LINUX NETWORKING MODULE 7 AND 8 ASSESSMENT SOLUTION

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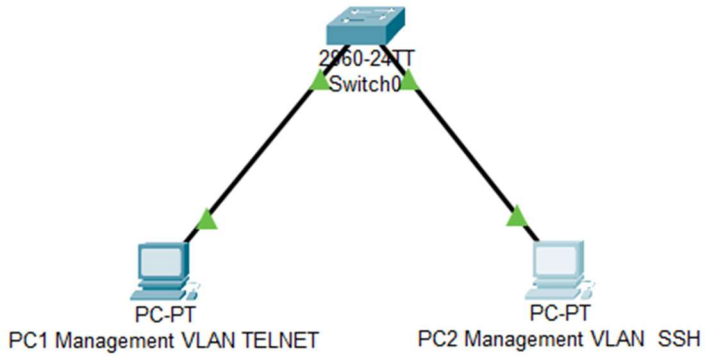
6.Configure a management VLAN and assign an IP address for remote access Test SSH or Telnet access to the switch

Devices:

- 1 Cisco 2960 Switch
- 2 PCs (One for SSH, One for Telnet)
- Copper Straight-Through Cables



Switch configurations:

```
Switch>en
Switch#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name Management
Switch(config-vlan)#exit
Switch(config)#interface vlan 10
Switch(config-if)#ip address 192.168.1.1 255.255.255.0
Switch(config-if)#no shutdown
Switch(config-if)#exit
```

```
Switch1(config)#interface fastEthernet 0/1
Switch1(config-if)#switchport mode access
Switch1(config-if)#switchport access vlan 10
Switch1(config-if)#exit
Switch1(config)#
Switch1(config)#interface fastEthernet 0/2
Switch1(config-if)#switchport mode access
Switch1(config-if)#switchport access vlan 10
Switch1(config-if)#exit
Switch1(config)#line vty 0 2
Switch1(config-line)#password telnetpass
Switch1(config-line)#login
Switch1(config-line)#transport input telnet
Switch1(config-line)#exit
```

```
Switch(config)#hostname Switch1
Switch1(config)#crypto key generate rsa
% Please define a domain-name first.
Switch1(config)#ip domain-name cisco.com
Switch1(config)#crypto key generate rsa
The name for the keys will be: Switch1.cisco.com
Choose the size of the key modulus in the range of 360 to 4096 for your
  General Purpose Keys. Choosing a key modulus greater than 512 may take
  a few minutes.

How many bits in the modulus [512]: 1024
% Generating 1024 bit RSA keys, keys will be non-exportable...[OK]

Switch1(config)#username admin privilege 15 secret adminpass
*Mar 1 0:13:20.766: %SSH-5-ENABLED: SSH 1.99 has been enabled

Switch1(config)#line vty 3 4
Switch1(config-line)#transport input ssh
Switch1(config-line)#login local
Switch1(config-line)#exit
Switch1(config)#ip ssh version 2
```

PC1 Configuration

IP Address: 192.168.1.2

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

PC1 Configuration

IP Address: 192.168.1.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

PC1 Management VLAN TELNET

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>telnet 192.168.1.1
Trying 192.168.1.1 ...Open


User Access Verification

Password:
Switch1>
```

PC2 Management VLAN SSH

Physical Config Desktop Programming Attributes

Command Prompt

```
Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=10ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 10ms, Average = 2ms

C:\>ssh -l admin 192.168.1.1

Password:



Switch1#
Switch1#
Switch1#
Switch1#show vlan brief

VLAN Name                              Status    Ports
---- --------------------------------- --------- -------------------------------
1    default                           active    Fa0/3, Fa0/4, 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, Fa0/24, Gig0/1, Gig0/2
10   Management                        active    Fa0/1, Fa0/2
1002 fddi-default                      active
1003 token-ring-default                active
1004 fddinet-default                   active
1005 trnet-default                     active
```