

# Networking Infrastructure Management

## Network Address Translation Lab 1

Compete the Network Address Translation Lab 1 and submit the following screenshots. Ensure all screenshots are viewable.

1. EIGRP Configuration: Display the configuration of the routing tables using EIGRP. Submit a screenshot of the results of the 'show ip route' command from one of the routers.

2. Honey Pot Configuration: A screenshot of the 'show ip nat translations' command displaying the static NAT assignment of 129.137.18.13 to the Honey Pot.

Physical    Config    **CLI**    Attributes  
IOS Command Line Interface

```

ROUTER>S-RRCHANGE; IP-EIGRP 1> Neighbor 129.137.18.1 (Serial2/0) is up: new adjacency
Router#config-terminal#exit
Router#config#exit
Router#exit
ROUTER>[CONFIG]_I: Configured from console by console

Router#conf t
Enter configuration commands, one per line. End with CNTL/D.
Router(config)#int serial2/0
Router(config-if)#ip netmgt
Router(config-if)#exit
Router(config)#int fasteth0/0
Router(config-if)#ip nat inside
Router(config-if)#ip nat inside source static 172.16.53.253 129.137.18.13
Router(config)#
Router(config)#
Router#hostname Router1
Router#config

Router1 con0 is now available

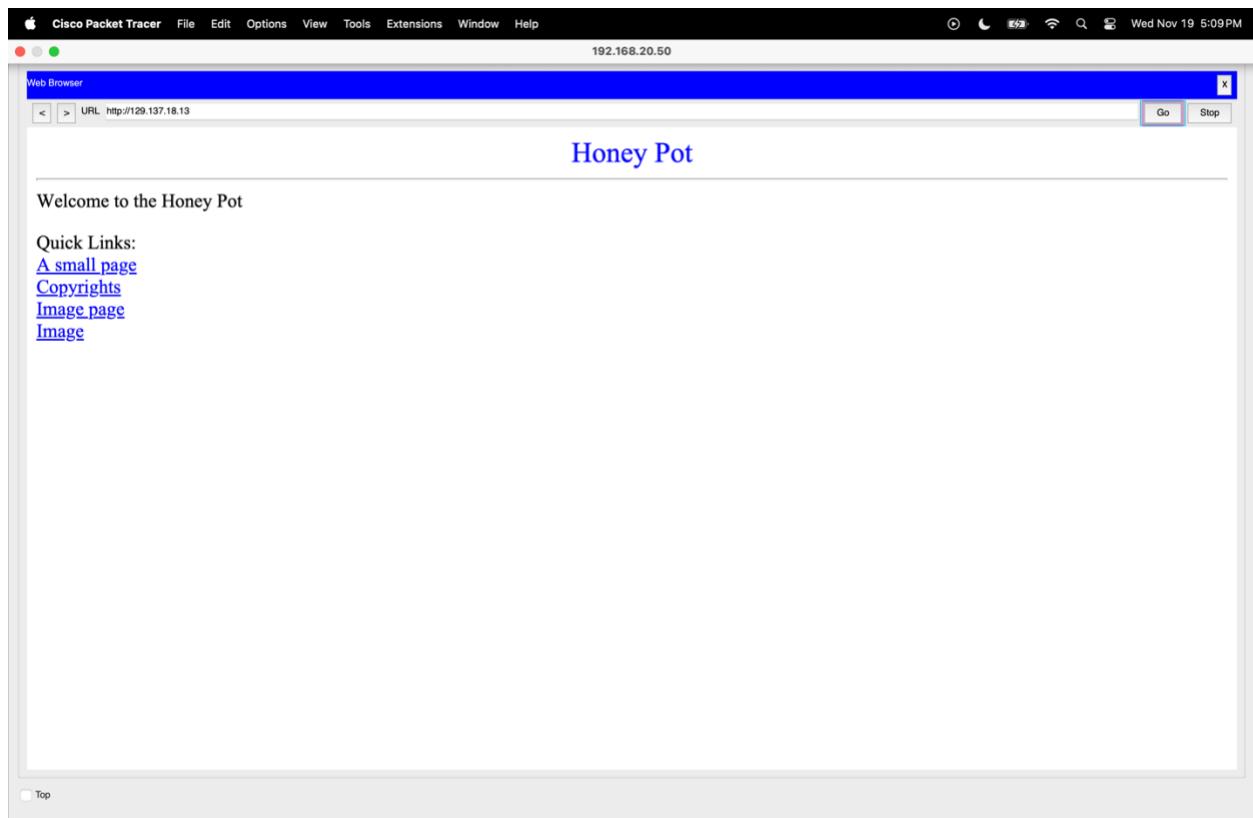
Press RETURN to get started.

ROUTER>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/D.
Router(config)#int interface FastEthernet1/0
Router(config-if)#
ROUTER>[CONFIG]_I: Configured from console by console

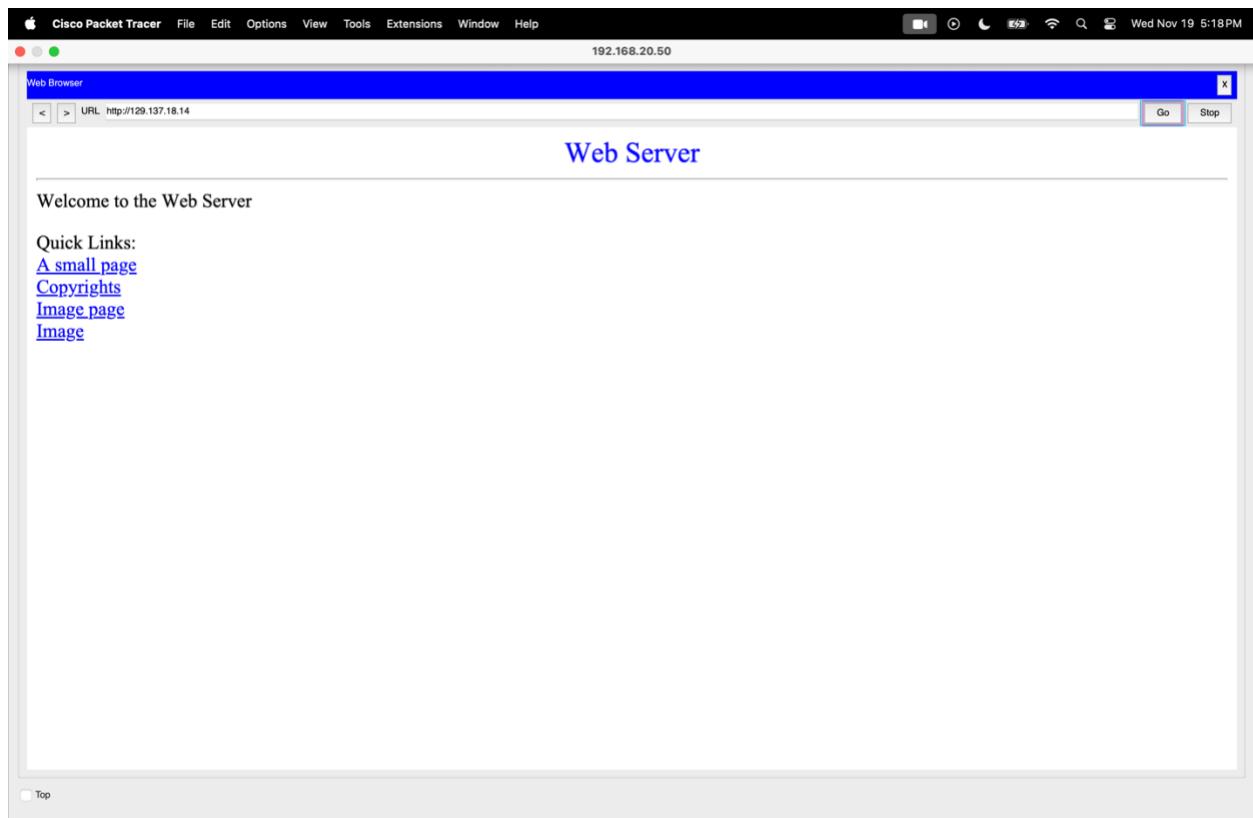
Router#show ip nat translations
Pro Inside global   Inside local   Outside local   Outside global
-- 129.137.18.13    172.16.53.253    ===      ===
Router#show ip nat translations
Pro Inside global   Inside local   Outside local   Outside global
-- 129.137.18.13    172.16.53.253    ===      ===
tpp 129.137.18.13(3)@ 172.16.53.253:80 129.137.18.2:1025 129.137.18.2:1025
Router#
```

Top         

**3. NAT Pool:** Configure dynamic NAT using address pool 129.137.18.2 thru 129.137.18.12 with overload on the 192.168.20.0/24 network. Open a web browser on the PC at the remote site to 129.137.18.13 and submit a screenshot of the web site.



4. Port Forwarding: Configure port forwarding from the web server at 129.137.18.14 on port 80 to 172.16.53.254 on port 80. Test connectivity by opening a web browser on the PC at the remote site using the 129.137.18.14 IP address. Submit a screenshot of the web site.



5. PAT Configuration: Configure Port Address Translation from the 172.16.53.0/16 network to interface se2/0. Add a second PC on the Remote Site with IP address 192.168.20.150. Ping from 192.168.20.150 to the PC at the Main Campus (Request times out.) Issue a 'show ip nat translations' command to verify the address and port translations that includes the newly added PC.

Cisco Packet Tracer File Edit Options View Tools Extensions Window Help

Main C.

iOS Command Line Interface

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Router1(config)#ip nat inside source static top 172.16.53.254 80 129.137.18.14 80
Router1(config)#
Router1 con0 is now available

Press RETURN to get started.

Router1#show ip nat translations
Pro Inside global Inside local Outside local Outside global
--- --- --- ---
top 129.137.18.1(1) 172.16.53.253(80) 129.137.18.2(1025) 129.137.18.2(1025)
top 129.137.18.1(1) 172.16.53.253(80) 129.137.18.2(1026) 129.137.18.2(1026)
top 129.137.18.1(1) 172.16.53.253(80) 129.137.18.2(1027) 129.137.18.2(1027)
top 129.137.18.1(1) 172.16.53.254(80) --- ---
top 129.137.18.1(1) 172.16.53.254(80) 129.137.18.2(1028) 129.137.18.2(1028)
top 129.137.18.1(1) 172.16.53.254(80) 129.137.18.2(1029) 129.137.18.2(1029)
top 129.137.18.1(1) 172.16.53.254(80) 129.137.18.2(1030) 129.137.18.2(1030)

Router1#show ip nat translations
Pro Inside global Inside local Outside local Outside global
--- --- --- ---
top 129.137.18.13 172.16.53.253 --- ---
top 129.137.18.13 172.16.53.253(80) 129.137.18.2(1025) 129.137.18.2(1025)
top 129.137.18.13 172.16.53.253(80) 129.137.18.2(1026) 129.137.18.2(1026)
top 129.137.18.13 172.16.53.253(80) 129.137.18.2(1027) 129.137.18.2(1027)
top 129.137.18.13 172.16.53.254(80) 129.137.18.2(1028) 129.137.18.2(1028)
top 129.137.18.13 172.16.53.254(80) 129.137.18.2(1029) 129.137.18.2(1029)
top 129.137.18.13 172.16.53.254(80) 129.137.18.2(1030) 129.137.18.2(1030)
```

6. Network Diagram: Display the completed Packet Tracer diagram. Ensure all statically assigned addresses are annotated and the servers labeled. Include student name and lab number on the diagram.

