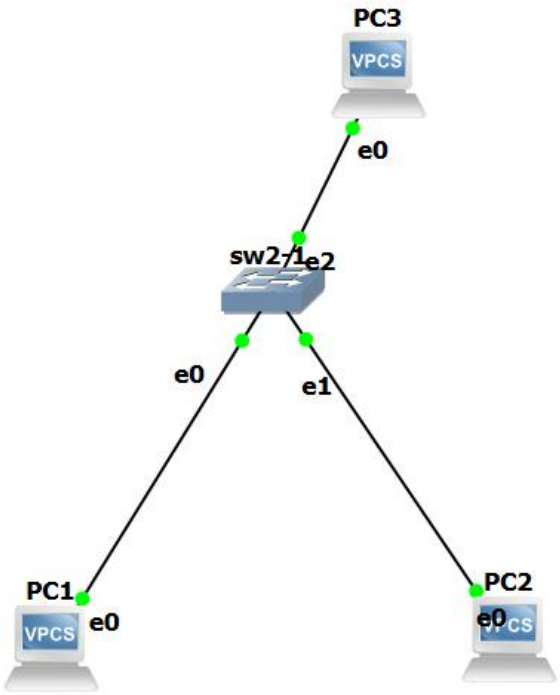
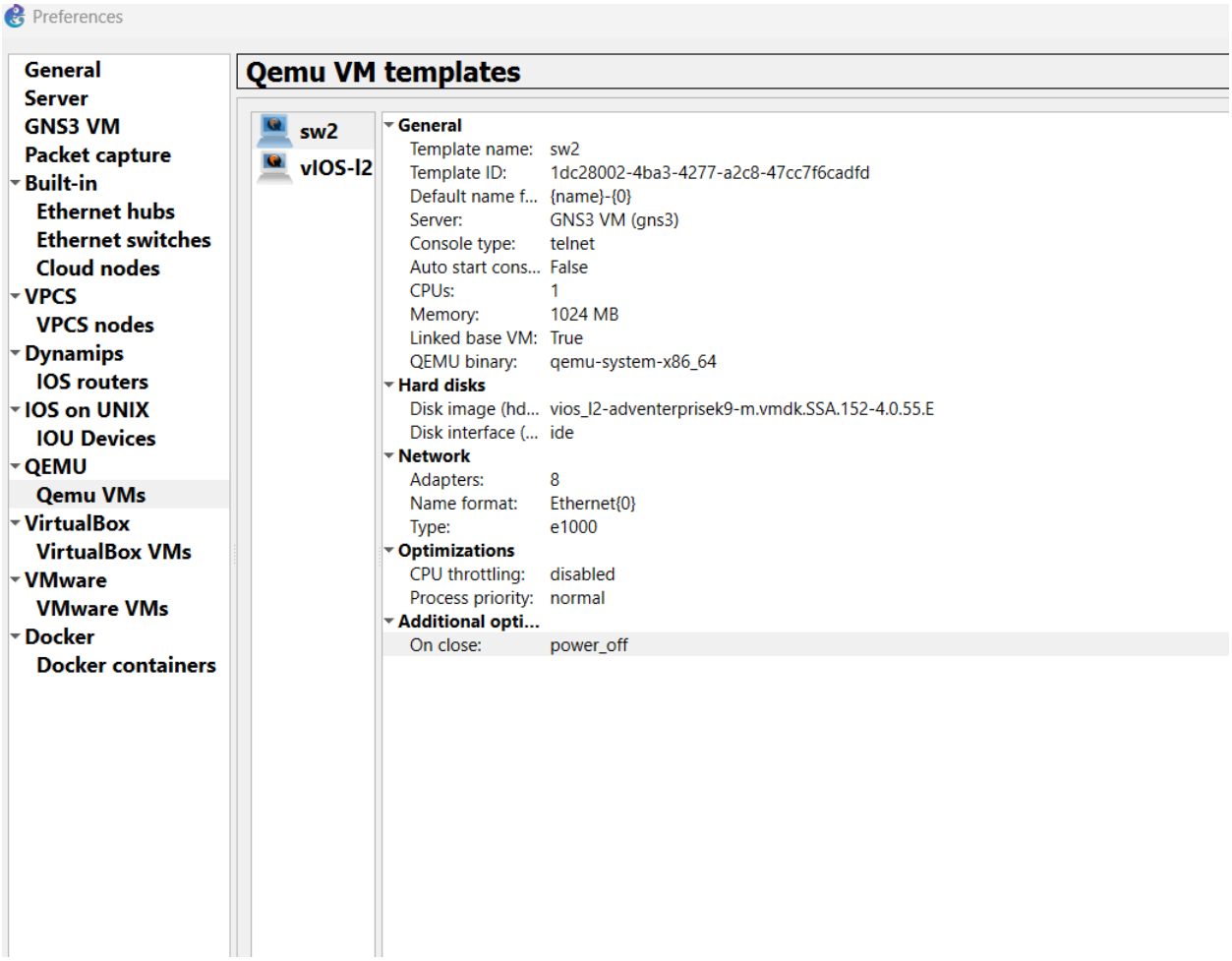
Documentatie retea:



Pasi de implementare:

-am importat sw2-1 cu urmatoarea configuratie



Implicit avea un singur adaptor. Am modificat la 8 adaptoare pentru cazul in care ar fi trebuit sa conectez dispozitivul la mai multe subretele, VLAN-uri.

Probleme intampinate: a fost nevoie sa adaug o memorie RAM suficient de mare (1024 MB) pentru a putea boota imaginea switch-ului.

Tipul de versiune este afisat cu comanda:

mySw>show version

Cisco IOS Software, vios_l2 Software (vios_l2-ADVENTERPRISEK9-M), Version 15.2(4.0.55)E, TEST ENGINEERING ESTG_WEEKLY BUILD, synced to END_OF_FLO_ISP

Technical Support: http://www.cisco.com/techsupport

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Compiled Tue 28-Jul-15 18:52 by sasyamal

ROM: Bootstrap program is IOSv

Cisco IOSv () processor (revision 1.0) with 935169K/111616K bytes of memory.

Processor board ID 9MV18I9538U

1 Virtual Ethernet interface

8 Gigabit Ethernet interfaces

DRAM configuration is 72 bits wide with parity disabled.

256K bytes of non-volatile configuration memory.

2097144K bytes of ATA System CompactFlash 0 (Read/Write)

0K bytes of ATA CompactFlash 1 (Read/Write)

0K bytes of ATA CompactFlash 2 (Read/Write)

0K bytes of ATA CompactFlash 3 (Read/Write)

Configuration register is 0x0

-pe VPCS-uri am rulat urmatoarele comenzi

Pentru PC1:

PC1>set pcname “myPC1” ->pentru a seta un nume sugestiv

myPC1> ip 192.168.1.1 255.255.255.0 -> atribuim o adresa ip

myPC1> save -> salvam modificarile

Pentru PC2:

PC2>set pcname “myPC2” ->pentru a seta un nume sugestiv

MyPC2> ip 192.168.1.2 255.255.255.0 -> atribuim o adresa ip

myPC2> save -> salvam modificarile

Pe switch:

Switch(config)#hostname “mySW” ->schimba promptul CLI

mySW (config)#vlan 10 ->creeaza un nou vlan

mySW(config-vlan)#name STUD ->atribuie un nume vlan-ului

mySW(config-vlan)#interface range g0/1-2 ->selecteaza o serie de interfete pentru a le putea configura simultan

mySW(config-if-range)#switchport mode access ->seteaza modul porturilor pentru a putea conecta un singur dispozitiv

mySW(config-if-range)#switchport access vlan 10 ->traficul transmis si primit pe aceste porturi va fi parte din vlan 10

mySW(config-if-range)#exit

mySW#show vlan

VLAN Name Status Ports

---- -------------------------------- --------- -------------------------------

1 default active Gi0/0, Gi0/3, Gi1/0, Gi1/1

Gi1/2, Gi1/3

10 STUD active Gi0/1, Gi0/2

1002 fddi-default act/unsup

1003 token-ring-default act/unsup

1004 fddinet-default act/unsup

1005 trnet-default act/unsup

In urma unui ping dintre cele doua pc-uri, tabela mac a switchului devine:

```
mySW#show mac address-table
        Mac Address Table
-------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----
  10    0050.7966.6800    DYNAMIC     Gi0/0
  10    0050.7966.6801    DYNAMIC     Gi0/1
Total Mac Addresses for this criterion: 2
```

Configuram un vlan de management

```
mySW(config)#vlan 99
mySW(config-vlan)#name ADM
mySW(config-vlan)#exit
mySW(config)#interface g0/2
mySW(config-if)#switchport mode access
mySW(config-if)#switchport access vlan 99
```

```
mySW(config)#interface vlan 99
mySW(config-if)#ip address 10.0.0.25 255.255.255.0
mySW(config-if)#no shut
mySW#show ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet0/0     unassigned      YES unset  up                    up
GigabitEthernet0/1     unassigned      YES unset  up                    up
GigabitEthernet0/2     unassigned      YES unset  up                    up
GigabitEthernet0/3     unassigned      YES unset  down                  down
GigabitEthernet1/0     unassigned      YES unset  down                  down
GigabitEthernet1/1     unassigned      YES unset  down                  down
GigabitEthernet1/2     unassigned      YES unset  down                  down
GigabitEthernet1/3     unassigned      YES unset  down                  down
Vlan99                 10.0.0.25       YES manual up                    up
```

In urma unui ping de la PC3 catre switch, tabela mac a switch-ului arata astfel:

```
mySW#show mac address-table
          Mac Address Table
-------------------------------------------

Vlan    Mac Address       Type        Ports
----    -----------       --------    -----
  10    0050.7966.6800    DYNAMIC     Gi0/0
```

10 0050.7966.6801 DYNAMIC Gi0/1

99 0050.7966.6802 DYNAMIC Gi0/2

Total Mac Addresses for this criterion: 3

mySW#copy running-config startup-config ->pentru a salva modificarile la bootare

Am incercat sa ma conectez remote la switch de pe PC3 prin telnet sau ssh, dar vpcs-urile implicite de la GNS3 nu accepta astfel de conexiuni. Comenzile puse la dispozitie pentru vpcs-uri sunt:

myPC3> ?

? Print help

! COMMAND [ARG ...] Invoke an OS COMMAND with optional ARG(s)

arp Shortcut for: show arp. Show arp table

clear ARG Clear IPv4/IPv6, arp/neighbor cache, command history

dhcp [OPTION] Shortcut for: ip dhcp. Get IPv4 address via DHCP

disconnect Exit the telnet session (daemon mode)

echo TEXT Display TEXT in output. See also set echo ?

help Print help

history Shortcut for: show history. List the command history

ip ARG ... [OPTION] Configure the current VPC's IP settings. See ip ?

load [FILENAME] Load the configuration/script from the file FILENAME

ping HOST [OPTION ...] Ping HOST with ICMP (default) or TCP/UDP. See ping ?

quit Quit program

relay ARG ... Configure packet relay between UDP ports. See relay ?

rlogin [ip] port Telnet to port on host at ip (relative to host PC)

save [FILENAME] Save the configuration to the file FILENAME

set ARG ... Set VPC name and other options. Try set ?

show [ARG ...] Print the information of VPCs (default). See show ?

sleep [seconds] [TEXT] Print TEXT and pause running script for seconds

trace HOST [OPTION ...] Print the path packets take to network HOST

version Shortcut for: show version

To get command syntax help, please enter '?' as an argument of the command.