EMILIE DIONISIO

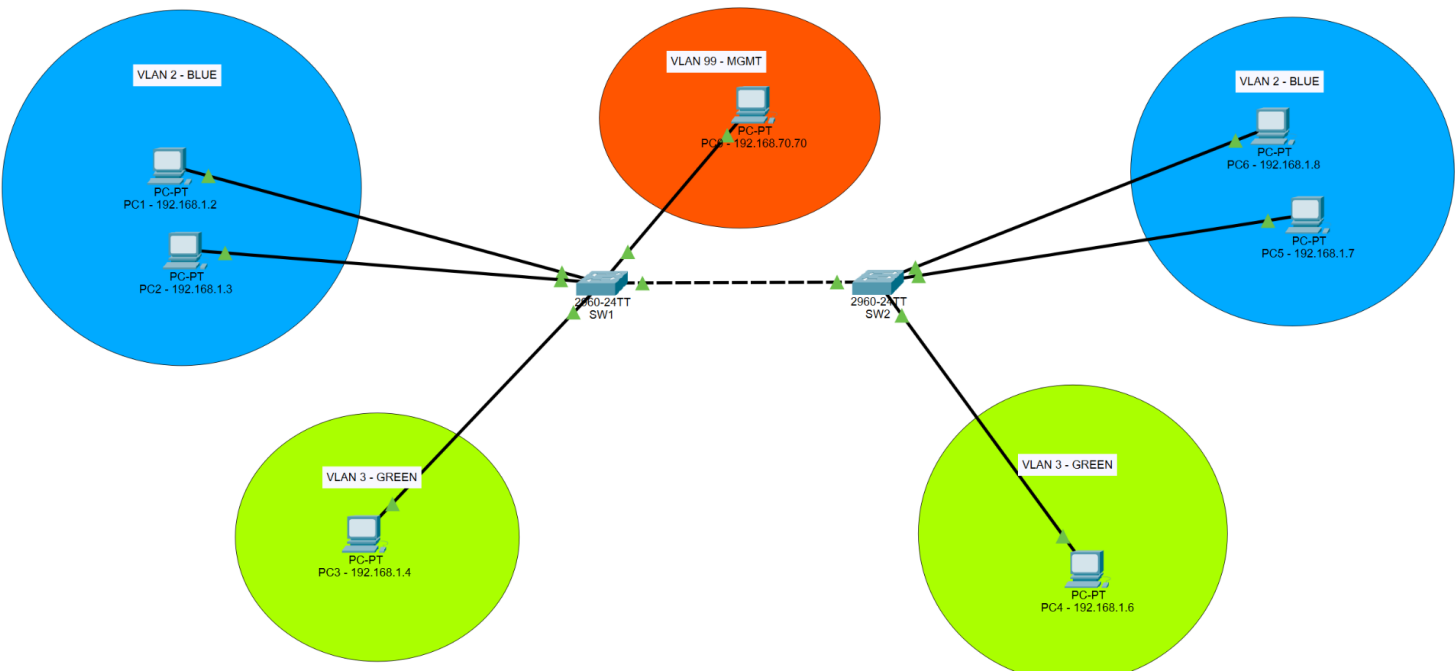## Innovation Fellowship
Cloud Cybersecurity Engineering

1. Cisco Packet Tracer VLAN Configuration (Practice Exercise)

SWITCH PASSWORD: cisco

Reconstructing VLAN from the IPCisco instruction:

SWITCH 1				SWITCH 2			
PC1	192.168.1.2	F0/2	VLAN 2	PC4	192.168.1.6	F0/2	VLAN 3
PC2	192.168.1.3	F0/3	VLAN 2	PC5	192.168.1.7	F0/3	VLAN 2
PC3	192.168.1.4	F0/4	VLAN 3	PC6	192.168.1.8	F0/4	VLAN 3
PC0	192.168.70.70	F0/24	VLAN 99				

I created four VLANs:
VLAN 2 (BLUE)
VLAN 3 (GREEN)
VLAN 70 (MISC)
VLAN 99 (MGMT) - SWITCH 1's IP: 192.168.70.77

I added VLAN99 (MGMT) and VLAN70 (MISC) to the switch for management and security. It is best practice to move the remaining ports to a separate VLAN other than the default VLAN because bad actors know that if it is left in the default, it will be easier for them to gain access. All unused ports were relocated to VLAN70.

EMILIE DIONISIO

```
VLAN Name                             Status     Ports
---- -------------------------------- ---------- -------------------------------
1    default                          active
2    blue                             active     Fa0/2, Fa0/3
3    green                            active     Fa0/4
70   misc                             active     Fa0/5, Fa0/6, Fa0/7, Fa0/8
                                                 Fa0/9, Fa0/10, Fa0/11, Fa0/12
                                                 Fa0/13, Fa0/14, Fa0/15, Fa0/16
                                                 Fa0/17, Fa0/18, Fa0/19, Fa0/20
                                                 Fa0/21, Fa0/22, Fa0/23, Gig0/1
                                                 Gig0/2
99   mgmt                             active     Fa0/24
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active
```

2. Cisco Packet Tracer Router Configuration (Practice Exercise) - **See attached Pkt file name:** p1w9_1router_practice_emiliedionisio.pkt

```
R1#sh ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     192.168.1.1     YES manual up                    up
GigabitEthernet0/1     192.168.2.1     YES manual up                    up
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
```

```
!
interface GigabitEthernet0/0
 ip address 192.168.1.1 255.255.255.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 ip address 192.168.2.1 255.255.255.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/2
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
!
```

3. Cisco Packet Tracer Configuration (Challenge Exercise) - **See attached Pkt file name:** p1w9_2router_challenge_emiliedionisio.pkt

R1

EMILIE DIONISIO

```
interface GigabitEthernet0/0
 ip address 192.168.1.1 255.255.255.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface GigabitEthernet0/2
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 192.168.2.1 255.255.255.252
 clock rate 128000
!
interface Serial0/0/1
 no ip address
 clock rate 2000000
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
ip route 192.168.3.0 255.255.255.0 192.168.2.2
!
```

```
R1#sh ip int br
Interface              IP-Address      OK? Method Status                 Protocol
GigabitEthernet0/0     192.168.1.1     YES manual up                     up
GigabitEthernet0/1     unassigned      YES unset  administratively down  down
GigabitEthernet0/2     unassigned      YES unset  administratively down  down
Serial0/0/0            192.168.2.1     YES manual up                     up
Serial0/0/1            unassigned      YES unset  administratively down  down
Vlan1                  unassigned      YES unset  administratively down  down
```

R2

EMILIE DIONISIO

```
interface GigabitEthernet0/0
 ip address 192.168.3.1 255.255.255.0
 duplex auto
 speed auto
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface GigabitEthernet0/2
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial0/0/0
 ip address 192.168.2.2 255.255.255.252
!
interface Serial0/0/1
 no ip address
 clock rate 2000000
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
ip route 192.168.1.0 255.255.255.0 192.168.2.1
!
```

```
R2#SH IP int br
Interface              IP-Address      OK? Method Status                 Protoco
GigabitEthernet0/0     192.168.3.1     YES manual up                     up
GigabitEthernet0/1     unassigned      YES unset  administratively down down
GigabitEthernet0/2     unassigned      YES unset  administratively down down
Serial0/0/0            192.168.2.2     YES manual up                     up
Serial0/0/1            unassigned      YES unset  administratively down down
Vlan1                  unassigned      YES unset  administratively down down
```