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**Physical connection**:

Use a console cable to connect your PC to the switch's console port. Open a terminal emulator program (e.g., PuTTY or Tera Term) and connect to the switch using the appropriate COM port settings

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We are using CPT software- Not physical switch!!

**Selecting a switch**

On the left side of the Packet Tracer window, you’ll find the “Network Devices” tab.

Within the Devices panel, locate the “Switches” category. Select any (2960) Switch and drop it in the workspace

**Step 1: Access the Switch**

**Configure the Switch**

Click on the switch and select CLI tab (Command Line Interface)

**Enter Privileged EXEC Mode:**

Switch> enable

**Enter Global Configuration Mode**:

Switch# configure terminal

**Step 2: Set Hostname and Passwords**

**Set the Hostname:**

Switch(config)# hostname MySwitch

**Set Console Password**:

MySwitch(config)# line console 0

MySwitch(config-line)# password ompg\_nps

MySwitch(config-line)# login

MySwitch(config-line)# exit

Explanation:

line: This parameter specifies that we will be configuring some type of access port.

console: This parameter specifies that we will be configuring access via the console port

 0: This parameter specifies which (if there are alternatives) port we will be configuring

With the  "login" command you are basically locking the door. The password is the key to open the door.

**Set Enable Password**:

MySwitch(config)# enable secret ompg\_nps\_ece

**Configure VLANs**

1. **Create VLANs**:

MySwitch(config)# vlan 10

MySwitch(config-vlan)# name Sales

MySwitch(config-vlan)# exit

MySwitch(config)# vlan 20

MySwitch(config-vlan)# name Engineering

MySwitch(config-vlan)# exit

%%%VLAN 10 and VLAN 20 are Virtual Local Area Network (VLAN) IDs assigned to switch ports.

**Assign Ports to VLANs**:

MySwitch(config)# interface range fastethernet 0/1 - 6

MySwitch(config-if-range)# switchport mode access

MySwitch(config-if-range)# switchport access vlan 10

MySwitch(config-if-range)# exit

%%%%%access mode allows the interface to pass traffic for a single VLAN only

MySwitch(config)# interface range fastethernet 0/7 - 12

MySwitch(config-if-range)# switchport mode access

MySwitch(config-if-range)# switchport access vlan 20

MySwitch(config-if-range)# exit

**Step 4: Configure Basic Security**

1. **Disable Unused Ports**:

MySwitch(config)# interface range fastethernet 0/13 - 24

MySwitch(config-if-range)# shutdown

MySwitch(config-if-range)# exit

**Set Up Port Security**:

MySwitch(config)# interface gig0/1

MySwitch(config)# switchport mode access

MySwitch(config-if)# switchport port-security

MySwitch(config-if)# switchport port-security maximum 2

MySwitch(config-if)# switchport port-security violation restrict

MySwitch(config-if)# switchport port-security mac-address sticky

MySwitch(config-if)# exit

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Explanation:

* enable port security by using the**"switchport port-security"**command
* (Optional)you can specify how many MAC addresses the switch can have on one interface at a time. The command to configure this is as follows, **"switchport port-security maximum N"**
* (Optional) you can define the action to take when a violation occurs on that interface. The command to configure this is as follows **"switch port-security violation { protect | restrict | shutdown }"**

**Protect** which discards the traffic but keeps the port up and does not send a SNMP message.

**Restrict** which discards the traffic and sends a SNMP message but keeps the port up

**Shutdown** which discards the traffic sends a SNMP message and disables the port. (This is the default behavior is no setting is specified.)

* If you don’t want to configure manually every single MAC address of your organization then you can have the switch learn the MAC address dynamically using the **"switchport port-security mac-address sticky"** command. This command allow switch to learn the first MAC address that comes into on the interface.

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**Save the Configuration**:

MySwitch# copy running-config startup-config

**Verify Configuration**

1. **Check VLAN Configuration**:

MySwitch# show vlan brief

2. **Check Interface Status**:

MySwitch# show interfaces status

3. **Check Port Security**:

MySwitch# show port-security interface gig0/1