

# Ccna router command

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mode of the router:

there are five mode of operation of the cisco router

- 1) setup mode
- 2) user mode
- 3) privileged mode
- 4) global configuration mode
- 5) interface mode
- 6) rommon mode

1) setup mode:

if nvram is blank then this mode appear usually configuring router we press no to that option  
if you apply no it will go to the user mode

2) user mode:

in user mode it will look like "Router>"

available command:

- 1) enable ==> it will then go to the privileged mode from user mode
- 2) ping ==> actual command is "ping <ip address> "  
for example "ping 192.168.0.1"
- 3) disable ==> it will go from the privileged mode to the user mode
- 4) show ==>
  - "show flash" ==> show the memory where the operating system and other files
  - "show ip interface brief" ==> will show all the connection state up or down
  - "show version" ==> will show the version of the router

3) privileged mode: in privileged mode the prompt looks like (Router#)

available command:

- 1) show flash
- 2) show version
- 3) show ip interface brief
- 4) ping <ip address>
- 5) traceroute <ip address>
- 6) "show running config" ==> show the running configuration
- 7) "show startup config" ==> show the running configuration

- 8)copy ==> copy different file
- 9)erase ==> erase file

Global configuration:

if we type the “configure terminal “ in the privileged mode it will go to the configuration  
the prompt looks like Router(config)

1) ”hostname “ ==> type hostname <name> to give the router a name

## give password to the router

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Router>enable

Router#configure terminal

Router(config)#line console 0

//selecting the console line

Router(config-line)#password abc123

// setting the password

Router(config-line)#login

//make the password for login

Router(config-line)#exit

//exit the settings

Router(config)#line vty 0 2

// the virtual terminal password for telnet

Router(config-line)#password abc123

//give the password

Router(config-line)#login

Router(config-line)#exit

Router(config)#enable password abc123

//give the enable password

Router(config)#exit

Router(config)#service password-encryption

//encrypt the password

Router#copy running-config startup-config

// copy the running config file in the startup so the file dont erase restarting the device

Destination filename [startup-config]?

Building configuration...

[OK]

Router#wr

./writing the command in the memory

Building configuration...

[OK]

# assing ip address

**Router>enable**

**Router#show ip interface brief**

**//it will show you a brief list of the connection**

```
-----  
Interface IP-Address OK? Method Status Protocol  
GigabitEthernet0/0 192.168.0.1 YES manual up up  
GigabitEthernet0/1 unassigned YES unset administratively down down  
GigabitEthernet0/2 unassigned YES unset administratively down down  
Serial0/3/0 10.0.0.1 YES manual up up  
Serial0/3/1 unassigned YES unset administratively down down  
Vlan1 unassigned YES unset administratively down down  
-----
```

**Router#configure terminal**

**Enter configuration commands, one per line. End with CNTL/Z.**

**Router(config)#interface GigabitEthernet0/0**

**Router(config-if)#ip address 192.168.0.1 255.255.255.0**

**Router(config-if)#no shutdown**

**Router(config-if)#interface Serial0/3/0**

**Router(config-if)#ip address 10.0.0.1 255.0.0.0**

**Router(config-if)#no shutdown**

**Router(config-if)#exit**

## backup cisco operating system

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### copying file in the tftp server

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**Router#copy flash tftp**

Source filename []? **c2900-universalk9-mz.SPA.151-4.M4.bin**

Address or name of remote host []? **192.168.0.5**

Destination filename [c2900-universalk9-mz.SPA.151-4.M4.bin]?

```
33591768 bytes copied in 7.014 secs (502851 bytes/sec)
Router#
```

**Router#delete flash**

## recover the file

```
33591768 bytes copied in 4.087 secs (862979 bytes/sec)
Router#
```

but if the operating system is deleted and the router is reloaded there will be no OS so the system will go to the ROMMON MODE or DISASTER mode and the prompt will be rommon 1 > there is still a process to recover the OS file process is given below

1) first remove all the connection from the router

2) connect the router with the TFTP server with the CROSS CABLE (remember it cross cable)

rommon 1 > IP\_ADDRESS=192.168.0.1

rommon 2 > IP\_SUBNET\_MASK=255.255.255.0

rommon 3 > DEFAULT\_GATEWAY=192.168.0.5 //the server address

//and the gateway

rommon 4 > TFTP\_SERVER=192.168.0.5

//must be same

rommon 5 > TFTP\_FILE=c2900-universalk9-mz.SPA.151-4.M4.bin

rommon 6 > set

rommon 7 > tftpdnld

rommon 8 > reset

# backup the startupconfig

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## sending startup-config file to tftp server

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Router#copy running-config startup-config

Destination filename [startup-config]?

Building configuration...

[OK]

**Router#wr**

Building configuration...

[OK]

**Router#copy startup-config tftp**

Address or name of remote host []? 192.168.0.5

Destination filename [Router-config]?

Writing startup-config....!!

[OK - 975 bytes]

975 bytes copied in 3.015 secs (323 bytes/sec)

**Router#**

## **retrive config file from the tftp server**

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**Router#erase startup-config**

Erasing the nvram filesystem will remove all configuration files! Continue? [confirm]

[OK]

**Router#show startup-config**

startup-config is not present

**Router#copy tftp startup-config**

Address or name of remote host []? 192.168.0.5

Source filename []? Router-config

Destination filename [startup-config]?

**Router#reload**

## **bypassing the password**

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**Router>show version**

after typing this at the end we will see the

**“Configuration register is 0x2102”**

this is the address where the configuration store and we need to bypass this

**1)physically restart (by switching off and then on)**

2)within 60 seconds press **ctrl+pause**

**Rommon1>confreg 0x2142**

**Router>reset**

**Router>enable**

**Router#copy startup-config running-config**

//now change every password

//after changing

**Router#copy running-config startup-config**

**Router#config-terminal**

**Router(config)#config-register 0x2102**

**Router(config)#exit**

**Router#reload**

TANVIR