
show ipv6 dhcp-ldra [IAD](#)
show ipv6 eigrp events [IPV6](#), [EIGRP](#)

■ show eap registrations through show mvr source ports

show ipv6 eigrp interfaces **IPV6, EIGRP**
show ipv6 eigrp neighbors **IPV6, EIGRP**
show ipv6 eigrp topology **IPV6, EIGRP**
show ipv6 eigrp traffic **IPV6, EIGRP**
show ipv6 flow cache aggregation **IPV6**
show ipv6 flow export **IPV6**
show ipv6 general-prefix **IPV6**
show ipv6 inspect **IPV6, SEC**
show ipv6 interface **IPV6**
show ipv6 lisp **LISP**
show ipv6 lisp database **LISP**
show ipv6 lisp forwarding **LISP**
show ipv6 lisp instance-id **LISP**
show ipv6 lisp locator-table **LISP**
show ipv6 lisp map-cache **LISP**
show ipv6 lisp route-import **LISP**
show ipv6 lisp statistics **LISP**
show ipv6 local pool **IPV6**
show ipv6 mfib **IPV6, IMC**
show ipv6 mfib active **IPV6, IMC**
show ipv6 mfib count **IPV6, IMC**
show ipv6 mfib global **IPV6, IMC**
show ipv6 mfib instance **IPV6, IMC**
show ipv6 mfib interface **IPV6, IMC**
show ipv6 mfib route **IPV6, IMC**
show ipv6 mfib status **IPV6, IMC**
show ipv6 mfib summary **IPV6, IMC**
show ipv6 mld groups **IPV6, IMC**
show ipv6 mld groups summary **IPV6, IMC**
show ipv6 mld host-proxy **IPV6, IMC**
show ipv6 mld interface **IPV6, IMC**
show ipv6 mld snooping **IPV6, IMC**
show ipv6 mld ssm-map **IPV6, IMC**
show ipv6 mld traffic **IPV6, IMC**
show ipv6 mobile binding **IPV6**
show ipv6 mobile globals **IPV6**

show ipv6 mobile home-agents **IPV6**
show ipv6 mobile host groups **IPV6**
show ipv6 mobile pmipv6 lma binding **IMO**
show ipv6 mobile pmipv6 lma globals **IMO**
show ipv6 mobile pmipv6 lma stats **IMO**
show ipv6 mobile pmipv6 lma tunnel **IMO**
show ipv6 mobile pmipv6 mag binding **IMO**
show ipv6 mobile pmipv6 mag globals **IMO**
show ipv6 mobile pmipv6 mag stats **IMO**
show ipv6 mobile router **IPV6**
show ipv6 mobile traffic **IPV6**
show ipv6 mobile tunnels **IPV6**
show ipv6 mrrib client **IPV6, IMC**
show ipv6 mrrib route **IPV6, IMC**
show ipv6 mroute **IPV6, IMC**
show ipv6 mroute active **IPV6, IMC**
show ipv6 mtu **IPV6**
show ipv6 nat statistics **IAD, IPV6**
show ipv6 nat translations **IAD, IPV6**
show ipv6 nd destination **IPV6**
show ipv6 nd on-link prefix **IPV6**
show ipv6 nd ra session **ISG**
show ipv6 nd raguard counters **IPV6, SEC**
show ipv6 nd raguard policy **IPV6, SEC**
show ipv6 nd secured certificates **IPV6, SEC**
show ipv6 nd secured counters interface **IPV6, SEC**
show ipv6 nd secured nonce-db **IPV6, SEC**
show ipv6 nd secured solicit-db **IPV6, SEC**
show ipv6 nd secured timestamp-db **IPV6, SEC**
show ipv6 neighbor binding **IPV6**
show ipv6 neighbors **IPV6**
show ipv6 nhrp **IPV6**
show ipv6 nhrp multicast **IPV6**
show ipv6 nhrp nhs **IPV6**
show ipv6 nhrp summary **IPV6**
show ipv6 nhrp traffic **IPV6**

■ show eap registrations through show mvr source ports

show ipv6 ospf IPV6, OSPF, IMO
show ipv6 ospf border-routers IPV6
show ipv6 ospf database IPV6
show ipv6 ospf event IPV6
show ipv6 ospf flood-list IPV6
show ipv6 ospf graceful-restart IPV6
show ipv6 ospf interface IPV6, IR, IMO
show ipv6 ospf neighbor IPV6
show ipv6 ospf request-list IPV6
show ipv6 ospf retransmission-list IPV6
show ipv6 ospf statistics IPV6
show ipv6 ospf summary-prefix IPV6
show ipv6 ospf timers rate-limit IPV6
show ipv6 ospf traffic IPV6, OSPF
show ipv6 ospf virtual-links IPV6
show ipv6 pim bsr IPV6, IMC
show ipv6 pim df IPV6, IMC
show ipv6 pim df winner IPV6, IMC
show ipv6 pim group-map IPV6, IMC
show ipv6 pim interface IPV6, IMC
show ipv6 pim join-prune statistic IPV6, IMC
show ipv6 pim limit IPV6, IMC
show ipv6 pim neighbor IPV6, IMC
show ipv6 pim range-list IPV6, IMC
show ipv6 pim topology IPV6, IMC
show ipv6 pim traffic IPV6, IMC
show ipv6 pim tunnel IPV6, IMC
show ipv6 policy IPV6, IRI
show ipv6 port-map IPV6, SEC
show ipv6 prefix-list IPV6, SEC
show ipv6 protocols IPV6
show ipv6 rip IPV6
show ipv6 route IPV6, IRI
show ipv6 route shortcut IPV6, IRI
show ipv6 route summary IPV6, IRI
show ipv6 route tag EIGRP, IRI

show ipv6 route vrf **IPV6, IRI, MP**
show ipv6 routers **IPV6**
show ipv6 rpf **IPV6, IMC**
show ipv6 snooping capture-policy **IPV6, SEC**
show ipv6 snooping counters **IPV6, SEC**
show ipv6 snooping features **IPV6, SEC**
show ipv6 snooping policies **IPV6, SEC**
show ipv6 source-guard policy **IPV6**
show ipv6 spd **IPV6, SEC**
show ipv6 static **IPV6**
show ipv6 through udp-port **IMC**
show ipv6 traffic **IPV6**
show ipv6 tunnel **IPV6**
show ipv6 virtual-reassembly **IPV6, SEC**
show ipv6 virtual-reassembly features **IPV6, SEC**
show ipv6 wccp **IPV6**
show ipv6 wccp global counters **IPV6**
show ipx access-list **IPX**
show ipx accounting **IPX**
show ipx cache **IPX**
show ipx compression **DIA**
show ipx eigrp interfaces **IPX**
show ipx eigrp neighbors **IPX**
show ipx eigrp topology **IPX**
show ipx eigrp traffic **IPX**
show ipx interface **IPX**
show ipx nasi connections **IPX**
show ipx nhrp **IPX**
show ipx nhrp traffic **IPX**
show ipx nlsp database **IPX**
show ipx nlsp neighbors **IPX**
show ipx nlsp spf-log **IPX**
show ipx route **IPX**
show ipx servers **IPX**
show ipx spx-protocol **DIA**
show ipx spx-spoof **IPX**

■ show eap registrations through show mvr source ports

show ipx traffic **IPX**
show isdn **DIA**
show isdn nfas group **DIA**
show isis database **IRS, IPV6**
show isis database verbose **IRS, MP**
show isis fast-reroute **IRS, IRI**
show isis hostname **IRS**
show isis ip rib **IRS**
show isis ipv6 rib **IPV6**
show isis lsp-log **IRS**
show isis mpls ldp **MP**
show isis mpls traffic-eng adjacency-log **MP**
show isis mpls traffic-eng advertisements **MP**
show isis mpls traffic-eng downstream-tree **MP**
show isis mpls traffic-eng tunnel **MP**
show isis neighbors **IRS, MTR**
show isis nsf **IRS, HA**
show isis rib **IRS**
show isis rib redistribution **IRS**
show isis route **ISO**
show isis spf-log **IRS, IPV6**
show isis topology **IRS, IPV6**
show issu **HA**
show issu clients **MP, HA**
show issu comp-matrix **HA**
show issu entities **MP, HA**
show issu message types **MP, HA**
show issu negotiated **MP, HA**
show issu outage **HA**
show issu patch **HA**
show issu platform img-dnld **HA**
show issu rollback timer **HA**
show issu sessions **MP, HA**
show issu state **HA**
show iua as **VR**
show iua asp **VR**

show kerberos creds **SEC**
show key chain **IRI, IPV6**
show keymap **TSV**
show kron schedule **CNS**
show l2cac **WAN**
show l2fib **WAN**
show l2protocol-tunnel **IR**
show l2tp class **VPD**
show l2tp counters **VPD**
show l2tp memory **VPD**
show l2tp redundancy **VPD**
show l2tp session **VPD, IPV6**
show l2tp tunnel **VPD, IPV6**
show l2tun **WAN**
show l2tun counters tunnel l2tp **WAN**
show l2tun session **WAN, IPV6**
show l2tun tunnel **WAN**
show l2vpn atom binding **MP**
show l2vpn atom checkpoint **MP**
show l2vpn atom hw-capability **MP**
show l2vpn atom memory **MP**
show l2vpn atom pwid **MP**
show l2vpn atom static-oam **MP**
show l2vpn atom summary **MP**
show l2vpn atom vc **MP**
show l2vpn pwmib **MP**
show l2vpn rib **MP**
show l2vpn service **MP**
show l2vpn signaling rib **MP**
show l2vpn vfi **MP**
show l3-mgr **IR**
show l3vpn encapsulation ip **IR**
show l4f **WAN**
show lacp **IR, CE**
show lane **ATM**
show lane bus **ATM**

show eap registrations through show mvr source ports

show lane bus through vc-class atm [ATM](#)
show lane client [ATM](#)
show lane config [ATM](#)
show lane database [ATM](#)
show lane default-atm-addresses [ATM](#)
show lane le-arp [ATM](#)
show lane neighbor [ATM](#)
show lane qos database [QOS](#)
show lane server [ATM](#)
show lat advertised [TSV](#)
show lat groups [TSV](#)
show lat nodes [TSV](#)
show lat services [TSV](#)
show lat sessions [TSV](#)
show lat traffic [TSV](#)
show ldap attributes [SEC](#)
show ldap server [SEC](#)
show license [CSA](#)
show license call-home [CSA](#)
show license right-to-use [CSA](#)
show license statistics [CSA](#)
show license through snmp-server host [CSA](#)
show line [TSV](#)
show line async-queue [DIA](#)
show line autodetect [TSV](#)
show line x121-address [WAN](#)
show link state group [IR](#)
show lisp [LISP](#)
show lisp ddt [LISP](#)
show lisp locator-table [LISP](#)
show lisp site [LISP](#)
show llc2 [IBM](#)
show lldp [CE](#)
show lnm bridge [BR, IBM](#)
show lnm config [BR, IBM](#)
show lnm interface [BR, IBM](#)

show lnm ring **BR, IBM**
show lnm station **BR, IBM**
show local-ack **IBM**
show location **CF**
show logging **CF**
show logging count **CF**
show logging history **CF**
show logging ip access-list **IAD, SEC**
show logging persistent **ESM**
show logging system **CF**
show logging xml **CF**
show login **SEC**
show mab **SEC**
show mac access-group interface **SEC**
show mac-address-table **SEC, LSW**
show mac-address-table aging-time **LSW**
show mac-address-table dynamic **IR, LSW**
show mac-address-table learning **LSW**
show mac-address-table static **LSW**
show mace metrics **WAN**
show management event **SNMP**
show management expression **SNMP**
show management-interface **SEC**
show mcsa statistics **IMO**
show mdm **EMM**
show mdns cache **IAD, WAN**
show mdns requests **IAD, WAN**
show mdns statistics **IAD, WAN**
show mdr download image **HA**
show media resource status **VR**
show mediocard **VR**
show mediatrace flow-specifier **MM**
show mediatrace initiator **MM**
show mediatrace path-specifier **MM**
show mediatrace profile perf-monitor **MM**
show mediatrace profile system **MM**

show eap registrations through show mvr source ports

show mediatrace responder app-health **MM**
show mediatrace responder sessions **MM**
show mediatrace session **MM**
show mediatrace session-params **MM**
show memory **CF**
show memory allocating-process **CF**
show memory dead **CF**
show memory debug incremental **DB, CF**
show memory debug leaks **DB, CF**
show memory debug references **DB, CF**
show memory debug unused **DB, CF**
show memory detailed **CF**
show memory ecc **CF**
show memory events **CF**
show memory failures alloc **CF**
show memory fast **CF**
show memory fragment **CF**
show memory lite-chunks **CF**
show memory multibus **CF**
show memory pci **CF**
show memory processor **CF**
show memory scan **CF**
show memory statistics history **CF**
show memory traceback **CF**
show memory transient **CF**
show metadata **MD**
show metadata application table **QOS, MD**
show metadata flow **QOS, MD**
show mgcp **VR**
show mgcp connection **VR**
show mgcp endpoint **VR**
show mgcp nas **VR**
show mgcp profile **VR**
show mgcp srtp **VR**
show mgcp statistics **VR**
show microcode **CF**

show mlrib common log [WAN](#)
show mlrib layer2 log [WAN](#)
show mls acl inconsistency [SEC](#)
show mls asic [IR](#)
show mls cef [ISW](#)
show mls cef adjacency [ISW](#)
show mls cef exact-route [ISW](#)
show mls cef exception [ISW](#)
show mls cef hardware [ISW](#)
show mls cef inconsistency [ISW](#)
show mls cef ip [ISW](#)
show mls cef ip multicast [ISW](#)
show mls cef ipv6 [ISW, IPV6](#)
show mls cef ipx [ISW](#)
show mls cef logging [ISW](#)
show mls cef lookup [ISW](#)
show mls cef mac [ISW](#)
show mls cef maximum-routes [ISW](#)
show mls cef mpls [ISW](#)
show mls cef mpls exact-route [MP](#)
show mls cef rpf [ISW](#)
show mls cef statistics [ISW](#)
show mls cef summary [ISW](#)
show mls cef vrf [ISW](#)
show mls df-table [LSW](#)
show mls ip [IR](#)
show mls ip cef rpf-table [ISW](#)
show mls ip multicast [IMC](#)
show mls ip multicast bidir [IMC](#)
show mls ip multicast rp-mapping [IMC](#)
show mls ip multicast sso [IMC](#)
show mls ip non-static [ISW, NF](#)
show mls ip routes [ISW, NF](#)
show mls ip static [ISW, NF](#)
show mls ip statistics [ISW](#)
show mls ipx [IR](#)

■ show eap registrations through show mvr source ports

show mls masks **LSW**
show mls nde **NF**
show mls netflow **NF**
show mls netflow ip **NF**
show mls netflow ip dynamic **NF**
show mls netflow ip routes **NF**
show mls netflow ip sw-installed **NF**
show mls netflow ipv6 **NF, IPV6**
show mls netflow ipx **NF**
show mls qos **QOS**
show mls qos aggregate policer **QOS**
show mls qos free-agram **QOS**
show mls qos interface **QOS**
show mls qos maps **QOS**
show mls qos mpls **QOS**
show mls qos protocol **QOS**
show mls qos queuing interface **QOS**
show mls qos statistics-export info **QOS**
show mls qos through wrr-queue threshold **QOS**
show mls rate-limit **SEC**
show mls rp **LSW**
show mls rp interface **LSW**
show mls rp ip multicast **LSW**
show mls rp ipx **LSW**
show mls rp vtp-domain **LSW**
show mls sampling **NF**
show mls statistics **CF**
show mls table-contention **ISW**
show mmpls igmp explicit-tracking **LSW**
show mmpls msc **LSW**
show mobility **IR**
show modem **DIA**
show modem at-mode **DIA**
show modem bundled-firmware **DIA**
show modem call-stats **DIA**
show modem calltracker **DIA**

show modem configuration [DIA](#)
show modem configuration (pvdm2) [DIA](#)
show modem connect-speeds [DIA](#)
show modem cookie [DIA](#)
show modem csm [DIA](#)
show modem log [DIA](#)
show modem log (pvdm2) [DIA](#)
show modem mapping [DIA](#)
show modem mica [DIA](#)
show modem operational-status [DIA](#)
show modem operational-status (pvdm2) [DIA](#)
show modem relay statistics [VR](#)
show modem summary [DIA](#)
show modem test [DIA](#)
show modem version [DIA](#)
show modem version (pvdm2) [DIA](#)
show modem-pool [DIA](#)
show modemcap [DIA](#)
show module [CF](#), [IR](#)
show monitor capture [EPC](#)
show monitor event-trace [ISW](#), [IRI](#), [CF](#)
show monitor event-trace adjacency [ISW](#)
show monitor event-trace cef [ISW](#)
show monitor event-trace cef events [ISW](#)
show monitor event-trace cef interface [ISW](#)
show monitor event-trace cef ipv4 [ISW](#)
show monitor event-trace cef ipv6 [ISW](#), [IPV6](#)
show monitor event-trace continuous [ISW](#)
show monitor event-trace cpu-report [ISW](#)
show monitor event-trace dmvpn [SEC](#)
show monitor event-trace gdoi [SEC](#), [CF](#)
show monitor event-trace hw-api [ISW](#)
show monitor event-trace merged-list [ISW](#)
show monitor event-trace sbc [HA](#)
show monitor event-trace sbc ha [SBCD](#)
show monitor event-trace vpn-mapper [IPV6](#)

show eap registrations through show mvr source ports

show monitor permit list through show process memory **CF**
show monitor permit-list **CF**
show monitor session **CF**
show mpf cpu **BBA**
show mpf interface **BBA**
show mpf ip exact-route **BBA**
show mpf punt **BBA**
show mpls atm-ldp bindings **MP**
show mpls atm-ldp bindwait **MP**
show mpls atm-ldp capability **MP**
show mpls atm-ldp summary **MP**
show mpls cos-map **MP**
show mpls discovery vpn **SLA**
show mpls flow mappings **MP**
show mpls forwarding vrf **MP**
show mpls forwarding-table **MP, IPV6**
show mpls forwarding-table exact-route **MP**
show mpls infra lfd block-database **MP**
show mpls interfaces **MP**
show mpls ip binding **MP**
show mpls ip iprm counters **MP, HA**
show mpls ip iprm ldm **MP, HA**
show mpls ip iprm statistics **MP**
show mpls l2 vc detail **MP**
show mpls l2transport binding **MP**
show mpls l2transport checkpoint **MP, WAN**
show mpls l2transport hw-capability **MP**
show mpls l2transport static-oam **MP**
show mpls l2transport summary **MP**
show mpls l2transport vc **MP**
show mpls label range **MP**
show mpls ldp backoff **MP**
show mpls ldp bindings **MP**
show mpls ldp capabilities **MP**
show mpls ldp checkpoint **MP**
show mpls ldp discovery **MP**

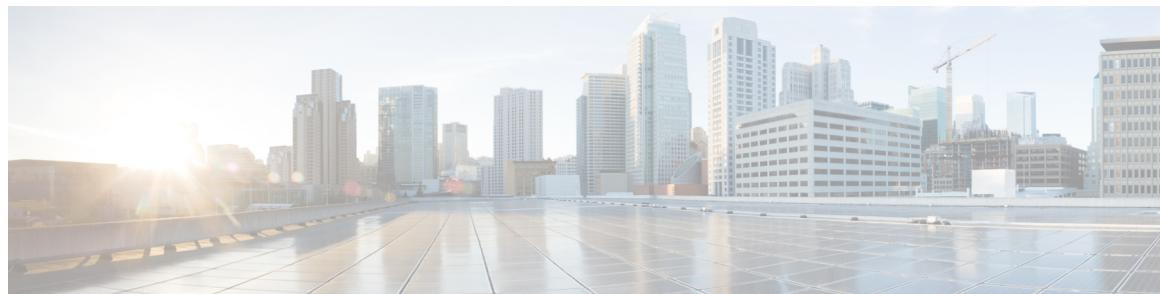
show mpls ldp graceful-restart MP
show mpls ldp igr sync MP
show mpls ldp neighbor MP
show mpls ldp neighbor password MP
show mpls ldp nsr MP
show mpls ldp parameters MP
show mpls memory MP
show mpls mldp bindings IMC
show mpls mldp count IMC
show mpls mldp database IMC
show mpls mldp filter IMC
show mpls mldp ha count IMC
show mpls mldp ha database IMC
show mpls mldp ha neighbors IMC
show mpls mldp ha root IMC
show mpls mldp interface IMC
show mpls mldp label release IMC
show mpls mldp neighbors IMC
show mpls mldp root IMC
show mpls oam echo statistics MP
show mpls oam echo statistics through switching tlv MP
show mpls platform MP
show mpls prefix-map MP
show mpls static binding MP
show mpls static crossconnect MP
show mpls tp link-management admission-control failures MP
show mpls traffic tunnel backup MP
show mpls traffic-eng auto-tunnel backup MP
show mpls traffic-eng auto-tunnel mesh MP
show mpls traffic-eng auto-tunnel primary MP
show mpls traffic-eng autoroute MP
show mpls traffic-eng destination list MP
show mpls traffic-eng exp MP
show mpls traffic-eng fast-reroute database MP
show mpls traffic-eng fast-reroute log reroutes MP
show mpls traffic-eng forwarding path-set MP

show eap registrations through show mvr source ports

show mpls traffic-eng forwarding statistics MP
show mpls traffic-eng forwarding-adjacency MP
show mpls traffic-eng link-management admission-control MP
show mpls traffic-eng link-management advertisements MP
show mpls traffic-eng link-management bandwidth-allocation MP
show mpls traffic-eng link-management igp-neighbors MP
show mpls traffic-eng link-management interfaces MP
show mpls traffic-eng link-management summary MP
show mpls traffic-eng lsp attributes MP
show mpls traffic-eng nsr MP
show mpls traffic-eng process-restart iprouting MP
show mpls traffic-eng topology MP
show mpls traffic-eng topology path MP
show mpls traffic-eng tunnels MP
show mpls traffic-eng tunnels statistics MP
show mpls traffic-eng tunnels summary MP
show mpls ttfib MP
show mpoa client ATM
show mpoa client cache ATM
show mpoa client statistics ATM
show mpoa default-atm-addresses ATM
show mpoa server ATM
show mpoa server cache ATM
show mpoa server statistics ATM
show mrcp client session active VR
show mrcp client session active through show sip dhcp VR
show mrcp client session history VR
show mrcp client statistics hostname VR
show msfc CF, IR
show mtm table MTR
show mux IMO
show mux cache IMO
show mux interface IMO
show mux profile IMO
show mvr LSW
show mvr groups LSW

show mvr interface LSW
show mvr members LSW
show mvr receiver ports LSW
show mvr source ports LSW

show eap registrations through show mvr source ports



show mvrp interface through snmp-server enable traps ospf rate-limit

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Finding IOS Command Information

First Published: February 2008

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 14: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference

CF	Cisco IOS Configuration Fundamentals Command Reference
CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

show mvrp interface through snmp-server enable traps ospf rate-limit

show mvrp interface through snmp-server enable traps ospf rate-limit

S

show mvrp interface LSW
show mvrp module LSW
show mvrp summary LSW
show mwi relay clients VR
show nat64 IAD
show nat64 adjacency IAD
show nat64 aliases IAD
show nat64 ha status IAD
show nat64 limits IAD
show nat64 map-t IAD
show nat64 mappings dynamic IAD
show nat64 pools IAD
show nat64 prefix stateless IAD
show nat64 prefix stateful IAD
show nat64 prefix stateless IAD
show nat64 routes IAD
show nat64 services IAD
show nat64 statistics IAD
show nat64 timeouts IAD
show nat64 translations IAD
show nat64 translations entry-type IAD
show nat64 translations redundancy IAD
show nat64 translations time IAD
show nat64 translations total IAD
show nat64 translations v4 IAD
show nat64 translations v6 IAD
show nat64 translations verbose IAD
show nbft cache DIA
show nbft sessions DIA
show ncia circuits IBM
show ncia client IBM

show ncia server IBM
show netbios-cache BR, IBM
show netconf CNS
show network-clocks ATM, IR
show nextport VR
show nextport vpd VR
show nhrp debug-condition IAD
show nhrp group-map IAD
show nls CBL
show nls ag-id CBL
show nls flow CBL
show nmsp CE
show node TSV
show ntp associations BSM, IPV6
show ntp info BSM
show ntp packets BSM
show ntp status BSM, IPV6
show num-exp VR
show object-group SEC
show odm-format XMLPI
show oer api client OER
show oer api provider OER
show oer border OER
show oer border active-probes OER
show oer border defined application OER
show oer border passive applications OER
show oer border passive cache OER
show oer border passive learn OER
show oer border passive prefixes OER
show oer border routes OER
show oer master OER
show oer master active-probes OER
show oer master appl OER
show oer master border OER
show oer master cost-minimization OER
show oer master defined application OER

```
■ show mvrp interface through snmp-server enable traps ospf rate-limit
```

show oer master learn list **OER**
show oer master link-group **OER**
show oer master nbar application **OER**
show oer master policy **OER**
show oer master prefix **OER**
show oer master traffic-class **OER**
show oer master traffic-class application nbar **OER**
show oer proxy **OER**
show ospfv3 border-routers **IPV6**
show ospfv3 database **IPV6**
show ospfv3 events **IPV6**
show ospfv3 flood-list **IPV6**
show ospfv3 graceful-restart **IPV6**
show ospfv3 interface **IPV6**
show ospfv3 max-metric **IPV6**
show ospfv3 neighbor **IPV6**
show ospfv3 request-list **IPV6**
show ospfv3 retransmission-list **IPV6**
show ospfv3 sham-links **OSPF**
show ospfv3 statistic **IPV6**
show ospfv3 summary-prefix **IPV6**
show ospfv3 timers rate-limit **IPV6**
show ospfv3 traffic **IPV6**
show ospfv3 virtual-links **IPV6**
show otv **WAN**
show otv adjacency **WAN**
show otv adjacency-server replication-list **WAN**
show otv arp-nd-cache **WAN**
show otv data-group **WAN**
show otv isis database **WAN**
show otv isis hostname **WAN**
show otv isis lsp-log **WAN**
show otv isis neighbors **WAN**
show otv isis nsf **WAN**
show otv isis protocol **WAN**
show otv isis rib **WAN**

show otv isis spf-log **WAN**
show otv isis vlan-database **WAN**
show otv log **WAN**
show otv mroute **WAN**
show otv route **WAN**
show otv site **WAN**
show otv statistics **WAN**
show otv summary **WAN**
show otv vlan **WAN**
show packetcable cms **CBL**
show packetcable event **CBL**
show packetcable gate **CBL**
show packetcable gate counter commit **CBL**
show packetcable gate ipv6 **CBL**
show packetcable gate multimedia **CBL**
show packetcable global **CBL**
show pagp **CF, IR**
show parameter-map type inspect **SEC**
show parameter-map type consent **SEC**
show parameter-map type consent through show users **SEC**
show parameter-map type inspect **SEC**
show parameter-map type inspect-global **SEC**
show parameter-map type inspect-vrf **SEC**
show parameter-map type inspect-zone **SEC**
show parameter-map type ooo global **SEC**
show parameter-map type protocol-info **SEC**
show parameter-map type regex **SEC**
show parameter-map type trend-global **SEC**
show parameter-map type urlf-glob **SEC**
show parameter-map type urlfilter **SEC**
show parameter-map type urlfpolicy **SEC**
show parameter-map type waas **WAN**
show parser dump **CF**
show parser macro **CF**
show parser statistics **CF**
show parser view **SEC**

■ show mvrp interface through snmp-server enable traps ospf rate-limit

show pas caim **IR**
show pas eswitch address **IR**
show pas i82543 interface **IR**
show pas isa controller **IR**
show pas isa interface **IR**
show pas vam controller **IR**
show pas vam interface **IR**
show pas y88e8k interface **IR**
show pci **CF**
show pci aim **IR**
show pci hardware **CF**
show perf-meas **CF**
show performance monitor aggregated **MM**
show performance monitor cache **MM**
show performance monitor clients **MM**
show performance monitor clock rate **MM**
show performance monitor history **MM**
show performance monitor status **MM**
show pfr api provider **PFR**
show pfr border **PFR**
show pfr border active-probes **PFR**
show pfr border defined application **PFR**
show pfr border passive applications **PFR**
show pfr border passive cache learned **PFR**
show pfr border passive learn **PFR**
show pfr border passive prefixes **PFR**
show pfr border routes **PFR**
show pfr border rsvp **PFR**
show pfr master **PFR**
show pfr master active-probes **PFR**
show pfr master appl **PFR**
show pfr master bandwidth-resolution **PFR**
show pfr master border **PFR**
show pfr master cost-minimization **PFR**
show pfr master defined application **PFR**
show pfr master exits **PFR**

show pfr master export statistics **PFR**
show pfr master learn list **PFR**
show pfr master link-group **PFR**
show pfr master nbar application **PFR**
show pfr master policy **PFR**
show pfr master prefix **PFR**
show pfr master statistics **PFR**
show pfr master target-discovery **PFR**
show pfr master traffic-class **PFR**
show pfr master traffic-class application nbar **PFR**
show pfr master traffic-class performance **PFR**
show pfr proxy **PFR**
show piafs status **VR**
show plat hardware qfp active feature ess state pppoe **DIA**
show platform **CF, IR**
show platform hardware qfp active feature ipsec **SEC**
show platform hardware qfp feature alg statistics sip **IAD, SEC**
show platform hardware qfp feature firewall **SEC**
show platform hardware qfp feature firewall datapath scb **SEC**
show platform software firewall **SEC**
show platform 6rd tunnel-endpt **IPV6**
show platform acl software-switched **IR**
show platform atom disp-tbl backup **IR**
show platform atom disp-tbl local-vc-label **IR**
show platform atom imp-tbl backup **IR**
show platform atom imp-tbl remote-vc-label **IR**
show platform atom tbl-summary **IR**
show platform bridge **CF**
show platform cfm **CF**
show platform diag **CF, IR**
show platform discover-devices **IR**
show platform dwdm alarm history **IR**
show platform flow **FNF**
show platform hardware acl entry global-qos **QOS**
show platform hardware acl entry interface **MM**
show platform hardware capacity **CF, IR**

show mvrp interface through snmp-server enable traps ospf rate-limit

show platform hardware capacity rewrite-engine **IR**
show platform hardware interface **IR**
show platform hardware network-clocks **IR**
show platform hardware pp active infrastructure pi npd rx policer **QOS**
show platform hardware qfp feature alg **SEC**
show platform hardware qfp act feature ipsec datapath memory **SEC**
show platform hardware qfp active feature cef-mpls prefix ip **IRI, IR**
show platform hardware qfp active feature cef-mpls prefix ipv6 **IRI**
show platform hardware qfp active feature cef-mpls prefix mpls **IRI, IR**
show platform hardware qfp active feature cef-mpls urpf **IR**
show platform hardware qfp active feature multicast **IR**
show platform hardware qfp active feature pbr **PFR**
show platform hardware qfp active feature qos config global **QOS**
show platform hardware qfp active feature sbc sfx **SBCD**
show platform hardware qfp active feature wccp **IAP**
show platform hardware qfp active interface if-name statistics **IR**
show platform hardware qfp feature **IAD, SEC**
show platform hardware qfp feature otv client interface **WAN**
show platform hardware qfp feature td **SEC**
show platform hardware qfp interface **IR**
show platform hardware qfp statistics drop **IR**
show platform hardware slot **IR**
show platform hardware subslot **IR**
show platform hardware subslot (4400) **IR**
show platform hardware throughput level **IR**
show platform hardware transceiver **IR**
show platform isg **CF**
show platform isg memory **IR**
show platform isg session **ISG**
show platform isg session-count **ISG**
show platform lowq **QOS**
show platform mgf **IR**
show platform oam **CF**
show platform process slot **CF, IR**
show platform qos policy-map **QOS**
show platform redundancy **CF**

show platform redundancy bias **HA**
show platform slot r0 pcie status **IR**
show platform software ccm **MM**
show platform software configuration access policy **TSV**
show platform software ethernet f0 efp **MP**
show platform software ethernet f1 efp **MP**
show platform software feature-manager performance-monitor **MM**
show platform software feature-manager tcam **MM**
show platform software filesystem **CF**
show platform software frame-relay **WAN**
show platform software infrastructure lsmpi **WL**
show platform software infrastructure punt statistics **QOS**
show platform software infrastructure punt-keepalive **IR**
show platform software interface summary **IR**
show platform software ipsec f0 encryption-processor registers **SEC**
show platform software ipsec fp active flow **SEC**
show platform software ipsec fp active spd-map **SEC**
show platform software ipsec policy statistics **SEC**
show platform software ipv6-multicast **IPV6**
show platform software l2fib fp **WAN**
show platform software l2fib rp **WAN**
show platform software memory **CF, IR**
show platform software mfr **WAN**
show platform software mount **CF, IR**
show platform software mpls **MP**
show platform software multicast ip bidir **IMC**
show platform software multicast ip capability **IMC**
show platform software multicast ip complete **IMC**
show platform software multicast ip connected **IMC**
show platform software multicast ip interface **IMC**
show platform software multicast ip partial **IMC**
show platform software multicast ip source **IMC**
show platform software multicast ip statistics **IMC**
show platform software multicast ip summary **IMC**
show platform software multicast ip vrf **IMC**
show platform software otv fp **WAN**

■ show mvrp interface through snmp-server enable traps ospf rate-limit

show platform software pbr **PFR**
show platform software process list **CF, IR**
show platform software process memory **IR**
show platform software route-map **PFR**
show platform software snapshot status **CF**
show platform software status control-processor **IR, LSW**
show platform software tech-support **CF, IR**
show platform software trace message **IAD**
show platform software urpf qfp active configuration **SEC**
show platform software vnic-if interface-mapping **IR**
show platform software vpn **IPV6, MP**
show platform software wccp **IAP**
show platform subscriber-group **CF**
show platform supervisor **CF**
show platform time-source **IR**
show plim fpga **IR**
show policy-firewall config **SEC**
show policy-firewall mib **SEC**
show policy-firewall session **SEC**
show policy-firewall stats **SEC**
show policy-firewall stats vrf **SEC**
show policy-firewall stats vrf global **SEC**
show policy-firewall stats zone **SEC**
show policy-firewall summary-log **SEC**
show policy-manager events **QOS**
show policy-manager policy **QOS**
show policy-map **QOS**
show policy-map apn **MWG**
show policy-map class **QOS**
show policy-map control-plane **QOS**
show policy-map interface **MP, QOS, IR**
show policy-map interface brief **QOS**
show policy-map interface service group **QOS**
show policy-map interface service instance **QOS**
show policy-map mgre **QOS**
show policy-map multipoint **QOS**

show policy-map session **QOS**
show policy-map target service-group **QOS**
show policy-map type access-control **QOS**
show policy-map type class-routing ipv4 unicast **MTR**
show policy-map type control **ISG**
show policy-map type inspect **SEC**
show policy-map type inspect urlfilter **SEC**
show policy-map type inspect zone-pair **SEC**
show policy-map type inspect zone-pair urlfilter **SEC**
show policy-map type mace **WAN**
show policy-map type nat **QOS**
show policy-map type performance-monitor **MM**
show policy-map type port-filter **QOS**
show policy-map type service **ISG**
show policy-map type waas **WAN**
show port config **DIA**
show port digital log **DIA**
show port flowcontrol **LSW**
show port log **DIA**
show port modem calltracker **DIA**
show port modem log **DIA**
show port modem test **DIA**
show port operational-status **DIA**
show port-security **SEC**
show pots csm **VR**
show pots status **VR**
show pots volume **VR**
show power **CF, IR**
show power inline **IR**
show ppp atm trace **BBA**
show ppp bap **DIA**
show ppp interface **BBA**
show ppp mppe **VPD**
show ppp multilink **DIA**
show ppp mux **MWR**
show ppp queues **SEC**

■ show mvrp interface through snmp-server enable traps ospf rate-limit

show ppp subscriber statistics **BBA**
show pppatm redundancy **BBA**
show pppatm session **BBA**
show pppatm statistics **BBA**
show pppatm summary **BBA**
show pppoe debug conditions **BBA**
show pppoe derived **BBA**
show pppoe redundancy **BBA**
show pppoe relay context all **BBA**
show pppoe session **SEC, BBA**
show pppoe statistics **BBA**
show pppoe summary **BBA**
show pppoe throttled mac **BBA**
show presence global **VR**
show presence subscription **VR**
show private-hosts access-lists **SEC**
show private-hosts configuration **SEC**
show private-hosts interface configuration **SEC**
show private-hosts mac-list **SEC**
show privilege **SEC**
show processes **CF**
show processes cpu **CF**
show processes cpu monitor **ISG**
show processes detailed **CF**
show processes interrupt mask buffer **CF**
show processes interrupt mask detail **CF**
show processes memory **CF**
show profile device **MSP**
show profile flow **MSP**
show protocol phdf **QOS**
show protocols **CF**
show protocols through showmon **CF**
show proxy h323 calls **VR**
show proxy h323 detail-call **VR**
show proxy h323 status **VR**
show ptcp clock dataset **IR, CE**

show ptp clock dataset parent **IR, CE**
show ptp clock dataset time-properties **IR, CE**
show ptp clock running **IR, CE**
show ptp port dataset foreign-master **IR, CE**
show ptp port dataset port **IR, CE**
show pw-udp vc **MP**
show pxf accounting **ISW**
show pxf accounting through test cef table consistency **ISW**
show pxf cable **CBL**
show pxf cable controller **CBL**
show pxf cable feature **CBL**
show pxf cable interface **CBL**
show pxf cable multicast **CBL**
show pxf cpu **CBL**
show pxf cpu access-lists **ISW, IR**
show pxf cpu atom **ISW**
show pxf cpu bba **ISW**
show pxf cpu buffers **ISW**
show pxf cpu cef **ISW**
show pxf cpu context **ISW**
show pxf cpu drl-trusted-sites **CBL**
show pxf cpu feedback **ISW**
show pxf cpu iedge **ISW, IR, ISG**
show pxf cpu ipv6 **ISW**
show pxf cpu isg **ISG**
show pxf cpu mpls **ISW**
show pxf cpu mroute **ISW**
show pxf cpu pbr action **ISW**
show pxf cpu police **ISW**
show pxf cpu policy-data **ISW**
show pxf cpu qos **ISW, IR**
show pxf cpu queue **ISW, CBL**
show pxf cpu queue wb-spa **CBL**
show pxf cpu reasm_index **ISW**
show pxf cpu statistics **ISW, BR, CBL**
show pxf cpu statistics drl ipv4 **CBL**

■ show mvrp interface through snmp-server enable traps ospf rate-limit

show pxf cpu statistics drl ipv6 CBL
show pxf cpu statistics drl us-cable CBL
show pxf cpu subblock BR
show pxf cpu subblocks ISW
show pxf cpu tbridge BR
show pxf cpu vcci ISW
show pxf crash ISW
show pxf dma ISW, IR, CBL
show pxf feature cef ISW
show pxf feature cef vrf ISW
show pxf feature nat ISW
show pxf interface ISW
show pxf max-logical-interfaces IR
show pxf microcode ISW, CBL
show pxf netflow ISW
show pxf stall-monitoring ISW
show pxf statistics ISW
show pxf xcm ISW, CBL
show qbm client QOS
show qbm pool QOS
show qdm status QOS
show qlc IBM
show qm-sp port-data IR
show queue QOS
show queueing QOS
show queueing interface QOS
show queuing virtual-access DIA
show radius local-server statistics SEC, WL
show radius server-group SEC
show radius statistics SEC
show radius table attributes SEC
show radius-proxy client ISG
show radius-proxy session ISG
show random-detect-group QOS
show raw VR
show rawmsg VR

show rbscp IR
show rapi status DIA
show record-storage-module stats MWG
show record-storage-module target-info MWG
show redirect group ISG
show redirect translations ISG
show redundancy IR, HA
show redundancy (HSA redundancy) IR
show redundancy (ubr10012) CBL
show redundancy application asymmetric-routing SEC
show redundancy application control-interface group IAD, SEC
show redundancy application data-interface IAD, SEC
show redundancy application faults group IAD, SEC
show redundancy application group IAD, SEC
show redundancy application if-mgr IAD, SEC
show redundancy application protocol IAD, SEC
show redundancy application transport IAD, SEC
show redundancy config-sync CBL, HA
show redundancy config-sync ignored failures mcl HA
show redundancy interlink IR
show redundancy linecard-group SEC
show redundancy platform CBL
show region CF
show registry CF
show reload CF
show rep topology LSW
show resource all ERM
show resource database ERM
show resource owner ERM
show resource relationship ERM
show resource user ERM
show resource-pool call DIA
show resource-pool customer DIA
show resource-pool discriminator DIA
show resource-pool queue CF
show resource-pool resource DIA

show mvrp interface through snmp-server enable traps ospf rate-limit

show resource-pool vpdn VPD, DIA
show rgf groups WAN
show rgf history WAN
show rgf statistics WAN
show rhosts CF
show rif BR, IBM
show rlm group statistics VR
show rlm group status VR
show rlm group timer VR
show rmon RMON
show rmon alarms RMON
show rmon capture RMON
show rmon events RMON
show rmon filter RMON
show rmon hc-alarms RMON
show rmon history RMON
show rmon hosts RMON
show rmon matrix RMON
show rmon statistics RMON
show rmon topn RMON
show rom-monitor CF
show rom-monitor slot CF
show route-map IRI, IPV6
show route-map ipc ISW
show route-tag list EIGRP, IRI
show router-guard IMC
show rpc IR
show rpms-proc counters VR
show rtppsi VR
show rtr application SLA
show rtr authentication SLA
show rtr collection-statistics SLA
show rtr configuration SLA
show rtr distributions-statistics SLA
show rtr enhanced-history collection-statistics SLA
show rtr enhanced-history distribution-statistics SLA

show rtr group schedule **SLA**
show rtr history **SLA**
show rtr mpls-lsp-monitor configuration **SLA**
show rtr mpls-lsp-monitor neighbors **SLA**
show rtr mpls-lsp-monitor scan-queue **SLA**
show rtr operational-state **SLA**
show rtr reaction-configuration **SLA**
show rtr reaction-trigger **SLA**
show rtr responder **SLA**
show rtr totals-statistics **SLA**
show rtsp client session **VR**
show rudpv0 failures **VR**
show rudpv0 statistics **VR**
show rudpv1 **VR**
show running identity policy **CF**
show running identity profile **CF**
show running interface auto-template **MP**
show running-config **SEC, CF**
show running-config control-plane **CF**
show running-config interface cable **CBL**
show running-config map-class **CF**
show running-config partition **CF**
show running-config service-group **QOS**
show running-config vnet **EVN**
show running-config vrf **IAD, MP, SEC**
show sampler **FNF**
show sasl **SEC**
show sbc **SBCD**
show sbc dbe addresses **SBCD**
show sbc dbe addresses (session border controller) **SBCD**
show sbc dbe controllers **SBCD**
show sbc dbe controllers (session border controller) **SBCD**
show sbc dbe flow-stats **SBCD**
show sbc dbe flow-stats (session border controller) **SBCD**
show sbc dbe forwarder-stats **SBCD**
show sbc dbe forwarder-stats (session border controller) **SBCD**

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■ show mvrp interface through snmp-server enable traps ospf rate-limit
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show sbcdbe h248-profile **SBCD**
show sbcdbe history **SBCD**
show sbcdbe media-flow-stats **SBCD**
show sbcdbe media-flow-stats (session border controller) **SBCD**
show sbcdbe media-stats (session border controller) **SBCD**
show sbcdbe signaling-flow-stats **SBCD**
show sbcdbe signaling-flow-stats (session border controller) **SBCD**
show sbch248 bac **SBCD**
show sbcrg **SBCD**
show sbcrsrcmon **SBCD**
show sbcsbe aaa **SBCD**
show sbcsbe addresses **SBCD**
show sbcsbe adjacencies **SBCD**
show sbcsbe adjacencies authentication-realms **SBCD**
show sbcsbe admin-domain **SBCD**
show sbcsbe all-authentication-realms **SBCD**
show sbcsbe all-peers **SBCD**
show sbcsbe billing **SBCD**
show sbcsbe blacklist **SBCD**
show sbcsbe blacklist configured-limits **SBCD**
show sbcsbe blacklist critical **SBCD**
show sbcsbe blacklist critical configured-limits **SBCD**
show sbcsbe blacklist critical current-blacklisting **SBCD**
show sbcsbe blacklist current-blacklisting **SBCD**
show sbcsbe cac-policy-set **SBCD**
show sbcsbe call branches **SBCD**
show sbcsbe call-policy-set **SBCD**
show sbcsbe call-policy-set (enum) **SBCD**
show sbcsbe call-policy-set default **SBCD**
show sbcsbe call-policy-set table entries **SBCD**
show sbcsbe call-policy-set table entry **SBCD**
show sbcsbe call-policy-set tables **SBCD**
show sbcsbe call-policy-sets **SBCD**
show sbcsbe call-rate-stats **SBCD**
show sbcsbe call-stats **SBCD**
show sbcsbe calls **SBCD**

show sbc sbe codec-list **SBCD**
show sbc sbe codecs **SBCD**
show sbc sbe diameter **SBCD**
show sbc sbe diameter peers **SBCD**
show sbc sbe diameter stats **SBCD**
show sbc sbe editors **SBCD**
show sbc sbe enum **SBCD**
show sbc sbe enum entry **SBCD**
show sbc sbe h323 timers **SBCD**
show sbc sbe hold-media-timeout **SBCD**
show sbc sbe hunting-trigger **SBCD**
show sbc sbe media-gateway-associations **SBCD**
show sbc sbe media-gateway-policy **SBCD**
show sbc sbe media-gateways **SBCD**
show sbc sbe media-policy **SBCD**
show sbc sbe policy-failure-stats **SBCD**
show sbc sbe policy-failure-stats dst-account **SBCD**
show sbc sbe policy-failure-stats dst-adjacency **SBCD**
show sbc sbe policy-failure-stats src-account **SBCD**
show sbc sbe policy-failure-stats src-adjacency **SBCD**
show sbc sbe qos-profiles **SBCD**
show sbc sbe radius-client-accounting accounting **SBCD**
show sbc sbe radius-client-accounting authentication **SBCD**
show sbc sbe radius-client-stats **SBCD**
show sbc sbe radius-server-stats **SBCD**
show sbc sbe redirect-limit **SBCD**
show sbc sbe resource-priority-sets **SBCD**
show sbc sbe script-set **SBCD**
show sbc sbe sdp-h245-mapping **SBCD**
show sbc sbe sdp-match-table **SBCD**
show sbc sbe sdp-policy-table **SBCD**
show sbc sbe sip body-editor **SBCD**
show sbc sbe sip body-profile **SBCD**
show sbc sbe sip delegate-profiles **SBCD**
show sbc sbe sip error-profile **SBCD**
show sbc sbe sip essential-headers **SBCD**

show mvrp interface through snmp-server enable traps ospf rate-limit

show sbc sbe sip essential-methods **SBCD**
show sbc sbe sip essential-options **SBCD**
show sbc sbe sip fast-register-stats **SBCD**
show sbc sbe sip header-editor **SBCD**
show sbc sbe sip header-profile **SBCD**
show sbc sbe sip header-profiles **SBCD**
show sbc sbe sip ip-fqdn-mapping **SBCD**
show sbc sbe sip method-editor **SBCD**
show sbc sbe sip method-profile **SBCD**
show sbc sbe sip method-profiles **SBCD**
show sbc sbe sip method-stats **SBCD**
show sbc sbe sip option-editor **SBCD**
show sbc sbe sip option-profile **SBCD**
show sbc sbe sip option-profiles **SBCD**
show sbc sbe sip parameter-editor **SBCD**
show sbc sbe sip sdp-match-table **SBCD**
show sbc sbe sip sdp-media-profile **SBCD**
show sbc sbe sip sdp-policy-table **SBCD**
show sbc sbe sip statistics **SBCD**
show sbc sbe sip subscribers **SBCD**
show sbc sbe sip timers **SBCD**
show sbc sbe stream-list **SBCD**
show sbc sbe subscriber-stats **SBCD**
show sbc sbe transcoding-stats **SBCD**
show sbc services **SBCD**
show sccp **IPV6, VR**
show sccp ccm group **VR**
show sccp connections details **VR**
show sccp connections internal **VR**
show sccp connections rsvp **VR**
show sccp connections summary **VR**
show sccp server statistics **VR**
show scp **CF, IR**
show sctp association **IAP**
show sctp association list **IAP**
show sctp association parameters **IAP**

show sctp association statistics [IAP](#)
show sctp errors [IAP](#)
show sctp instance [IAP](#)
show sctp instances [IAP](#)
show sctp statistics [IAP](#)
show sdlc local-ack [IBM](#)
show sdspfarm [VR](#)
show secure bootset [SEC](#)
show service [TSV](#)
show service-group [QOS](#)
show service-group interface [QOS](#)
show service-group state [QOS](#)
show service-group stats [QOS](#)
show service-group traffic-stats [QOS](#)
show service-module serial [IR](#)
show service-module serial through standby port [IR](#)
show service-routing capabilities-manager [SAF](#)
show service-routing capabilities-manager internal [SAF](#)
show service-routing plugins capman [SAF](#)
show service-routing xmcp clients [SAF](#)
show service-routing xmcp server [SAF](#)
show sessions [DIA](#)
show settlement [VR](#)
show sgbp [DIA](#)
show sgbp queries [DIA](#)
show sgcp connection [VR](#)
show sgcp endpoint [VR](#)
show sgcp statistics [VR](#)
show sgi [ISG](#)
show shared-line [VR](#)
show shell environment [IOS_SHL](#)
show shell functions [IOS_SHL](#)
show sip dhcp [VR](#)
show sip service [VR](#)
show sip service through show trunk hdlc [VR](#)
show sip-disk [IR](#)

■ show mvrp interface through snmp-server enable traps ospf rate-limit

show sip-ua calls **IPV6, VR**
show sip-ua connections **IPV6, VR**
show sip-ua map **VR**
show sip-ua min-se **VR**
show sip-ua mwi **VR**
show sip-ua register status **VR**
show sip-ua retry **VR**
show sip-ua service **VR**
show sip-ua statistics **VR**
show sip-ua status **IPV6, VR**
show sip-ua status refer-ood **VR**
show sip-ua timers **VR**
show slot **CF**
show slot0: **CF, IR**
show slot1: **CF**
show smds addresses **WAN**
show smds addresses through waas export **WAN**
show smds map **WAN**
show smds traffic **WAN**
show smf **IR**
show smm **SEC**
show smrp forward **ATK**
show smrp globals **ATK**
show smrp group **ATK**
show smrp mcache **ATK**
show smrp neighbor **ATK**
show smrp port **ATK**
show smrp route **ATK**
show smrp traffic **ATK**
show sna **IBM**
show snapshot **DIA**
show snasw class-of-service **IBM**
show snasw connection-network **IBM**
show snasw directory **IBM**
show snasw dltrace **IBM**
show snasw dlus **IBM**

show snasw ipstrace IBM
show snasw link IBM
show snasw lu IBM
show snasw mode IBM
show snasw node IBM
show snasw pdlog IBM
show snasw port IBM
show snasw pu IBM
show snasw rtp IBM
show snasw session IBM
show snasw statistics IBM
show snasw summary-ipstrace IBM
show snasw topology IBM
show snmp SNMP
show snmp chassis SNMP
show snmp community SNMP
show snmp contact SNMP
show snmp context mapping MTR
show snmp group SNMP
show snmp host SNMP
show snmp location SNMP
show snmp mib SNMP
show snmp mib bulkstat transfer SNMP
show snmp mib context SNMP
show snmp mib ifmib ifindex SNMP
show snmp mib ifmib traps SNMP
show snmp mib nhrp status SEC
show snmp mib notification-log SNMP
show snmp pending SNMP
show snmp sessions SNMP
show snmp stats oid SNMP
show snmp sysobjectid SNMP
show snmp user SNMP
show snmp view SNMP
show sntp BSM
show sockets IAP

show mvrp interface through snmp-server enable traps ospf rate-limit

show software package CF
show software authenticity file CF
show software authenticity keys CF
show software authenticity running CF
show software installer rollback-timer CF
show source-bridge BR, IBM
show span BR, IBM
show spanning-tree BR, IBM, LSW
show spanning-tree mst MP, LSW
show spantree BR, LSW
show spe DIA
show spe digital DIA
show spe digital active DIA
show spe digital csr DIA
show spe digital disconnect-reason DIA
show spe digital summary DIA
show spe log DIA
show spe modem DIA
show spe modem active DIA
show spe modem csr DIA
show spe modem disconnect-reason DIA
show spe modem high speed DIA
show spe modem high standard DIA
show spe modem low speed DIA
show spe modem low standard DIA
show spe modem summary DIA
show spe recovery DIA
show spe version DIA
show spe voice VR
show srp WAN
show srp IR
show ss7 mtp1 channel-id VR
show ss7 mtp1 links VR
show ss7 mtp2 ccb VR
show ss7 mtp2 state VR
show ss7 mtp2 stats VR

show ss7 mtp2 timer **VR**
show ss7 mtp2 variant **VR**
show ss7 sm session **VR**
show ss7 sm set **VR**
show ss7 sm stats **VR**
show sscop **ATM**
show sse summary **IPX**
show ssg auto-domain exclude-profile **SSG**
show ssg binding **SSG**
show ssg connection **SSG**
show ssg dial-out exclude-list **SSG**
show ssg direction **SSG**
show ssg host **SSG**
show ssg interface **SSG**
show ssg multidomain ppp exclude-list **SSG**
show ssg next-hop **SSG**
show ssg open-garden **SSG**
show ssg pass-through-filter **SSG**
show ssg pending-command **SSG**
show ssg port-map ip **SSG**
show ssg port-map status **SSG**
show ssg prepaid default-quota **SSG**
show ssg radius-proxy **SSG**
show ssg service **SSG**
show ssg summary **SSG**
show ssg tcp-redirect group **SSG**
show ssg user transparent **SSG**
show ssg user transparent authorizing **SSG**
show ssg user transparent passthrough **SSG**
show ssg user transparent suspect **SSG**
show ssg user transparent unidentified **SSG**
show ssg vc-service-map **SSG**
show ssh **SEC**
show ssl-proxy module state **SEC, LSW**
show ssm **ISG**
show ssm group **MP**

show mvrp interface through snmp-server enable traps ospf rate-limit

show sss circuits **BBA**
show sss session **BBA**
show stacks **CF**
show standby **FHP, IPV6**
show standby arp gratuitous **FHP**
show standby capability **FHP**
show standby delay **FHP**
show standby internal **FHP**
show standby neighbors **FHP**
show standby redirect **FHP**
show startup-config **CF**
show stcapp buffer-history **VR**
show stcapp device **IPV6, VR**
show stcapp feature codes **VR**
show stcapp statistics **VR**
show storm-control **IR**
show stun **IBM**
show subscriber default-session **ISG**
show subscriber policy dpm statistics **ISG**
show subscriber policy peer **ISG**
show subscriber policy ppm-shim-db **QOS**
show subscriber service **ISG**
show subscriber session **ISG**
show subscriber statistics **ISG**
show subscriber trace history **ISG**
show subscriber trace statistics **ISG**
show subscriber-policy **BR, IBM**
show subscription **VR**
show subscription local **VR**
show subsys **CF**
show subsys license **CSA**
show sup-bootflash **CF, IR**
show svc **ATM**
show syscon sdp **IR**
show sysctrl **CF**
show system jumbomtu **CF, IR**

show table-map QOS
show tacacs SEC
show tarp ISO
show tarp blacklisted-adjacencies ISO
show tarp host ISO
show tarp interface ISO
show tarp ldb ISO
show tarp map ISO
show tarp static-adjacencies ISO
show tarp tid-cache ISO
show tarp traffic ISO
show tbct VR
show tcam counts IR
show team interface IR
show tcam-mgr subslot IR
show tcp IAP
show tcp brief IAP
show tcp ha connections BGP, HA
show tcp ha statistics HA
show tcp intercept connections SEC
show tcp intercept statistics SEC
show tcp statistics IAP
show tcp through start-forwarding agent IAP
show tdm backplane IR
show tdm connections IR
show tdm data IR
show tdm detail IR
show tdm information IR
show tdm mapping VR
show tdm pool IR
show tech-support IAP, CF, MWG, SEC, CBL
show tech-support alg SEC
show tech-support ipsec SEC
show tech-support modem DIA
show tech-support mpls MP
show tech-support nbar platform QOS

show mvrp interface through snmp-server enable traps ospf rate-limit

show tech-support rsvp QOS
show tech-support spe DIA
show tech-support subscriber ISG
show template CF
show terminal TSV
show tgrep neighbors VR
show tgrm DIA
show through show fm summary CF
show time-range BSM
show time-range ipc IAP
show tn3270 ascii-hexval TSV
show tn3270 character-map TSV
show top counters interface report IR
show topology MTR
show trace multilink IPV6
show track IAP, IPV6
show track resolution IAP
show track route IAP
show traffic-shape QOS
show traffic-shape queue QOS
show traffic-shape statistics QOS
show translate TSV
show translate ruleset TSV
show translation-rule VR
show transport-map TSV
show trunk group VR, DIA
show trunk hdlc VR
show ttycap TSV
show tunnel 6rd IPV6
show tunnel 6rd destination IPV6
show tunnel 6rd prefix IPV6
show tunnel endpoints SEC
show tunnel interface IR
show tunnel keys-database tunnel IR
show ucse imc download progress IR
show ucse imc files IR

show ucse server boot **IR**
show ucse server erase device status **IR**
show ucse server raid level **IR**
show udld **LSW**
show udp **IAP**
show upgrade file **IR**
show upgrade fpd file **IR**
show upgrade fpd package default **IR**
show upgrade fpd progress **IR**
show upgrade fpd table **IR**
show upgrade fpga progress **IR**
show upgrade hw-programmable file **IR**
show upgrade hw-programmable progress **IR**
show upgrade package default **IR**
show upgrade progress **IR**
show upgrade table **IR**
show usb controllers **SEC, CF**
show usb device **SEC, CF**
show usb driver **SEC, CF**
show usb port **SEC, CF**
show usb tree **SEC, CF**
show usb-devices summary **SEC**
show usbtoken **SEC, CF**
show user-group **SEC**
show users **SEC, TSV**
show vasi pair **SEC**
show vc-group **WAN**
show vdev **VR**
show vdev through show voice statistics memory-usage **VR**
show version **CF**
show vfc **VR**
show vfc cap-list **VR**
show vfc default-file **VR**
show vfc directory **VR**
show vfc version **VR**
show vfi **MP, WAN**

show mvrp interface through snmp-server enable traps ospf rate-limit

show video call summary VR
show vlan LSW
show vlan access-log config LSW
show vlan access-log flow LSW
show vlan access-log statistics LSW
show vlan access-map LSW
show vlan all-ports LSW
show vlan counters LSW
show vlan dot1q tag native LSW
show vlan filter LSW
show vlan free LSW
show vlan free summary LSW
show vlan free summary LSW
show vlan group SEC
show vlan group through switchport port-security violation SEC
show vlan internal free summary LSW
show vlan internal usage LSW
show vlan mapping LSW
show vlan port provisioning LSW
show vlan private-vlan LSW
show vlan remote-span LSW
show vlan through spanning-tree vlan LSW
show vlan virtual-port LSW
show vlan-range LSW
show vlan-switch LSW
show vlans LSW
show vlans dot1q LSW
show vlans tokenring LSW
show vmi neighbors IR, IMO
show vnet EVN
show vnet counters EVN
show vnet tag EVN
show voice accounting method VR
show voice accounting response pending VR
show voice busyout VR
show voice cable-status VR

show voice call VR
show voice call rate VR
show voice cause-code VR
show voice class called-number VR
show voice class called-number-pool VR
show voice class e164-pattern-map VR
show voice class resource-group VR
show voice class uri VR
show voice connectivity summary VR
show voice data VR
show voice dnis-map VR
show voice dsmp stream VR
show voice dsp VR
show voice dsp channel VR
show voice dsp crash-dump VR
show voice dsp summary VR
show voice eddri prefix VR
show voice enum-match-table VR
show voice hpi capture VR
show voice iec description VR
show voice lmr VR
show voice pcm capture VR
show voice permanent-call VR
show voice port CBL, VR
show voice source-group VR
show voice statistics csr interval accounting VR
show voice statistics csr interval aggregation VR
show voice statistics csr since-reset accounting VR
show voice statistics csr since-reset aggregation-level VR
show voice statistics csr since-reset all VR
show voice statistics iec VR
show voice statistics interval-tag VR
show voice statistics memory-usage VR
show voice trace VR
show voice trace through shutdown (voice-port) VR
show voice translation-profile VR

show mvrp interface through snmp-server enable traps ospf rate-limit

show voice translation-rule VR
show voice trunk-conditioning signaling VR
show voice trunk-conditioning supervisory VR
show voice vtsp VR
show voip debug version VR
show voip fpi call-rate VR
show voip fpi calls VR
show voip fpi stats VR
show voip htsp VR
show voip recmsp session VR
show voip rtp connections IPV6, VR
show voip rtp forking VR
show voip trunk group VR
show vpdn VPD
show vpdn dead-cache VPD
show vpdn domain VPD
show vpdn group VPD
show vpdn group-select VPD
show vpdn group-select keys VPD
show vpdn history failure VPD
show vpdn multilink VPD
show vpdn redirect VPD
show vpdn redundancy VPD
show vpdn session BBA, VPD, IPV6
show vpdn tunnel VPD, IPV6
show vrf MP, QOS, IPV6
show vrf counters EVN
show vrf list EVN
show vrm active_calls VR
show vrm vdevices VR
show vrrp FHP
show vrrp interface FHP
show vrss FHP
show vrss clients FHP
show vrss group FHP
show vrss plugin database FHP

show vrss summary **FHP**
show vsp **VR**
show vtemplate **SEC, VPD, DIA**
show vtemplate redundancy **VPD**
show vtp **LSW**
show waas accelerator **WAN**
show waas alarms **WAN**
show waas auto-discovery **WAN**
show waas cache http-express metadatocache **WAN**
show waas connection **WAN**
show waas statistics accelerator **WAN**
show waas statistics aoim **WAN**
show waas statistics application **WAN**
show waas statistics auto-discovery **WAN**
show waas statistics class **WAN**
show waas statistics dre **WAN**
show waas statistics errors **WAN**
show waas statistics global **WAN**
show waas statistics lz **WAN**
show waas statistics pass-through **WAN**
show waas statistics peer **WAN**
show waas status **WAN**
show waas token **WAN**
show warm-reboot **CF**
show wccp **IAP**
show wccp global counters **IAP**
show webvpn context **SEC**
show webvpn gateway **SEC**
show webvpn install **SEC**
show webvpn license **SEC**
show webvpn nbns **SEC**
show webvpn policy **SEC**
show webvpn session **SEC**
show webvpn sessions **SEC**
show webvpn statistics **SEC**
show webvpn stats **SEC**

show mvrp interface through snmp-server enable traps ospf rate-limit

show wedged-interfaces IR
show whoami CF
show wiretap CF
show wlccp wds SEC
show wrr-queue QOS
show wsapi VR
show wsma agent WSMA
show wsma id WSMA
show wsma profile WSMA
show x25 context WAN
show x25 cug WAN
show x25 hunt-group WAN
show x25 interface WAN
show x25 map WAN
show x25 pad TSV
show x25 profile WAN
show x25 remote-red WAN
show x25 route WAN
show x25 services WAN
show x25 vc WAN
show x25 xot WAN
show x28 hunt-group WAN
show x29 access-lists WAN
show xconnect MP, WAN
show xcsp port VR
show xcsp slot VR
show xdr ISW
show xsd-format XMLPI
show xsm status SEC
show xsm xrd-list SEC
show xtagatm cos-bandwidth-allocation MP
show xtagatm cross-connect MP
show xtagatm vc MP
show zone security SEC
show zone-pair security SEC
show_spd CBL

showmon **CF**
shut **VR**
shutdown (Annex G neighbor) **VR**
shutdown (Annex G) **VR**
shutdown (CMCC) **IBM**
shutdown (DSP Farm profile) **VR**
shutdown (FR-ATM) **WAN**
shutdown (IP multiplexing) **IMO**
shutdown (MTR) **MTR**
shutdown (OER) **OER**
shutdown (PVC range) **BBA**
shutdown (PVC-in-range) **BBA**
shutdown (PfR) **PFR**
shutdown (RLM) **VR**
shutdown (TN3270) **IBM**
shutdown (address-family) **EIGRP**
shutdown (auto-config application) **VR**
shutdown (bridge-domain) **CE**
shutdown (certificate server) **SEC**
shutdown (controller) **IR**
shutdown (cs-server) **SEC**
shutdown (dial-peer) **VR**
shutdown (dwdm) **IR**
shutdown (firewall) **SEC**
shutdown (gatekeeper) **VR**
shutdown (gateway) **IPV6, VR**
shutdown (hub) **IR**
shutdown (interface) **IR**
shutdown (mediacard) **VR**
shutdown (mpls) **MP**
shutdown (port) **DIA**
shutdown (router OSPF) **OSPF**
shutdown (service-family) **SAF**
shutdown (settlement) **VR**
shutdown (spe) **DIA**
shutdown (voice-port) **VR**

```
■ show mvrp interface through snmp-server enable traps ospf rate-limit
```

shutdown vlan **LSW**
signal **VR**
signal did **VR**
signal keepalive **VR**
signal pattern **VR**
signal sequence oos **VR**
signal through srv version **VR**
signal timing idle suppress-voice **VR**
signal timing oos **VR**
signal timing oos restart **VR**
signal timing oos slave-standby **VR**
signal timing oos suppress-all **VR**
signal timing oos suppress-voice **VR**
signal timing oos timeout **VR**
signal-type **VR**
signaling **IR**
signaling forward **VR**
signaling forward (dial peer) **VR**
signaling protocol **MP**
signaling-address **SBCD**
signaling-class cas **DIA**
signaling-peer **SBCD**
signaling-peer-port **SBCD**
signaling-peer-priority **SBCD**
signaling-peer-switch **SBCD**
signaling-port **SBCD**
signature **SEC**
signature (IP SLA) **SLA**
silent-fax **VR**
single-connection **SEC, IPV6**
singlepacket **IMO**
sip **VR**
sip address **IAD, IPV6**
sip adjacency **SBCD**
sip body-editor **SBCD**
sip body-profile **SBCD**

sip default body-profile [SBCD](#)
 sip dns [SBCD](#)
 sip domain-name [IAD, IPV6](#)
 sip editor-type [SBCD](#)
 sip encryption key [SBCD](#)
 sip error-profile [SBCD](#)
 sip header-editor [SBCD](#)
 sip header-profile [SBCD](#)
 sip home network identifier [SBCD](#)
 sip hunting-trigger [SBCD](#)
 sip inherit profile [SBCD](#)
 sip ip-fqdn-mapping [SBCD](#)
 sip max-connections [SBCD](#)
 sip method-editor [SBCD](#)
 sip method-profile [SBCD](#)
 sip option-editor [SBCD](#)
 sip option-profile [SBCD](#)
 sip parameter-editor [SBCD](#)
 sip parameter-profile [SBCD](#)
 sip sdp origin-user-name [SBCD](#)
 sip sdp-match-table [SBCD](#)
 sip sdp-media-profile [SBCD](#)
 sip sdp-policy-table [SBCD](#)
 sip timer [SBCD](#)
 sip visited network identifier [SBCD](#)
 sip-contact [SBCD](#)
 sip-header [VR](#)
 sip-server [IPV6, VR](#)
 sip-ua [VR](#)
 sipi [SBCD](#)
 site [LISP](#)
 site-id [HA](#)
 skeptical interval [RIP](#)
 skeptical interval (OTV) [WAN](#)
 skip (ruleset) [TSV](#)
 slave (IKEv2 cluster) [SEC](#)

show mvrp interface through snmp-server enable traps ospf rate-limit

slave auto-sync config **CF**
slave auto-sync config through terminal-type **CF**
slave default-slot **CF**
slave image **CF**
slave reload **CF**
slave sync config **CF**
slave terminal **CF**
slip **TSV**
slot (ERM policy) **ERM**
slow-peer detection **BGP**
slow-peer split-update-group dynamic **BGP**
slow-peer split-update-group static **BGP**
smart-tunnel list **SEC**
smartcard-removal-disconnect **SEC**
smds address **WAN**
smds dxi **WAN**
smds enable-arp **WAN**
smds glean **WAN**
smds multicast **WAN**
smds multicast arp **WAN**
smds multicast bridge **WAN**
smds multicast ip **WAN**
smds static-map **WAN**
smrp mroute-cache protocol appletalk **ATK**
smrp protocol appletalk **ATK**
smrp routing **ATK**
smt-queue-threshold **IR**
sna enable-host (QLLC) **IBM**
sna enable-host (SDLC) **IBM**
sna enable-host (Token Ring) **Ethernet**
sna host (Frame Relay) **IBM**
sna host (QLLC) **IBM**
sna host (SDLC) **IBM**
sna host (Token Ring) **Ethernet**
sna rsrb **IBM**
sna rsrb enable-host **IBM**

sna rsrb start IBM
sna start IBM
sna vdlc IBM
sna vdlc enable-host IBM
sna vdlc start IBM
snapshot client DIA
snapshot server DIA
snasw cpname IBM
snasw dlcfilter IBM
snasw dlctrace IBM
snasw dlus IBM
snasw dump IBM
snasw event IBM
snasw ip-precedence IBM
snasw ipsfilter IBM
snasw ipstrace IBM
snasw link IBM
snasw location IBM
snasw lu62-security IBM
snasw mode IBM
snasw msgdump IBM
snasw pathswitch IBM
snasw pdlog IBM
snasw port IBM
snasw rtp pathswitch-timers IBM
snasw start IBM
snasw start cp-cp IBM
snasw start link IBM
snasw start port IBM
snasw stop IBM
snasw stop cp-cp IBM
snasw stop link IBM
snasw stop port IBM
snasw stop session IBM
snmp context MTR, EVN
snmp context (VRF) SNMP

```
■ show mvrp interface through snmp-server enable traps ospf rate-limit
```

snmp enable peer-trap dscp-profile [VR](#)
snmp enable peer-trap poor-qov [VR](#)
snmp get [SNMP](#)
snmp get-bulk [SNMP](#)
snmp get-next [SNMP](#)
snmp ifindex clear [IR](#)
snmp ifindex persist [IR](#)
snmp ifmib ifalias long [SNMP](#)
snmp ifmib ifindex persist [IR](#)
snmp inform [SNMP](#)
snmp manager [CBL](#)
snmp mib bulkstat object-list [SNMP](#)
snmp mib bulkstat schema [SNMP](#)
snmp mib bulkstat transfer [SNMP](#)
snmp mib cef throttling-interval [ISW](#)
snmp mib community-map [SNMP](#)
snmp mib event object list [SNMP](#)
snmp mib event owner [SNMP](#)
snmp mib event sample [SNMP](#)
snmp mib event trigger owner [SNMP](#)
snmp mib event trigger owner through snmp-server enable informs [SNMP](#)
snmp mib expression delta [SNMP](#)
snmp mib expression owner [SNMP](#)
snmp mib flash cache [SNMP](#)
snmp mib flowmon alarmhistorysize [SNMP](#)
snmp mib mpls vpn [MP](#)
snmp mib notification-log default [SNMP](#)
snmp mib notification-log default disable [SNMP](#)
snmp mib notification-log globalageout [SNMP](#)
snmp mib notification-log globalsize [SNMP](#)
snmp mib persist [SNMP](#)
snmp mib target list [SNMP](#)
snmp set [SNMP](#)
snmp trap if-monitor [SNMP](#)
snmp trap illegal-address [IR](#)
snmp trap ip verify drop-rate [SEC](#)

snmp trap link-status **SNMP, IPV6**
snmp trap mac-notification change **LSW**
snmp-server cache **SNMP**
snmp-server chassis-id **SNMP**
snmp-server community **MP, SNMP, IPV6**
snmp-server contact **SNMP**
snmp-server context **SNMP**
snmp-server drop vrf-traffic **SNMP**
snmp-server enable informs **SNMP**
snmp-server enable traps **SNMP, CSA, HA**
snmp-server enable traps (MPLS) **MP, SNMP**
snmp-server enable traps aaa_server **SNMP**
snmp-server enable traps atm pvc **ATM, SNMP**
snmp-server enable traps atm pvc extension **ATM, SNMP**
snmp-server enable traps atm pvc extension mibversion **ATM, SNMP**
snmp-server enable traps atm subif **ATM, SNMP**
snmp-server enable traps bfd **SNMP**
snmp-server enable traps bgp **SNMP**
snmp-server enable traps bulkstat **SNMP**
snmp-server enable traps c6kxbar **SNMP**
snmp-server enable traps cable **CBL**
snmp-server enable traps calltracker **SNMP**
snmp-server enable traps cdma **MWP**
snmp-server enable traps cef **ISW**
snmp-server enable traps cnpd **SNMP**
snmp-server enable traps cpu **SNMP**
snmp-server enable traps dhcp **IAD, SNMP**
snmp-server enable traps dhcp-snooping bindings **SNMP**
snmp-server enable traps director **SNMP**
snmp-server enable traps dlsw **SNMP**
snmp-server enable traps docsis-cm **CBL**
snmp-server enable traps docsis-cmts **CBL**
snmp-server enable traps docsis-resil **CBL**
snmp-server enable traps eigrp **SNMP**
snmp-server enable traps envmon **SNMP**
snmp-server enable traps errdisable **SNMP**

```
■ show mvrp interface through snmp-server enable traps ospf rate-limit
```

snmp-server enable traps ether-oam **CE**
snmp-server enable traps ethernet cfm alarm **CE**
snmp-server enable traps ethernet cfm cc **CE**
snmp-server enable traps ethernet cfm crosscheck **CE**
snmp-server enable traps ethernet evc **CE**
snmp-server enable traps firewall **SNMP**
snmp-server enable traps flash **SNMP**
snmp-server enable traps flowmon **SNMP**
snmp-server enable traps frame-relay **SNMP**
snmp-server enable traps frame-relay multilink bundle-mismatch **SNMP**
snmp-server enable traps frame-relay subif **SNMP**
snmp-server enable traps gdoi **SEC**
snmp-server enable traps if-monitor **SNMP**
snmp-server enable traps ip local pool **SNMP**
snmp-server enable traps ipmobile **IMO, MWH, MWP**
snmp-server enable traps ipsec **SEC**
snmp-server enable traps isakmp **SEC**
snmp-server enable traps isdn **SNMP**
snmp-server enable traps isis **IRS**
snmp-server enable traps l2tun pseudowire status **SNMP**
snmp-server enable traps l2tun session **SNMP**
snmp-server enable traps memory **SNMP**
snmp-server enable traps mpls ldp **MP**
snmp-server enable traps mpls p2mp-traffic-eng **MP**
snmp-server enable traps mpls rfc ldp **MP**
snmp-server enable traps mpls rfc vpn **MP**
snmp-server enable traps mpls traffic-eng **MP**
snmp-server enable traps mpls vpn **MP**
snmp-server enable traps mvpn **IMC**
snmp-server enable traps netsync **IR**
snmp-server enable traps nhrp **SEC**
snmp-server enable traps ospf **OSPF**
snmp-server enable traps ospf cisco-specific errors **OSPF**
snmp-server enable traps ospf cisco-specific errors config-error **OSPF, SNMP**
snmp-server enable traps ospf cisco-specific errors shamlink **OSPF, SNMP**
snmp-server enable traps ospf cisco-specific lsa **OSPF**

snmp-server enable traps ospf cisco-specific retransmit [OSPF, SNMP](#)
snmp-server enable traps ospf cisco-specific state-change [OSPF, SNMP](#)
snmp-server enable traps ospf cisco-specific state-change through snmp-server enable traps voice poor-qov
[SNMP](#)
snmp-server enable traps ospf errors [OSPF](#)
snmp-server enable traps ospf lsa [OSPF](#)
snmp-server enable traps ospf rate-limit [OSPF](#)

show mvrp interface through snmp-server enable traps ospf rate-limit



snmp-server enable traps ospf retransmit through u

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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 15: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference

CF	Cisco IOS Configuration Fundamentals Command Reference
CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

■ snmp-server enable traps ospf retransmit through u

snmp-server enable traps ospf retransmit through u

S

snmp-server enable traps ospf retransmit OSPF
snmp-server enable traps ospf state-change OSPF
snmp-server enable traps pfr PFR
snmp-server enable traps pim IMC, SNMP
snmp-server enable traps power-ethernet group SNMP
snmp-server enable traps pppoe SNMP
snmp-server enable traps pppoe per-interface SNMP
snmp-server enable traps pppoe per-mac SNMP
snmp-server enable traps pppoe per-vc SNMP
snmp-server enable traps pppoe per-vlan SNMP
snmp-server enable traps pppoe system SNMP
snmp-server enable traps pppoe vc SNMP
snmp-server enable traps repeater SNMP
snmp-server enable traps resource-policy SNMP
snmp-server enable traps rtr SNMP
snmp-server enable traps sbc SBCD
snmp-server enable traps slb SLB
snmp-server enable traps snmp SNMP
snmp-server enable traps srp SNMP
snmp-server enable traps storm-control SNMP
snmp-server enable traps syslog SNMP
snmp-server enable traps through snmp-server enable traps ospf cisco-specific retransmit SNMP
snmp-server enable traps transceiver all SNMP
snmp-server enable traps trustsec SNMP
snmp-server enable traps trustsec-interface SNMP
snmp-server enable traps trustsec-policy SNMP
snmp-server enable traps trustsec-server SNMP
snmp-server enable traps trustsec-sxp SNMP
snmp-server enable traps voice SNMP
snmp-server enable traps voice (DSCP profile) VR
snmp-server enable traps voice poor-qos SNMP
snmp-server enable traps vpdn dead-cache VPD

snmp-server enable traps vswitch dual-active **SNMP**
snmp-server enable traps waas **WAN**
snmp-server file-transfer access-group **SNMP**
snmp-server group **MP, SNMP, IPV6**
snmp-server host **ISW, MP, SNMP, CSA, IPV6**
snmp-server host traps docsis-resil **CBL**
snmp-server host traps evc **CE**
snmp-server ifindex persist **IR**
snmp-server inform **SNMP**
snmp-server ip dscp **SNMP**
snmp-server ip precedence **SNMP**
snmp-server location **SNMP**
snmp-server manager **SNMP**
snmp-server manager session-timeout **SNMP**
snmp-server packetsize **SNMP**
snmp-server queue-length **SNMP**
snmp-server queue-limit **SNMP**
snmp-server snmp traps ospfv3 errors **OSPF**
snmp-server snmp traps ospfv3 rate-limit **OSPF**
snmp-server snmp traps ospfv3 state-change **OSPF**
snmp-server source-interface **SNMP**
snmp-server system-shutdown **SNMP**
snmp-server tftp-server-list **SNMP**
snmp-server trap authentication unknown-context **SNMP**
snmp-server trap authentication vrf **SNMP**
snmp-server trap link **SNMP**
snmp-server trap link switchover **SNMP**
snmp-server trap retry **SNMP**
snmp-server trap timeout **SNMP**
snmp-server trap-authentication **SNMP**
snmp-server trap-source **SNMP**
snmp-server trap-timeout **SNMP**
snmp-server user **SNMP, IPV6**
snmp-server usm cisco **SNMP**
snmp-server view **SNMP**
snr margin **IR**

■ snmp-server enable traps ospf retransmit through u

sntp address IPV6
sntp broadcast client BSM
sntp logging BSM
sntp server BSM
sntp source-interface BSM
soft-offhook VR
softswitch-shield SBCD
software clean CF
software commit CF
software expand CF
software install file CF
software install source switch CF
software install source switch CF
software provision CF
software repackaged CF
software rollback CF
software source list CF
software uninstall CF
soo BGP
sort-by NF
source SEC, ISG
source (Flexible NetFlow) FNF, MM
source (IP multiplexing) IMO
source (parameter-map) SEC
source carrier-id VR
source interface SEC, MWG, LSW
source interface (Diameter peer) SEC
source interface (ca-trustpool) SEC
source ip SSG
source ip (path) MM
source template DIA
source template (eoam) CE
source template type pseudowire MP
source trunk-group-label VR
source vpdn-template VPD
source-address IR

source-address (uc-wsapi) [VR](#)
source-bridge [IBM](#)
source-bridge connection-timeout [IBM](#)
source-bridge cos-enable [IBM](#)
source-bridge enable-80d5 [IBM](#)
source-bridge explorer-fastswitch [IBM](#)
source-bridge explorer-maxrate [IBM](#)
source-bridge explorerq-depth [IBM](#)
source-bridge fst-peername [IBM](#)
source-bridge input-address-list [IBM](#)
source-bridge input-lsap-list [IBM](#)
source-bridge input-type-list [IBM](#)
source-bridge keepalive [IBM](#)
source-bridge largest-frame [IBM](#)
source-bridge max-hops [IBM](#)
source-bridge max-in-hops [IBM](#)
source-bridge max-out-hops [IBM](#)
source-bridge output-address-list [IBM](#)
source-bridge output-lsap-list [IBM](#)
source-bridge output-type-list [IBM](#)
source-bridge passthrough [IBM](#)
source-bridge proxy-explorer [IBM](#)
source-bridge proxy-netbios-only [IBM](#)
source-bridge qllc-local-ack [IBM](#)
source-bridge remote-peer frame-relay [IBM](#)
source-bridge remote-peer fst [IBM](#)
source-bridge remote-peer interface [IBM](#)
source-bridge remote-peer tcp [IBM](#)
source-bridge ring-group [IBM](#)
source-bridge route-cache [IBM](#)
source-bridge route-cache cbus [IBM](#)
source-bridge route-cache sse [IBM](#)
source-bridge sap-80d5 [IBM](#)
source-bridge sdlc-local-ack [IBM](#)
source-bridge spanning (automatic) [IBM](#)
source-bridge spanning (manual) [IBM](#)

■ snmp-server enable traps ospf retransmit through u

source-bridge tcp-queue-max IBM
source-bridge transparent IBM
source-bridge transparent fastswitch IBM
source-bridge trcrf-vlan BR
source-interface HA
source-interface (URL parameter-map) SEC
source-ip VPD
source-ip (flow) MM
source-ip (tplt) SLA
source-ip-address HA
source-port SLA
spanning-tree backbonefast LSW
spanning-tree bpdufilter LSW
spanning-tree bpduguard LSW
spanning-tree bridge assurance LSW
spanning-tree cost LSW
spanning-tree etherchannel guard misconfig LSW
spanning-tree extend system-id LSW
spanning-tree guard LSW
spanning-tree link-type LSW
spanning-tree loopguard default LSW
spanning-tree mode MP, LSW
spanning-tree mst LSW
spanning-tree mst configuration MP, LSW
spanning-tree mst forward-time LSW
spanning-tree mst hello-time LSW
spanning-tree mst max-age LSW
spanning-tree mst max-hops LSW
spanning-tree mst pre-standard LSW
spanning-tree mst priority LSW
spanning-tree mst root LSW
spanning-tree mst simulate pvst (interface) LSW
spanning-tree mst simulate pvst global LSW
spanning-tree pathcost method LSW
spanning-tree port-priority LSW
spanning-tree portfast (interface mode) BR

spanning-tree portfast (interface) **LSW**
spanning-tree portfast bpdufilter default **LSW**
spanning-tree portfast bpduguard default **LSW**
spanning-tree portfast default **LSW**
spanning-tree transmit hold-count **LSW**
spanning-tree uplinkfast **LSW**
spanning-tree vlan **LSW**
spd extended-headroom **IPV6**
spd headroom **IPV6**
spe **DIA**
spe call-record modem **DIA**
spe country **DIA**
spe download maintenance **DIA**
spe log-size **DIA**
spe recovery **DIA**
spec-file install add-entry **XMLPI**
spec-file install built-in **XMLPI**
spec-file install file **XMLPI**
spec-file install remove-entry **XMLPI**
spec-file install restore **XMLPI**
special-character-bits **CF**
special-vj **IAP**
speed **IR, WL**
speed dial **VR**
spf-interval **IRS, IPX**
spf-interval (IPv6) **IPV6**
spf-interval (OTV) **WAN**
split-dns **SEC**
split-horizon (EIGRP) **EIGRP, SAF**
split-horizon (IPv6 RIP) **IPV6**
squeeze **CF**
squench **IR**
squench through system jumbomtu **IR**
src-address **SBCD**
src-address (editor) **SBCD**
srfg **IRS**

■ snmp-server enable traps ospf retransmit through u

srp buffer-size **IR**
srp deficit-round-robin **IR**
srp loopback **IR**
srp priority-map **IR**
srp random-detect **IR**
srp shutdown **IR**
srp tx-traffic-rate **IR**
srtp (dial peer) **VR**
srtp (voice) **VR**
srtp branch **SBCD**
srtp callee **SBCD**
srtp caller **SBCD**
srtp interworking **SBCD**
srtp media interworking **SBCD**
srtp negotiate **VR**
srtp response downgrade **SBCD**
srtp retry rtp **SBCD**
srtp support allow **SBCD**
srtp-fallback **SBCD**
srv version **VR**
ss7 mtp2-variant **VR**
ss7 mtp2-variant bellcore **VR**
ss7 mtp2-variant itu **VR**
ss7 mtp2-variant itu-white **VR**
ss7 mtp2-variant ntt **VR**
ss7 mtp2-variant through switchover method **VR**
ss7 mtp2-variant ttc **VR**
ss7 session **VR**
ss7 session cumack_t **VR**
ss7 session kp_t **VR**
ss7 session m_cumack **VR**
ss7 session m_outseq **VR**
ss7 session m_rcvnum **VR**
ss7 session m_retrans **VR**
ss7 session retrans_t **VR**
ss7 set **VR**

ss7 set failover-timer **VR**
sscop cc-timer **ATM**
sscop keepalive-timer **ATM**
sscop max-cc **ATM**
sscop poll-timer **ATM**
sscop receive-window **ATM**
sscop send-window **ATM**
ssg aaa group prepaid **SSG**
ssg accounting **SSG**
ssg attribute 44 suffix host ip **SSG**
ssg auto-domain **SSG**
ssg auto-logoff arp **SSG**
ssg auto-logoff icmp **SSG**
ssg bind direction **SSG**
ssg bind service **SSG**
ssg default-network **SSG**
ssg dfp ip **SSG**
ssg dfp weight **SSG**
ssg dial-out **SSG**
ssg direction **SSG**
ssg enable **SSG**
ssg intercept dhcp **SSG**
ssg local-forwarding **SSG**
ssg login transparent **SSG**
ssg maximum host **SSG**
ssg maximum service **SSG**
ssg maxservice **SSG**
ssg multidomain ppp **SSG**
ssg next-hop download **SSG**
ssg open-garden **SSG**
ssg pass-through **SSG**
ssg port-map **SSG**
ssg port-map destination access-list **SSG**
ssg port-map destination range **SSG**
ssg port-map enable **SSG**
ssg port-map length **SSG**

■ snmp-server enable traps ospf retransmit through u

 ssg port-map source ip **SSG**
 ssg prepaid reauthorization drop-packet **SSG**
 ssg prepaid threshold **SSG**
 ssg profile-cache **SSG**
 ssg qos police **SSG**
 ssg query mac dhcp **SSG**
 ssg radius-helper **SSG**
 ssg radius-proxy **SSG**
 ssg service-cache **SSG**
 ssg service-cache refresh **SSG**
 ssg service-password **SSG**
 ssg service-search-order **SSG**
 ssg tcp-redirect **SSG**
 ssg vc-service-map **SSG**
 ssg wlan reconnect **SSG**
 ssh **SEC, IPV6**
 ssid **WL**
 ssid (local RADIUS server group) **SEC**
 ssl encryption **SEC**
 ssl trupoint **SEC**
 ssl-proxy module allowed-vlan **SEC**
 sso enable **VPD**
 sso-server **SEC**
 ssrc maximum **MM**
 stack **CBL**
 stack-mib portname **CF, IR**
 standalone **MWR**
 standard **SBCD**
 standby arp gratuitous **FHP**
 standby arp gratuitous through track vrrp **FHP**
 standby authentication **FHP**
 standby bfd **FHP**
 standby bfd all-interfaces **FHP**
 standby delay minimum reload **FHP**
 standby follow **FHP**
 standby initialization delay **HA**

standby ip **FHP**
standby ipv6 **FHP, IPV6**
standby mac-address **FHP**
standby mac-refresh **FHP**
standby name **FHP**
standby port **IR**
standby preempt **FHP, IPV6**
standby priority **FHP, IPV6**
standby redirect **FHP**
standby redirects (global) **FHP**
standby send arp **FHP**
standby sso **FHP**
standby timers **FHP**
standby track **FHP**
standby track decrement priority **MWH**
standby use-bia **FHP**
standby use-interface **MWR**
standby version **FHP, IPV6**
standby-group **SEC**
start **SBCD**
start-character **DIA**
start-chat **DIA**
start-forwarding-agent **IAP**
start-time **SLA**
startup (test boolean) **SNMP**
startup (test boolean) through write mib-data **SNMP**
startup (test existence) **SNMP**
startup (test threshold) **SNMP**
state-machine **CF**
state-tracks-signal **IBM**
station-id name **VR**
station-id number **VR**
station-role **WL**
statistics **SBCD**
statistics packet **FNF**
statistics-distribution-interval **SLA**

■ snmp-server enable traps ospf retransmit through u

statistics-setting **SBCD**
stats **VR**
stats-reporting-period (bmp) **BGP**
status **SEC**
status (pseudowire class) **MP**
status admin-down disconnect **WAN**
status control-plane route-watch **MP**
status decoupled **CE**
status peer topology dual-homed **CE**
status protocol notification static **MP**
status redundancy **MP**
stcapp **VR**
stcapp call-control mode **VR**
stcapp ccm-group **VR**
stcapp feature access-code **VR**
stcapp feature callback **VR**
stcapp feature speed-dial **VR**
stcapp register capability **VR**
stcapp security mode **VR**
stcapp security trustpoint **VR**
stcapp supplementary-services **VR**
stcapp timer **VR**
stealth **WSMA**
sticky (firewall farm TCP protocol) **SLB**
sticky (firewall farm datagram protocol) **SLB**
sticky (virtual server) **SLB**
stop-character **DIA**
stopbits **CF**
storage **SEC**
store-rule **SBCD**
storm-control **IR, LSW**
storm-control level **CF, IR**
stream-list **SBCD**
street-address **HA**
strict-http **SEC**
sts-1 **IR**

stub EIGRP, IPV6
stun VR
stun flowdata agent-id VR
stun flowdata catlife VR
stun flowdata keepalive VR
stun flowdata shared-secret VR
stun group IBM
stun keepalive-count IBM
stun peer-name IBM
stun protocol-group IBM
stun quick-response IBM
stun remote-peer-keepalive IBM
stun route address interface dlcI IBM
stun route address interface serial IBM
stun route address tcp IBM
stun route all interface serial IBM
stun route all tcp IBM
stun schema offset length format IBM
stun sdlc-role primary IBM
stun sdlc-role secondary IBM
stun usage firewall-traversal flowdata VR
subaddress VR
subcell-mux VR
subject-alt-name SEC
subject-name SEC, IPV6
subnet prefix-length IAD
subnet-acl (IKEv2 profile) SEC
subnet-acl (IKEv2) SEC
subscribe-to-alert-group HA
subscribe-to-alert-group all HA
subscribe-to-alert-group configuration HA
subscribe-to-alert-group diagnostic HA
subscribe-to-alert-group environment HA
subscribe-to-alert-group inventory HA
subscribe-to-alert-group syslog HA
subscriber SBCD

■ snmp-server enable traps ospf retransmit through u

subscriber access **BBA**
subscriber access pppoe unique-key circuit-id **SEC**
subscriber accounting accuracy **QOS, ISG**
subscriber accounting ssg **ISG**
subscriber authorization enable **BBA**
subscriber feature prepaid **ISG**
subscriber policy recording **ISG**
subscriber profile **BBA**
subscriber redundancy **BBA, ISG, HA**
subscriber service **SEC**
subscriber trace event **ISG**
subscriber trace history **ISG**
subscriber-policy **IBM**
subscription asnl session history **VR**
subscription maximum **VR**
subscription-required **MWG**
subslot **IR**
substitute (control policy-map class) **VPD**
substitute (ruleset) **TSV**
summary-address (EIGRP) **EIGRP**
summary-address (IS-IS) **IRS**
summary-address (OSPF) **OSPF**
summary-metric **EIGRP**
summary-prefix (IPv6 IS-IS) **IPV6**
summary-prefix (OSPFv3) **IPV6**
supervisory answer dualtone **VR**
supervisory custom-cptone **VR**
supervisory disconnect **VR**
supervisory disconnect anyone **VR**
supervisory disconnect dualtone **VR**
supervisory disconnect dualtone voice-class **VR**
supervisory disconnect lcfo **VR**
supervisory dualtone-detect-params **VR**
supervisory sit us **VR**
supplementary-service h225-notify cid-update (dal peer) **VR**
supplementary-service h225-notify cid-update (voice-service) **VR**

supplementary-service h450.12 (dial peer) **VR**
supplementary-service h450.12 (voice-service) **VR**
supplementary-service h450.2 (dial peer) **VR**
supplementary-service h450.2 (voice-service) **VR**
supplementary-service h450.3 (dial peer) **VR**
supplementary-service h450.3 (voice-service) **VR**
supplementary-service h450.7 **VR**
supplementary-service media-renegotiate **VR**
supplementary-service qsig call-forward **VR**
supplementary-service sip **VR**
supported language **VR**
suppress **VR**
suppress-server-encoding enable **WAN**
suspend-resume (SIP) **VR**
svc **ATM**
svc address-pool **SEC**
svc default-domain **SEC**
svc dns-server **SEC**
svc dpd-interval **SEC**
svc dtls **SEC**
svc homepage **SEC**
svc keep-client-installed **SEC**
svc keepalive **SEC**
svc module **SEC**
svc msie-proxy **SEC**
svc msie-proxy server **SEC**
svc mtu **SEC**
svc rekey **SEC**
svc split **SEC**
svc split dns **SEC**
svc wins-server **SEC**
svc-bundle **QOS**
sw-module heap fp **BBA**
switchback interval **VR**
switchback method **VR**
switching tlv **MP**

■ snmp-server enable traps ospf retransmit through u

switching-point MP
switchover method VR
switchover pxf restart ISW, CBL
switchover timeout CBL
switchport IR, IPV6
switchport access vlan IR, IPV6
switchport autostate exclude IR
switchport backup IR
switchport block unicast IR
switchport capture IR
switchport capture allowed vlan IR
switchport dot1q ethertype IR
switchport mode IR, IPV6
switchport port-security SEC, IR
switchport port-security aging SEC, IR
switchport port-security mac-address SEC, IR
switchport port-security maximum SEC, IR
switchport port-security violation SEC, IR
switchport private-vlan host-association IR
switchport private-vlan mapping IR
switchport protected IR
switchport trunk IR
switchport vlan mapping IR
switchport vlan mapping enable IR
switchport voice vlan IR
sync CBL
sync interval IR, CE
sync-restart-delay CF, IR
synchronization BGP
synchronization (IPv6) IPV6
synguard (virtual server) SLB
syscon address IR
syscon shelf-id IR
syscon source-interface IR
syslog-throttling HA
sysreset CBL

systat [CF](#)
system (ERM policy) [ERM](#)
system flowcontrol bus [CF](#), [IR](#)
system jumbomtu [CF](#), [IR](#)

T

t1 [IR](#)
t1 bert [IR](#)
t1 clock source [IR](#)
t1 external [IR](#)
t1 fdl ansi [IR](#)
t1 framing [IR](#)
t1 linecode [IR](#)
t1 logging-events [IR](#)
t1 span [IR](#)
t1 span syslog [IR](#)
t1 test [IR](#)
t1 through tug-2 e1 unframed [IR](#)
t1 timeslot [IR](#)
t1 yellow [IR](#)
t3-response [MWG](#)
table-map [BGP](#)
table-map (value mapping) [QOS](#)
table-type [SBCD](#)
tacacs server [SEC](#), [IPV6](#)
tacacs-server administration [SEC](#)
tacacs-server administration through title-color [SEC](#)
tacacs-server directed-request [SEC](#)
tacacs-server dns-alias-lookup [SEC](#)
tacacs-server domain-stripping [SEC](#), [VPD](#)
tacacs-server host [SEC](#)
tacacs-server key [SEC](#)
tacacs-server packet [SEC](#)
tacacs-server timeout [SEC](#)
tag [CBL](#)
tag (IP SLA) [SLA](#)
tag cts sgt [SEC](#)

■ snmp-server enable traps ospf retransmit through u

tag ppp-max-payload **BBA**
tag-control-protocol vsi **MP**
target carrier-id **VR**
target carrier-id through timeout tsmax **VR**
target trunk-group-label **VR**
target-discovery **PFR**
target-value **SEC**
tariff-time **MWG**
tarp allow-caching **ISO**
tarp arp-request-timer **ISO**
tarp blacklist-adjacency **ISO**
tarp cache-timer **ISO**
tarp enable **ISO**
tarp global-propagate **ISO**
tarp ldb-timer **ISO**
tarp lifetime **ISO**
tarp map **ISO**
tarp nselector-type **ISO**
tarp originate **ISO**
tarp post-t2-response-timer **ISO**
tarp propagate **ISO**
tarp protocol-type **ISO**
tarp query **ISO**
tarp resolve **ISO**
tarp route-static **ISO**
tarp run **ISO**
tarp sequence-number **ISO**
tarp t1-response-timer **ISO**
tarp t2-response-timer **ISO**
tarp tid **ISO**
tarp urc **ISO**
tbct clear call **VR**
tbct max call-duration **VR**
tbct max calls **VR**
tcam priority **IR**
tclquit **IOS_TCL**

tclsafe IOS_TCL
tclsh IOS_TCL
tcp QOS
tcp (blacklist) SBCD
tcp contexts QOS
tcp finwait-time SEC
tcp half-close reset SEC
tcp half-open reset SEC
tcp idle reset SEC
tcp idle-time SEC
tcp max-incomplete SEC
tcp reassembly SEC
tcp reassembly memory limit SEC
tcp syn-flood limit SEC
tcp syn-flood rate per-destination SEC
tcp synwait-time SEC
tcp timer giveup SBCD
tcp window-scale-enforcement loose SEC
tcp-connect SLA
tcp-connect-timeout SBCD
tcp-idle-timeout SBCD
tcp-port IBM
tcs-extra-codecs SBCD
tdm clock priority CF, DIA
tdm-group VR
tech-prefix VR
tech-prefix (session border controller) SBCD
tel-config to-hdr VR
telephony-service VR
telephony-service ccm-compatible (H.323 voice-class) VR
telephony-service ccm-compatible (H.323 voice-service) VR
telnet SEC, TSV, IPV6
telnet break-on-ip TSV
telnet refuse-negotiations TSV
telnet speed TSV
telnet sync-on-break TSV

■ snmp-server enable traps ospf retransmit through u

telnet transparent TSV
template DIA
template (am-group) SLA
template (cns) CNS
template (eoam) CE
template (identity policy) SEC
template (identity profile) SEC
template config SEC
template data timeout FNF, MM
template file SEC
template http admin-introduction SEC
template http completion SEC
template http error SEC
template http introduction SEC
template http start SEC
template http welcome SEC
template location SEC
template peer-policy BGP
template peer-session BGP
template tunnel (mobile networks) IMO
template tunnel (mobile router) IMO
template username SEC
template variable p SEC
term ip netmask-format IAD
terminal data-character-bits CF
terminal databits CF
terminal dispatch-character CF
terminal dispatch-timeout CF
terminal download CF
terminal editing CF
terminal escape-character CF
terminal exec-character-bits CF
terminal flowcontrol CF
terminal full-help CF
terminal history CF
terminal history size CF

terminal hold-character **CF**
terminal international **CF**
terminal keymap-type **CF**
terminal lat out-group **TSV**
terminal lat remote-modification **TSV**
terminal length **CF**
terminal monitor **CF**
terminal notify **CF**
terminal padding **CF**
terminal parity **CF**
terminal rxspeed **CF**
terminal shell **IOS_SHL**
terminal special-character-bits **CF**
terminal speed **CF**
terminal start-character **CF**
terminal stop-character **CF**
terminal stopbits **CF**
terminal telnet break-on-ip **CF**
terminal telnet refuse-negotiations **CF**
terminal telnet speed **CF**
terminal telnet sync-on-break **CF**
terminal telnet transparent **CF**
terminal terminal-type **CF**
terminal transport preferred **TSV**
terminal txspeed **CF**
terminal width **CF**
terminal-queue entry-retry-interval **CF**
terminal-type **CF**
terminate-from **VPD**
terminating-pe tie-breaker **MP**
termination **IR**
termination-id rootidname **SBCD**
test (event trigger) **SNMP**
test (ruleset) **TSV**
test aaa group **SEC**
test aim eeprom **IR**

■ snmp-server enable traps ospf retransmit through u

test appletalk ATK
test cable dcc (Supporting Dynamic Channel Change) CBL
test cable voice CBL
test cable-diagnostics CF, IR
test cable-diagnostics through xmodem CF
test cef table consistency ISW
test content-scan SEC
test crypto self-test SEC
test flash CF
test interface fastethernet IR
test interfaces CF
test memory CF
test memory destroy CF
test modem back-to-back DIA
test packetcable gate create CBL
test packetcable gc client-accept CBL
test packetcable gc gate-alloc CBL
test packetcable gc gate-delete CBL
test packetcable gc gate-info CBL
test packetcable gc gate-set multimedia CBL
test packetcable gc initiate CBL
test platform debugger rommon IR
test platform police get CF, IR
test platform police ipv6 disable IR
test platform police set CF, IR
test port modem back-to-back DIA
test satellite satellite mfg link IR
test satellite satellite reset IR
test sbc message sip filename script-set editors SBCD
test sbc profile-to-editor sip SBCD
test script-set SBCD
test service-module IR
test sgi xml ISG
test snmp trap auth-framework sec-violation SNMP
test snmp trap bridge SNMP
test snmp trap c6kxbar SNMP

test snmp trap call-home **SNMP**
test snmp trap config-copy **SNMP**
test snmp trap dhcp bindings **SNMP**
test snmp trap dhcp-snooping bindings **SNMP**
test snmp trap dot1x **SNMP**
test snmp trap entity-diag **SNMP**
test snmp trap errdisable ifevent **SNMP**
test snmp trap flex-links status **SNMP**
test snmp trap fru-ctrl **SNMP**
test snmp trap l2-control vlan **SNMP**
test snmp trap l2tc **SNMP**
test snmp trap mac-notification **SNMP**
test snmp trap module-auto-shutdown **SNMP**
test snmp trap port-security **SNMP**
test snmp trap power-ethernet port-on-off **SNMP**
test snmp trap snmp **SNMP**
test snmp trap stack **SNMP**
test snmp trap storm-control **SNMP**
test snmp trap stpx **SNMP**
test snmp trap syslog **SNMP**
test snmp trap trustsec **SNMP**
test snmp trap trustsec-interface **SNMP**
test snmp trap trustsec-policy **SNMP**
test snmp trap trustsec-server **SNMP**
test snmp trap trustsec-sxp **SNMP**
test snmp trap udld **SNMP**
test snmp trap vswitch dual-active **SNMP**
test snmp trap vswitch vsl **SNMP**
test snmp trap vtp **SNMP**
test snmp trap vtp pruning-change **SNMP**
test translate **TSV**
test trunk **IR**
test urlf cache snapshot **SEC**
test virtual-template subinterface **BBA**
text relay modulation **VR**
text relay protocol **VR**

■ snmp-server enable traps ospf retransmit through u

text relay rtp VR
text-color SEC
tfo auto-discovery blacklist WAN
tfo optimize WAN
tftp-server CF
tftp-server system CF
tg (CMPC) IBM
tg (CMPC+) IBM
tg delay IBM
tgid-context SBCD
tgid-routing SBCD
tgrep address-family VR
tgrep advertise (dial peer) VR
tgrep advertise (trunk group) VR
tgrep local-itad VR
thaug mapping IR
threshold value (policy-react and policy-inline-react) MM
threat-detection basic-threat SEC
threat-detection rate SEC
threshold CBL
threshold (IP SLA video) SLA
threshold (IP SLA) SLA
threshold (ISG) ISG
threshold de WAN
threshold ecn WAN
threshold metric IAP
threshold metric through track timer IAP
threshold noise VR
threshold percentage IAP
threshold weight IAP
throttle SEC
throttle (router configuration) RIP
throughput OER
throughput (PfR) PFR
time-offset SBCD
time-out TSV

time-period **BSM, CF**
time-range **BSM**
timeout **SBCD**
timeout (GTP) **SEC**
timeout (IP SLA video) **SLA**
timeout (IP SLA) **SLA**
timeout (LSP discovery) **SLA**
timeout (TACACS+) **SEC, IPV6**
timeout (application firewall application-configuration) **SEC**
timeout (auto-config application) **VR**
timeout (config-radius-server) **SEC**
timeout (custom UDP probe) **SLB**
timeout (monitor parameters) **MM**
timeout (parameter-map) **SEC**
timeout (policy group) **SEC**
timeout (twamp) **SLA**
timeout absolute **DIA**
timeout absolute (ISG) **ISG**
timeout file download **SEC**
timeout idle **ISG**
timeout leg3 **VR**
timeout login response **SEC**
timeout ptt **VR**
timeout retransmit **SEC**
timeout setup **WAN**
timeout tcrit **VR**
timeout tdinit **VR**
timeout tdmax **VR**
timeout tdmin **VR**
timeout thist **VR**
timeout tone busy **VR**
timeout tone cot1 **VR**
timeout tone cot2 **VR**
timeout tone dial **VR**
timeout tone dial stutter **VR**
timeout tone mwi **VR**

■ snmp-server enable traps ospf retransmit through u

timeout tone network VR
timeout tone reorder VR
timeout tone ringback VR
timeout tone ringback connection VR
timeout tone ringing VR
timeout tone ringing distinctive VR
timeout tpar VR
timeout tsmax VR
timeouts (SSG-radius-proxy) SSG
timeouts call-disconnect VR
timeouts call-disconnect through timing clear-wait VR
timeouts initial VR
timeouts interdigit (voice port) VR
timeouts power-denial VR
timeouts ringing VR
timeouts teardown lmr VR
timeouts wait-release VR
timer MWG, DIA
timer (Diameter peer) SEC
timer (Ethernet ring) CE
timer (ISG RADIUS proxy) ISG
timer accessrequest sequential delay VR
timer cluster-element VR
timer inactivity SLA
timer irr period VR
timer lrq seq delay VR
timer lrq seq delay centisec VR
timer lrq window VR
timer lrq window decisecond VR
timer media-inactive VR
timer reauthentication (config-if-cts-dot1x) SEC
timer receive-rtcp VR
timer receive-rtp VR
timer server retry VR
timer server timeout VR
timers VR

timers (IPv6 RIP) **IPV6**
timers active-time **EIGRP, IPV6**
timers basic (ISO CLNS) **ISO**
timers basic (ODR) **ODR**
timers basic (RIP) **RIP**
timers bgp **BGP**
timers buffer-invite **VR**
timers comet **VR**
timers connect **VR**
timers connection aging **VR**
timers delay **SEC**
timers disconnect **VR**
timers dns **VR**
timers expires **VR**
timers graceful-restart purge-time **EIGRP, SAF**
timers hello-time **IAD, SEC**
timers hold **VR**
timers keepalive **VR**
timers lsa arrival **IPV6, OSPF**
timers notify **VR**
timers nsf converge **EIGRP, HA**
timers nsf route-hold **EIGRP, HA**
timers nsf signal **EIGRP, HA**
timers pacing flood **OSPF**
timers pacing flood (OSPFv3) **IPV6**
timers pacing lsa-group **OSPF**
timers pacing lsa-group (OSPFv3) **IPV6**
timers pacing retransmission **OSPF**
timers pacing retransmission (OSPFv3) **IPV6**
timers prack **VR**
timers refer **VR**
timers register **IPV6, VR**
timers re1xx **VR**
timers spf (IPv6) **IPV6**
timers throttle lsa **IPV6**
timers throttle lsa all **OSPF**

snmp-server enable traps ospf retransmit through u

timers throttle spf IPV6, OSPF
timers trying VR
timeslot IR
timestamp CBL
timezone-offset SBCD
timing clear-wait VR
timing delay-duration VR
timing delay-duration through type (voice) VR
timing delay-start VR
timing delay-voice tdm VR
timing delay-with-integrity VR
timing dial-pulse min-delay VR
timing dialout-delay VR
timing digit VR
timing guard-out VR
timing hangover VR
timing hookflash-input VR
timing hookflash-output VR
timing ignore m-lead VR
timing interdigit VR
timing opx-ringwait VR
timing percentbreak VR
timing pulse VR
timing pulse-interdigit VR
timing sup-disconnect VR
timing wait-wink VR
timing wink-duration VR
timing wink-wait VR
timing-mark IBM
title SEC
title-color SEC
tls VR
tls mutual authentication SBCD
tlv MP, CBL
tlv template MP
tmax baseroot SBCD

tmax-timer **SBCD**
tn3270 **TSV**
tn3270 8bit display **TSV**
tn3270 8bit transparent-mode **TSV**
tn3270 character-map **TSV**
tn3270 datastream **TSV**
tn3270 null-processing **TSV**
tn3270 optimize-cursor-move **TSV**
tn3270 reset-required **TSV**
tn3270 status-message **TSV**
tn3270 typeahead **TSV**
tn3270-server **IBM**
tod **IR, CE**
toggle-between-two-calls **VR**
token-root-name **VR**
tone busytone **VR**
tone dialtone **VR**
tone incoming **VR**
tone incoming system **VR**
top **NF**
topology **SAF**
topology (BGP) **MTR**
topology (EIGRP) **EIGRP, MTR**
topology (IS-IS) **MTR**
topology (OSPF) **MTR**
topology (global) **MTR**
topology (interface) **MTR**
topology-accounting **MTR**
tos **CBL**
tos (IP SLA) **SLA**
tos (multicast qos) **CBL**
total resource maximum **SBCD**
trace (privileged) **CF**
trace (user) **CF**
trace filter endpoint address ipv4 (session border controller) **SBCD**
trace-route **MM**

■ snmp-server enable traps ospf retransmit through u

traceroute CF, IPV6, MTR
traceroute ethernet CE
traceroute ethernet evc CE
traceroute ethernet vlan CE
traceroute mac CF
traceroute mpls MP
traceroute mpls multipath MP
traceroute probe-delay OER
traceroute probe-delay (PfR) PFR
track IAP
track (VRRP) FHP
track (firewall) SEC
track abcd IAP
track application IAP
track id application home-agent MWH
track interface IAP, IPV6
track ip route IAP
track ip sla IAP, SLA
track list IAP
track resolution IAP
track rtr IAP, SLA
track stub-object IAP, EEM
track timer IAP
track(firewall) SEC
tracking IPV6, SEC
traffic-class MWG, WL
traffic-class (IP SLA) SLA
traffic-class access-list OER
traffic-class access-list (PfR) PFR
traffic-class aggregate OER
traffic-class aggregate (PfR) PFR
traffic-class application OER
traffic-class application (PfR) PFR
traffic-class application nbar OER
traffic-class application nbar (PfR) PFR
traffic-class filter OER

traffic-class filter (PfR) [PFR](#)
traffic-class keys [OER](#)
traffic-class keys (PfR) [PFR](#)
traffic-class prefix-list [OER](#)
traffic-class prefix-list (PfR) [PFR](#)
traffic-engineering filter [MP](#)
traffic-engineering route [MP](#)
traffic-export [SEC](#)
traffic-export through zone security [SEC](#)
traffic-shape adaptive [QOS](#)
traffic-shape fecn-adapt [QOS](#)
traffic-shape group [QOS](#)
traffic-shape rate [QOS](#)
traffic-share balanced [EIGRP](#)
traffic-share min [IRI](#)
transaction-pending [SBCD](#)
transceiver type all [IR](#)
transcode cost [SBCD](#)
transcode maximum [SBCD](#)
transcode-deny [SBCD](#)
transcoder [SBCD](#)
transcoding [SBCD](#)
transcoding-stats enable [SBCD](#)
transfer [VR](#)
transfer-encoding type [SEC](#)
translate [VR](#)
translate (session border controller) [SBCD](#)
translate (translation profiles) [VR](#)
translate lat [TSV](#)
translate lat (virtual access interfaces) [TSV](#)
translate ruleset [TSV](#)
translate tcp [TSV](#)
translate tcp (virtual access interfaces) [TSV](#)
translate use telnet [TSV](#)
translate x25 [TSV](#)
translate x25 (virtual access interfaces) [TSV](#)

■ snmp-server enable traps ospf retransmit through u

translate-outgoing VR
translation-profile (dial peer) IPV6, VR
translation-profile (source group) VR
translation-profile (trunk group) VR
translation-profile (voice port) VR
translation-profile (voice service POTS) VR
translation-rule VR
transmit-buffers backing-store IR
transmit-clock-internal IR
transmit-interface IR
transmit-priority ATM
transmitter-delay IR
transport MWG, VR
transport (Flexible NetFlow) FNF, MM
transport (SBE H.248) SBCD
transport (WSMA initiator) WSMA
transport (WSMA listener) WSMA
transport (WSMA) WSMA
transport (session border controller) SBCD
transport event CNS
transport input TSV
transport interface TSV
transport ipv4 IR
transport ipv4 (PTP) IR, CE
transport output TSV
transport port SEC
transport port (ldap) SEC
transport preferred TSV
transport switch VR
transport type console TSV
transport type persistent TSV
transport vpls mesh MP
transport-map type console TSV
transport-map type persistent TSV
transport-mode IR
transrate audio cost SBCD

transrate audio maximum **SBCD**
transrating **SBCD**
trap-enable **PFR**
tree-init **SLA**
trigger **MWG**
trigger (EEM) **EEM**
trigger-log-percentage **PFR**
trigger-period **SBCD**
trigger-size **SBCD**
trm register **SEC**
trunk activate port-threshold **DIA**
trunk group (global) **VR, DIA**
trunk trusted **SBCD**
trunk-group (CAS custom) **VR**
trunk-group (interface) **VR**
trunk-group (timeslots) **DIA**
trunk-group (voice port) **VR**
trunk-group-label (dial peer) **VR**
trunk-group-label (voice source group) **VR**
trunkgroup (dial peer) **VR**
trust **QOS, ISG**
trusted **IPV6**
trusted-port (DHCPv6 Guard) **IAD**
trusted-port (IPv6 ND Inspection Policy) **IPV6**
trusted-port (IPv6 NDP Inspection Policy) **IPV6, SEC**
trusted-port (IPv6 RA Guard Policy) **IPV6, SEC**
trustpoint (DSP farm profile) **VR**
trustpoint (tti-petitioner) **SEC**
trustpoint signing **SEC**
ts16 **IR**
ttb **IR**
ttl **VR**
ttl (Flexible NetFlow) **FNF, MM**
ttl (IP SLA) **SLA**
ttl (IP multiplexing) **IMO**
ttl-security all-interfaces **OSPF**

■ snmp-server enable traps ospf retransmit through u

ttycap TSV
tug-2 e1 IR
tug-2 e1 bert pattern IR
tug-2 e1 channel-group timeslots IR
tug-2 e1 clock source IR
tug-2 e1 framing IR
tug-2 e1 loopback IR
tug-2 e1 national bits IR
tug-2 e1 shutdown IR
tug-2 e1 unframed IR
tunnel DIA
tunnel 6rd br IPV6
tunnel 6rd ipv4 IPV6
tunnel 6rd prefix IPV6
tunnel bandwidth IR
tunnel bandwidth through yellow IR
tunnel checksum IR
tunnel destination IR, IPV6
tunnel destination access-list MP
tunnel destination list mpls traffic-eng MP
tunnel destination mesh-group MP
tunnel flow egress-records MP
tunnel key IR
tunnel mode SEC, IR, IPV6
tunnel mode gre IMO
tunnel mode ipv6ip IPV6
tunnel mode mpls traffic-eng MP
tunnel mode mpls traffic-eng point-to-multipoint MP
tunnel mpls traffic-eng affinity MP
tunnel mpls traffic-eng auto-bw MP
tunnel mpls traffic-eng autoroute announce MP
tunnel mpls traffic-eng autoroute destination MP
tunnel mpls traffic-eng autoroute metric MP
tunnel mpls traffic-eng backup-bw MP
tunnel mpls traffic-eng bandwidth MP
tunnel mpls traffic-eng exp MP

tunnel mpls traffic-eng exp-bundle master MP
tunnel mpls traffic-eng exp-bundle member MP
tunnel mpls traffic-eng fast-reroute MP
tunnel mpls traffic-eng forwarding-adjacency MP
tunnel mpls traffic-eng interface down delay MP
tunnel mpls traffic-eng load-share MP
tunnel mpls traffic-eng name MP
tunnel mpls traffic-eng path-option MP
tunnel mpls traffic-eng path-option protect MP
tunnel mpls traffic-eng path-selection metric MP
tunnel mpls traffic-eng priority MP
tunnel mpls traffic-eng record-route MP
tunnel mtu IMO
tunnel nat IMO
tunnel path-mtu-discovery IR
tunnel protection SEC
tunnel rbscp ack_split IR
tunnel rbscp delay IR
tunnel rbscp input_drop IR
tunnel rbscp long_drop IR
tunnel rbscp report IR
tunnel rbscp window_stuff IR
tunnel route-via IR
tunnel sequence-datagrams IR
tunnel source IR, IPV6
tunnel tos IR
tunnel tsp-hop MP
tunnel ttl IR
tunnel udlr address-resolution IMC
tunnel udlr receive-only IMC
tunnel udlr send-only IMC
tunnel vrf MP, IR
tunnel-limit (GTP) SEC
tx-limit ATM
tx-queue-limit IR
tx-ring-limit QOS

■ snmp-server enable traps ospf retransmit through u

tx-timeout MWG
 txspeed TSV
 type (media policy) SBCD
 type (script) SBCD
 type (settlement) VR
 type (test existence) SNMP
 type (voice) VR
 type copy MP
 type dhcp SLA
 type dlsw peer-ipaddr SLA
 type dns target-addr SLA
 type echo (MPLS) SLA
 type echo domain SLA
 type ftp operation get url SLA
 type http operation SLA
 type jitter dest-ipaddr SLA
 type jitter dest-ipaddr (codec) SLA
 type jitter domain SLA
 type mpls lsp ping ipv4 SLA
 type mpls lsp trace ipv4 SLA
 type voip delay gatekeeper registration SLA
 type voip delay post-dial SLA

U

ubr ATM
 ubr+ ATM
 ubr+ cos ATM
 uc wsapi VR
 ucse cmos-reset IR
 ucse heartbeat-reset IR
 ucse imc config IR
 ucse imc file delete IR
 ucse imc file download IR
 ucse password-reset IR
 ucse server boot IR
 ucse server boot order IR
 ucse server erase device hdd IR

ucse server raid level **IR**
ucse server reload boot **IR**
ucse server reset boot **IR**
ucse server start boot **IR**
ucse session **IR**
ucse shutdown **IR**
ucse statistics **IR**
ucse status **IR**
ucse stop **IR**
ucse subslot server password-reset **IR**
ucse subslot imc password-reset **IR**
ucse subslot server **IR**
ucse subslot shutdown **IR**
ucse subslot statistics **IR**
ucse subslot status **IR**
udld **LSW**
udld port **LSW**
udld recovery **LSW**
udld reset **LSW**
udld through vtp v2-mode **LSW**
udp (blacklist) **SBCD**
udp half-open **SEC**
udp idle-time **SEC**
udp port **MP**
udp-echo **SLA**
udp-first-retransmit-interval **SBCD**
udp-jitter **SLA**
udp-jitter (codec) **SLA**
udp-max-retransmit-interval **SBCD**
udp-port **IMC**
udp-response-linger-period **SBCD**
udp-retransmit-interval **SBCD**
unalias **CBL**
unbind-action **IBM**
unbundle vfc **VR**
undelete **CF**

■ snmp-server enable traps ospf retransmit through u

unexpected-source-alerting **SBCD**
unexpected-source-alerting (session border controller) **SBCD**
uni count **CE**
unidirectional **IR**
unmatched-action **SEC**
unprofile **CF**
unreachable **OER**
unreachable (PfR) **PFR**
unset **CBL**
update arp **IAD**
update dns **IAD**
update-source (bmp) **BGP**
upgrade automatic abortversion **CF**
upgrade automatic getversion **CF**
upgrade automatic runversion **CF**
upgrade filesystem monlib **CF**
upgrade fpd auto **IR**
upgrade fpd path **IR**
upgrade fpga **IR**
upgrade fpga all **IR**
upgrade fpga auto-upgrade **CBL**
upgrade fpga file **CBL**
upgrade hw-module slot **IR**
upgrade hw-module slot fpd file **IR**
upgrade hw-module subslot **IR**
upgrade hw-module subslot fpd file **IR**
upgrade hw-programmable **IR**
upgrade rom-monitor **CF**
upgrade rom-monitor default **IR**
upgrade rom-monitor preference **CF**
upgrade satellite satellite **IR**
upstream **CBL**
upstream (config-lb-group) **CBL**
upstream cable connector **CBL**
upstream freq-range **CBL**
uri username parameters parse **SBCD**

url VR
url (SIP) VR
url (WSP probe) SLB
url (bulk statistics) SNMP
url (dial peer) VR
url (ips-auto-update) SEC
url rewrite SEC
url-list SEC
url-profile SEC
url-text SEC
urlfilter SEC
usage SEC
usage-indication VR
use-any-local-port SBCD
use-proxy VR
use-time-offset SBCD
use-topology MTR
user SEC, WL
user (ERM) ERM
user passthrough maximum SSG
user suspect maximum SSG
user suspect timeout SSG
user unidentified timeout SSG
user unidentified traffic permit SSG
user-group SEC
user-group (parameter-map) SEC
user-group logging SEC
user-id VR
user-profile location SEC
username SEC
username (IOS SLB) SLB
username (SAF) SAF
username (dot1x credentials) SEC
username (ips-autoupdate) SEC
username mac SSG
username secret SEC

■ snmp-server enable traps ospf retransmit through u

utilization mark high [IAD](#)

utilization mark low [IAD](#)



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Finding IOS Command Information

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This document contains a list of the commands supported in many different software releases and on many different platforms. Some of the commands may not be supported in your Cisco IOS software release. To search for a command, use the alphabet key at the top part of this document and then scroll down until you find the command of interest, or use the Find function in your web browser. To access the documentation for a particular command, click the link to the command reference designator to the right of the command name. This list is intended to be used online only.

Alternatively, you may search for commands using the Command Lookup Tool (<https://tools.cisco.com/Support/CLILookup>), where you will be prompted to provide your Cisco.com username and password.

Table 16: Command Reference Designators

ANCP	Cisco IOS Access Node Control Protocol Command Reference
ATK	Cisco IOS AppleTalk Command Reference
AN	Cisco IOS Autonomic Networking Command Reference
ATM	Cisco IOS Asynchronous Transfer Mode Command Reference
BBA	Cisco IOS Broadband Access Aggregation and DSL Command Reference
BGP	Cisco IOS IP Routing: BGP Command Reference
BR	Cisco IOS Bridging Command Reference
CE	Cisco IOS Carrier Ethernet Command Reference
CF	Cisco IOS Configuration Fundamentals Command Reference

CSA	Cisco IOS Software Activation Command Reference
DB	Cisco IOS Debug Command Reference
DEC	Cisco IOS DECnet Command Reference
DIA	Cisco IOS Dial Technologies Command Reference
EIGRP	Cisco IOS IP Routing: EIGRP Command Reference
EM	Cisco IOS Embedded Menu Manager Command Reference
FHP	Cisco IOS First Hop Redundancy Protocols Command Reference
FNF	Cisco IOS Flexible NetFlow Command Reference
HA	Cisco IOS High Availability Command Reference
IAD	Cisco IOS IP Addressing Services Command Reference
IAP	Cisco IOS IP Application Services Command Reference
IBM	Cisco IOS IBM Networking Command Reference
IMC	Cisco IOS IP Multicast Command Reference
IMO	Cisco IOS IP Mobility Command Reference
IPV6	Cisco IOS IPv6 Command Reference
IPX	Cisco IOS Novell IPX Command Reference
IR	Cisco IOS Interface and Hardware Component Command Reference
IRI	Cisco IOS IP Routing: Protocol-Independent Command Reference
IRS	Cisco IOS IP Routing: ISIS Command Reference
ISG	Cisco IOS Intelligent Services Gateway Command Reference
ISO	Cisco IOS ISO CLNS Command Reference
ISW	Cisco IOS IP Switching Command Reference
LISP	Cisco IOS IP Routing: LISP Command Reference
LSW	Cisco IOS LAN Switching Command Reference
MM	Cisco IOS Media Monitoring Command Reference
MP	Cisco IOS Multiprotocol Label Switching Command Reference
MSP	Cisco IOS Media Services Proxy Command Reference
MTR	Cisco IOS Multi-Topology Routing Command Reference
MWG	Cisco IOS Mobile Wireless Gateway GPRS Support Node Command Reference
MWH	Cisco IOS Mobile Wireless Home Agent Command Reference
MWP	Cisco IOS Mobile Wireless Radio Access Networking Command Reference
MWR	Cisco IOS Mobile Wireless Radio Access Networking Command Reference

NF	Cisco IOS NetFlow Command Reference
NM	Cisco IOS Network Management Command Reference
ODR	Cisco IOS IP Routing: ODR Command Reference
OER	Cisco IOS Optimized Edge Routing Command Reference
OSPF	Cisco IOS IP Routing: OSPF Command Reference
PFR	Cisco IOS Performance Routing Command Reference
QOS	Cisco IOS Quality of Service Solutions Command Reference
RIP	Cisco IOS IP Routing: RIP Command Reference
SAF	Cisco IOS Service Advertisement Framework Command Reference
SBCD	Cisco Unified Border Element (SP Edition) Command Reference: Distributed Model
SBCU	Cisco Unified Border Element (SP Edition) Command Reference: Unified Model
SEC	Cisco IOS Security Command Reference
SLA	Cisco IOS IP SLAs Command Reference
SLB	Cisco IOS Server Load Balancing Command Reference
SM	Cisco IOS Software Modularity Command Reference
SSG	Cisco IOS Service Selection Gateway Command Reference
TSV	Cisco IOS Terminal Services Command Reference
VPD	Cisco IOS VPDN Command Reference
VR	Cisco IOS Voice Command Reference
VS	Cisco IOS Virtual Switch Command Reference
WAN	Cisco IOS Wide-Area Networking Command Reference
WL	Cisco IOS Wireless LAN Command Reference

v through z

v

vacant-message [CF](#)
vad (SPA-DSP) [VR](#)
vad (dial peer) [VR](#)
vad (dial peer) through voice-class sip encap clear-channel [VR](#)
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