

Cisco CCNA command synthesis

The article will try to synthesize CCNA commands in both ICND parts 1 and 2 as well as the current CCNA exam (640-802).

The article will try to synthesize CCNA commands in both ICND parts 1 and 2 as well as the current CCNA exam (640-802). Although it is not possible to list the full IOS command list, it includes most of the commands that will appear on the CCNA exam. Older CISCO order lists may contain additional commands, such as IPX, that no longer appear on the CCNA exam.

If you follow TipsMake.com's Cisco Lab articles, you will see them in English, so the following command table will "play" bilingual, "half lean half fat" so that you can understand it. strange when using all Vietnamese.

Popular CCNA commands

1. Cisco commands access to modes
2. Common shortcuts
3. CISCO switch configuration command
4. Cisco router configuration command
5. Privilege Commands, show commands on the Router
6. Copy command on Cisco router
7. Debug commands on Cisco routers

Cisco commands access to modes

Describe

Order

User mode (user mode)

Switch>

Enter Privilege mode (enter privileged mode)

Switch> enable

Privileged mode (privileged mode)

Switch #

Enter configuration mode (enter configuration mode)

Switch # configure terminal

Global Config mode

Switch (config) #

Enter Interface mode

Switch (config) #interface fa0 / 1

Interface mode

Switch (config-if)

Return to global configuration (Return to Global Config)

Switch (config-if) exit

Exit Global Config mode (Exit Global Config)

Switch (config) #exit

Return to user mode (Return to user mode)

Switch # disable

Logout (Logout)

Switch> exit

Common shortcuts

Describe

Shortcuts

Recall Previous command (Call Previous command)

Up arrow or p

Recall Next command (Call the Next command)

Down arrow or n

Start the command

a

End the command

e

Delete the input

d

Exit Configuration Mode

z

Refresh output on the screen

R

Complete the order

TAB

CISCO switch configuration command

Describe

Order

Configure device system name (Configure device name)

Switch (config) #hostname sw1

Sets the encrypted enable password (Set up an encryption password)

Switch (config) #enable secret cisco

Sets the unencrypted enable password (Set unencrypted password)

Switch (config) #enable password cisco

B? t t? t m? t kh? u m? t kh? u trên t? t c? m? t kh? u v? n b? n trong t? p tin c? u hình (encrypt all passwords in the configuration file)

Switch (config) #service password-encryption

Configure a Message Of The Banner, with an ending character of \$ (set notification for banner, ending in \$)

Switch (config) #banner motd \$

Assign IP address to vlan (assign ip to vlan)

Switch (config) #int vlan 1

Switch (config-if) #ip addr 172.22.1.11

255.255.255.0

Assign Default gateway, note the mode: assign default gateway.

Switch (config) #ip default-gateway 10.1.1.1

Select one interface: choose an interface.

Switch (config) #int fa0 / 1

Select a range of interfaces (version dependant): choose a range of interfaces.

Switch (config) #int range fa0 / 1 - 12

Set the interface description: Write a description for the interface.

Switch (config-if) #description

Add vlan using config mode: add vlan using config mode.

switch (config) #vlan 11 switch (config-vlan) #name test

Configure Interface fa0 / 1 @ speed 100 Mbps and full duplex: Configure int fa0 / 1 at 100Mbps and full duplex.

Switch (config-if) #speed 100 Switch (config-if) #duplex full

Assign interface to vlan: assign int to vlan.

switch (config-if) #switchport access vlan 11

Enable Port Security: Enable port security.

Switch (config-if) #switchport mode access Switch (config-if) #switchport port-security Switch (config-if) #switchport port-security mac-address sticky

Disable Interface: turn off int

Switch (config-if) shutdown

Enable Interface: allows int to work.

Switch (config-if) no shutdown

Configures 5 Telnet sessions each with a password of 'cisco': allow 5 Telnet sessions at a time, the password is cisco.

Switch (config) #line vty 0 4

Switch (config-line) #login

Switch (config-line) #password cisco

Enable and define console password of 'cisco': Activating and setting the console password is cisco.

```
Switch (config) #line child 0
```

```
Switch (config-line) #login
```

```
Switch (config-line) #password cisco
```

Synchronize console messages (keep what you have on the screen): Synchronize console notifications, keep what you've typed on the screen.

```
Switch (config-line) #logging synchronous
```

Set the timezone and automatically adjust: Set the timezone and automatically change.

```
Switch (config) #clock timezone gmt 0 Switch (config) #clock summer-time gmt recurring
```

Sets priority switch for vlan: Set priority for vlan.

```
Switch (config) # spanning-tree vlan 1 priority 4096
```

Enables portfast: Enable portfast.

```
Switch (config) #int fa0 / 1
```

```
Switch (config-if) # spanning-tree portfast
```

Enables RSTP: Turn on RSTP, there are other options are PVST and MST.

```
Switch (config) # spanning-tree rapid-pvst mode
```

Creates a vlan: Create vlan. This command is executed in config mode, not in vlan database and the int vlan command does not create vlan.

```
Switch (config) #vlan 2 Switch (config-vlan) #name sales
```

Assign an interface to vlan 2: Assign int to vlan 2.

```
Switch (config-if) #switchport access vlan 2
```

Forcing int is an unconditional trunk. It is possible to choose another mode of access and dynamic.

```
Switch (config-if) #switchport mode trunk
```

Manually switch the switch to the VTP domain. The switch automatically becomes part of the VTP domain if it is in the "null" domain and receives the VTP frame.

```
Switch (config) #vtp domain lab
```

Changing VTP mode from default mode is server to client. In client mode, it cannot be changed.

```
Switch (config) #vtp mode client
```

Cisco router configuration command

Set a password console to cisco: Setting the console password is Cisco. Router (config) #line child 0

Router (config-line) #login

Router (config-line) #password cisco Set a telnet password: Set telnet password. Router (config) #line vty 0 4

Router (config-line) #login

Router (config-line) #password cisco Stop console timing out: Console is not logged off. Router (config) #line child 0

Router (config-line) # exec-timeout 0 0 Set the enable password to cisco: Set the enable password to be cisco.

Router (config) #enable password cisco

??t s? m?t kh?u enable enable sang peter:

Set secret password is peter. This password overrides the enable password and is encrypted in the configuration file.

Router (config) #enable secret peter Enable an interface: Enable interface. Router (config-if) #no shutdown To

disable an interface: Turn off the interface. Router (config-if) #shutdown Set the clock rate for a router with a DCE cable to 64K: Set the clock rate for the router with the DCE cable to 64000. Router (config-if) clock rate

64000 Set a logical bandwidth assignment of 64K the serial interface: Assign logical bandwidth to the serial interface. Router (config-if) bandwidth 64 To add an IP address to a interface: Add IP to the interface. Router

(config-if) #ip addr 10.1.1.1 255.255.255.0 To enable RIP on all 172.16.xy interfaces: Turn on RIP on all interface 172.16.xy Router (config) #router rip

Router (config-router) #network 172.16.0.0 Disable RIP: Turn off RIP. Router (config) #no To rip router enable IRGP with a AS of 200, to all interfaces: Turn on IRGP with AS 200 for all interfaces. Router (config) #router igrp 200

Router (config-router) # Network 172.16.0.0 Disable IGRP: Turn off IGRP. Router (config) #no igrp 200 router The static remote network route is 172.16.1.0, with the mask 255.255.255.0, the next hop is 172.16.2.1, with the

cost of 5 hop. Router (config) #ip route 172.16.1.0 255.255.255.0 172.16.2.1 5 Disable CDP for the whole

router: Turn off the CDP for the whole router. Router (config) #no cdp run Enable CDP for the whole router:

Turn on the CDP for the whole router. Router (config) #cdp run Disable CDP on an interface: Turn off CDP on the interface. Router (config-if) #no cdp enable

Enable the http server to SDM can be used: Enable http server to use SDM.

Router (config) #ip http server

Defines a username and password: Set username (sue) and password (cisco). Can be used for PPP authentication or user access.

Router (config) #username to password cisco

Determine the local host file in unix, like:

/ etc / hosts in unix

Router (config) #ip host mypc 10.1.1.3

Disable Disables DNS lookup. Useful when commands are typed.

```
Router (config) #no ip domain-lookup
```

Set the logical bandwidth (not physical) for the interface. Commonly used by routing protocols, SNMP queries.

```
Router (config) #int s0
```

```
Router (config-if) #bandwidth
```

Setting up the physical clock

```
Router (config-if) #clock rate 64000
```

Set WAN interface serial encapsulation: In addition to hdlc there is another option, PPP and frame-relay.

```
Router (config-if) #encapsulation hdlc
```

Authentication on PPP is optional: Authentication on PPP is optional. This command turns chap on interface, another option is PAP.

```
Router (config-if) #ppp authentication chap
```

Choose LMI type. If the LMI type is not properly configured it will be detected automatically.

```
Router (config-if) # frame-relay lmi-type cisco
```

Static routing. Static routing types have Administrative Distance (AD) of 1, so it will override any dynamic routing.

```
Router (config) #ip route 50.0.0.0 255.0.0.0
```

10.1.2.1

Enables RIP version 1 on all LOCAL interfaces mà có m?t 10.xxx address: Enable RIP v1 on all LOCAL interfaces with address 10.xxx

Enables RIP version 2: Turn on RIP v2

```
Router (config) #router rip
```

```
Router (config-router) #network 10.0.0.0
```

```
Router (config-router) #version 2
```

Enable router to provide a DHCP service: Set up DHCP on the router.

Router (config) #ip dhcp pool MYPOOL

Router (dhcp-config) #network 10.1.1.0 255.255.255.0

Router (dhcp-config) # default-router 10.1.1.1 Router (dhcp-config) #exit

Router (config) #ip excluded-address dhcp 10.1.1.1 10.1.1.99

Setup config register: Specify the router to do when it starts.

Router (config) # config-register 0x2102

Create sub logic interface under the physical interface.

Enable 802.1q trunking on the interface.

Set IP address.

Router (config) #int fa0 / 0.1

Router (config-subif) #encapsulation dot1Q 1

Router (config-subif) #ip address 10.1.1.1

255.255.255.0

Enabling OSPF on any local interface starts with IP address 10.1.xx

Router (config -) # router ospf 1

Router (config-router) #network 10.1.0.0

0.0.255.255 area 0

EIGRP can be configured in the same way as RIP or use mask options.

Router (config) #router eigrp 1

Router (config-router) #network 172.16.0.0 Or

```
Router (config-router) # Network 172.16.2.0
```

```
0.0.0.255
```

Set ACL standard. This standard uses numbers from 1 to 99.

```
Router (config) # access-list 1 permit
```

```
172.16.1.1
```

Set Extended ACL. The first address is the source IP address.

```
Router (config) # access-list 101 deny tcp host
```

```
172.16.1.1 host 172.16.2.1 eq telnet Router (config) # access-list 101 ip permits any any
```

Dùng b? l?nh này ?? attach m?t giao di?n ACL: Use the group command to attach the ACL to the interface.

```
Router (config) #interface fa0 / 0
```

```
Router (config-if) #ip access-group 1 out
```

An example of using an ACL name instead of a number.

```
Router (config) #ip access-list extended my_list
```

```
Router (config-ext-nacl) # deny tcp host
```

```
172.16.1.1 host 172.16.2.1 eq ftp
```

```
Router (config-ext-nacl) # ip permit any any
```

Assign the ACL to the interface by name.

```
Router (config) #int fa0 / 0
```

```
Router (config-if) #ip access-group my_list printed
```

Configuring a static NAT to allow a server to be accessed via the Internet, using the IP address on interface s0 / 0/1: Configure static NAT to allow server access over the Internet, using the IP address on the interface s0 / 0 /first.

```
Router (config) #ip nat inside source static
```

```
10.1.1.2 interface s0 / 0/1
```

Defining interface which NAT takes place between: Specifies the interface that NAT happens.

```
Router (config) #int fa0 / 0.1
```

```
Router (config-if) #ip nat inside
```

Enables RIPng: Turn on RIPng

```
Router (config) # ipv6 unicast-routing
```

```
Router (config) # ipv6 rip ccna router
```

```
Router (config) # int s0 / 0/0
```

```
Router (config-if) # ipv6 rip ccna enable
```

Privilege Commands on the Switch

Describe

Order

Turn on the setup dialog box automatically when the device starts without configuration.

```
Switch # setup
```

Displays the held config in DRAM. Có không có n?u không sao l?u ch?y câu l?nh start không ???c dùng: Show configuration saved in DRAM. This configuration is lost when the command not copy run start is not used.

```
Switch # show running-config
```

Displays the NVRAM (None volatile) config: Displays NVRAM configuration.

```
Switch # show startup-config
```

Saves the config: Save the configuration, without this command all changes and configuration will be lost.

```
Switch # copy running-config startup-config
```

L?u hành ch?y config ?? m?t TFTP server: Save the configuration running into the TFTP server.

```
Switch # copy running-config tftp
```

Copies IOS files to a TFTP server: Copy the IOS file to the TFTP server.

```
Switch # copy flash tftp
```

Copies files from a TFTP server the flash device: Copy files from TFTP to the flash device.

```
Switch # copy tftp flash
```

Erase the config held in NVRAM: Delete the configuration saved in VNRAM. If you execute this command with reload, all configuration will be lost.

```
Switch # erase startup-config
```

Reboots the device: Restart the switch.

Switch # reload

Sequence abort: Cancel a command, procedure

6

Suspend Telnet Session: Pause telnet session

Press at the same time 6, release all the keys and immediately press x

Show the current sessions: View the current session, which session * is the active session.

Switch # show sessions

Forcible closes a telnet session: Force to close a telnet session.

Switch # disconnect

Set the local device clock: Set the local time for the device. This command is not executed in configuration mode.

Switch # clock set 10:00:00 april 2 2008

Display version IOS along with other useful info: View IOS version and other useful information such as uptime system, register configuration .

Switch # show version

View file contents of flash.

Switch # show flash

See time.

Switch # show clock

See the user currently logged in.

Switch # show users

By default displays the last 10 commands: See the 10 commands used.

Switch # show history

Displays the ARP cache: View ARP cache.

Switch # show arp

Displays the spanning tree status on 1 vlan: View the state of spanning tree on vlan 1.

Switch # show spanning-tree vlan 1

Lists all the configured vlans: List all configured vlan.

Switch # show vlan

Displays VTP info such as VTP mode, VTP domain, VTP counter: View VTP information such as mode, domain, counter.

Switch # sh vtp status

Ping selected address: Ping an IP address.

Switch # ping 10.1.1.1

Extended ping: Must be executed in privilege mode.

Switch # ping

Display the status interface: Displays the interface status.

Switch # show int fa0 / 1

Hi?n th? tr?ng thá?i vlan và ??a ch? IP ??a ch? IP (th??ng s? qu?n lý vlan): See VLAN 1 status.

Switch # show interfaces vlan 1

Displays a list of CDP neighbors: See CDP list.

Switch # show cdp neighbors

Extended information on the above: See more information than the above command.

Switch # show cdp neighbors details

Display CDP packets as they arrive: See CDP packages when they arrive.

Switch # debug cdp packets

Display ping packets as they arrive: Displays ping packets when they arrive.

Switch # debug icmp packets

Display MAC Addresses table switch. Entries are from the source address in the Ethernet frames: See the MAC address table, taken from the source MAC address in the Ethernet frame.

Switch # show mac address-table

Privilege Commands, show commands on the Router

Request

Cisco command

Enter privileged mode

enable

Return to user mode from privileged

disable

Exit the router

logout / exit / quit

See the router version

Router # show version

View current configuration (DRAM)

Router # show running-config

See startup configuration (NVRAM)

Router # show startup-config

See the capacity of IOS file, flash

Router # show flash

View all recorded router logs.

Router # show log

See interface status of interface e0

Router # show interface e0

Hình thức thi? b? xác th?c giao di?n và IP ??a ch? giao di?n cho các giao d?ch: See operating status of interface and IP address for all router interfaces.

Router # show ip interface brief

See cable type on s0

Router # show controllers 0

See connected cdp devices

Router # show cdp neighbor

See detailed information on all devices

Router # show cdp entry *

Displays all the routing protocols: See all configured routing protocols.

Router # show ip protocols

Displays the IP routing table: Displays IP routing tables.

Router # show ip route

Show access list

Router # show access-lists

See which routers see the ISDN switch

Router # show isdn status

Displays the NAT translations: See the NAT translation.

Router # show ip nat translations

View physical cable configuration:

DTE / DCE, x.21, V.35,

RS232

Router # show controllers s 0

Displays the end-to-end status: Displays end-to-end status

Router # show frame-relay pvc

Displays the type of LMI and the number LMI frames: See LMI type and LMI frame number.

Router # show frame-relay lmi

Shows the ARP table: Shows ARP table: Show frame frame relay inverse ARP.

Router # show frame-relay map

See the list of ospf neighbors and their status

Router # show ip ospf neighbor

See the status of ospf interface.

Router # show ip ospf interface

View the list of neighbor eigrp and their status.

Router # show ip eigrp neighbor

See interface status EIGRP.

Router # show ip eigrp interface

View all trunk ports on the device

Router # show interface trunk

ping IPv6

Router # ping 2000: 1000: 500: 3 :: 1

Copy command on Cisco router

Request Cisco Command Save current configuration from DRAM to NVRAM copy running-config startup-config Merge NVRAM configuration into DRAM copy startup-config running-config Copy DRAM configuration to TFTP server copy running-config tftp Configuration merge TFTP image with the current router configuration saved on DRAM copy tftp running-config Backup IOS to TFTP server copy flash tftp Upgrade IOS router from TFTP server copy tftp flash

Debug commands on Cisco routers

Request Cisco Turn on debug command for RIP debug ip deletion View IGRP debug information summarizing debug ip igrp events See the IGRP debug information in details of debugging igrp transactions Debug IPX RIP debug ipx routing activity Debug IPX SAP debug IPX SAP Debugging IPX SAP debug IPX SAP Turn on debug CHAP or PAP debug ppp authentication Turn off all debug no debug all undebug all

See also: CCNP_BCMSN Lab: Trunk Configuration

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