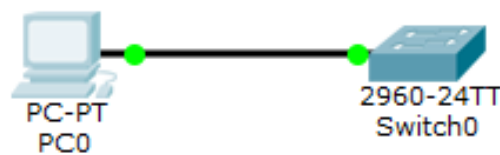# Workshop 1 : Switch Security

- Define and program network addressing
- Program the basic configuration of each switch
- Program descriptions on the physical interfaces
- Test the operation of the network architecture

Installation :

- Wire the network below and connect the PC to the console.

Guidelines :

- The switches are either a 2950 or 2960
- Programming of a banner and descriptions on the physical interfaces for all intermediate equipment

- Give PC0 a static address and then test that it works correctly

Security analysis

Analyse the options for defining security with the command
switch(config-if)#*switchport port-security* ?

WARNING : switch(config-if)#*switchport port-security* without argument **ENABLES** security

Configuring security on a port

Configure port fa0/18 to accept only two peripherals by dynamically acquiring Mac addresses and disabling it in the event of a violation.

switch(config-if)#*switchport mode access*
switch(config-if)#*switchport port-security*
switch(config-if)#*switchport port-security maximum 2*
switch(config-if)#*switchport port-security mac-address sticky*
switch(config-if)#*switchport port-security violation shutdown*

Display security information with the show port-security interface fa0/x command

Port security check

- Change the maximum number of Mac addresses so that it accepts only one.

- Disconnect your host PC0 from the port and connect the second network card to it.

- Ping the switch and check the status of the port. What do you find? And is there an error message on the switch?

- Reconnect the host PC0 and reactivate the port with the no shutdown command. Is the link working again?

Disabling unused ports

To ensure greater security, it is necessary to disable all unused ports.
To do this, use the command : *shutdown*

switch(config)#*interface range fa0/1* to disable a port
switch(config)#*interface range fa0/1-17* to disable a sequence of ports
switch(config)#*interface range fa0/19, fa0/20, fa0/21* if the ports are not contiguous.
You can mix the ranges: switch(config)#*interface range fa0/1-17, fa0/19*

Order testing
Replace the "?" with the possible commands. What are the choices?
switch(config-if)#*switchport port-security mac-address ?*

Test these possibilities and indicate the results obtained.

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Replace the "?" with the possible commands. What are the choices?

switch(config-if)#*switchport port-security violation ?*

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Test these possibilities and indicate the results obtained.

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