

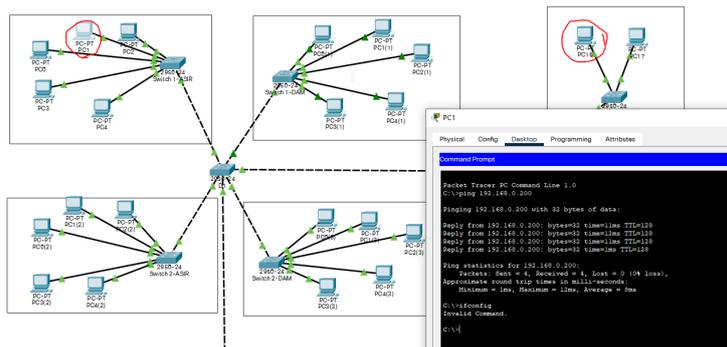
Tema VII Ejercicio IV

Nicolás A. Ortega Froysa

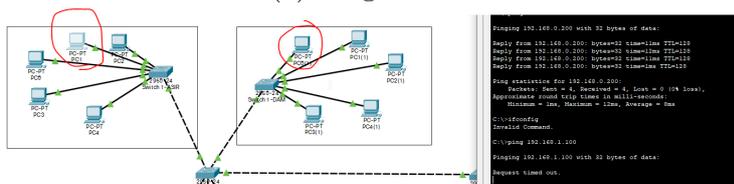
18 de marzo de 2022

1. Resumen

El objetivo de esta práctica era la creación de una red que contiene dentro varias subredes virtuales (VLAN). Éstas, además, han de estar configuradas con el *port-security*, de tal modo que sólo permite entradas por ciertos puertos con ciertas direcciones MAC.



(a) Ping en VLAN.



(b) Ping fuera de VLAN.

Figura 1: Comprobación de conectividad y configuración VLAN.

Ethernet 802.1q			
0	1	2	3
PREAMBLE: 101010..10			DEST ADDR:00
SRC ADDR:0060.3	TPID: 0x81	TCID: 000b	Type: 0x1
ED9.5ED6			FC:
DATA (VARIABLE LENGTH)			

Figura 2: VLAN en trama.

```
Switch>enable
Switch#show mac address-table
      Mac Address Table
-----
Vlan  Mac Address      Type      Ports
----  -
10    0090.0cba.3701    DYNAMIC   Fa0/24
Switch#
```

(a) MAC address table 1-ASIR.

```
Switch>enable
Switch#show mac address-table
      Mac Address Table
-----
Vlan  Mac Address      Type      Ports
----  -
11    0090.0cba.3702    DYNAMIC   Fa0/24
Switch#
```

(b) MAC address table 1-DAM.

```
Switch>enable
Switch#show mac address-table
      Mac Address Table
-----
Vlan  Mac Address      Type      Ports
----  -
20    0090.0cba.3703    DYNAMIC   Fa0/24
Switch#
```

(c) MAC address table 2-ASIR.

```
Switch>enable
Switch#show mac address-table
      Mac Address Table
-----
Vlan  Mac Address      Type      Ports
----  -
21    0090.0cba.3704    DYNAMIC   Fa0/24
Switch#
```

(d) MAC address table 2-DAM.

```
Switch>enable
Switch#show mac address-table
      Mac Address Table
-----
Vlan  Mac Address      Type      Ports
----  -
10    0010.11c9.0701    DYNAMIC   Fa0/24
Switch#
```

(e) MAC address table LAB-ASIR.

```
Switch>enable
Switch#show mac address-table
      Mac Address Table
-----
Vlan  Mac Address      Type      Ports
----  -
11    0010.11c9.0702    DYNAMIC   Fa0/24
Switch#
```

(f) MAC address table LAB-DAM.

Figura 3: Tablas de direcciones MAC de los *switches* de acceso.

```
Switch>enable
Switch#show mac address-table
      Mac Address Table
-----
Vlan  Mac Address      Type      Ports
----  -
11    0090.0cba.3702    DYNAMIC   Fa0/24
Switch#
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int f0/24
Switch(config-if)#switchport mode access
Switch(config-if)#switchport port-security
Switch(config-if)#switchport port-security mac-address 0090.0cba.3702
Found duplicate mac-address 0090.0cba.3702.
Switch(config-if)#switchport port-security mac-address sticky
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
show mac-address
      Mac Address Table
-----
Vlan  Mac Address      Type      Ports
----  -
11    0090.0cba.3702    STATIC    Fa0/24
Switch#
```

Figura 4: Configuración del *port-security*.

2. Derechos de Autor y Licencia

Copyright © 2022 Nicolás A. Ortega Froya <nicolas@ortegas.org>

Este documento se distribuye bajo los términos y condiciones de la licencia Creative Commons Attribution No Derivatives 4.0 International.