UNIVERSIDAD AUTÓNOMA DE SINALOA

INGENIERÍA EN SOFTWARE

ALUMNO:

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MATERIA:

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1. TABLA DE DIRECCIONAMIENTO IP

NODO	NOMBRE	DIRECCION	MASCARA
SERVIDOR WINDOWS	SRV-WIN-SISTEMAS	192.168.50.20	255.255.255.0
SERVIDOR LINUX(ALMALINUX)	SRV-LINUX-SISTEMAS	192.168.50.10	255.255.255.0
CLIENTE LINUX (LUBUNTU)	CLIENTE-LUBUNTU-SISTEMAS	192.168.50.30	255.255.255.0

2. PING BIDIRECCIONAL ENTRE MAQUINAS

PING DE **SERVIDOR WINDOWS** A **SERVIDOR LINUX**

```
PS C:\Users\Administrator> ping 192.168.50.10

Pinging 192.168.50.10 with 32 bytes of data:
Reply from 192.168.50.10: bytes=32 time=19ms TTL=64
Reply from 192.168.50.10: bytes=32 time=14ms TTL=64
Reply from 192.168.50.10: bytes=32 time=8ms TTL=64
Reply from 192.168.50.10: bytes=32 time=2ms TTL=64

Ping statistics for 192.168.50.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 19ms, Average = 10ms
PS C:\Users\Administrator>
```

PING DE **SERVIDOR LINUX** A **SERVIDOR WINDOWS**

```
[marco@Srv-Linux-Sistemas ~]$ ping 192.168.50.20
PING 192.168.50.20 (192.168.50.20) 56(84) bytes of data.
64 bytes from 192.168.50.20: icmp_seq=1 ttl=128 time=20.0 ms
64 bytes from 192.168.50.20: icmp_seq=2 ttl=128 time=4.39 ms
64 bytes from 192.168.50.20: icmp_seq=3 ttl=128 time=3.31 ms
64 bytes from 192.168.50.20: icmp_seq=4 ttl=128 time=6.10 ms
^C
--- 192.168.50.20 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3012ms
rtt min/avg/max/mdev = 3.310/8.440/19.959/6.724 ms
[marco@Srv-Linux-Sistemas ~]$ [   98.115593] clocksource: Long r
```

PING DE **SERVIDOR WINDOWS** A **CLIENTE LINUX**

```
PS C:\Users\Administrator> ping 192.168.50.30

Pinging 192.168.50.30 with 32 bytes of data:
Reply from 192.168.50.30: bytes=32 time=13ms TTL=64
Reply from 192.168.50.30: bytes=32 time=27ms TTL=64
Reply from 192.168.50.30: bytes=32 time=5ms TTL=64
Reply from 192.168.50.30: bytes=32 time=5ms TTL=64

Ping statistics for 192.168.50.30:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 5ms, Maximum = 27ms, Average = 12ms
PS C:\Users\Administrator> ^C
PS C:\Users\Administrator>
```

PING DE **CLIENTE LINUX** A **SERVIDOR WINDOWS**

```
Archivo   Acciones   Editar   Vista   Ayuda

marco@Cli-Sistemas: ~  ×

marco@Cli-Sistemas:~$ ping 192.168.50.20
PING 192.168.50.20 (192.168.50.20) 56(84) bytes of data.
64 bytes from 192.168.50.20: icmp_seq=1 ttl=128 time=17.2 ms
64 bytes from 192.168.50.20: icmp_seq=2 ttl=128 time=2.47 ms
64 bytes from 192.168.50.20: icmp_seq=3 ttl=128 time=3.50 ms
64 bytes from 192.168.50.20: icmp_seq=4 ttl=128 time=3.92 ms
^C
--- 192.168.50.20 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004m
rtt min/avg/max/mdev = 2.466/6.758/17.151/6.023 ms
marco@Cli-Sistemas:~$
```
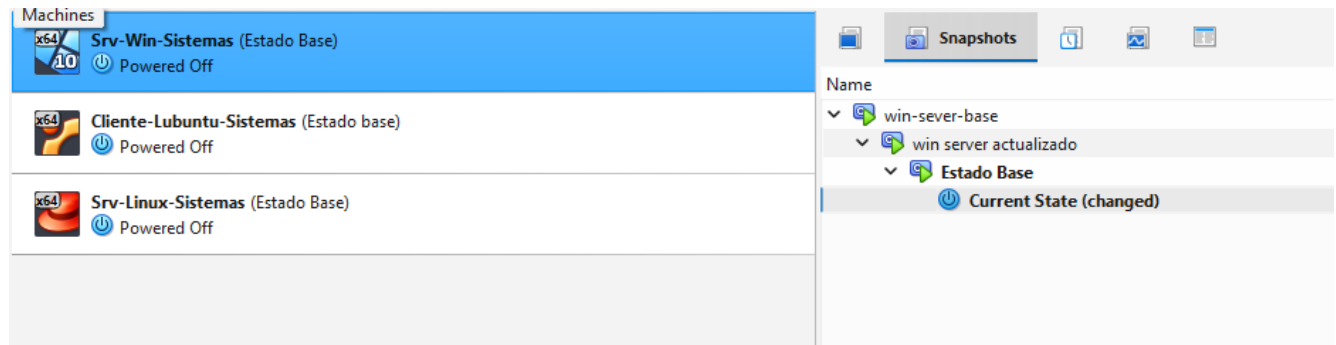
PING DE **SERVIDOR LINUX** A **CLIENTE LINUX**

```
[marco@Srv-Linux-Sistemas ~]$ ping 192.168.50.30
PING 192.168.50.30 (192.168.50.30) 56(84) bytes of data.
64 bytes from 192.168.50.30: icmp_seq=1 ttl=64 time=6.66 ms
64 bytes from 192.168.50.30: icmp_seq=2 ttl=64 time=2.50 ms
64 bytes from 192.168.50.30: icmp_seq=3 ttl=64 time=2.41 ms
64 bytes from 192.168.50.30: icmp_seq=4 ttl=64 time=2.11 ms
^C
--- 192.168.50.30 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3013ms
rtt min/avg/max/mdev = 2.112/3.419/6.660/1.876 ms
[marco@Srv-Linux-Sistemas ~]$ _
```

PING DE **CLIENTE LINUX** A **SERVIDOR LINUX**

```
marco@Cli-Sistemas:~$ ping 192.168.50.10
PING 192.168.50.10 (192.168.50.10) 56(84) bytes of data.
64 bytes from 192.168.50.10: icmp_seq=1 ttl=64 time=13.8 ms
64 bytes from 192.168.50.10: icmp_seq=2 ttl=64 time=2.21 ms
64 bytes from 192.168.50.10: icmp_seq=3 ttl=64 time=2.79 ms
64 bytes from 192.168.50.10: icmp_seq=4 ttl=64 time=2.05 ms
^C
--- 192.168.50.10 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3003m
rtt min/avg/max/mdev = 2.045/5.214/13.817/4.974 ms
marco@Cli-Sistemas:~$
```
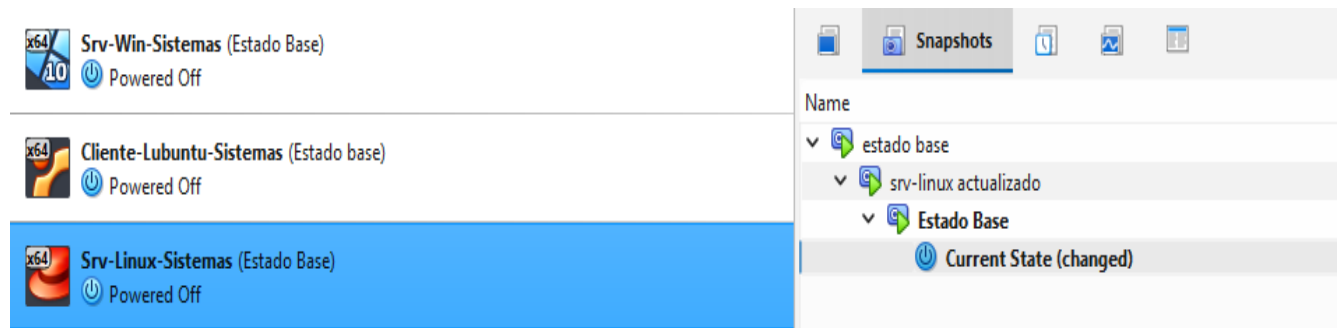
3. SNAPSHOTS EN HIPERVISOR

SERVIDOR WINDOWS

CLIENTE LINUX
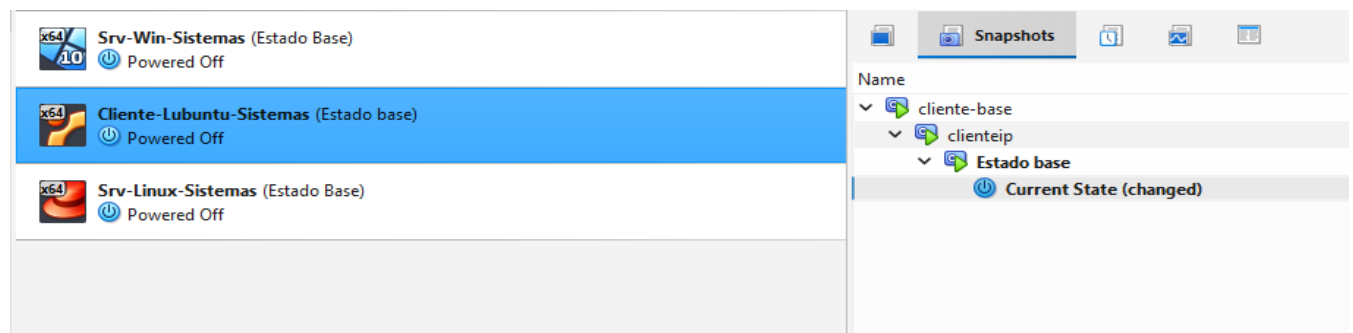
SERVIDOR LINUX

4. SCRIPTS FUNCIONANDO

SCRIPT DE SERVIDOR LINUX

```
[marco@Srv-Linux-Sistemas ~]$ ./check_status.sh
=== DIAGNOSTICO DEL SISTEMA ===
Hostname: Srv-Linux-Sistemas

Direcciones IP:
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
    inet 192.168.50.10/24 brd 192.168.50.255 scope global noprefixroute enp0s8

Espacio en disco:
Filesystem                  Size  Used Avail Use% Mounted on
devtmpfs                    4.0M     0  4.0M   0% /dev
tmpfs                       383M     0  383M   0% /dev/shm
tmpfs                       153M  3.1M  150M   2% /run
/dev/mapper/almalinux-root   16G  1.7G   14G  11% /
/dev/sda1                   960M  346M  615M  36% /boot
tmpfs                        77M     0   77M   0% /run/user/1000

[marco@Srv-Linux-Sistemas ~]$
```

SCRIPT DE SERVIDOR WINDOWS

```
PS C:\Users\Administrator\documents> .\check_status.ps1
==================================
 DIAGNOSTICO INICIAL DEL SISTEMA
==================================

nNombre del equipo:
-------------------
SRV-WIN-SIS
nDirecciones IP activas:
IP1: 10.0.2.15
IP2: 192.168.50.20

Espacio en disco:
-------------------
Disco C:: 9.2 GB libres de 20.14 GB (45.68%)


==================================
       FIN DEL DIAGNOSTICO
==================================
PS C:\Users\Administrator\documents>
```

SCRIPT SRV-LINUX

```
echo "=== DIAGNÓSTICO DEL SISTEMA ==="
echo "Hostname: $(hostname)"
echo ""

echo "Direcciones IP (IPv4):"
ip -4 addr show | grep inet | grep -v 127.0.0.1
echo ""

echo "Espacio en disco:"
df -h
echo ""
```

SCRIPT WINDOWS SERVER

```
write-host "=============================================="
write-host "    DIAGNOSTICO INICIAL DEL SISTEMA"
write-host "=============================================="
write-host ""

write-host "Nombre del equipo: "
write-host "--------------------------------"
write-host $env:COMPUTERNAME
write-host ""

write-host "Direcciones IP activas: "
write-host "--------------------------------"
$ip_lines = ipconfig | findstr "IPv4"
if ($ip_lines) {
   $counter = 1
   foreach ($line in $ip_lines) {
      $ip = ($line -split ":")[1].Trim()
      write-host " IP$($counter): $ip"
      $counter++
   }
} else {
   write-host " No se encontraron IPs"
}
```

```powershell
write-host ""

write-host "Espacio en disco: "
write-host "-------------------------------"
$disk = Get-WmiObject Win32_LogicalDisk -Filter "DeviceID='C:'"
$freeGB = [math]::Round($disk.FreeSpace/1GB, 2)
$totalGB = [math]::Round($disk.Size/1GB, 2)
$percentGB = [math]::Round(($freeGB/$totalGB)*100, 2)
write-host "Disco C:: $freeGB GB libres de $totalGB GB ($percentGB%)"
write-host ""

write-host "=========================================="
write-host "       FIN DEL DIAGNOSTICO"
write-host "=========================================="
```