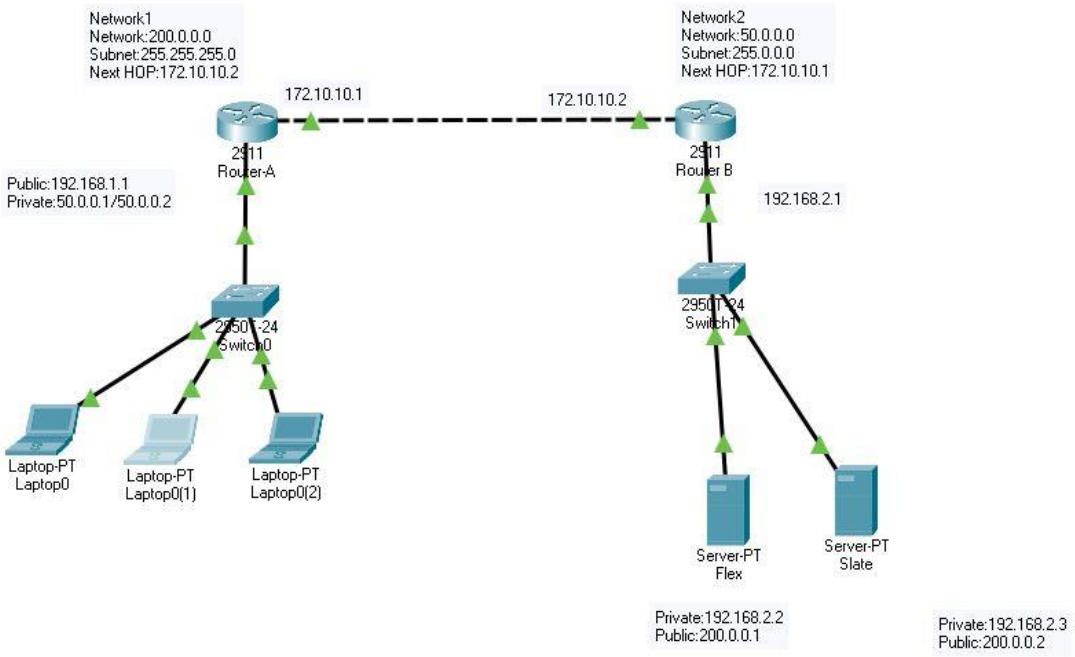
Name: Muhammad Abeer

Roll No: 19P-0061

Section:5-B

Network Diagram



R1 Config

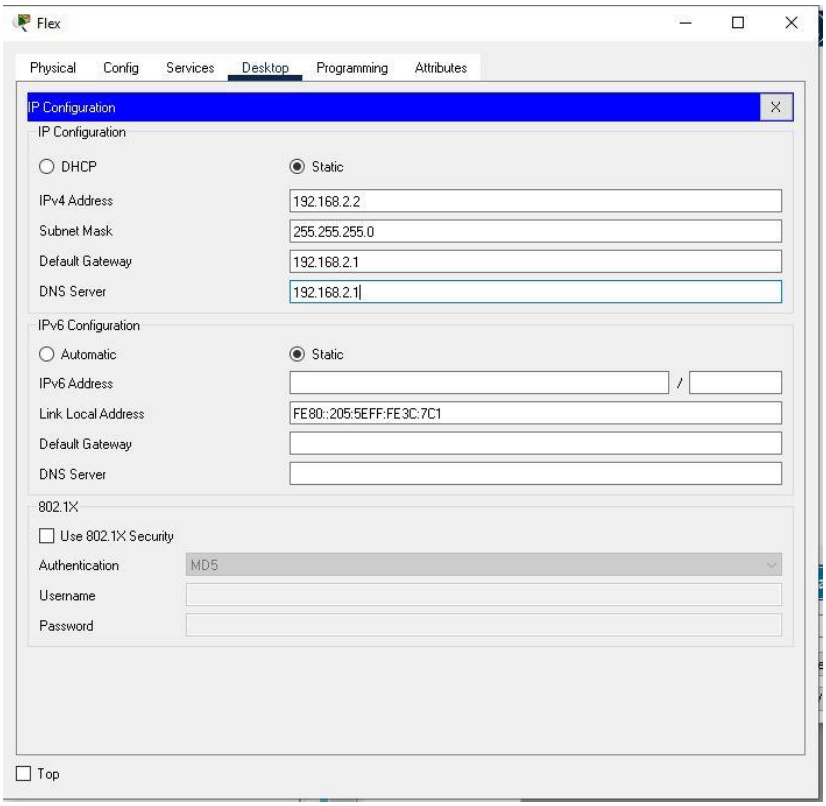
```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname Router-A
Router-A(config)#ex
Router-A#
%SYS-5-CONFIG_I: Configured from console by console

Router-A#enable
Router-A#conf ter
Enter configuration commands, one per line.  End with CNTL/Z.
Router-A(config)#int
% Incomplete command.
Router-A(config)#interface GigabitEthernet0/0
Router-A(config-if)#ip address 172.10.10.1 255.255.0.0
Router-A(config-if)#ip address 172.10.10.1 255.255.255.0
Router-A(config-if)#no shutdown
Router-A(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

Router-A(config-if)#exit
Router-A(config)#interface GigabitEthernet0/1
Router-A(config-if)#ip address 192.168.1.1 255.255.255.0
Router-A(config-if)#ip address 192.168.1.1 255.255.255.0
Router-A(config-if)#no shutdown
Router-A(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
```

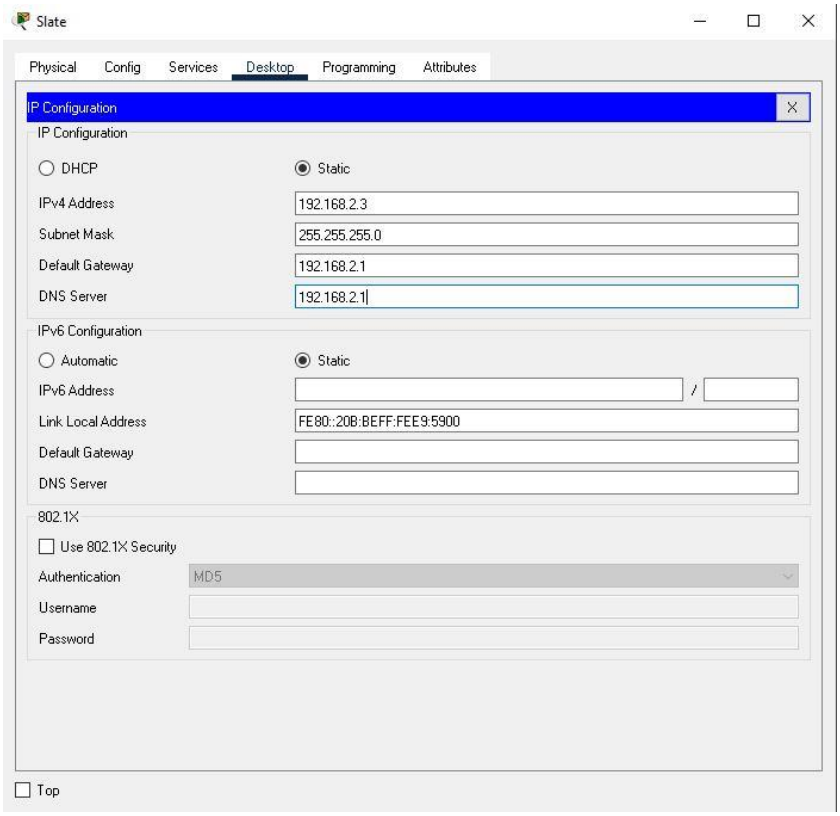
R2 Config

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname Router-B
Router-B(config)#
Router-B(config)#interface GigabitEthernet0/0
Router-B(config-if)#ip address 172.10.10.2 255.255.0.0
Router-B(config-if)#ip address 172.10.10.2 255.255.255.0
Router-B(config-if)#no shutdown
Router-B(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Router-B(config-if)#exit
Router-B(config)#interface GigabitEthernet0/1
Router-B(config-if)#ip address 192.168.2.1 255.255.255.0
Router-B(config-if)#ip address 192.168.2.1 255.255.255.0
Router-B(config-if)#no shutdown
Router-B(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
```

Ctrl+F6 to exit CLI focus Copy Paste

Server Ips


Flex
Physical
Config
Services
Desktop
Programming
Attributes
IP Configuration
IP Configuration
DHCP
Static
IPv4 Address
192.168.2.2
Subnet Mask
255.255.255.0
Default Gateway
192.168.2.1
DNS Server
192.168.2.1
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::205:5EFF:FE3C:7C1
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top


Slate
Physical
Config
Services
Desktop
Programming
Attributes
IP Configuration
IP Configuration
DHCP
Static
IPv4 Address
192.168.2.3
Subnet Mask
255.255.255.0
Default Gateway
192.168.2.1
DNS Server
192.168.2.1
IPv6 Configuration
Automatic
Static
IPv6 Address
Link Local Address
FE80::20B:BEFF:FEE9:5900
Default Gateway
DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top

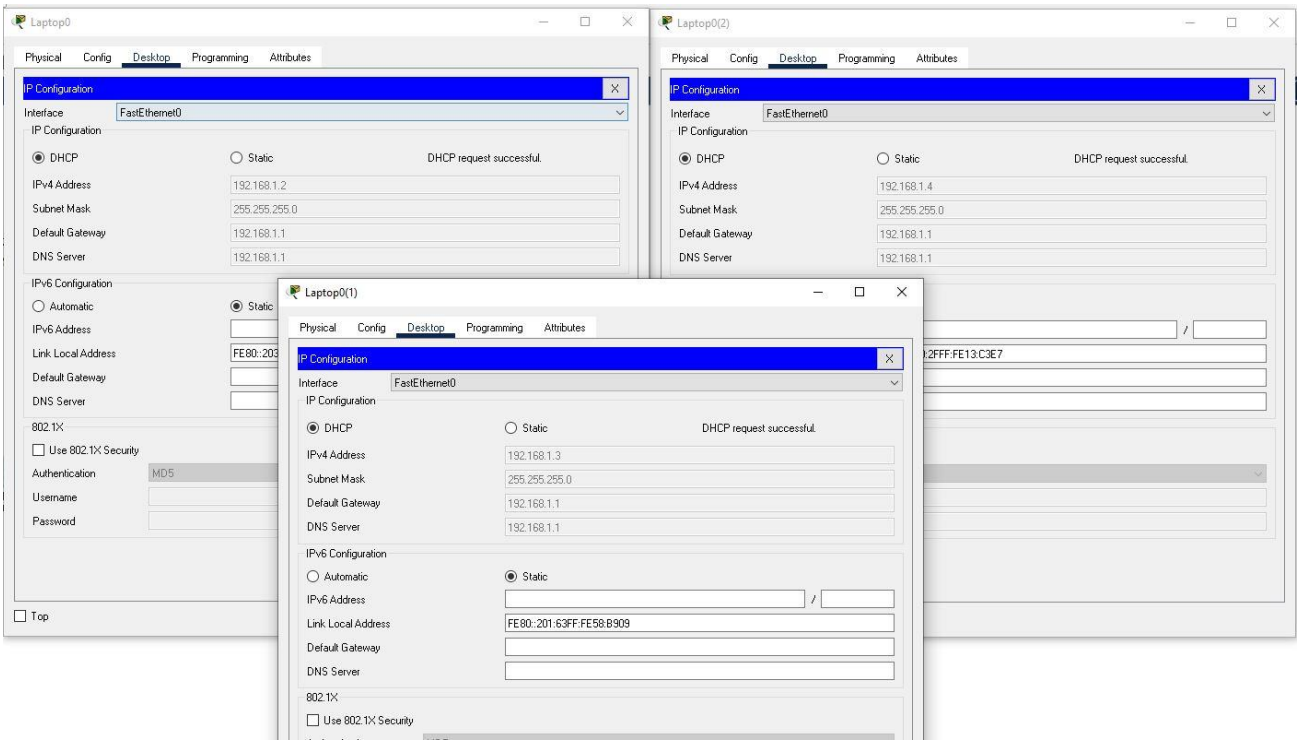
DHCP pool R1

```
Router-A(config-if)#
Router-A(config-if)#ex
Router-A(config)#ip dhcp pool A
Router-A(dhcp-config)#network 192.168.1.0 255.255.255.0
Router-A(dhcp-config)#192.168.1.1
                     ^
% Invalid input detected at '^' marker.

Router-A(dhcp-config)#dns-server 192.168.1.1
Router-A(dhcp-config)#default-router 192.168.1.1
Router-A(dhcp-config)#
```

Ctrl+F6 to exit CLI focus

Copy Paste

Laptop IPs



P-NAT Config R1

```
Router-A(config-if)#
Router-A(config-if)#ex
Router-A(config)#access-list 1 permit 192.168.1.0 0.0.0.255
Router-A(config)#ip nat pool ccna 50.0.0.1 50.0.0.2 netmask 255.0.0.0
Router-A(config)#ip nat inside source list 1 pool ccna overload
Router-A(config)#int f0/0
%Invalid interface type and number
Router-A(config)#int g0/0
Router-A(config-if)#ip nat outside
Router-A(config-if)#ex
Router-A(config)#int g0/1
Router-A(config-if)#ip nat inside
Router-A(config-if)#ex
Router-A(config)#
```

Ctrl+F6 to exit CLI focus Copy Paste

S-NAT Config R2

```
Router-B(config-if)#exit
Router-B(config)#interface GigabitEthernet0/0
Router-B(config-if)#ex
Router-B(config)#ip nat inside source static 192.168.2.2 200.0.0.1
Router-B(config)#ip nat inside source static 192.168.2.3 200.0.0.2
Router-B(config)#int g0/0
Router-B(config-if)#ip nat outside
Router-B(config-if)#ex
Router-B(config)#int g0/1
Router-B(config-if)#ip nat inside
Router-B(config-if)#ex
Router-B(config)#
```

Ctrl+F6 to exit CLI focus Copy Paste

Routing

R1

```
Router-A(config)#ip route 200.0.0.0 255.255.255.0 172.10.10.2
Router-A(config)#
```

Ctrl+F6 to exit CLI focus Copy Paste

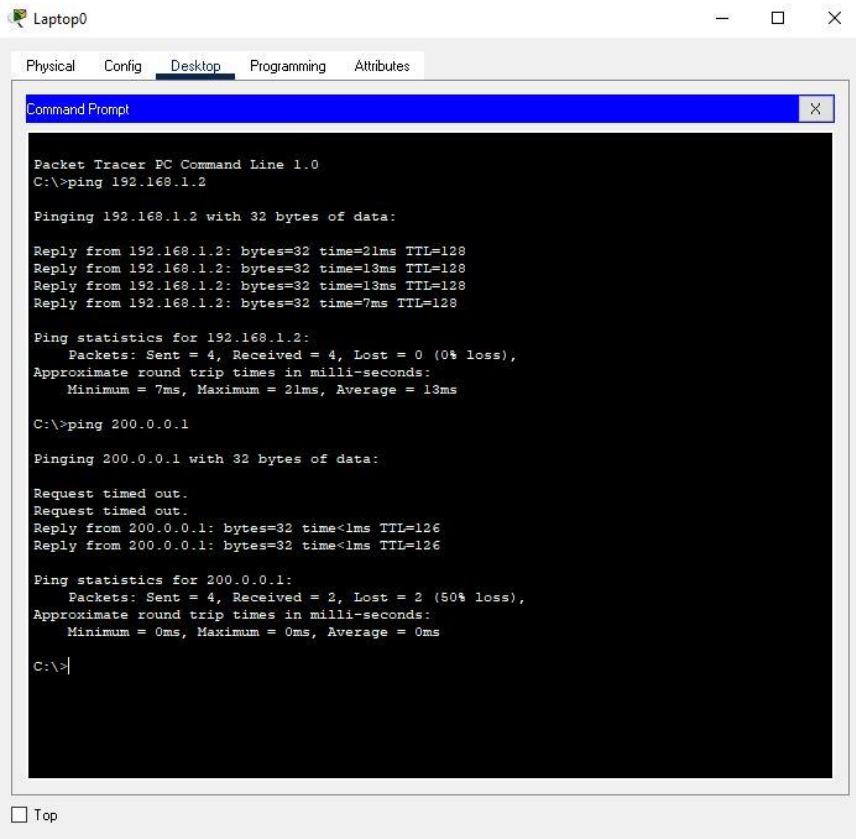
R2

```
Router-B(config)#ip route 50.0.0.0 255.0.0.0 172.10.10.1
Router-B(config)#
```

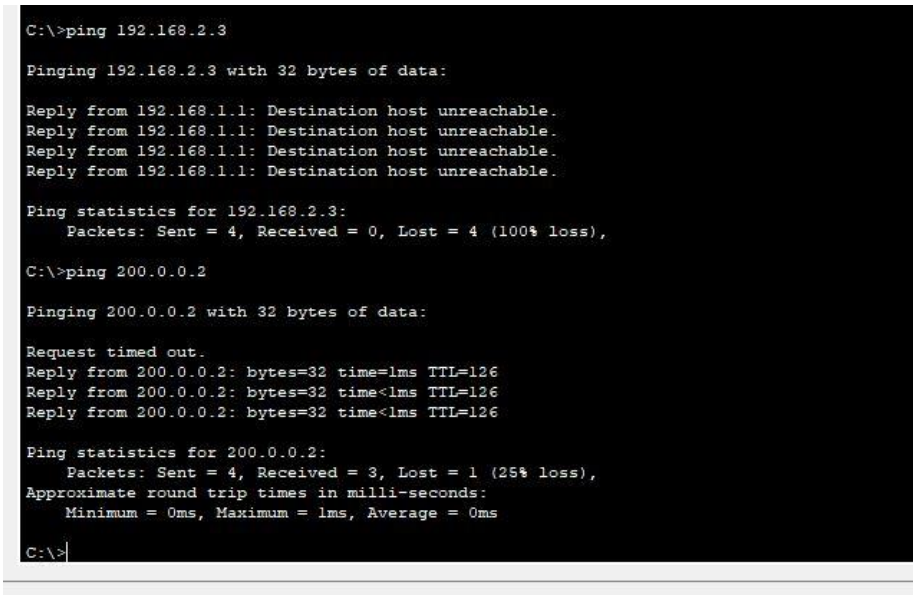
Ctrl+F6 to exit CLI focus Copy Paste

Pinging Flex and Slate

FLEX

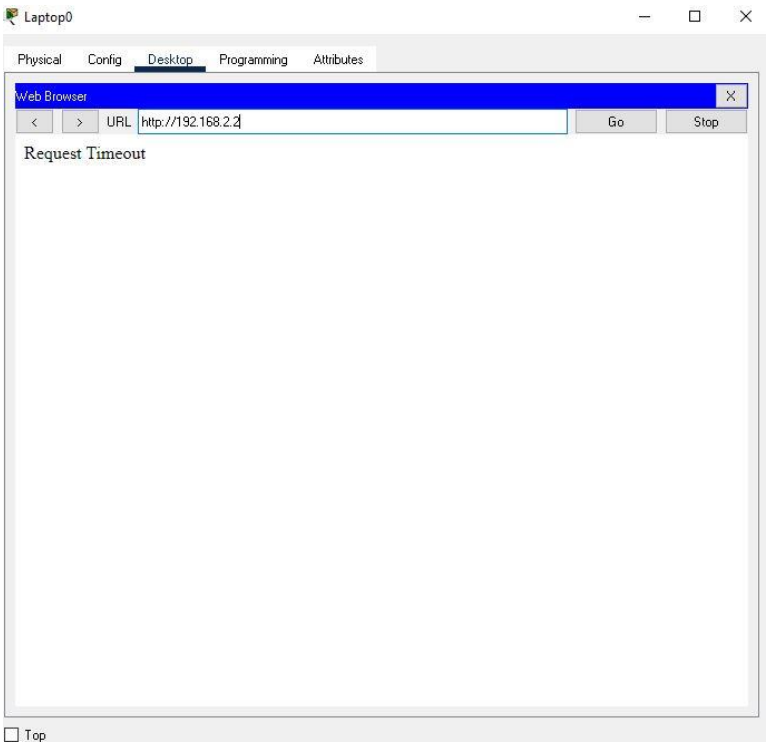


SLATE

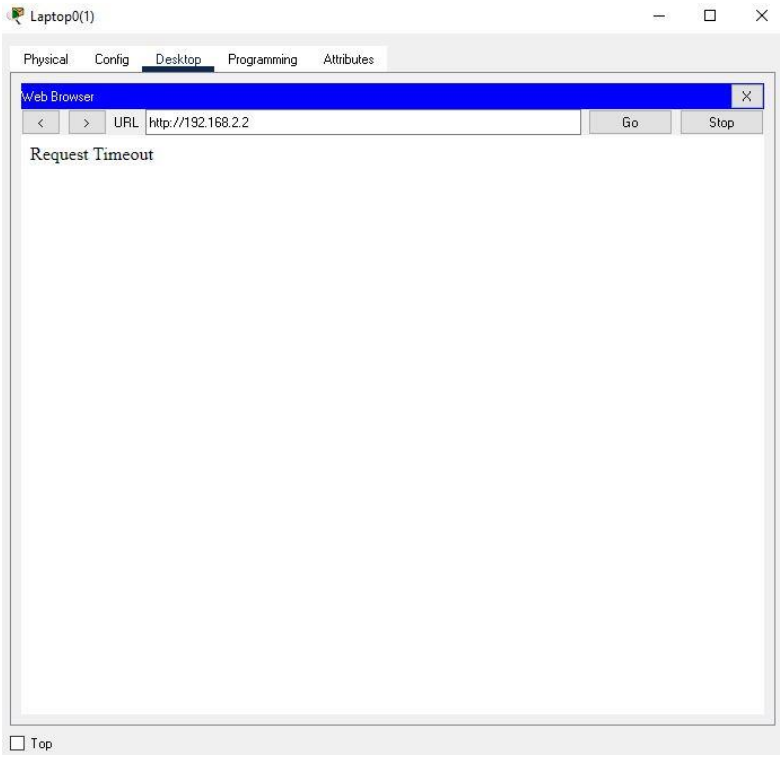


Accessing Flex and Slate through their Private Ips

FLEX

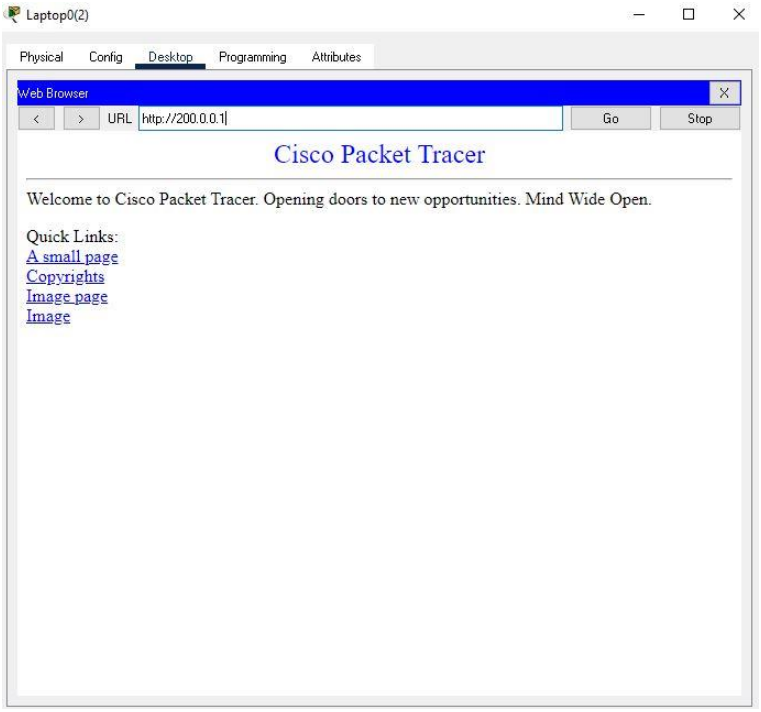


SLATE


Laptop0(1)
Physical
Config
Desktop
Programming
Attributes
Web Browser
URL
http://192.168.2.2
Go
Stop
Request Timeout
Top

Accessing FLEX and SLATE through their public Ips

FLEX



SLATE