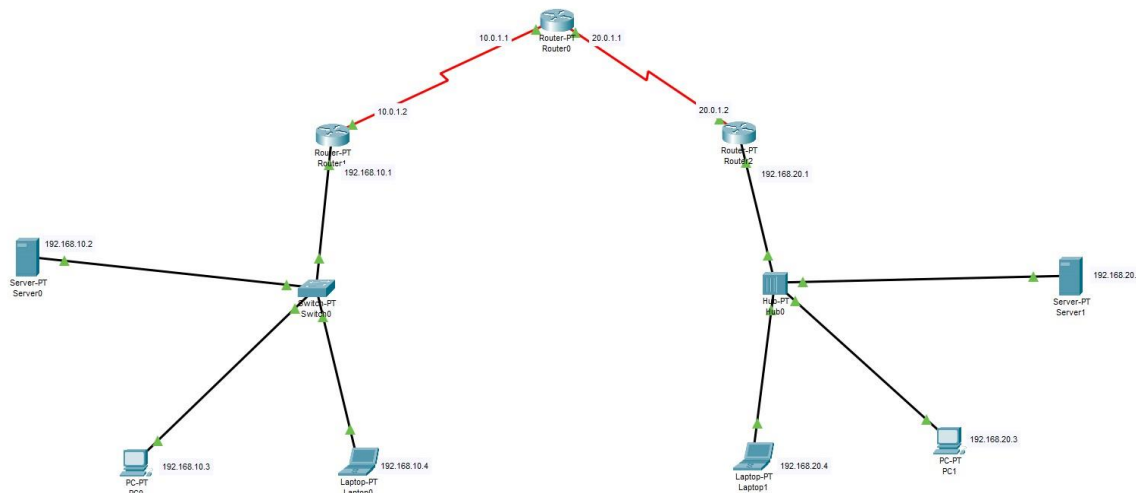# Cyber Security and Digital Forensics

Practical 3: Exploring Router and VLAN security, setting up access lists using cisco packet tracer


```
Router(config-if)#ip address 10.0.1.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#ip address
% Incomplete command.
Router(config-if)#ip address 20.0.1.1 255.0.0.0
Router(config-if)#ip address 20.0.1.1 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

%LINK-5-CHANGED: Interface Serial3/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up

Router(config-if)#exit
Router(config)#router rip
Router(config-router)#network 10.0.0.0
Router(config-router)#network 20.0.0.0
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface Serial2/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
```

```
                    System Configuration Dialog

Would you like to enter the initial configuration dialog? [yes/no]: n


Press RETURN to get started!



Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface Serial2/0
Router(config-if)#ip address 10.0.1.2 255.0.0.0
Router(config-if)#ip address 10.0.1.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#ip address 192.168.10.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#router rip
Router(config-router)#network 10.0.0.0
Router(config-router)#network 192.168.10.0
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
%SYS-5-CONFIG_I: Configured from console by console
no network 10.0.0.0
Router(config-router)#network 10.0.0.0
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface Serial2/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console

Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
```

```
Would you like to enter the initial configuration dialog? [yes/no]: n


Press RETURN to get started!



Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface Serial2/0
Router(config-if)#ip address 20.0.1.2 255.0.0.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.20.1 255.255.255.0
Router(config-if)#ip address 192.168.20.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#exit
Router(config)#router rip
Router(config-router)#network 20.0.0.0
Router(config-router)#network 192.168.20.0
Router(config-router)#
```

PC0 — Desktop — IP Configuration

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration
- ○ DHCP   ● Static
- IP Address: 192.168.10.3
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.10.1
- DNS Server: 0.0.0.0

IPv6 Configuration
- ○ DHCP   ○ Auto Config   ● Static
- IPv6 Address: /
- Link Local Address: FE80::201:43FF:FE98:6CA3
- IPv6 Gateway:
- IPv6 DNS Server:

802.1X
- ☐ Use 802.1X Security
- Authentication: MD5
- Username:

☐ Top

PC1 — Desktop — IP Configuration

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration
- ○ DHCP   ● Static
- IP Address: 192.168.20.3
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.20.1
- DNS Server: 0.0.0.0

IPv6 Configuration
- ○ DHCP   ○ Auto Config   ● Static
- IPv6 Address: /
- Link Local Address: FE80::201:42FF:FECE:3CC6
- IPv6 Gateway:
- IPv6 DNS Server:

802.1X
- ☐ Use 802.1X Security
- Authentication: MD5
- Username:

☐ Top

Laptop0 — Desktop — IP Configuration

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration
- ○ DHCP   ● Static
- IP Address: 192.168.10.4
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.10.1
- DNS Server: 0.0.0.0

IPv6 Configuration
- ○ DHCP   ○ Auto Config   ● Static
- IPv6 Address: /
- Link Local Address: FE80::201:43FF:FE12:B1B8
- IPv6 Gateway:
- IPv6 DNS Server:

802.1X
- ☐ Use 802.1X Security
- Authentication: MD5
- Username:

☐ Top

Laptop1 — Desktop — IP Configuration

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration
- ○ DHCP   ● Static
- IP Address: 192.168.20.4
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.20.1
- DNS Server: 0.0.0.0

IPv6 Configuration
- ○ DHCP   ○ Auto Config   ● Static
- IPv6 Address: /
- Link Local Address: FE80::260:3EFF:FED4:E17
- IPv6 Gateway:
- IPv6 DNS Server:

802.1X
- ☐ Use 802.1X Security
- Authentication: MD5
- Username:

☐ Top

```
Router>en
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#access-list?
access-list
Router(config)#access-list
% Incomplete command.
Router(config)#access-list?
access-list
Router(config)#access-list
% Incomplete command.
Router(config)#access-list?
access-list
Router(config)#access-list ?
  <1-99>      IP standard access list
  <100-199>  IP extended access list
Router(config)#access-list
% Incomplete command.
Router(config)#interface FastEthernet0/0
Router(config-if)#access-list 10 deny 192.168.10.2 0.0.0.0
Router(config)#access-list 10 permit any
Router(config)#access-list 10 deny 192.168.10.2 0.0.0.0
Router(config)#interface s0
                          ^
% Invalid input detected at '^' marker.

Router(config)#interface FastEthernet0/0
Router(config-if)#interface Se
Router(config-if)#interface Serial2/0
Router(config-if)#ip access-group 10 out
Router(config-if)#exit
Router(config)#
```