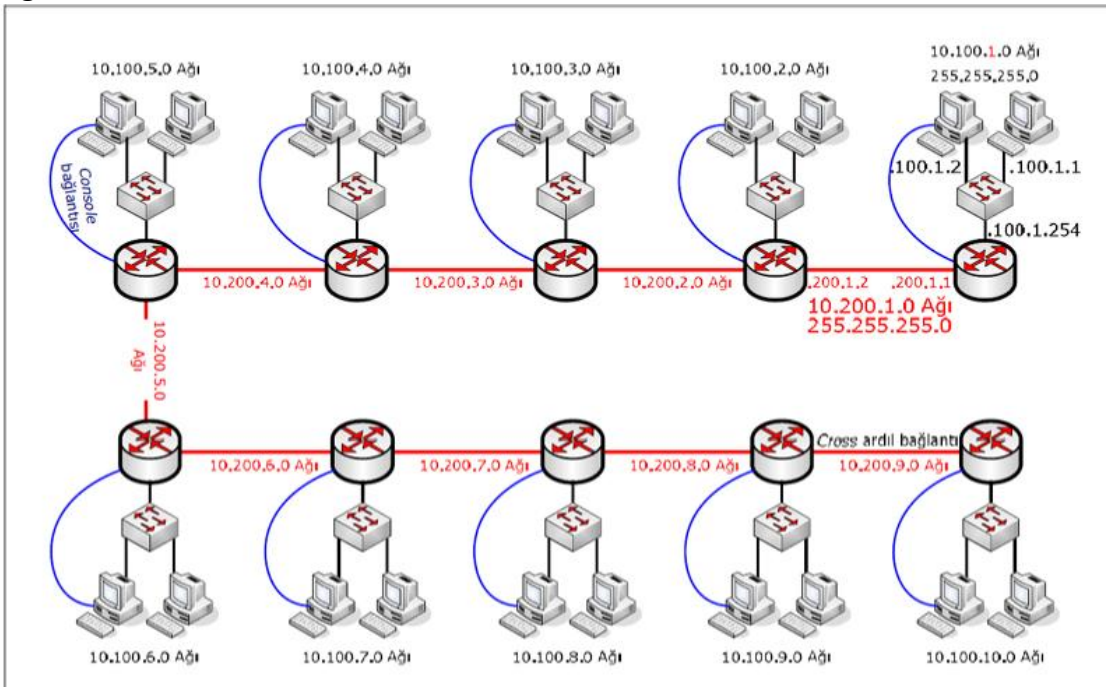
Group Number: 10, 41
Name/Surname of Members: Javid Guliyev, Halil Bülke, Ahmet Eren Akbaş, Yiğit Emir İşıkçı
Student Number of Members:2200356863, 21945944, 21945757, 2200356028

Lab09 Router

1. You should use one router, one switch and at least one PC for your group, and plug required cables and activate required connections. So you are going to create your own local area network with Router as a gateway. In the next lab, you're going to connect your groups and create a WAN (wide area network) as seen in Figure-2.

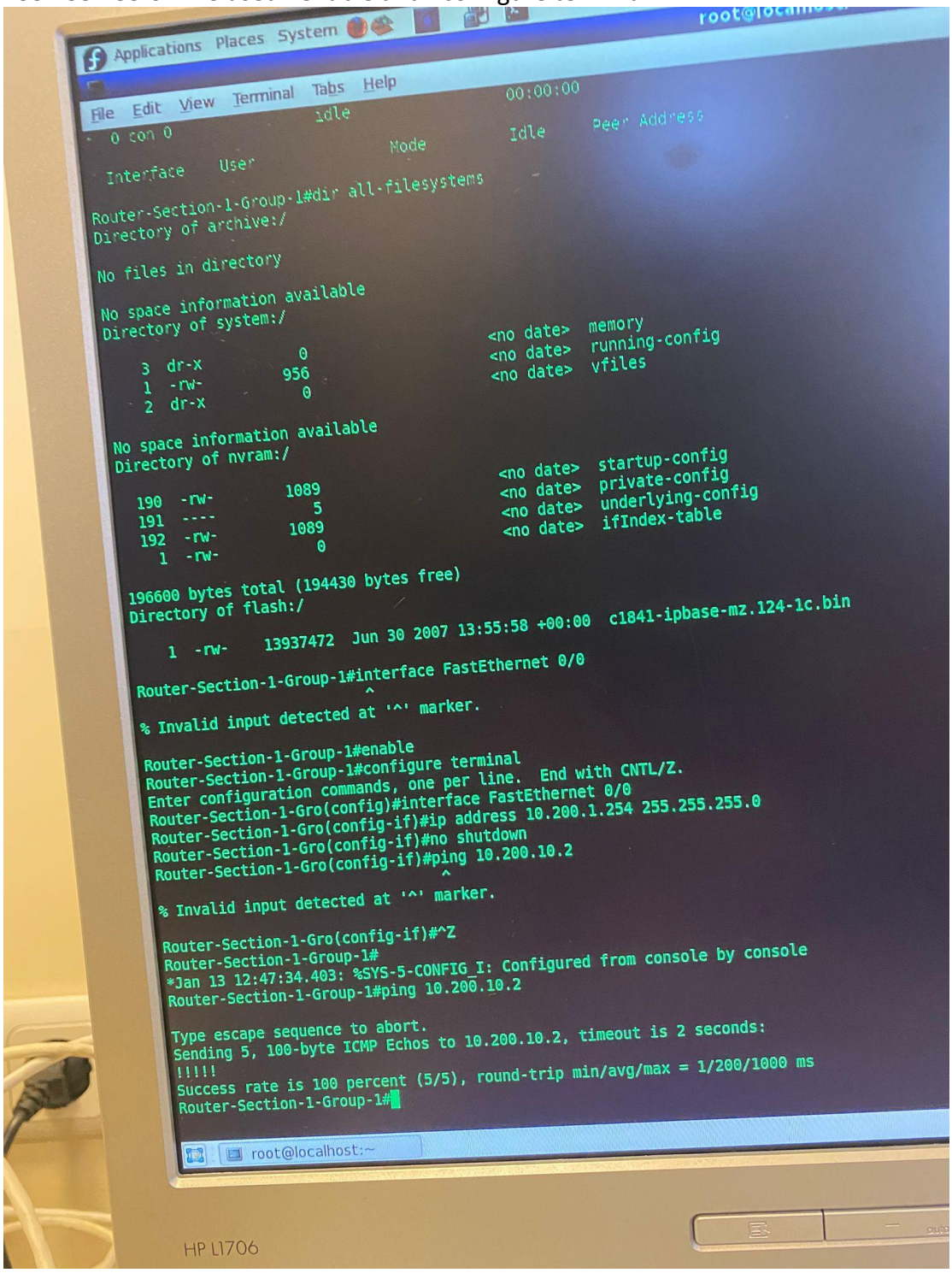


We plugged required tables and connection is activated. There is no issue happening and all these connections are green lights which shows us everything is okay.

Note: Since our router did not work properly, we switched to another PC on this lab.

2. You should enter enable mode if you want to configure anything on router. Show commands can be used in user or enable mode (outside of config mode). You can also use ? symbol for displaying usable commands in that mode and their simple explanations.

Our group number is 1 and IP address is 10.200.1.254. Subnet Mask is 255.255.255.0 . We used #enable and #configure terminal.

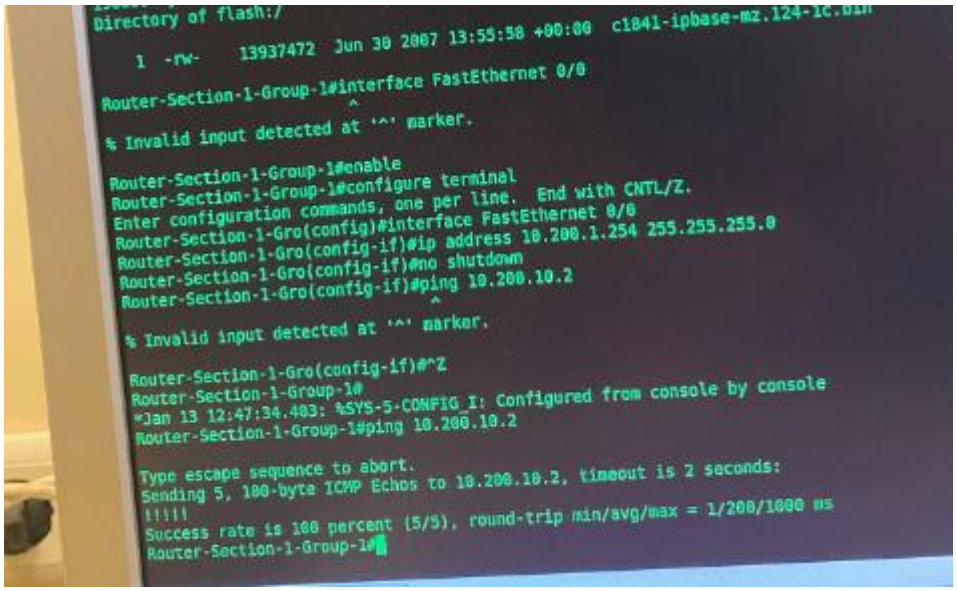


3.If there is any configuration settings stored in your Router, which may be left from previous lab sessions, you have to reset your router to factory default setting according to Cisco procedures documented in files in FTP directory of the course.

Every modification that was required was made from scratch.

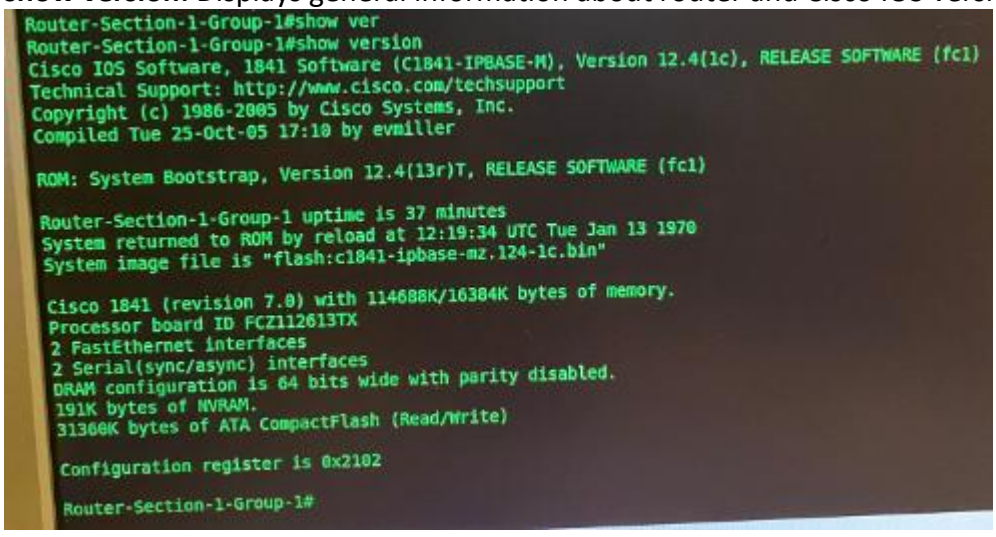
4. First you have to give appropriate names to your Router, according to your section/group number using hostname command.

Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router (config)#hostname Router-Section-1-Group-1
Router-Section-1-Group-1(config)#^Z
Router-Section-1-Group-1#

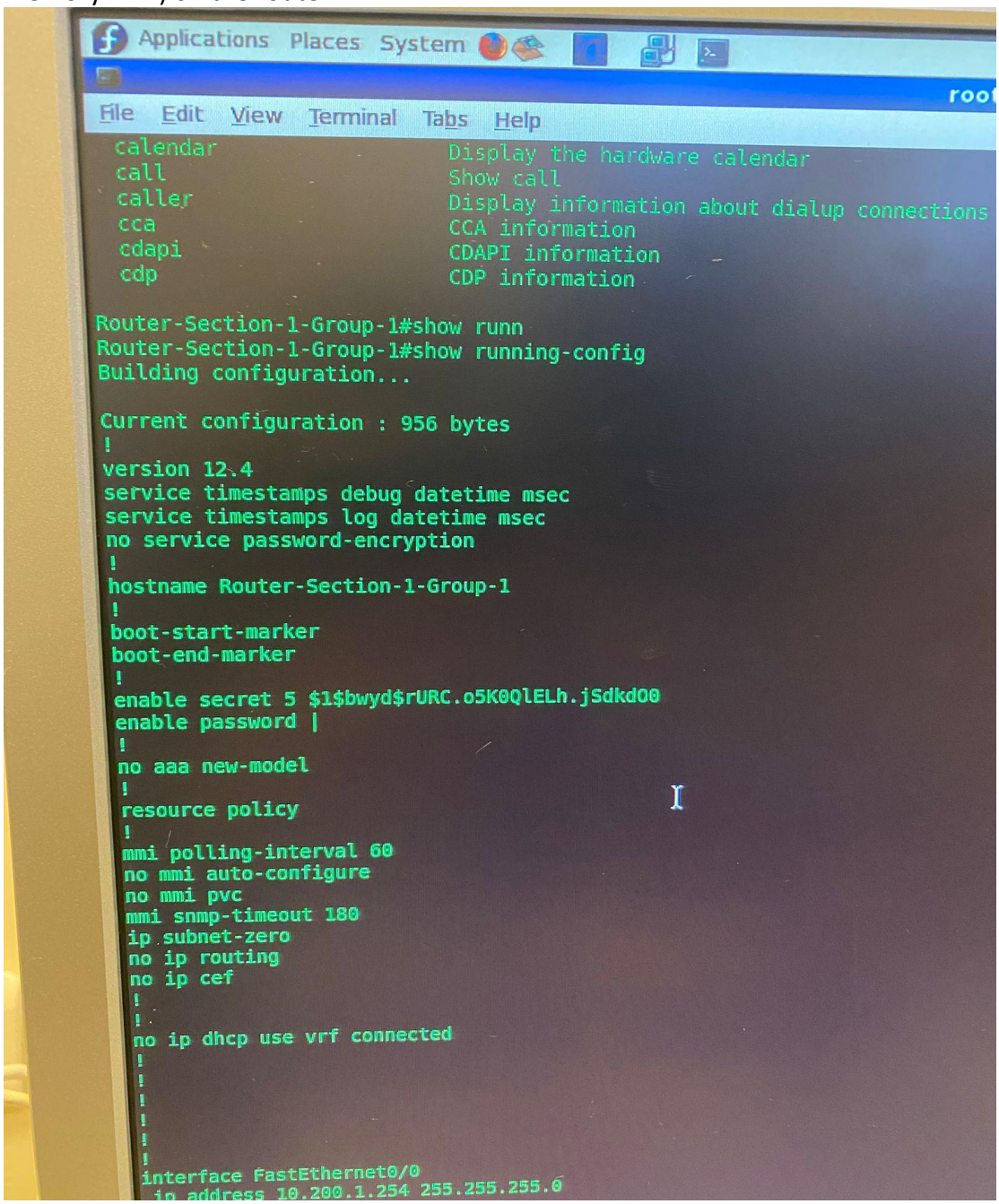


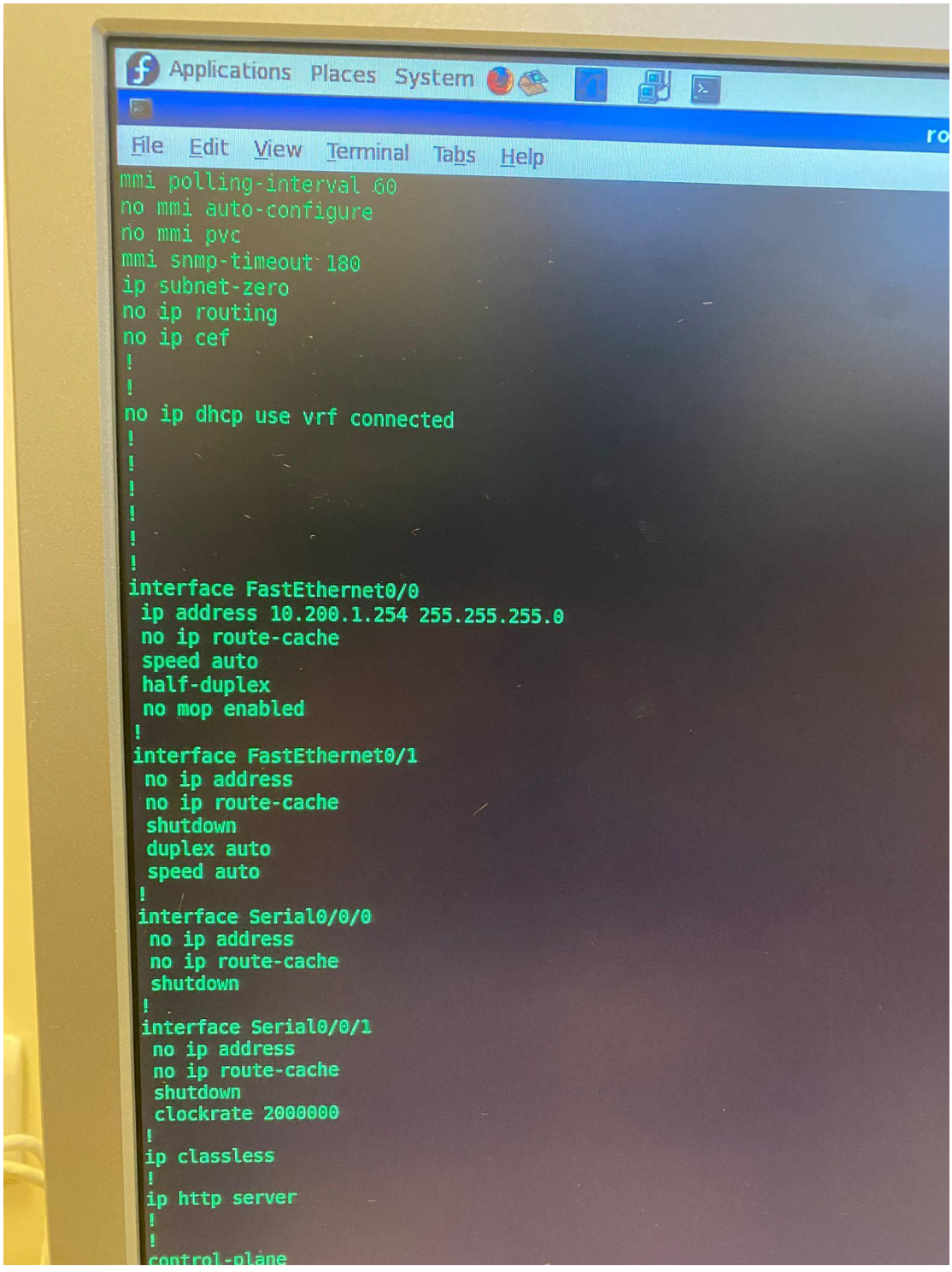
Here, we can easily visualize from leftmost side of terminal that our Router is named as Router-Section-1-Group-1.

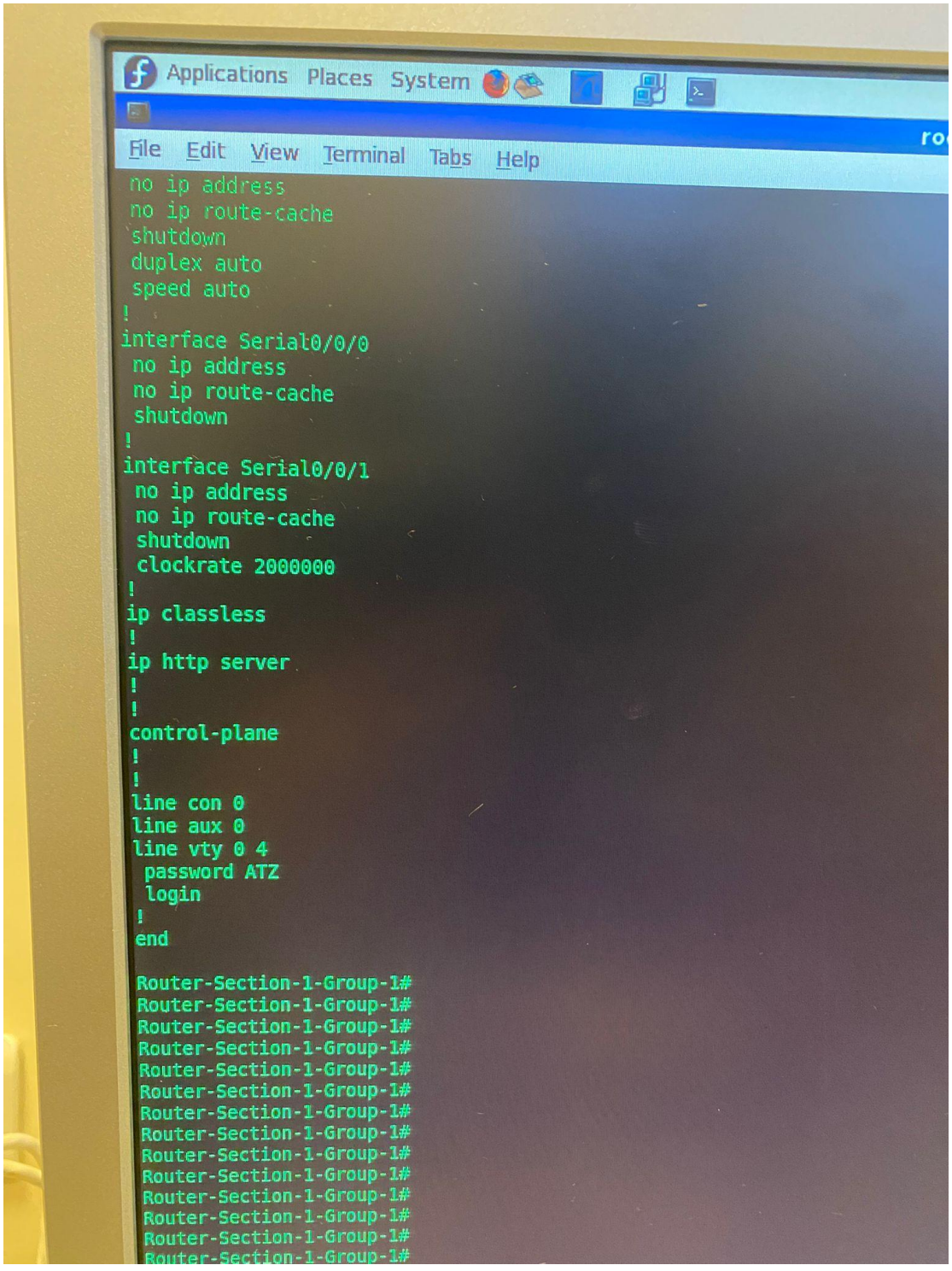
5. In this step, each group runs simple show commands, snapshot and discuss the results.
show version: Displays general information about router and Cisco IOS version



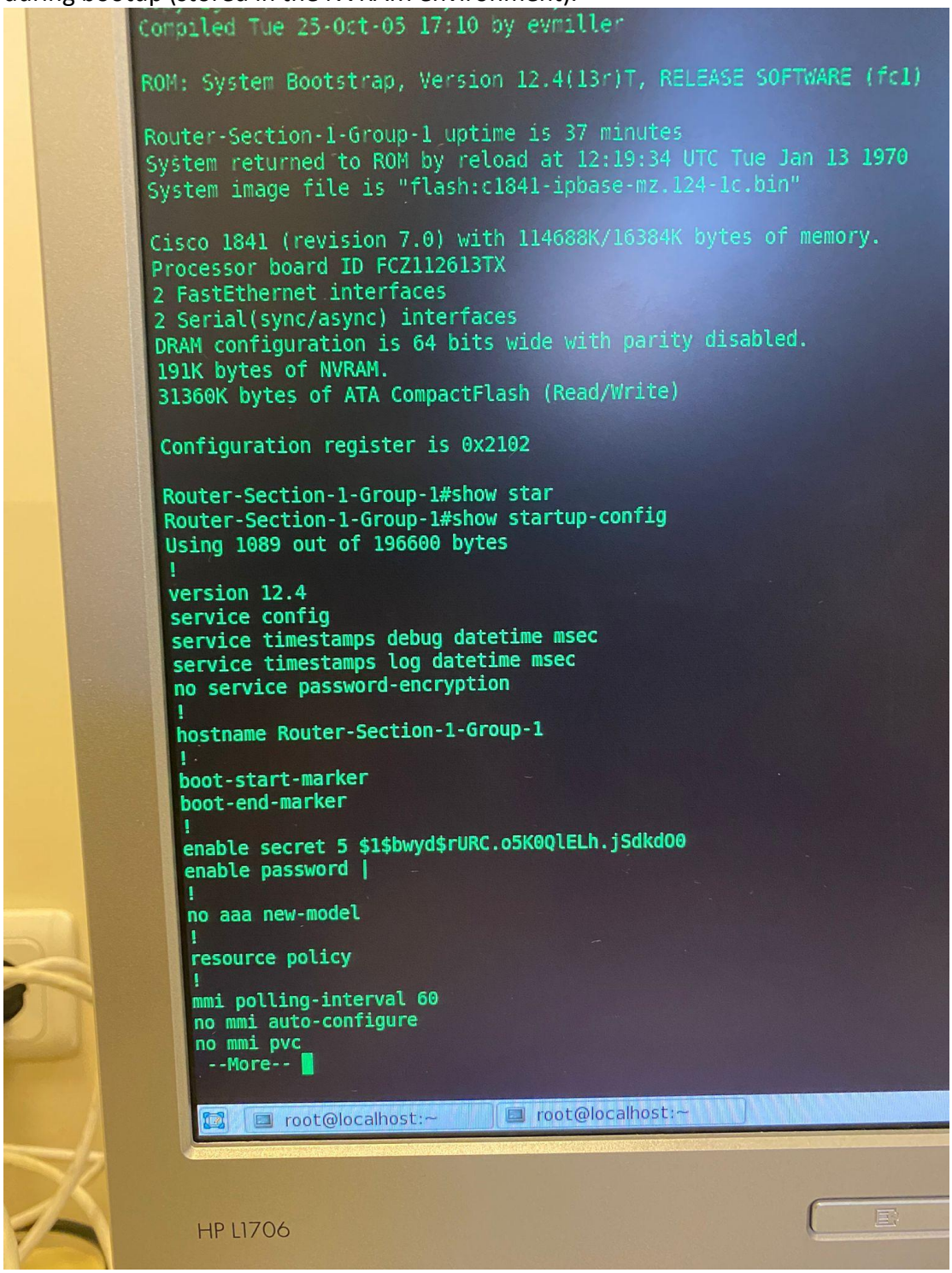
show running-config: Shows the current configuration settings (stored in main memoryRAM) on the router



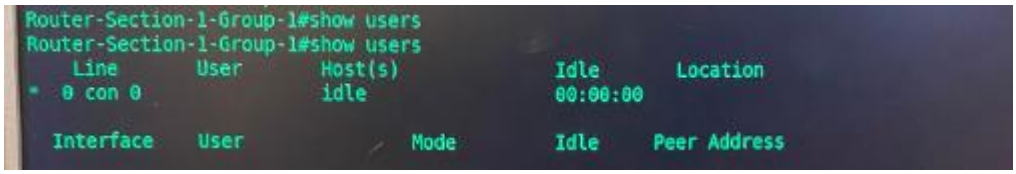

Applications Places System
File Edit View Terminal Tabs Help
mmi polling-interval 60
no mmi auto-configure
no mmi pvc
mmi snmp-timeout 180
ip subnet-zero
no ip routing
no ip cef
!
!
no ip dhcp use vrf connected
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 10.200.1.254 255.255.255.0
 no ip route-cache
 speed auto
 half-duplex
 no mop enabled
!
interface FastEthernet0/1
 no ip address
 no ip route-cache
 shutdown
 duplex auto
 speed auto
!
interface Serial0/0/0
 no ip address
 no ip route-cache
 shutdown
!
interface Serial0/0/1
 no ip address
 no ip route-cache
 shutdown
 clockrate 2000000
!
ip classless
!
ip http server
!
!
control-plane


Applications Places System
File Edit View Terminal Tabs Help
no ip address
no ip route-cache
shutdown
duplex auto
speed auto
!
interface Serial0/0/0
no ip address
no ip route-cache
shutdown
!
interface Serial0/0/1
no ip address
no ip route-cache
shutdown
clockrate 2000000
!
ip classless
!
ip http server
!
!
control-plane
!
!
line con 0
line aux 0
line vty 0 4
password ATZ
login
!
end
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#
Router-Section-1-Group-1#

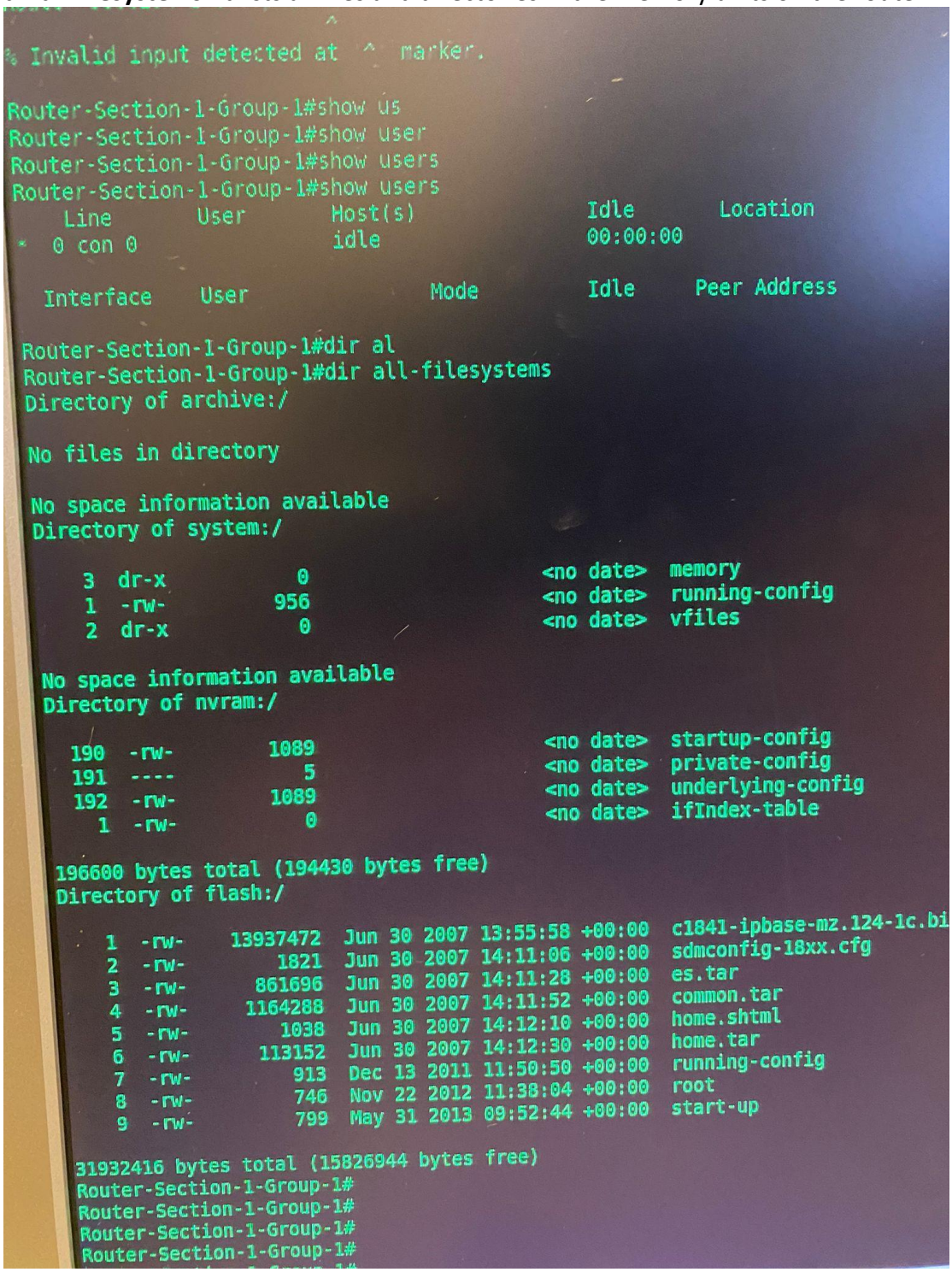
show startup-config: Shows the configuration settings to be loaded on the router during bootup (stored in the NVRAM environment).



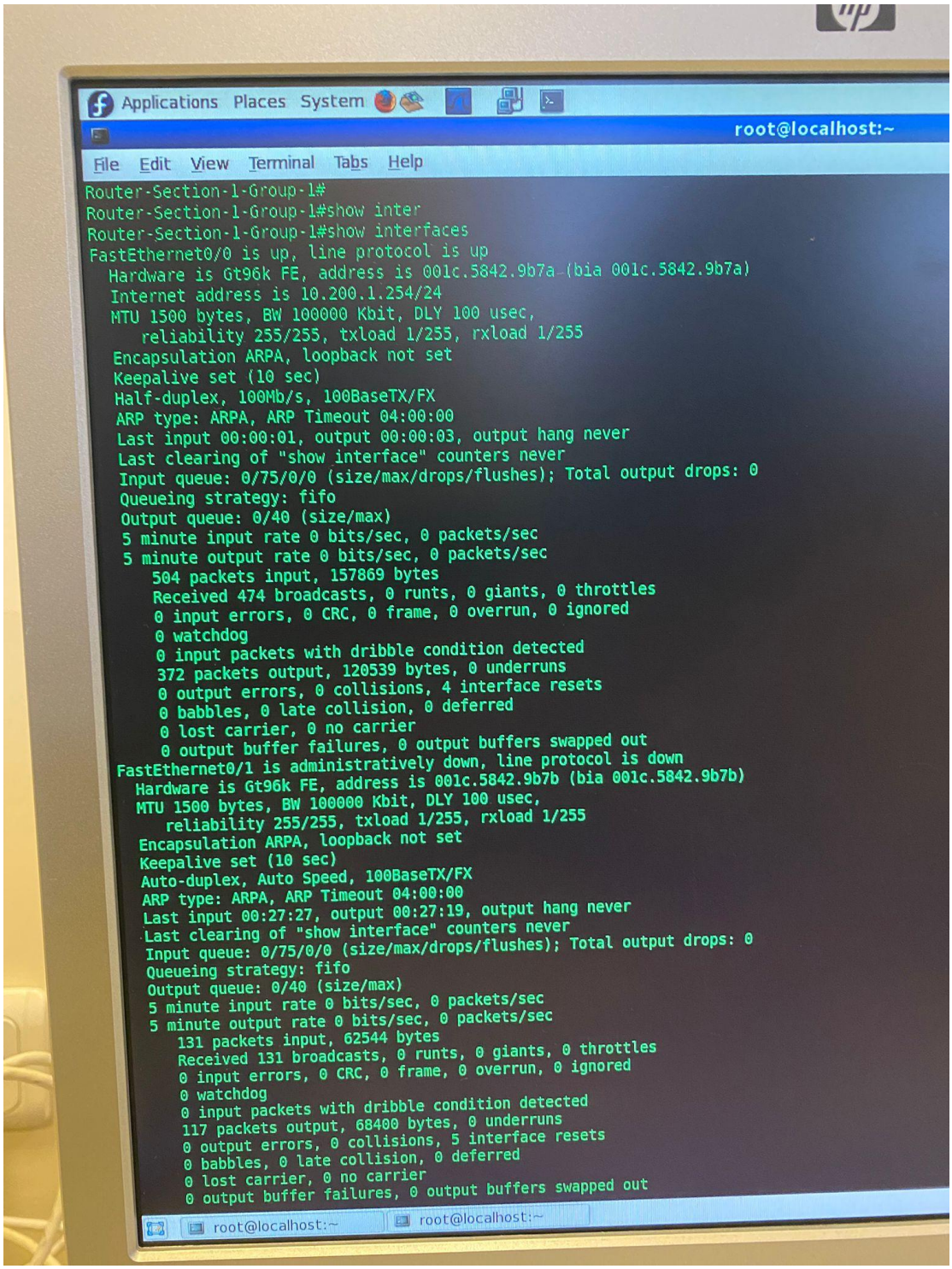
show users: Gives information about the connected users

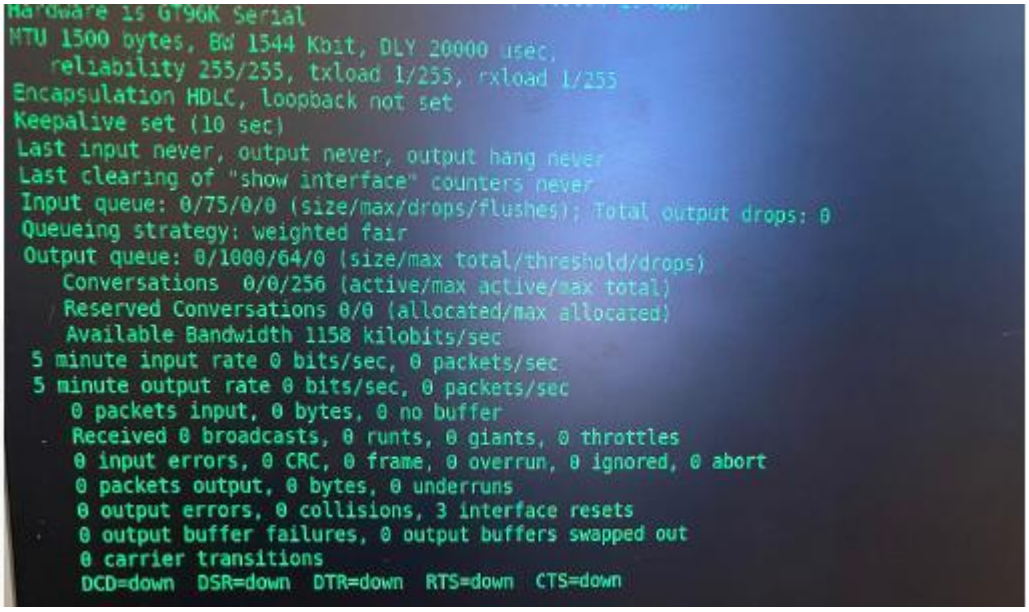


dir all-filesystems: It lists all files and directories in the memory units on the router

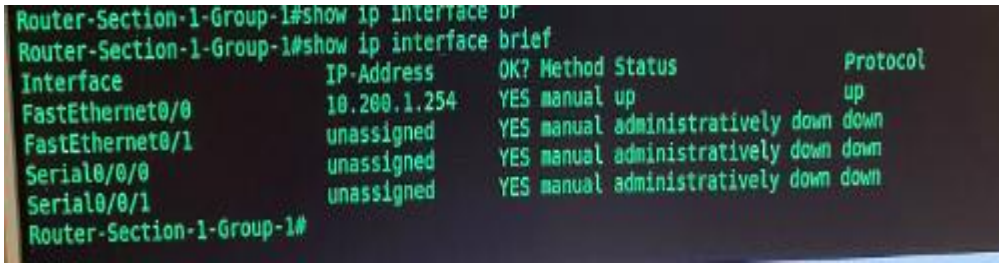


show interfaces: Shows all details about interfaces on the router





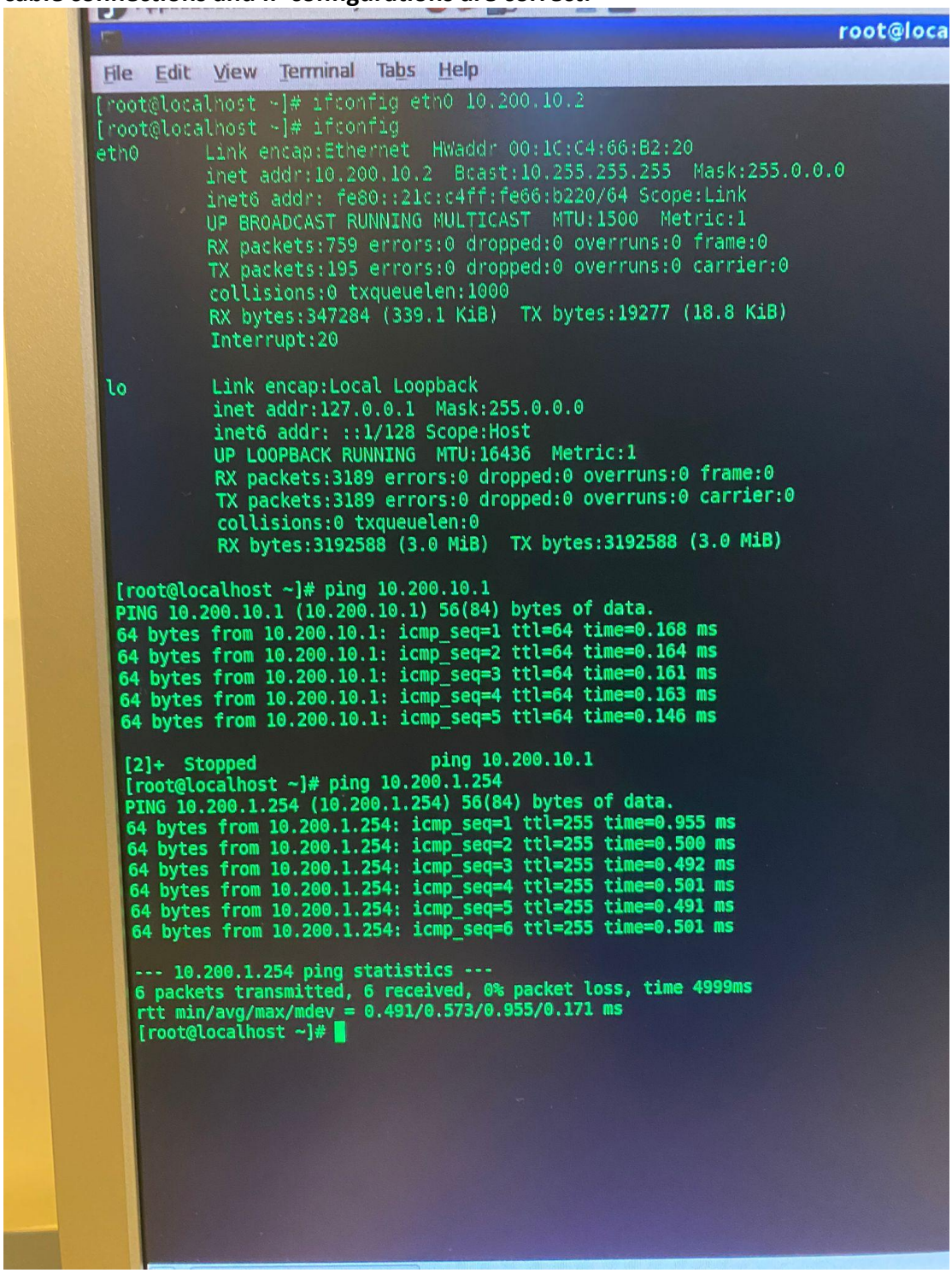
show ip interface brief: Shows interfaces' ip address and status briefly.

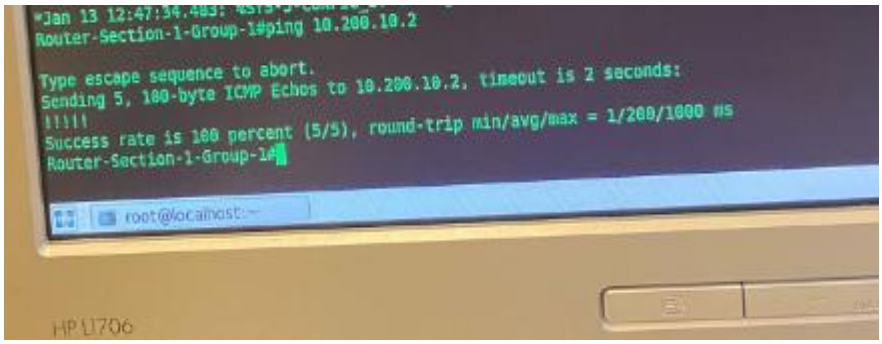


6. Configure IP address of your PC and Router according to Figure 2 - Lab Topology

Ip adresses are configured properly.

7. Finally you are able to ping in both ways (PC to Router, Router to PC), if every cable connections and IP configurations are correct.





In Router console, "!" means successful, so we can imply that ping in both ways is successful.