EXPERIMENT 3 – Useful Cisco IOS Commands

Objective:

To comprehend the output of different Cisco IOS commands and make the students comfortable with basic operations on Cisco network devices.

Set Hostname of device:

If there are many switches and routers in your network topology, accessing them at the same time can be confusing to address on which device you are currently working. Setting hostname of your device is useful as it will give you the clarity on Command Line Interface (CLI) by showing the hostname of the device on which you are working.

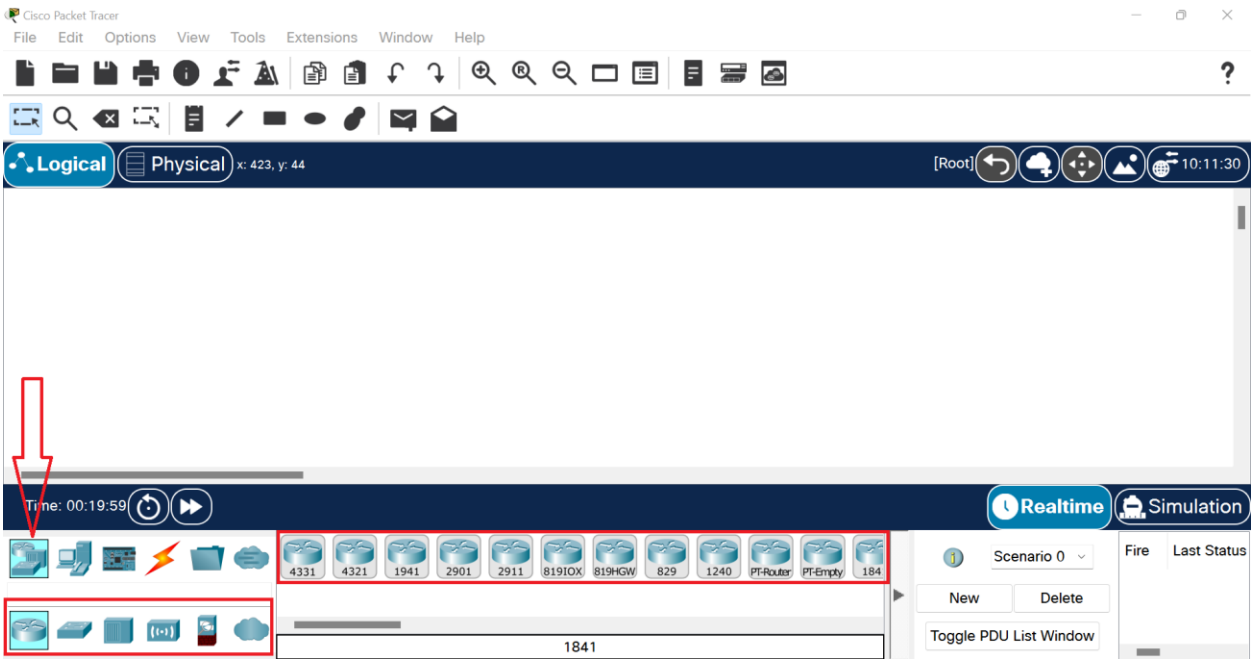
Following is the syntax of hostname command on Cisco IOS:

Switch(config)# hostname Lab-Switch01

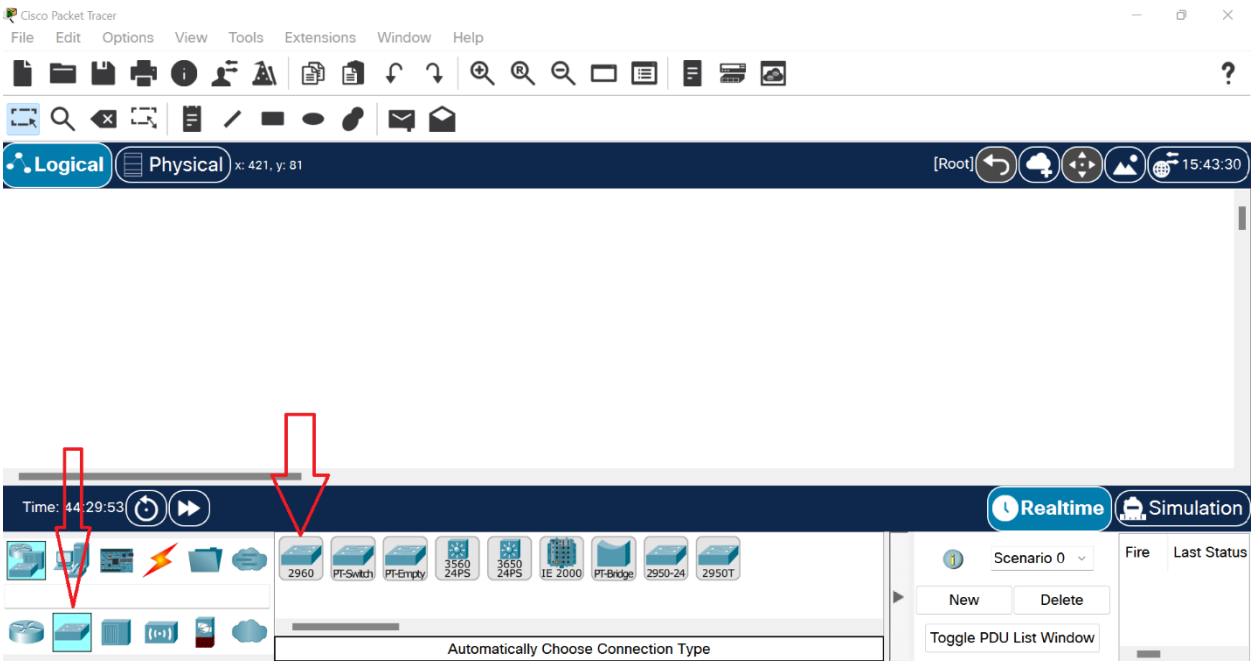
Where ***Lab-Switch01*** is the hostname that you want to set on Switch.

Steps:

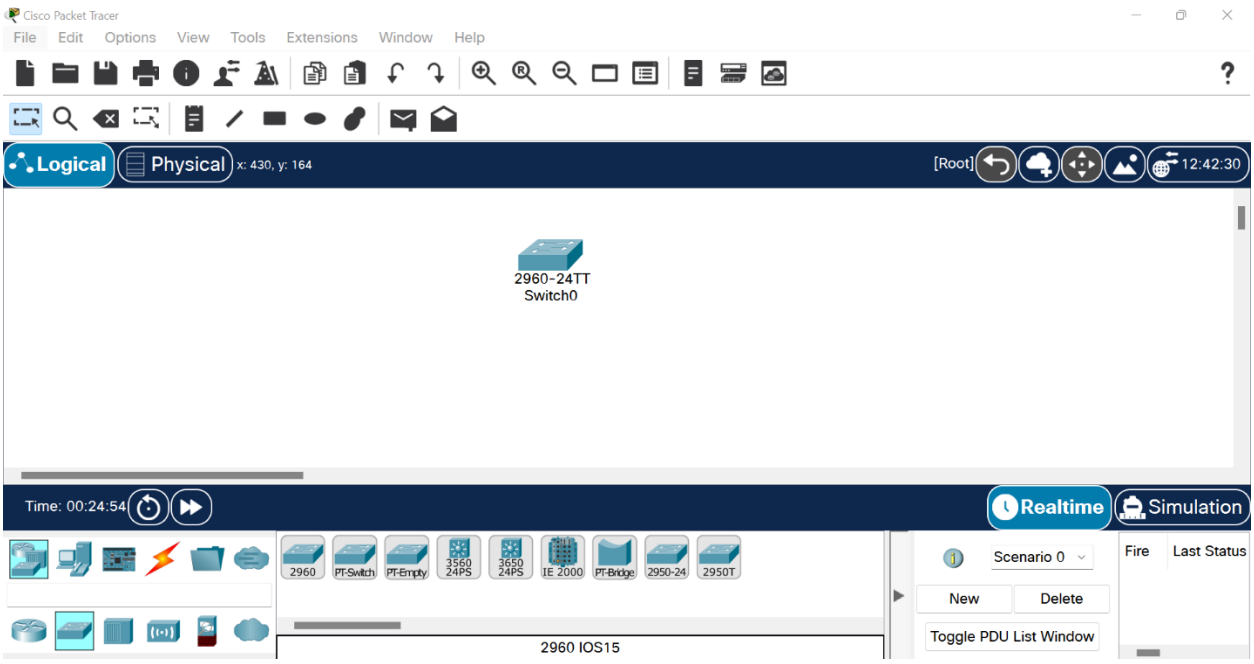
Open Cisco Packet Tracer GUI and select “Network Devices”



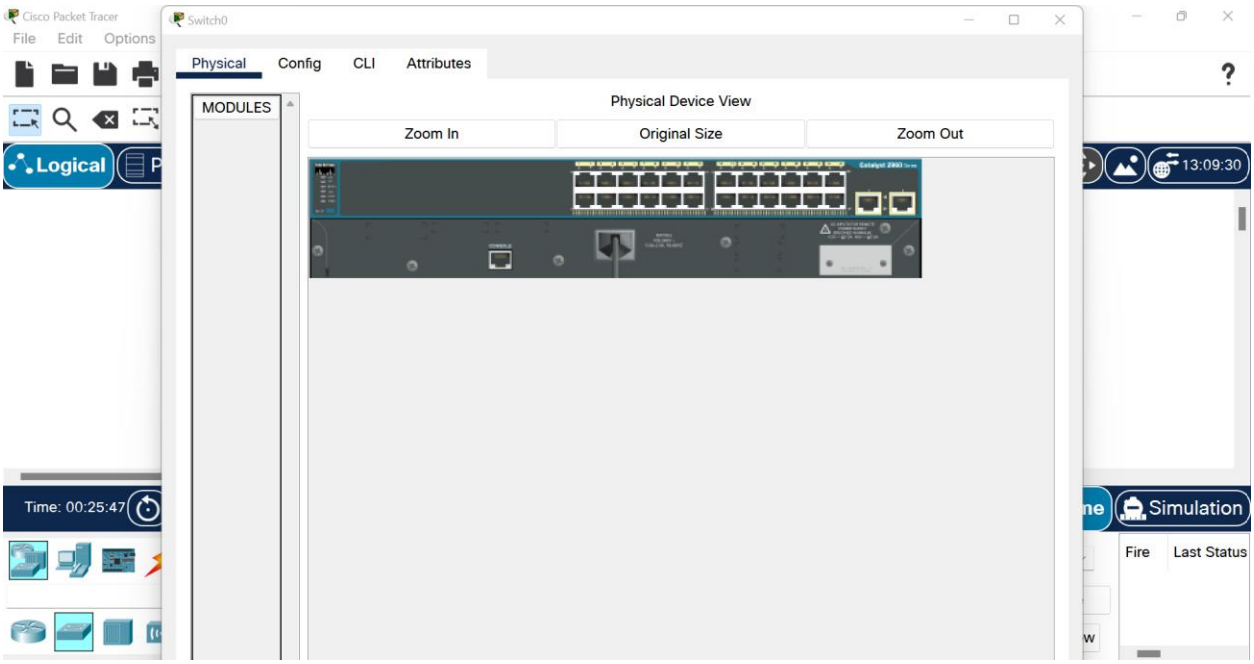
From the Network devices menu, select Switch and then from the right menu chose “2960 Switch”



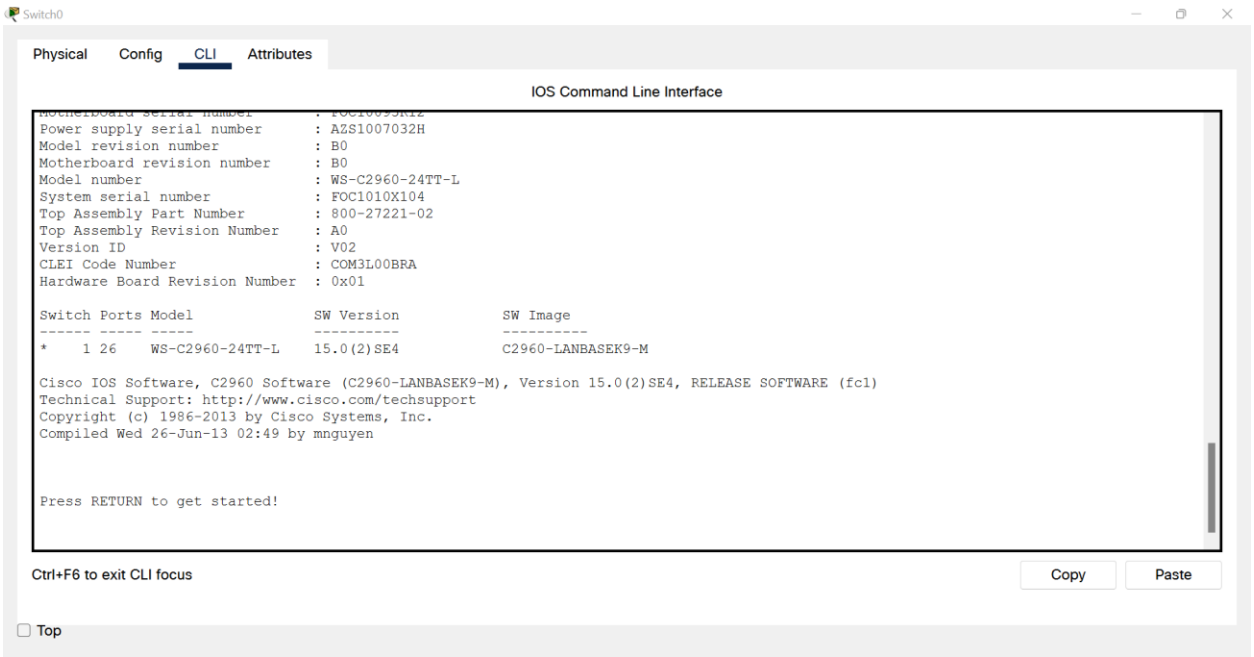
Drag 2960 Switch to your workspace



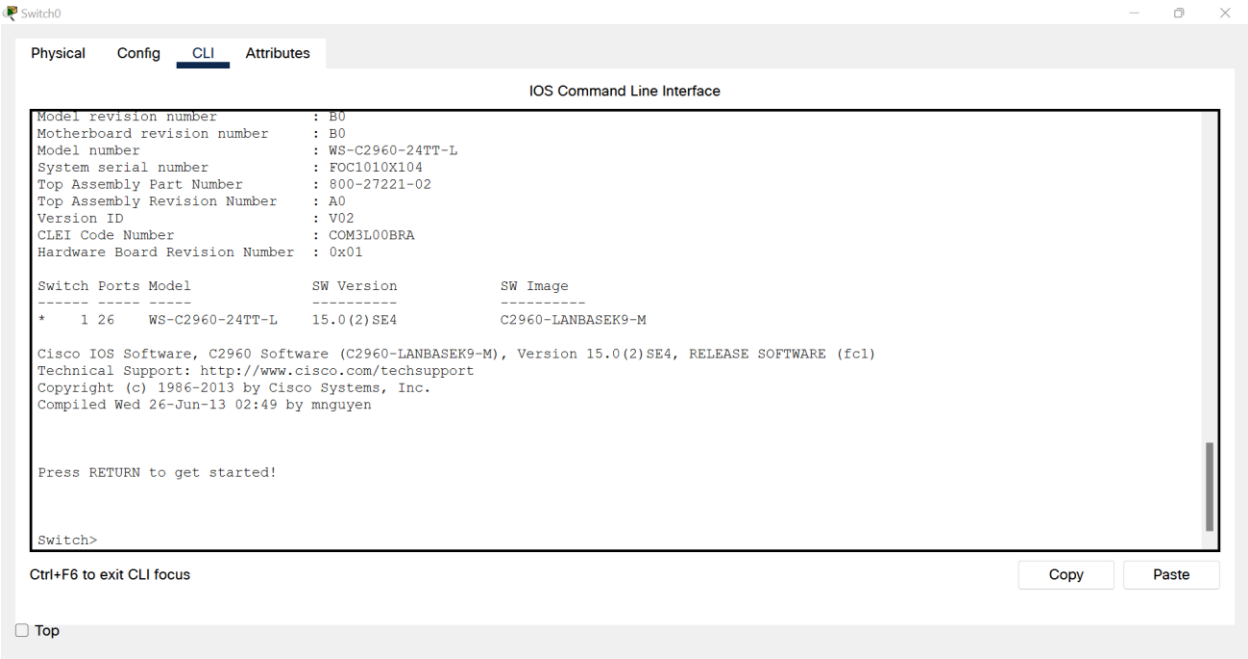
Double click on the switch and go to CLI tab



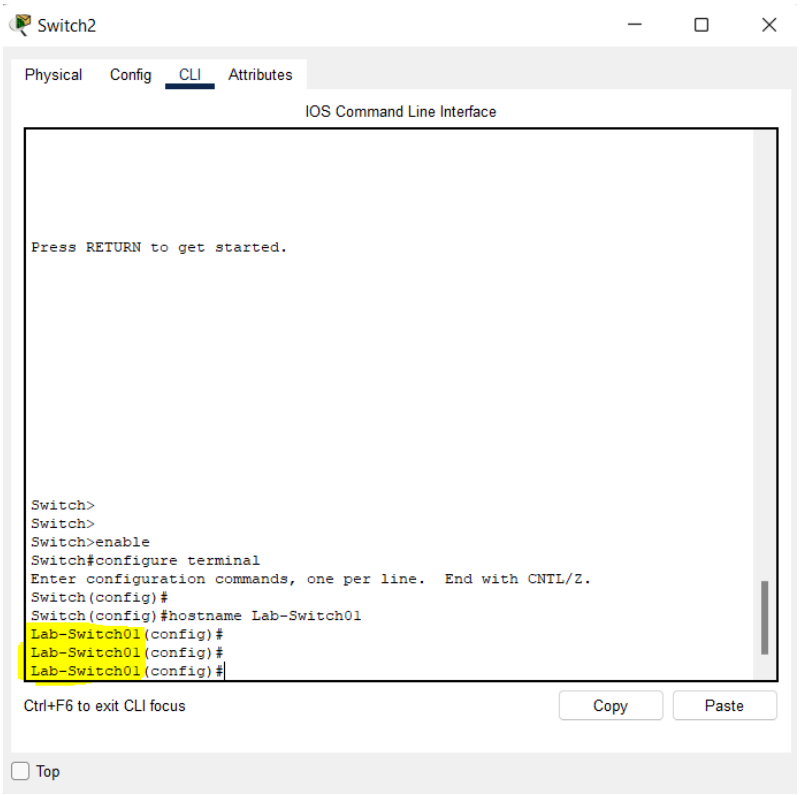
Under the CLI tab you will notice that Cisco IOS is loading and once it loaded completely, you will get an option “Press Return to get started”
Press **Enter** on the CLI



Once you press **Enter**, you will be landed in User EXEC mode



To set a specific hostname of your switch, please use **hostname** command in global configuration mode:



Secure Privileged Exec Mode:

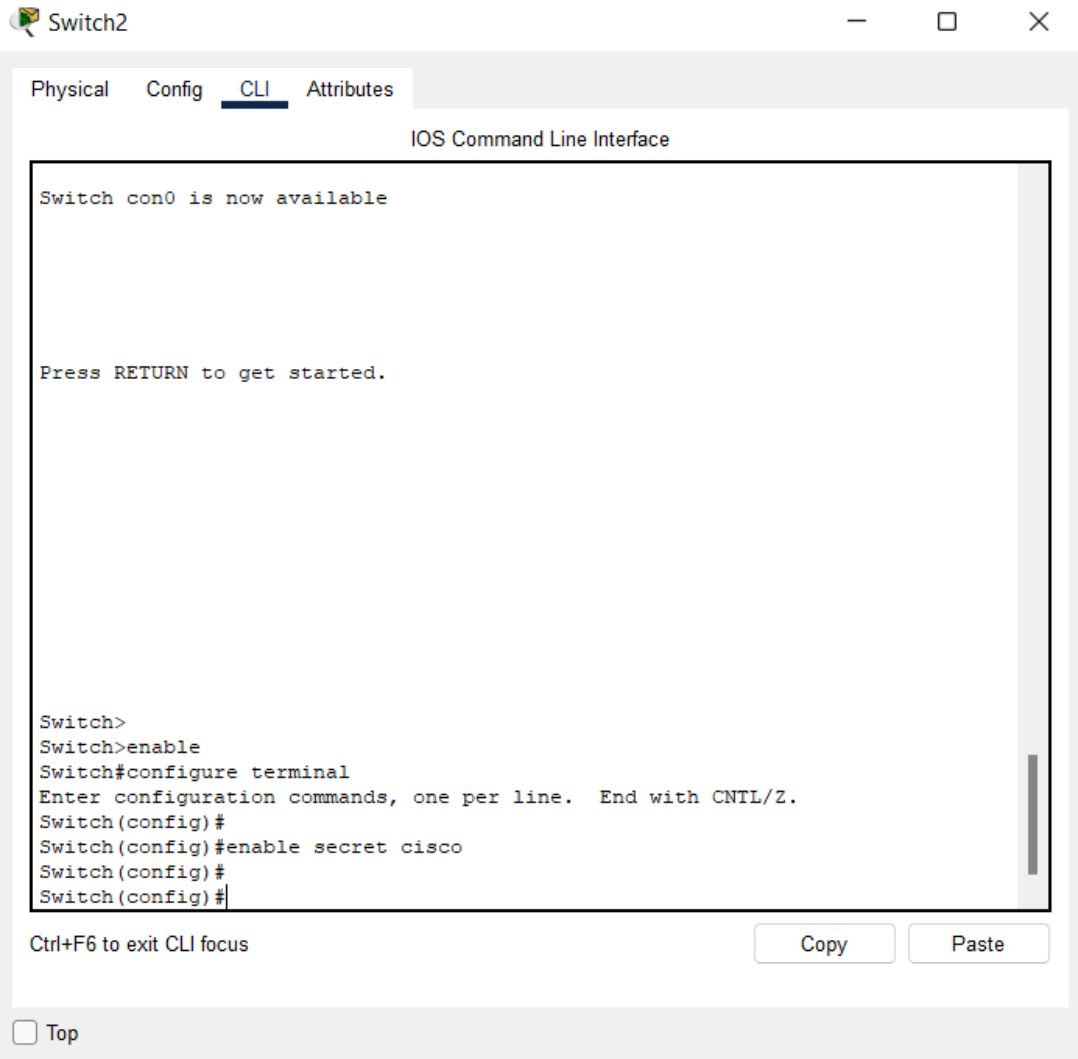
It is very important to ensure that privileged exec mode on your Cisco devices is secured. It makes sure that only authenticated administrators can gain access to privileged exec mode on the Cisco network devices.

Switch(config)# enable password cisco

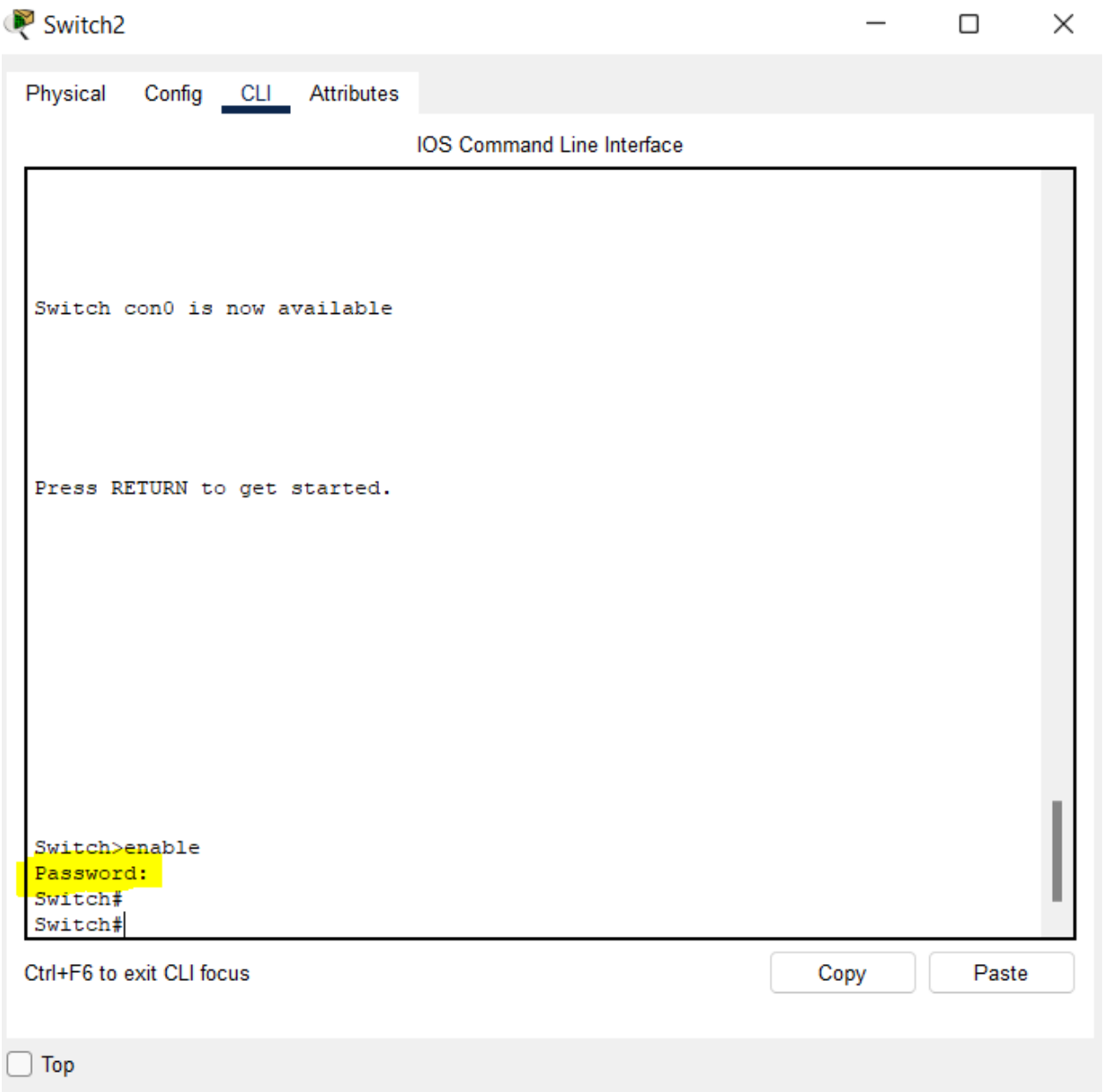
Where “cisco” is the password.

After running this command, whenever you navigate from user exec mode to privileged exec mode, you are prompted to enter the password and only upon successful authentication you can gain access to privileged exec mode.

Steps:



Once you set the enable secret in global configuration mode, go back to user exec mode. Now navigate from user exec mode to privileged exec mode and you will be prompted for password. Once you enter the correct password, privileged exec mode appears.

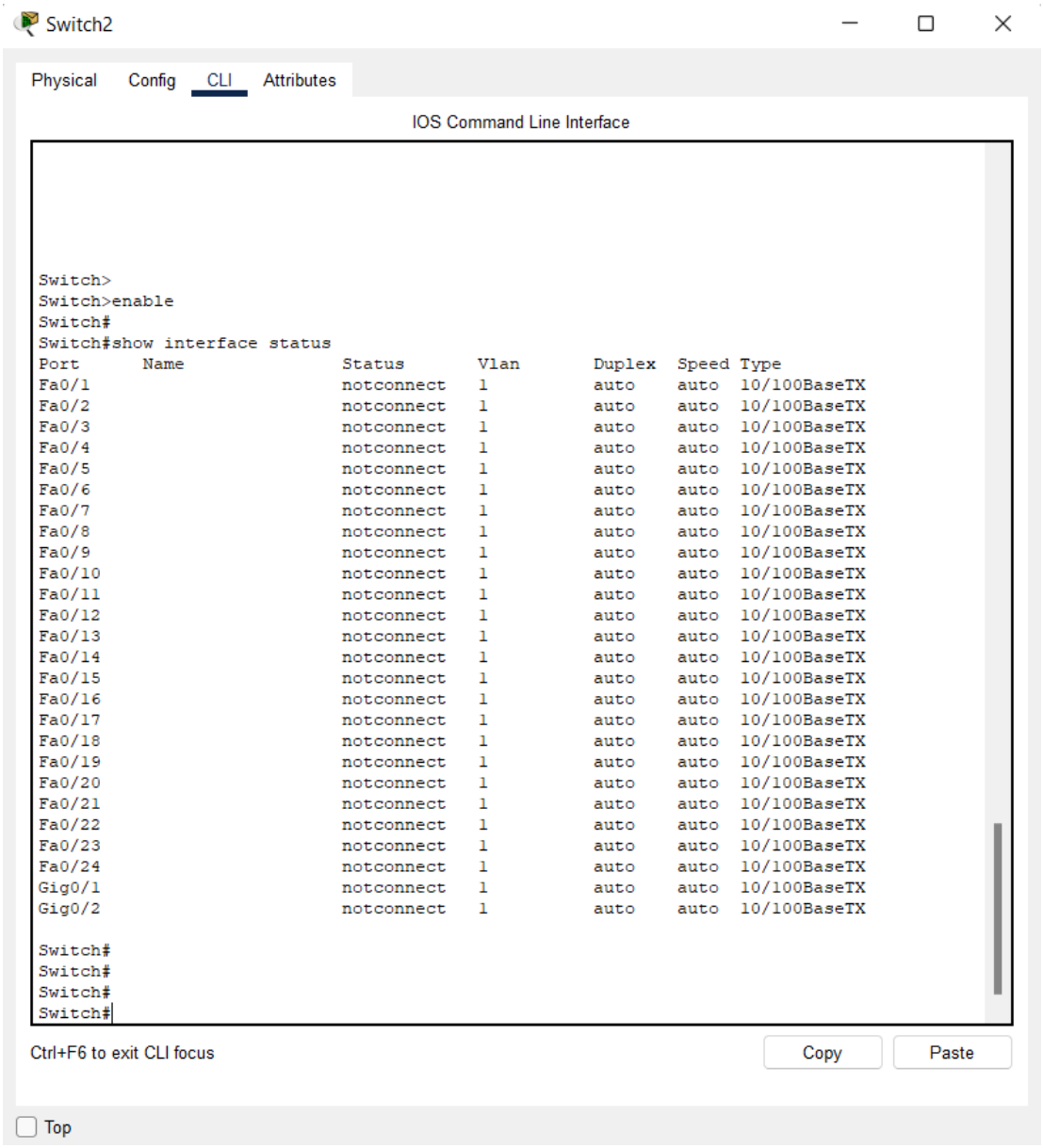


Display the status of all interfaces (ports):

It is often useful to display all the interfaces (ports) on the switch along-with their status and other details. Following command is used for this purpose:

Switch# show interface status

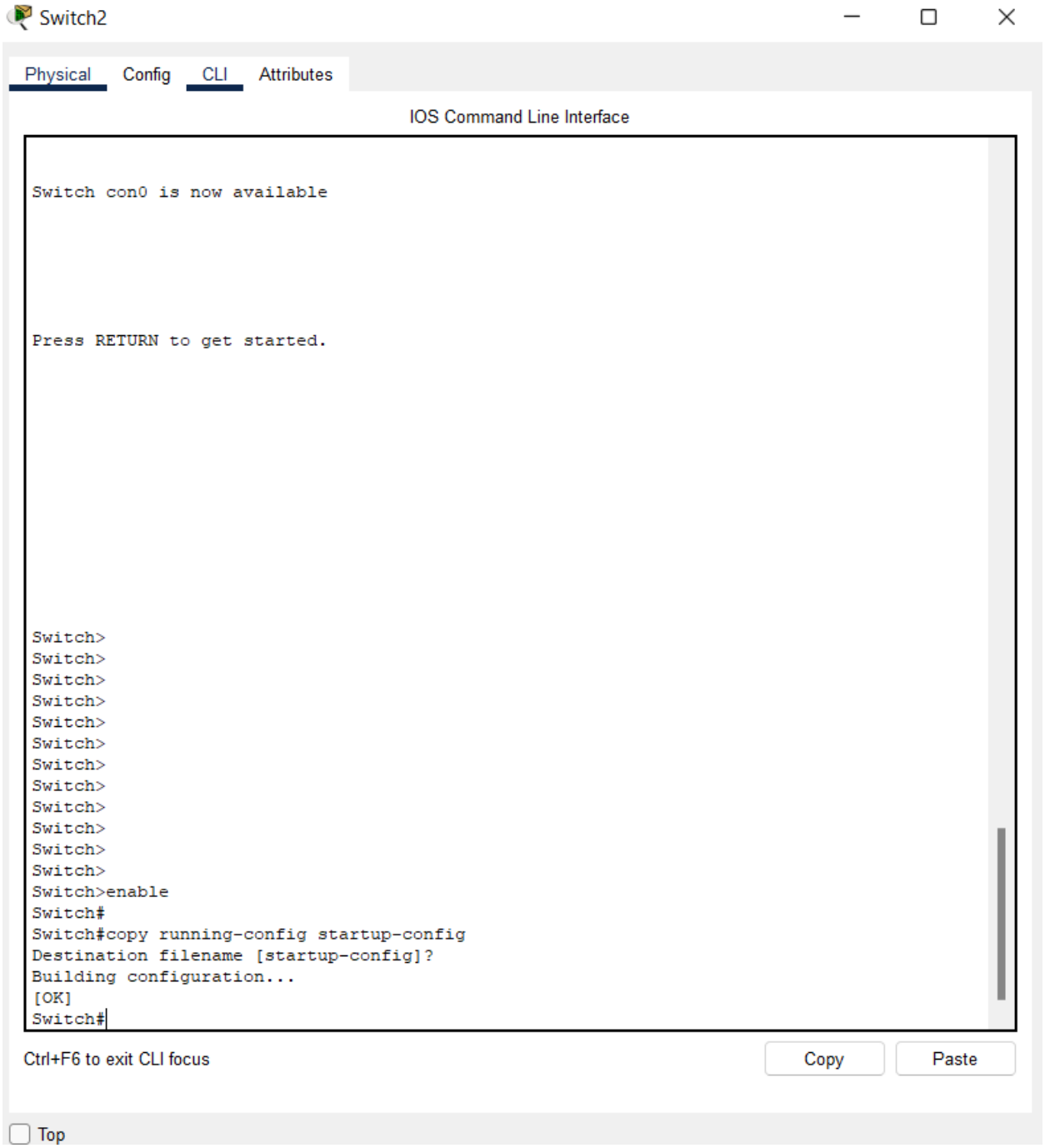
Fa0/1 to Fa0/24 represent port 1 - 24 on Cisco 2960 switch while Gig0/1 to Gig0/2 represent the uplink ports on the switch. “Fa” is the short form of “FastEthernet” and this type of interfaces (ports) on switch are capable of 100 Mbps data transfer rate. “Gig” is the short form of “Gigabit Ethernet” and this type of interfaces on switch are capable of 1 Gbps data transfer rate.



Save running configuration:

It is always advisable to save the running configuration on your network devices after every configuration because this will make sure that your configuration will remain persistent even if the device is rebooted. Following command is used for this purpose:

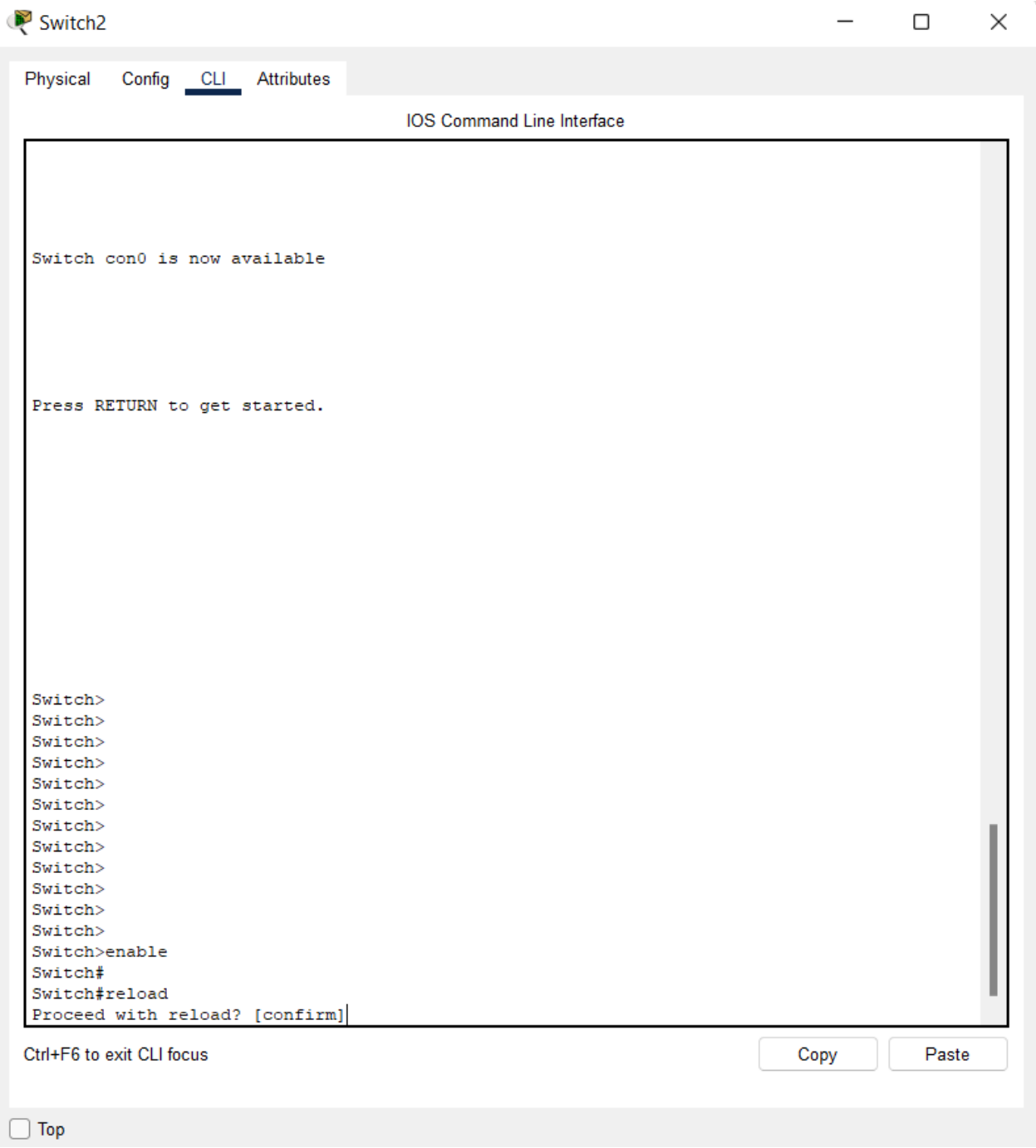
Switch# copy running-config startup-config



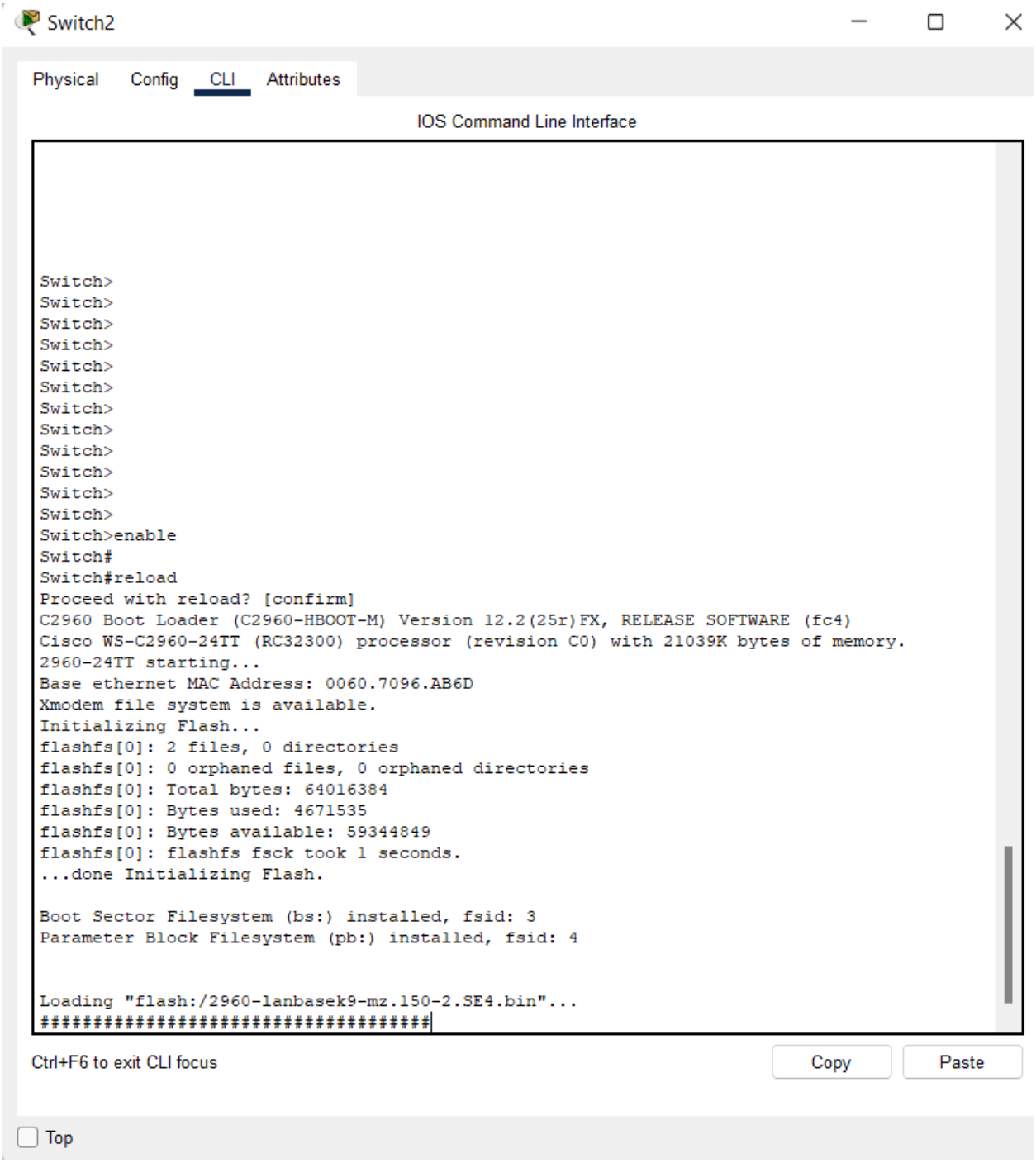
Reload device:

Cisco IOS devices can be reloaded (rebooted) using reload command:

Switch# reload



Press Enter to confirm


Switch2
Physical
Config
CLI
Attributes
IOS Command Line Interface
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>
Switch>enable
Switch#
Switch#reload
Proceed with reload? [confirm]
C2960 Boot Loader (C2960-HBOOT-M) Version 12.2(25r)FX, RELEASE SOFTWARE (fc4)
Cisco WS-C2960-24TT (RC32300) processor (revision C0) with 21039K bytes of memory.
2960-24TT starting...
Base ethernet MAC Address: 0060.7096.AB6D
Xmodem file system is available.
Initializing Flash...
flashfs[0]: 2 files, 0 directories
flashfs[0]: 0 orphaned files, 0 orphaned directories
flashfs[0]: Total bytes: 64016384
flashfs[0]: Bytes used: 4671535
flashfs[0]: Bytes available: 59344849
flashfs[0]: flashfs fsck took 1 seconds.
...done Initializing Flash.
Boot Sector Filesystem (bs:) installed, fsid: 3
Parameter Block Filesystem (pb:) installed, fsid: 4
Loading "flash:/2960-lanbasek9-mz.150-2.SE4.bin"...
###################################
Ctrl+F6 to exit CLI focus
Copy
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