



Introduction

This book describes the commands used to configure and monitor the following IP addressing and services capabilities and features:

- IP Addressing
- Dynamic Host Configuration Protocol (DHCP)
- IP Access Lists
- IP Services
- Server Load Balancing
- Web Cache Communications Protocol (WCCP)

For IP addressing and services tasks and examples, refer to the “IP Addressing and Services” part in the *Cisco IOS IP Configuration Guide*, Release 12.3.

IP Addressing

Use the following commands to configure and monitor IP addressing:

- `arp (global)`
- `arp (interface)`
- `arp timeout`
- `clear arp-cache`
- `clear arp interface`
- `clear host`
- `clear ip nat translation`
- `clear ip nhrp`
- `clear ip route`
- `clear ip snat sessions`
- `clear ip snat translation distributed`
- `clear ip snat translation peer`
- `crypto ipsec`
- `ip address`

- ip broadcast-address
- ip cef traffic-statistics
- ip classless
- ip default-gateway
- ip directed-broadcast
- ip domain list
- ip domain lookup
- ip domain name
- ip domain retry
- ip domain round-robin
- ip domain timeout
- ip forward-protocoll
- ip forward-protocol spanning-tree
- ip forward-protocol turbo-flood
- ip helper-address
- ip host
- ip irdp
- ip mobile arp
- ip name-server
- ip nat
- ip nat inside destination
- ip nat inside source
- ip nat outside source
- ip nat pool
- ip nat service
- ip nat stateful
- ip nat translation
- ip netmask-format
- ip nhrp authentication
- ip nhrp holdtime
- ip nhrp interest
- ip nhrp map
- ip nhrp map multicast
- ip nhrp map multicast dynamic
- ip nhrp max-send
- ip nhrp network-id
- ip nhrp nhs
- ip nhrp record

- ip nhrp responder
- ip nhrp server-only
- ip nhrp trigger-svc
- ip nhrp use
- ip proxy-arp
- ip routing
- ip subnet-zero
- ip unnumbered
- no ip gratuitous-arps
- show arp
- show hosts
- show ip aliases
- show ip arp
- show ip interface
- show ip irdp
- show ip masks
- show ip nat statistics
- show ip nat translations
- show ip nhrp
- show ip nhrp traffic
- show ip snat
- term ip netmask-format

DHCP

Use the following commands to configure and monitor DHCP:

- accounting (DHCP)
- bootfile
- clear ip dhcp binding
- clear ip dhcp server statistics
- clear ip dhcp subnet
- clear ip route dhcp
- client-identifier
- client-name
- default-router
- dns-server
- domain-name (DHCP)
- hardware-address

- host
- import all
- ip address dhcp
- ip address pool (DHCP)
- ip dhcp aaa default username
- ip dhcp bootp ignore
- ip dhcp conflict logging
- ip dhcp database
- ip dhcp-client default-router distance
- ip dhcp excluded-address
- ip dhcp limited-broadcast-address
- ip dhcp ping packets
- ip dhcp ping timeout
- ip dhcp pool
- ip dhcp relay information check
- ip dhcp relay information option
- ip dhcp relay information policy
- ip dhcp smart-relay
- lease
- netbios-name-server
- netbios-node-type
- network (DHCP)
- next-server
- option
- option
- service dhcp
- show ip dhcp binding
- show ip dhcp conflict
- show ip dhcp database
- show ip dhcp import
- show ip dhcp pool
- show ip dhcp server statistics
- show ip route dhcp
- subnet prefix-length
- update arp
- utilization mark high
- utilization mark low
- vrf

IP Access Lists

Use the following commands to configure and monitor access lists:

- `access-class`
- `access-list (IP extended)`
- `access-list (IP standard)`
- `access-list compiled`
- `access-list remark`
- `deny (IP)`
- `dynamic`
- `ip access-group`
- `ip access-list resequence`
- `ip access-list`
- `permit (IP)`
- `remark`
- `show access-lists`
- `show access-list compiled`
- `show ip access-list`

IP Services

Use the following commands to configure and monitor IP services:

- `access-class`
- `access-list (IP extended)`
- `access-list (IP standard)`
- `access-list compiled`
- `access-list remark`
- `clear access-list counters`
- `clear ip accounting`
- `clear ip drp`
- `clear tcp statistics`
- `clear time-range ipc`
- `delay (tracking)`
- `deny (IP)`
- `dynamic`
- `forwarding-agent`
- `glbp authentication`
- `glbp forwarder preempt`

- glbp ip
- glbp load-balancing
- glbp preempt
- glbp priority
- glbp timers
- glbp timers redirect
- glbp weighting track
- ip access-group
- ip access-list
- ip access-list resequence
- ip accounting
- ip accounting-list
- ip accounting-threshold
- ip accounting-transits
- ip accounting mac-address
- ip accounting precedence
- ip casa
- ip drp access-group
- ip drp authentication key-chain
- ip drp server
- ip icmp rate-limit unreachable
- ip icmp redirect
- ip information-reply
- ip mask-reply
- ip vrf (tracking)
- ip mtu
- ip redirects
- ip source-route
- ip tcp chunk-size
- ip tcp compression-connections
- ip tcp header-compression
- ip tcp path-mtu-discovery
- ip tcp queuemax
- ip tcp selective-ack
- ip tcp synwait-time
- ip tcp timestamp
- ip tcp window-size
- ip unreachable's

- permit (IP)
- remark
- show access-lists
- show access-list compiled
- show glbp
- show interface mac
- show interface precedence
- show ip access-list
- show ip accounting
- show ip casa affinities
- show ip casa oper
- show ip casa stats
- show ip casa wildcard
- show ip drp
- show ip redirects
- show ip sockets
- show ip tcp header-compression
- show ip traffic
- show standby
- show standby delay
- show tcp statistics
- show time-range ipc
- show track
- show vrrp
- show vrrp interface
- standby authentication
- standby delay minimum reload
- standby ip
- standby mac-address
- standby mac-refresh
- standby name
- standby preempt
- standby priority
- standby redirect
- standby timers
- standby track
- standby use-bia
- start-forwarding-agent

- threshold metric
- track interface
- track ip route
- track timer
- transmit-interface
- vrrp authentication
- vrrp description
- vrrp ip
- vrrp preempt
- vrrp priority
- vrrp timers advertise
- vrrp timers learn

Server Load Balancing

Use the following commands to configure and monitor server load balancing:

- advertise
- agent
- bindid
- clear ip slb
- client
- delay (virtual server)
- faildetect
- idle
- inservice (real server)
- inservice (real server)
- ip slb dfp
- ip slb serverfarm
- ip slb vservers
- maxconns (server farm)
- nat
- predictor
- real
- reassign
- retry (real server)
- serverfarm
- show ip slb dfp
- show ip slb reals

- `show ip slb serverfarms`
- `show ip slb stats`
- `show ip slb sticky`
- `show ip slb vservers`
- `sticky`
- `synguard`
- `virtual`
- `weight`

WCCP

Use the following commands to configure and monitor WCCP:

- `clear ip wccp`
- `ip wccp`
- `ip wccp enable`
- `ip wccp group-listen`
- `ip wccp redirect exclude in`
- `ip wccp redirect-list`
- `ip wccp redirect`
- `ip wccp version`
- `ip web-cache redirect`
- `show ip wccp`
- `show ip wccp web-caches`

