LAB FAT

INFORMATION SECURITY MANAGEMENT

SLOT: L13-L14

SET 6

19BCE1150

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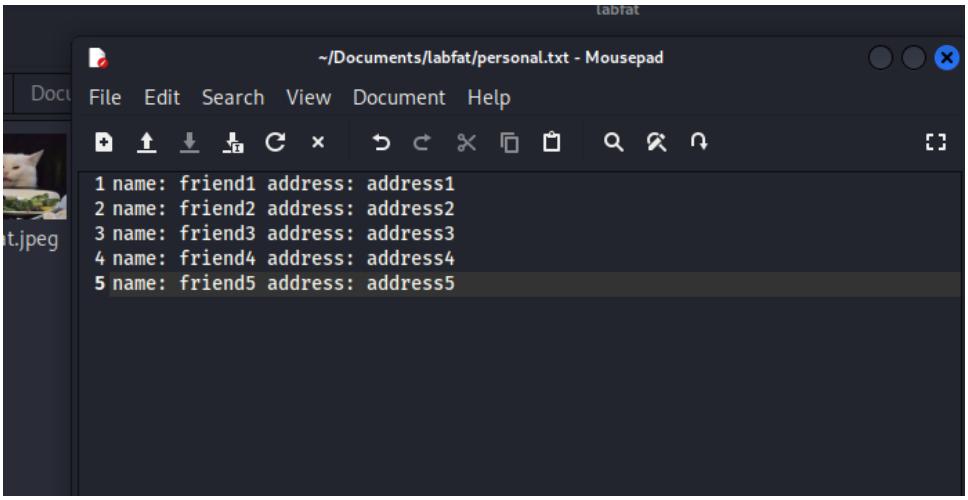
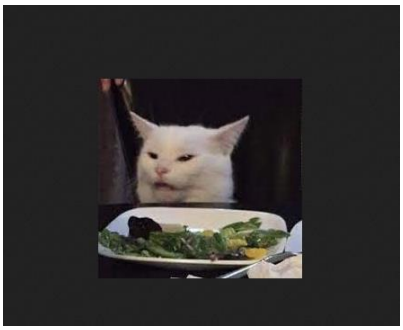
1. John has a file (personal.txt) that contains his friends name, address. He needs to send the detail as encrypted file to his friend Mohammed for updating the contact numbers. Mohammed needs to decrypt the file and update the contact numbers. He wants to send back to John as encrypted file (personalcontact.txt). Now, John needs to open the file and to know the contact numbers. Demonstrate the encryption and decryption processes.

Contents of personal.txt



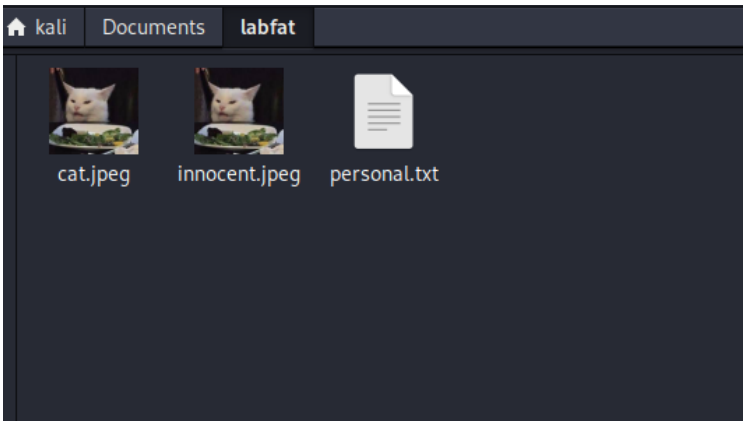
cat.jpeg



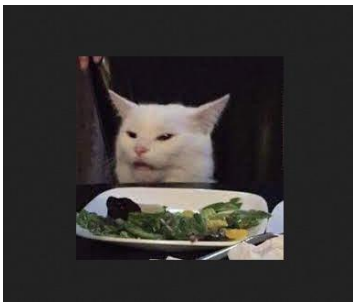
Command: steghide embed -ef personal.txt -cf cat.jpeg -sf innocent.jpeg -p password

Embeded the personal.txt file in innocent.jpeg which is a copy file of cat.jpeg

```
┌──(root㉿kali)-[/home/kali/Documents/labfat]
└─# steghide embed -ef personal.txt -cf cat.jpeg -sf innocent.jpeg -p password
embedding "personal.txt" in "cat.jpeg"... done
writing stego file "innocent.jpeg"... done
```



Innocent.jpeg



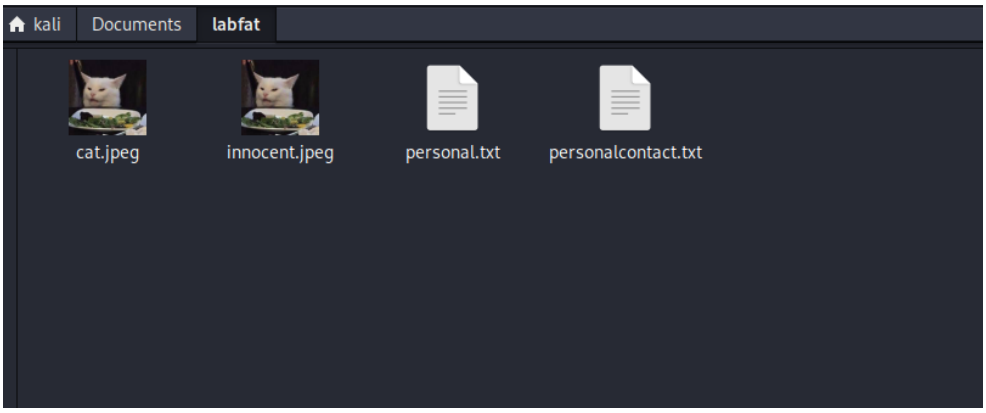
Command: steghide extract -sf innocent.jpeg -xf personalcontact.txt

From encrypted file innocent.jpeg we extract the hidden content and put it in personalcontact.txt

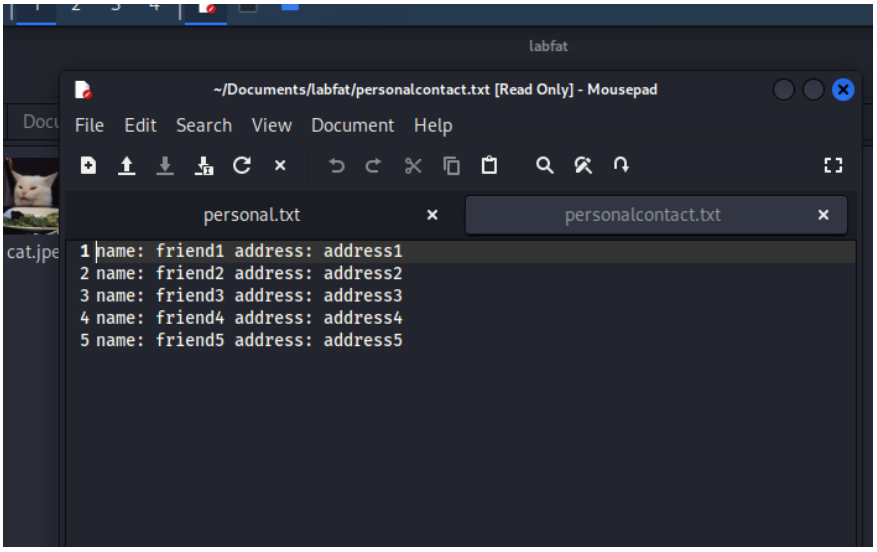
```
┌──(root㉿kali)-[/home/kali/Documents/labfat]
└─# steghide extract -sf innocent.jpeg -xf personalcontact.txt
Enter passphrase:
wrote extracted data to "personalcontact.txt".

┌──(root㉿kali)-[/home/kali/Documents/labfat]
└─#
```

File by the name of personalcontact.txt is created

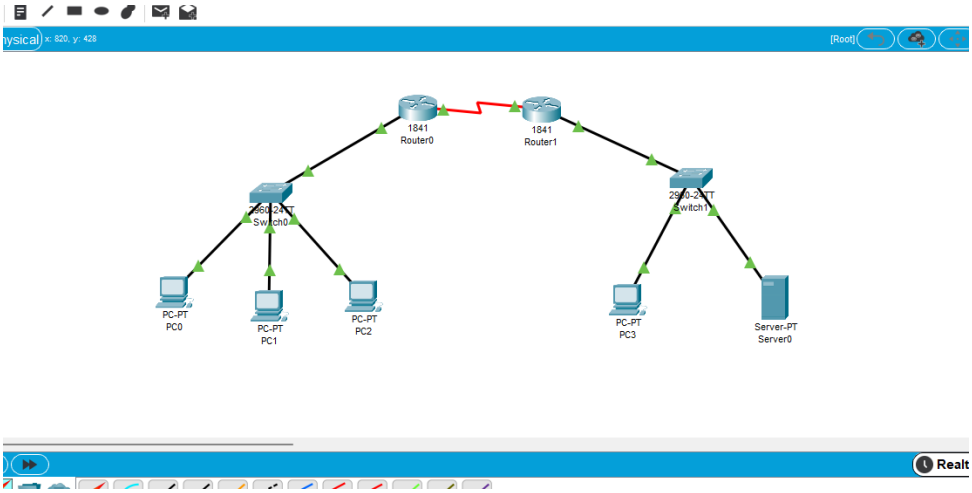


Contents of personalcontact.txt



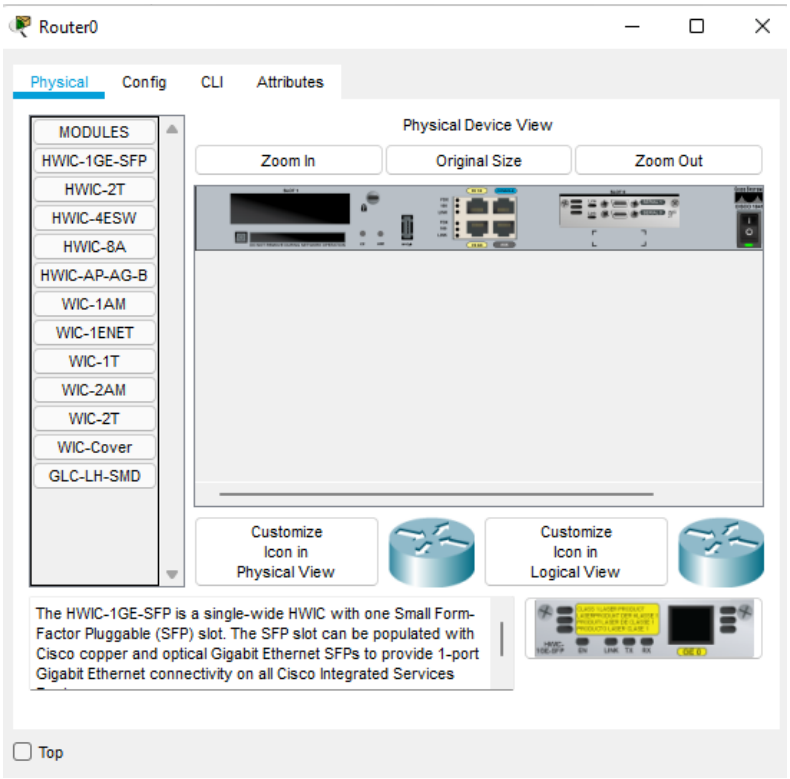
2. Configure a network topology with two routers, two switches, four PCs, a server and configure the static NAT and Dynamic NAT. Submit the necessary screenshot and configuration details in a document.

Topology



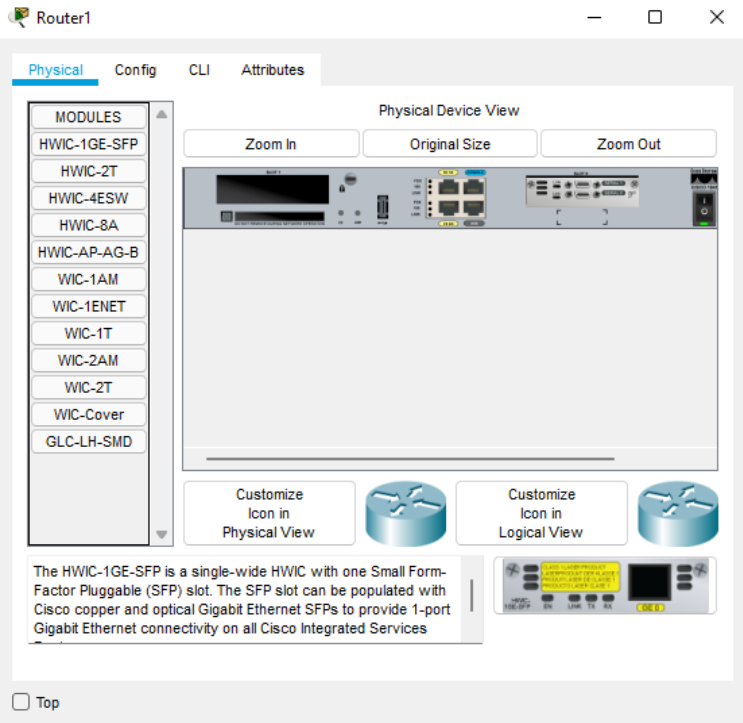
Router0

Inserting WIC-2T in Router0 to get serial ports

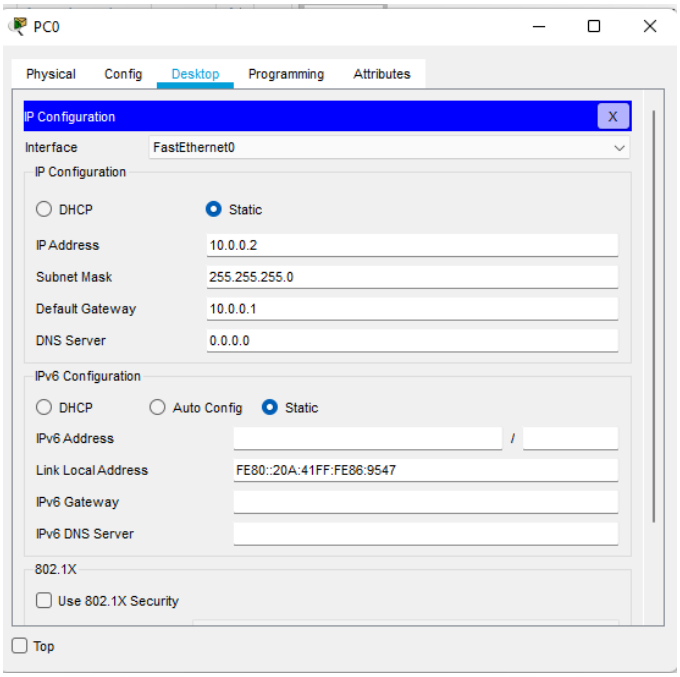


Router1

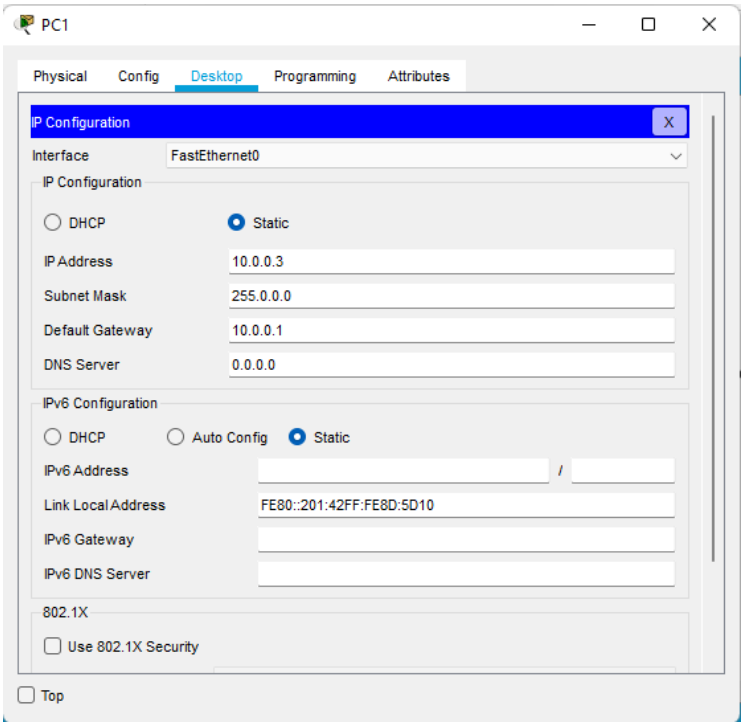
Inserting WIC-2T in Router1 to get serial ports



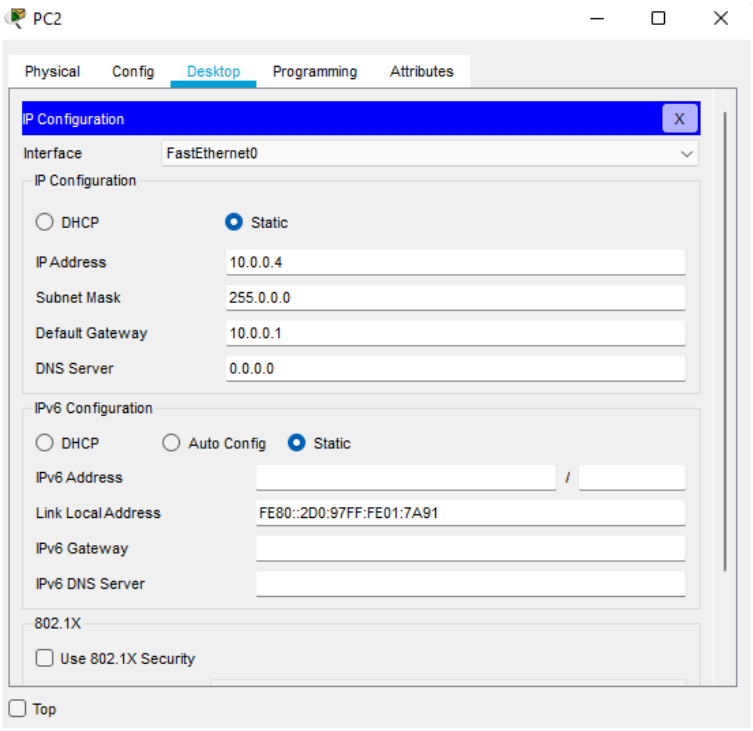
PC0 Ip Configuration



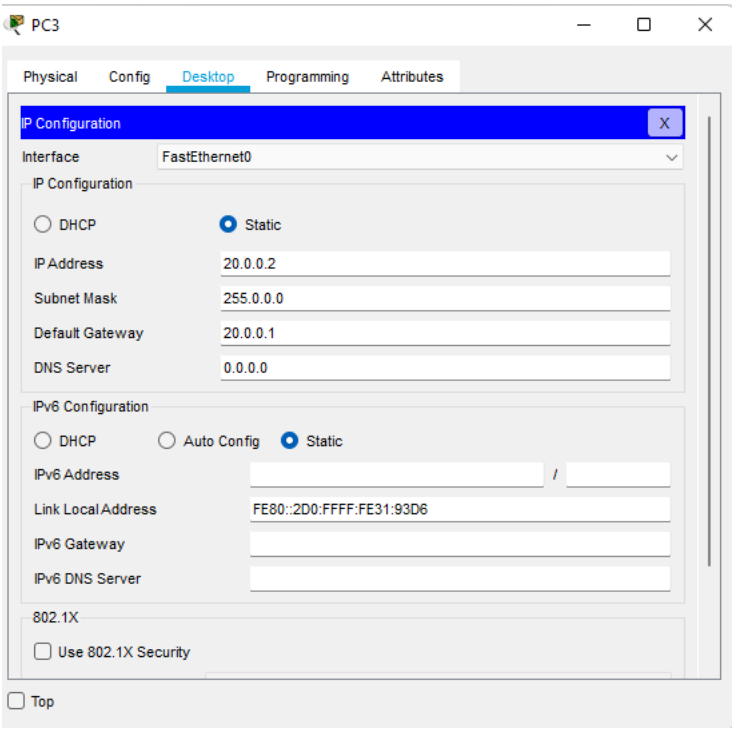
PC1 Ip configuration



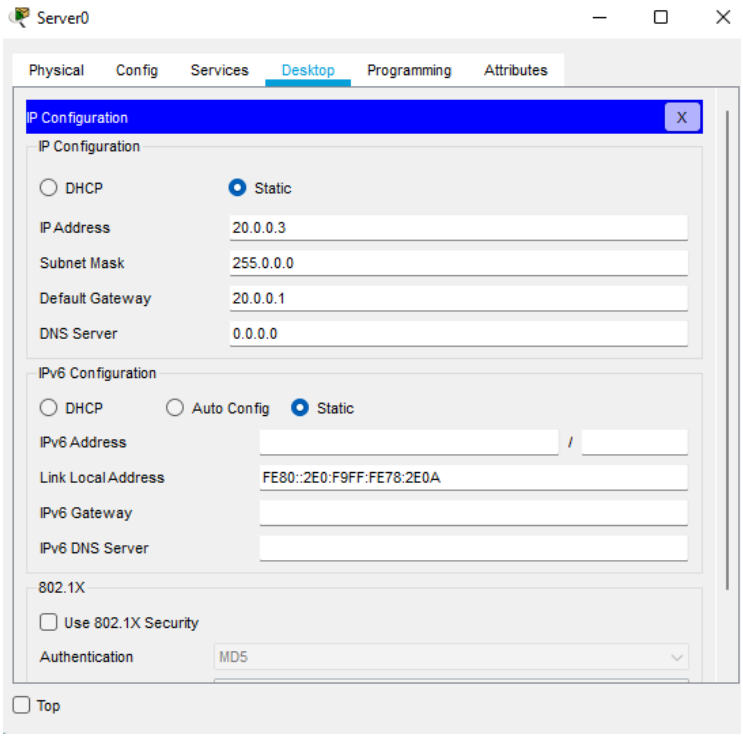
PC2 Ip configuration



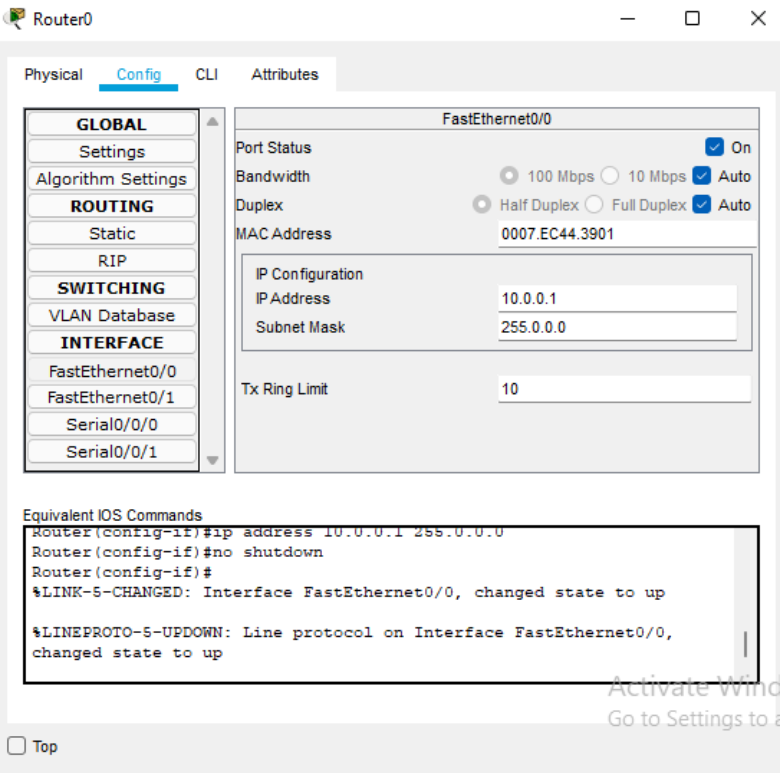
PC3 Ip configuration



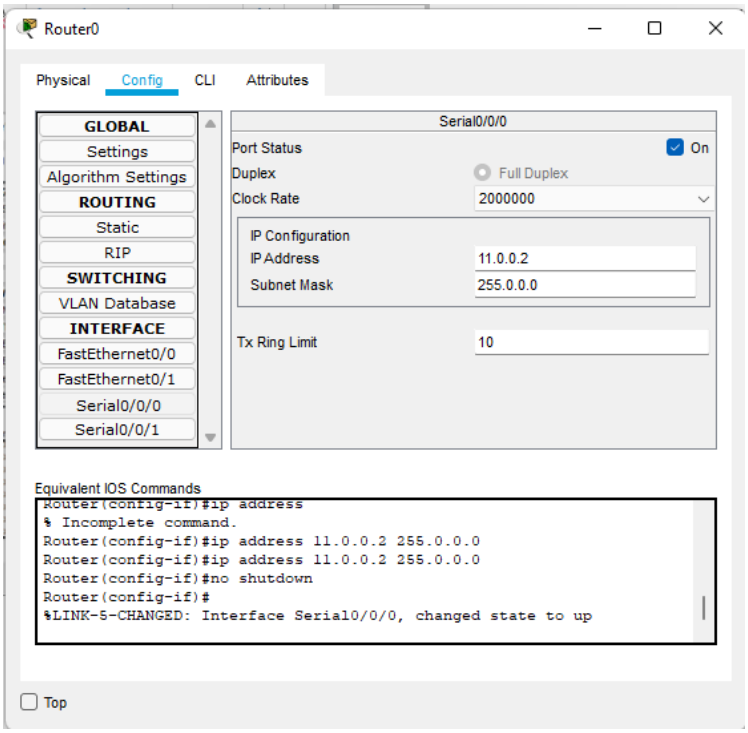
Server0 Ip configuration



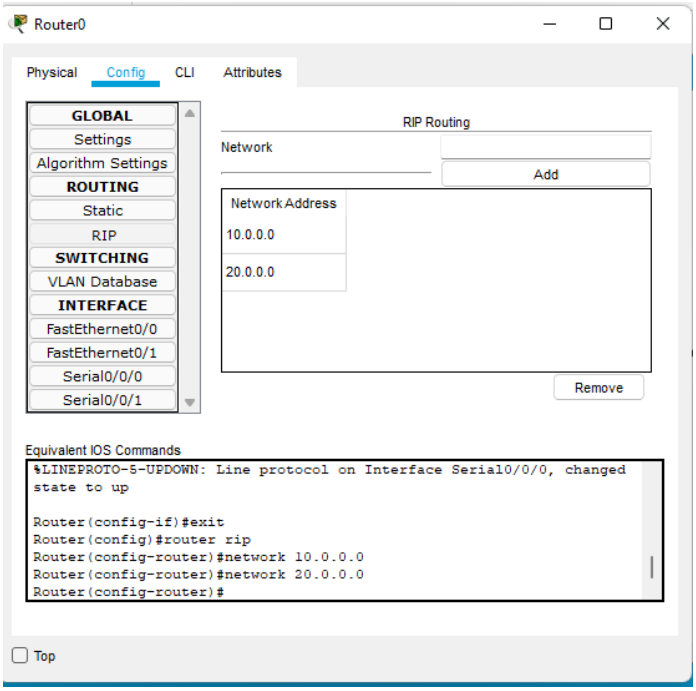
Router0 FastEthernet0/0 Configuration



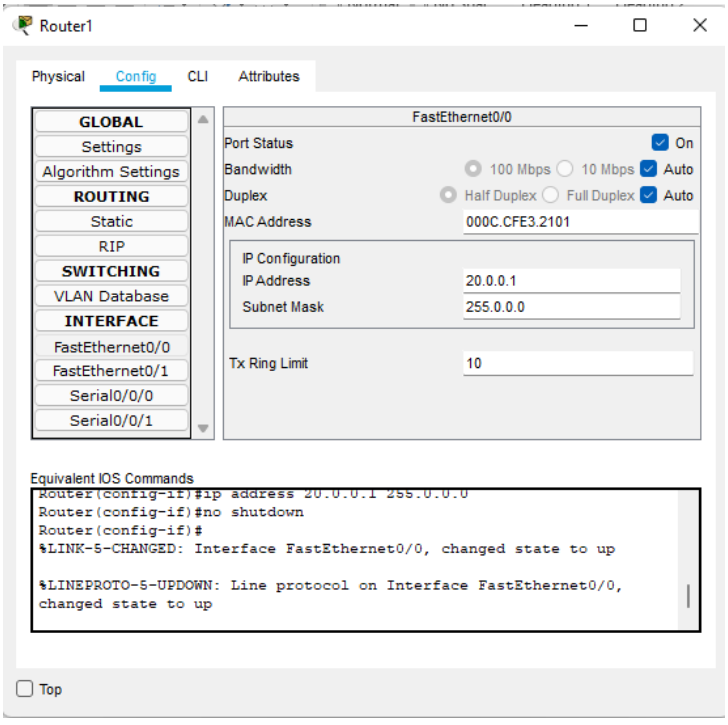
Router0 Serial0/0/0 Configuration



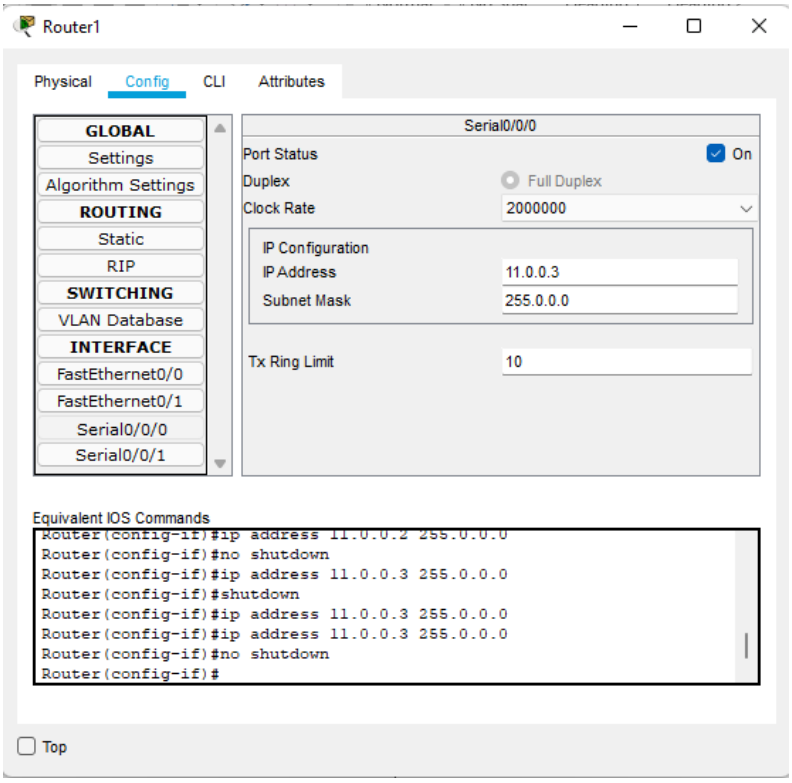
Router0 RIP Routing



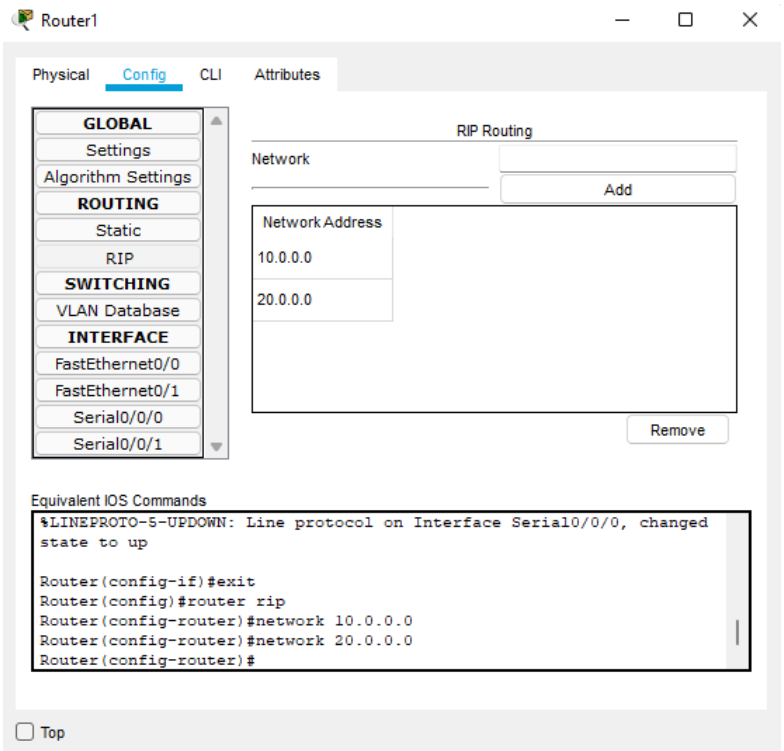
Router1 FastEthernet0/0 Configuration



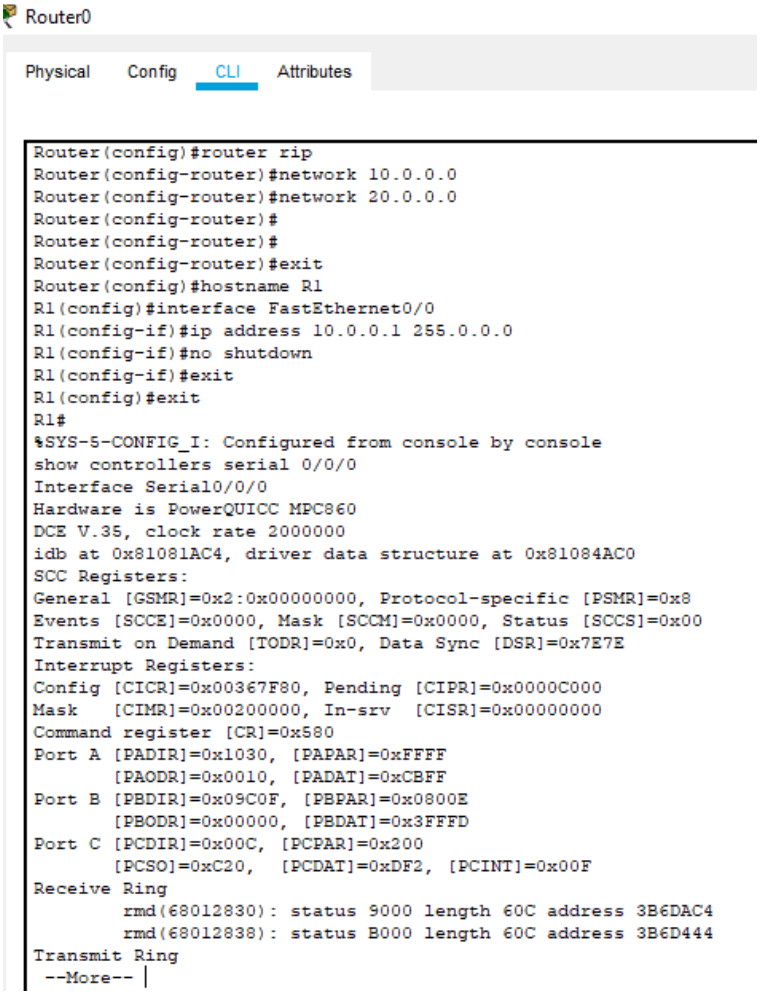
Router1 Serial0/0/0 Configuration



Router1 RIP Routing



Router0 CLI commands are used to access the global configuration mode.



STATIC NAT

NAT of cisco.com device using IP address of 10.1.1.3 Static translation Commands for static translation

First we mark interfaces as nat outside or nat inside and then using ip nat command to translate public ip address into a private ip address in our case for honeypot.

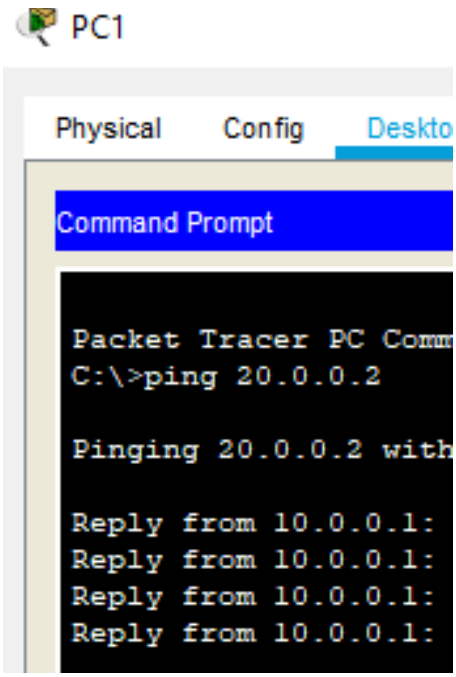
en conf t

int g0/0 ip

nat out int g0/1

ip nat inside

DYNAMIC NAT


PC1
Physical
Config
Deskto
Command Prompt
Packet Tracer PC Comm
C:\>ping 20.0.0.2
Pinging 20.0.0.2 with
Reply from 10.0.0.1:
Reply from 10.0.0.1:
Reply from 10.0.0.1:
Reply from 10.0.0.1: