

CCNA Command CHEAT SHEET

Your source-linked, handwritten command reference

397 distinct syntax patterns

19 subject areas

Cisco Press Official Cert Guide

CCNA 200-301. Second Edition. Volumes 1 + 2

-
- Configuration and verification commands
 - Duplicates consolidated, variants retained
 - References to book volumes and PDF page numbers
 - Legacy appendix commands clearly flagged

A command reference, not a substitute for hands-on labs.

CCNA Command Cheat Sheet

CLI, Device Setup & Config

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CONFIGURATION / OPERATION

- o 001 [no] ip domain lookup
- o 002 configure terminal
- o 003 disable
- o 004 enable
- o 005 end
- o 006 errdisable recovery interval seconds
- o 007 exit
- o 008 history size length
- o 009 hostname name
- o 010 no ip subnet-zero
- o 011 quit
- o 012 reload

VERIFICATION / TROUBLESHOOTING

- o 013 show history
- o 014 show ip arp
- o 015 show running-config
- o 016 show running-config all
- o 017 show running-config interface type number
- o 018 show running-config | include enable
- o 019 show running-config | section con
- o 020 show running-config | section vty
- o 021 show startup-config

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Passwords, Users & SSH

Part 1 of 2

CONFIGURATION / OPERATION

- o 022 [no] service password-encryption
- o 023 crypto key generate rsa [modulus 512..2048]
- o 024 enable [algorithm-type md5 | sha256 | scrypt] secret pass-value
- o 025 enable password pass-value
- o 026 enable secret pass-value
- o 027 exec-timeout minutes [seconds]
- o 028 ip ftp password pass
- o 029 ip ftp username name
- o 030 ip ssh version 2
- o 031 line console 0
- o 032 line vty 1st-vty last-vty
- o 033 login
- o 034 login local
- o 035 no enable password
- o 036 no enable secret
- o 037 password pass-value
- o 038 ssh -l username {hostname | address}
- o 039 transport input {telnet | ssh | all | none}
- o 040 username name [algorithm-type md5 | sha256 | scrypt] secret pass-value
- o 041 username name password pass-value
- o 042 username name secret pass-value

VERIFICATION / TROUBLESHOOTING

- o 043 show crypto key mypubkey rsa

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Passwords, Users & SSH

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Part 2 of 2

VERIFICATION / TROUBLESHOOTING

- o 044 show ip ssh
- o 045 show running-config | begin line vty
- o 046 show ssh

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Interfaces & Ethernet

Part 1 of 2

CONFIGURATION / OPERATION

- o 047 [no] mdix auto
- o 048 [no] negotiation auto
- o 049 [no] shutdown
- o 050 bandwidth bandwidth
- o 051 default interface interface-id
- o 052 description text
- o 053 duplex {auto | full | half}
- o 054 interface loopback number
- o 055 interface port-channel channel-number
- o 056 interface range type port-number - end-port-number
- o 057 interface type number
- o 058 interface type numbers.subint
- o 059 interface type port-number
- o 060 ip mtu size
- o 061 mtu size
- o 062 no description
- o 063 no duplex
- o 064 no speed
- o 065 speed value
- o 066 speed {10 | 100 | 1000 | auto}
- o 067 speed {10 | 100 | 1000}

VERIFICATION / TROUBLESHOOTING

- o 068 show interfaces

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Interfaces & Ethernet

Part 2 of 2

VERIFICATION / TROUBLESHOOTING

- o 069 show interfaces [interface type number]
- o 070 show interfaces [interface type number] status
- o 071 show interfaces [type number] controller
- o 072 show interfaces description
- o 073 show interfaces id counters
- o 074 show interfaces interface-id counters
- o 075 show interfaces interface-id trunk
- o 076 show interfaces loopback number
- o 077 show interfaces port-channel number
- o 078 show interfaces status
- o 079 show interfaces status | include pattern
- o 080 show interfaces trunk
- o 081 show protocols [type number]

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VLANs, Trunks & SVIs

Part 1 of 2

CONFIGURATION / OPERATION

- 082 [no] autostate
- 083 [no] shutdown vlan vlan-id
- 084 [no] switchport
- 085 encapsulation dot1q vlan-id [native]
- 086 interface vlan number
- 087 interface vlan vlan-id
- 088 name vlan-name
- 089 no vlan vlan-id
- 090 switchport access vlan vlan-id
- 091 switchport mode {access | dynamic {auto | desirable} | trunk}
- 092 switchport mode {access | trunk}
- 093 switchport nonegotiate
- 094 switchport trunk allowed vlan vlan-list
- 095 switchport trunk allowed vlan {add | remove} vlan-list
- 096 switchport trunk allowed vlan {all | none | except vlan-list}
- 097 switchport trunk encapsulation {dot1q | isl | negotiate}
- 098 switchport trunk native vlan vlan-id
- 099 switchport voice vlan vlan-id
- 100 vlan vlan-id
- 101 vtp mode {server | client | transparent | off}

VERIFICATION / TROUBLESHOOTING

- 102 clear mac address-table dynamic [vlan vlan-number] [interface interface-id] [address mac-address]
- 103 show interfaces interface-id switchport

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VLANs, Trunks & SVIs

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Part 2 of 2

VERIFICATION / TROUBLESHOOTING

- 104 show interfaces vlan number
- 105 show mac address-table dynamic vlan vlan-id
- 106 show vlan [brief]
- 107 show vlan {id vlan-id | name vlan-name}
- 108 show vlan-switch [brief]
- 109 show vlans
- 110 show vtp status

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STP & EtherChannel

Part 1 of 2

CONFIGURATION / OPERATION

- o 111 [no] spanning-tree guard loop
- o 112 [no] spanning-tree guard root
- o 113 channel-group channel-group-number mode {auto | desirable | active | passive | on}
- o 114 channel-group channel-number mode {auto | desirable | active | passive | on}
- o 115 spanning-tree [vlan vlan-number] cost cost
- o 116 spanning-tree [vlan vlan-number] port-priority priority
- o 117 spanning-tree [vlan vlan-number] root primary
- o 118 spanning-tree [vlan vlan-number] root secondary
- o 119 spanning-tree bpduguard enable
- o 120 spanning-tree bpduguard disable
- o 121 spanning-tree bpduguard enable
- o 122 spanning-tree loopguard default
- o 123 spanning-tree mode {pvst | rapid-pvst | mst}
- o 124 spanning-tree portfast
- o 125 spanning-tree portfast bpduguard default
- o 126 spanning-tree portfast bpduguard default
- o 127 spanning-tree portfast disable
- o 128 spanning-tree portfast enable
- o 129 spanning-tree portfast trunk
- o 130 spanning-tree vlan vlan-id priority priority

VERIFICATION / TROUBLESHOOTING

- o 131 debug spanning-tree events

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STP & EtherChannel

Part 2 of 2

VERIFICATION / TROUBLESHOOTING

- o 132 show etherchannel
- o 133 show etherchannel [channel-group-number] summary
- o 134 show etherchannel [channel-group-number] {brief | detail | port | port-channel | summary}
- o 135 show etherchannel [number] {summary | port-channel | detail}
- o 136 show spanning-tree
- o 137 show spanning-tree interface interface-id [detail]
- o 138 show spanning-tree vlan vlan-id
- o 139 show spanning-tree vlan vlan-id interface interface-id [detail]
- o 140 show spanning-tree vlan vlan-id root

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Port Security

CONFIGURATION / OPERATION

- o 141 errdisable recovery cause psecure-violation
- o 142 switchport port-security
- o 143 switchport port-security mac-address mac-address
- o 144 switchport port-security mac-address sticky
- o 145 switchport port-security maximum value
- o 146 switchport port-security violation {protect | restrict | shutdown}

VERIFICATION / TROUBLESHOOTING

- o 147 show port-security
- o 148 show port-security interface type number

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DHCP Snooping & ARP Inspection

CONFIGURATION / OPERATION

- o 149 [no] ip dhcp snooping information option
- o 150 [no] ip dhcp snooping trust
- o 151 errdisable recovery cause arp-inspection
- o 152 errdisable recovery cause dhcp-rate-limit
- o 153 ip arp inspection limit rate none
- o 154 ip arp inspection limit rate number [burst interval seconds]
- o 155 ip arp inspection trust
- o 156 ip arp inspection validate {[dst-mac] [src-mac] [ip]}
- o 157 ip arp inspection vlan vlan-list
- o 158 ip dhcp snooping
- o 159 ip dhcp snooping limit rate number
- o 160 ip dhcp snooping vlan vlan-list

VERIFICATION / TROUBLESHOOTING

- o 161 show ip arp inspection
- o 162 show ip arp inspection interfaces
- o 163 show ip arp inspection statistics
- o 164 show ip dhcp snooping
- o 165 show ip dhcp snooping binding
- o 166 show ip dhcp snooping statistics

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IPv4 Addressing & Routing

CONFIGURATION / OPERATION

- o 167 [no] ip routing
- o 168 ip address dhcp
- o 169 ip address ip-address subnet-mask
- o 170 ip default-gateway address
- o 171 ip helper-address IP-address
- o 172 ip route prefix mask {ip-address | interface-type interface-number}
[distance] [permanent]

VERIFICATION / TROUBLESHOOTING

- o 173 show arp
- o 174 show ip default-gateway
- o 175 show ip interface [type number]
- o 176 show ip interface brief
- o 177 show ip protocols
- o 178 show ip route
- o 179 show ip route [connected]
- o 180 show ip route ip-address

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OSPF

Part 1 of 2

CONFIGURATION / OPERATION

- 181 [no] ip ospf shutdown
- 182 access-list access-list-number {deny | permit} ospf source source-wildcard destination destination-wildcard [log]
- 183 auto-cost reference-bandwidth number
- 184 default-information originate [always]
- 185 ip ospf cost interface-cost
- 186 ip ospf dead-interval number
- 187 ip ospf dead-interval time
- 188 ip ospf hello-interval seconds
- 189 ip ospf hello-interval time
- 190 ip ospf network {broadcast | point-to-point}
- 191 ip ospf priority value
- 192 ip ospf process-id area area-number
- 193 maximum-paths number
- 194 network ip-address wildcard-mask area area-id
- 195 no passive-interface type number
- 196 passive-interface default
- 197 passive-interface type number
- 198 router ospf process-id
- 199 router-id id

VERIFICATION / TROUBLESHOOTING

- 200 clear ip ospf process
- 201 debug ip ospf hello
- 202 show ip ospf

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OSPF

Part 2 of 2

VERIFICATION / TROUBLESHOOTING

- 203 show ip ospf database
- 204 show ip ospf interface [type number]
- 205 show ip ospf interface brief
- 206 show ip ospf neighbor
- 207 show ip ospf neighbor [type number]
- 208 show ip ospf neighbor neighbor-ID
- 209 show ip route [connected | static | ospf]
- 210 show ip route ospf

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IPv6 Addressing & Routing

Part 1 of 2

CONFIGURATION / OPERATION

- o 211 `ipv6 address autoconfig`
- o 212 `ipv6 address dhcp`
- o 213 `ipv6 address ipv6-address link-local`
- o 214 `ipv6 address ipv6-address/prefix-length`
- o 215 `ipv6 address ipv6-address/prefix-length [anycast]`
- o 216 `ipv6 address ipv6-prefix/prefix-length eui-64`
- o 217 `ipv6 dhcp relay destination server-address`
- o 218 `ipv6 enable`
- o 219 `ipv6 route ::/0 {[next-hop-address] [outgoing-interface]}`
- o 220 `ipv6 route prefix/length [outgoing-interface] next-hop-gua`
- o 221 `ipv6 route prefix/length outgoing-interface`
- o 222 `ipv6 route prefix/length outgoing-interface next-hop-lla`
- o 223 `ipv6 unicast-routing`

VERIFICATION / TROUBLESHOOTING

- o 224 `show ipv6 interface [type number]`
- o 225 `show ipv6 interface brief [type number]`
- o 226 `show ipv6 neighbors`
- o 227 `show ipv6 route [connected | local | static]`
- o 228 `show ipv6 route [connected] [local]`
- o 229 `show ipv6 route address`
- o 230 `show ipv6 route prefix/length`
- o 231 `show ipv6 route | section prefix/length`
- o 232 `show ipv6 routers`

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IPv6 Addressing & Routing

Part 2 of 2

VERIFICATION / TROUBLESHOOTING

- 233 show ipv6 static detail
- 234 traceroute {host-name | ipv6-address}

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Access Control Lists (ACLs)

Part 1 of 2

CONFIGURATION / OPERATION

- o 235 [no] ip access-list persistent
- o 236 [sequence-number] {deny | permit} icmp source source-wildcard destination destination-wildcard [icmp-message]
- o 237 [sequence-number] {deny | permit} ospf source source-wildcard destination destination-wildcard [log]
- o 238 access-list access-list-number remark text
- o 239 access-list access-list-number {deny | permit} icmp source source-wildcard destination destination-wildcard [icmp-message]
- o 240 access-list access-list-number {deny | permit} protocol source source-wildcard destination destination-wildcard [log]
- o 241 access-list access-list-number {deny | permit} source [source-wildcard] [log]
- o 242 access-list access-list-number {deny | permit} tcp source source-wildcard [operator [port]] destination destination-wildcard [operator [port]] [log]
- o 243 ip access-group common common_acl regular_acl {[in | out]}
- o 244 ip access-group number {in | out}
- o 245 ip access-group {number | name} {in | out}
- o 246 ip access-list resequence name|number initial increment
- o 247 ip access-list {standard | extended} name
- o 248 no sequence-number
- o 249 no {deny | permit} protocol source source-wildcard destination destination-wildcard
- o 250 remark text
- o 251 {deny | permit} protocol source source-wildcard destination destination-wildcard [log]

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Access Control Lists (ACLs)

Part 2 of 2

CONFIGURATION / OPERATION

- o 252 {deny | permit} source [source wildcard] [log]
- o 253 {deny | permit} tcp|udp source source-wildcard [operator [port]]
destination destination-wildcard [operator [port]] [log]

VERIFICATION / TROUBLESHOOTING

- o 254 clear ip access-list counters
- o 255 show access-list [name|number]
- o 256 show access-lists [access-list-number | access-list-name]
- o 257 show ip access-lists [access-list-number | access-list-name]

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Network Address Translation

CONFIGURATION / OPERATION

- 258 ip nat inside source list {access-list-number | access-list-name} {interface type number | pool pool-name} [overload]
- 259 ip nat inside source static inside-local inside-global
- 260 ip nat pool name start-ip end-ip {netmask netmask | prefix-length prefix-length}
- 261 ip nat {inside | outside}

VERIFICATION / TROUBLESHOOTING

- 262 clear ip nat translation protocol inside global-ip global-port local-ip local-port [outside local-ip global-ip]
- 263 clear ip nat translation { * | [inside global-ip local-ip] [outside local-ip global-ip] }
- 264 debug ip nat
- 265 show ip nat statistics
- 266 show ip nat translations [verbose]

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Management Protocols & Logs

Part 1 of 2

CONFIGURATION / OPERATION

- o 267 [no] cdp enable
- o 268 [no] cdp run
- o 269 [no] lldp receive
- o 270 [no] lldp run
- o 271 [no] lldp transmit
- o 272 [no] logging buffered
- o 273 [no] logging console
- o 274 [no] logging monitor
- o 275 [no] service sequence-numbers
- o 276 cdp holdtime seconds
- o 277 cdp timer seconds
- o 278 clock set hh:mm:ss day month year
- o 279 clock summer-time name recurring
- o 280 clock timezone name +/- hours-offset [minutes-offset]
- o 281 lldp holdtime seconds
- o 282 lldp reinit seconds
- o 283 lldp timer seconds
- o 284 logging [host] ip-address | hostname
- o 285 logging buffered level-name | level-number
- o 286 logging console level-name | level-number
- o 287 logging monitor level-name | level-number
- o 288 logging synchronous
- o 289 logging trap level-name | level-number
- o 290 no service timestamps

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Management Protocols & Logs

Part 2 of 2

CONFIGURATION / OPERATION

- o 291 ntp master stratum-level
- o 292 ntp server address | hostname
- o 293 ntp source name/number

VERIFICATION / TROUBLESHOOTING

- o 294 show cdp
- o 295 show cdp entry name
- o 296 show cdp interface [type number]
- o 297 show cdp neighbors [type number]
- o 298 show cdp neighbors detail
- o 299 show cdp traffic
- o 300 show clock
- o 301 show lldp
- o 302 show lldp entry name
- o 303 show lldp interface [type number]
- o 304 show lldp neighbors [type number]
- o 305 show lldp neighbors detail
- o 306 show lldp traffic
- o 307 show logging
- o 308 show ntp associations
- o 309 show ntp status

CCNA Command Cheat Sheet

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File Systems, IOS Images & Boot

CONFIGURATION / OPERATION

- 310 boot system flash [flash-fs:] [filename]
- 311 boot system {tftp | ftp} filename [ip-address]
- 312 cd ..
- 313 cd directory-name
- 314 copy from-location to-location
- 315 copy running-config startup-config
- 316 copy startup-config running-config
- 317 dir filesystem:/ dir filesystem:directory
- 318 erase nvram:
- 319 erase startup-config
- 320 pwd
- 321 verify {/md5 | /sha512} filesystem:name [hash-value]
- 322 write erase

VERIFICATION / TROUBLESHOOTING

- 323 show file systems
- 324 show flash:

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Operational Verification

Part 1 of 2

CONFIGURATION / OPERATION

- 325 [no] debug {various}
- 326 ip domain name fqdn
- 327 ip host name address
- 328 ip name-server address [address...]
- 329 ip name-server server-ip-1 server-ip-2 ...
- 330 telnet address|hostname
- 331 telnet {hostname | address}
- 332 terminal history size x
- 333 terminal monitor
- 334 terminal no monitor

VERIFICATION / TROUBLESHOOTING

- 335 clear ip arp [ip-address]
- 336 no debug all
- 337 ping {hostname | address}
- 338 show controllers serial interface-id
- 339 show dhcp lease
- 340 show hosts
- 341 show ip dhcp binding
- 342 show ip dhcp conflict
- 343 show ip dhcp pool [pool-name]
- 344 show mac address-table
- 345 show mac address-table aging-time
- 346 show mac address-table count

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Operational Verification

Part 2 of 2

VERIFICATION / TROUBLESHOOTING

- 347 show mac address-table dynamic
- 348 show mac address-table dynamic [interface type number]
- 349 show mac address-table dynamic address mac-address
- 350 show mac address-table dynamic interface interface-id
- 351 show mac address-table secure [interface type number]
- 352 show mac address-table static [interface type number]
- 353 show standby
- 354 show standby brief
- 355 traceroute {hostname | address}
- 356 undebug all

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QoS (CLI Example)

CONFIGURATION / OPERATION

- o 357 class-map name
- o 358 match protocol application

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DHCP Server (Legacy Appendix)

PREVIOUS EDITION TOPIC

CONFIGURATION / OPERATION

- o 359 default-router address1 [address2 ...]
- o 360 dns-server address1 [address2 ...]
- o 361 domain-name domain
- o 362 ip dhcp excluded-address first-address last-address
- o 363 ip dhcp pool name
- o 364 lease days hours minutes
- o 365 network subnet-ID {subnet-mask | /prefix-length}
- o 366 next-server tftp-server-address

VERIFICATION / TROUBLESHOOTING

- o 367 show ip dhcp server statistics

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HSRP (Legacy Appendix)

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PREVIOUS EDITION TOPIC

CONFIGURATION / OPERATION

- 368 standby group ip virtual-ip
- 369 standby group name label
- 370 standby group preempt
- 371 standby group priority value
- 372 standby version 2

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Host OS Troubleshooting

Part 1 of 2

CONFIGURATION / OPERATION

- o 373 arp -a
- o 374 ip -6 address
- o 375 ip -6 neighbor show
- o 376 ip -6 route
- o 377 ip address
- o 378 ip route
- o 379 ping6
- o 380 traceroute6

VERIFICATION / TROUBLESHOOTING

- o 381 get-Neighbor -AddressFamily IPv6
- o 382 ifconfig
- o 383 ifconfig -aL inet6
- o 384 ipconfig
- o 385 ipconfig /all
- o 386 ndp -an
- o 387 netsh interface ip show addresses
- o 388 netsh interface ip show route
- o 389 netsh interface ipv6 show address
- o 390 netsh interface ipv6 show neighbors
- o 391 netsh interface ipv6 show route
- o 392 netstat -rn
- o 393 netstat -rnf inet6
- o 394 networksetup -getinfo interface

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Host OS Troubleshooting

Part 2 of 2

VERIFICATION / TROUBLESHOOTING

- o 395 ping
- o 396 ping {host-name | ipv6-address}
- o 397 tracert

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commands through
hands-on practice?

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