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Customize Switch with Network Modules using Cisco Packet Tracer

1. Open Cisco Packet Tracer

- Launch Cisco Packet Tracer on your computer.

2. Add a Switch to Your Workspace

- In the device toolbar (usually on the left side of the screen), locate the "Switches" section.
- Drag and drop a switch model onto the workspace. For instance, you might choose a model like the "2950" or "2960."

3. Access the Switch’s Physical Layout

- Click on the switch in the workspace to open its configuration window.
- Navigate to the "Physical" tab to see the switch's physical layout and modules.

4. Add Network Modules

- In the "Physical" tab, you might see options to add or modify network modules.
- Click on the slot where you want to add a module. You can choose from available modules such as different types of Ethernet or Fiber modules.
- Drag the module from the list of available modules and drop it into the slot on the switch.

5. Configure the Modules

- After adding the module, switch to the "Config" tab in the switch’s configuration window.
- Here, you can configure the ports provided by the module. For example, you can set IP addresses, VLAN configurations, and other settings for the new interfaces.

6. Configure the Switch Ports

- Switch to the "Config" tab to configure ports on the switch. Here, you can set parameters for each port.

- Select the specific port or range of ports you want to configure. You can set parameters such as VLAN assignments, port descriptions, and more.
- For example:
    - To configure a port to be in a specific VLAN:
        - Select the port or range of ports.
        - Assign the VLAN ID under the VLAN settings.
    - To set a description for the port:
        - Enter a description in the "Description" field.

7. Using the CLI for Detailed Configuration

- Switch to the "CLI" tab for command-line interface access.
- Enter configuration commands to set up the switch. Here's an example of how to configure VLANs and interface settings via CLI:

bash Copy code

```
Switch> enable
Switch# configure terminal

! Configure VLAN
Switch(config)# vlan 10
Switch(config-vlan)# name Sales
Switch(config-vlan)# exit

! Configure VLAN interface
Switch(config)# interface vlan 10
Switch(config-if)# ip address 192.168.10.1 255.255.255.0
Switch(config-if)# no shutdown
Switch(config-if)# exit

! Assign ports to VLAN
Switch(config)# interface range fa0/1 - 24
Switch(config-if-range)# switchport mode access
Switch(config-if-range)# switchport access vlan 10
Switch(config-if-range)# exit

! Save the configuration
Switch# write memory
```

8. Save Your Configuration

- Once you've configured the modules and ports, be sure to save your configuration.

Use commands in the CLI (Command Line Interface) if you're using a model that supports CLI commands.

For example:

bash Copy code

```
Switch> enable
Switch# configure terminal
Switch(config)# interface range fa0/1 - 24
Switch(config-if-range)# description Connected to LAN
Switch(config-if-range)# no shutdown
Switch(config-if-range)# exit
Switch(config)# vlan 10
Switch(config-vlan)# name Sales
Switch(config-vlan)# exit
Switch(config)# interface vlan 10
Switch(config-if)# ip address 192.168.10.1 255.255.255.0
Switch(config-if)# no shutdown
Switch(config-if)# exit
Switch# write memory
```

9. Test Your Configuration

- Use the simulation mode to test the network configuration.
- Add devices (PCs, routers, etc.) and connect them to the switch to ensure that everything is working as expected.

Result: Hence the experiment is complete and verified.

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