



**Universidad Autónoma de Sinaloa**

**ADMINISTRACIÓN DE SISTEMAS**

**Nombre de la práctica:**

Tarea 1: Entorno de Virtualización e Infraestructura Base

**Grupo:**

3-02

**Alumno:**

Montes Vázquez Adrián Tadeo

**Profesor:**

Herman Geovany Ayala Zuñiga

**Profesor:**

<https://github.com/ADNTD1/Administracion-de-Sistemas-T1>

## TABLA DE DIRECCIONAMIENTO DE IP PROPUESTO:

Nodo	Sistema Operativo	Dirección IP	Máscara de Red
Srv-Linux-Sistemas	NixOS Server	192.168.100.129	255.255.255.0
Srv-Win-Sistemas	Windows Server 2022	192.168.100.130	255.255.255.0
Cliente-Sistemas	NixOs	192.168.100.128	255.255.255.0

## CAPTURA DEL COMANDO PING:

Ping entre NixOs Cliente y Windows Server 2022:

```
[adrian@nixos:~/Escritorio/Scripts]$ ping 192.168.85.130
PING 192.168.85.130 (192.168.85.130) 56(84) bytes de datos.
64 bytes desde 192.168.85.130: icmp_seq=1 ttl=128 tiempo=3.25 ms
64 bytes desde 192.168.85.130: icmp_seq=2 ttl=128 tiempo=2.14 ms
64 bytes desde 192.168.85.130: icmp_seq=3 ttl=128 tiempo=0.749 ms
64 bytes desde 192.168.85.130: icmp_seq=4 ttl=128 tiempo=0.932 ms
64 bytes desde 192.168.85.130: icmp_seq=5 ttl=128 tiempo=0.989 ms
^C
--- 192.168.85.130 estadísticas ping ---
5 paquetes transmitidos, 5 recibidos, 0% packet loss, time 4060ms
rtt min/avg/max/mdev = 0.749/1.612/3.250/0.955 ms

[adrian@nixos:~/Escritorio/Scripts]$
```

Ping entre Windows Server 2022 y NixOs Cliente:

```
PS C:\Users\Administrator> ping 192.168.85.128

Pinging 192.168.85.128 with 32 bytes of data:
Reply from 192.168.85.128: bytes=32 time=1ms TTL=64
Reply from 192.168.85.128: bytes=32 time=1ms TTL=64
Reply from 192.168.85.128: bytes=32 time<1ms TTL=64
Reply from 192.168.85.128: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.85.128:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
PS C:\Users\Administrator> S
```

Ping entre NixOs server y NixOs cliente:

```
[adrian@Srv-Linux-Sisremas:~/Scripts]$ ping -c 4 192.168.85.128
PING 192.168.85.128 (192.168.85.128) 56(84) bytes of data.
64 bytes from 192.168.85.128: icmp_seq=1 ttl=64 time=4.09 ms
64 bytes from 192.168.85.128: icmp_seq=2 ttl=64 time=7.55 ms
64 bytes from 192.168.85.128: icmp_seq=3 ttl=64 time=8.10 ms
64 bytes from 192.168.85.128: icmp_seq=4 ttl=64 time=1.06 ms

--- 192.168.85.128 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3008ms
rtt min/avg/max/mdev = 1.061/5.199/8.098/2.841 ms
```

```
[adrian@Srv-Linux-Sisremas:~/Scripts]$
```

Ping entre NixOs cliente y NixOs server:

```
[adrian@nixos:~/Escritorio/Scripts]$ ping -c 4 192.168.85.129
PING 192.168.85.129 (192.168.85.129) 56(84) bytes de datos.
64 bytes desde 192.168.85.129: icmp_seq=1 ttl=64 tiempo=2.70 ms
64 bytes desde 192.168.85.129: icmp_seq=2 ttl=64 tiempo=3.10 ms
64 bytes desde 192.168.85.129: icmp_seq=3 ttl=64 tiempo=0.589 ms
64 bytes desde 192.168.85.129: icmp_seq=4 ttl=64 tiempo=0.703 ms

--- 192.168.85.129 estadísticas ping ---
4 paquetes transmitidos, 4 recibidos, 0% packet loss, time 3046ms
rtt min/avg/max/mdev = 0.589/1.774/3.104/1.137 ms
```

```
[adrian@nixos:~/Escritorio/Scripts]$
```

Ping entre WindowsServer y NixOS server:

```
C:\Users\Administrator\Desktop\Scripts>ping 192.168.85.129
Pinging 192.168.85.129 with 32 bytes of data:
Reply from 192.168.85.129: bytes=32 time=12ms TTL=64
Reply from 192.168.85.129: bytes=32 time=1ms TTL=64
Reply from 192.168.85.129: bytes=32 time=1ms TTL=64
Reply from 192.168.85.129: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.85.129:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 12ms, Average = 3ms

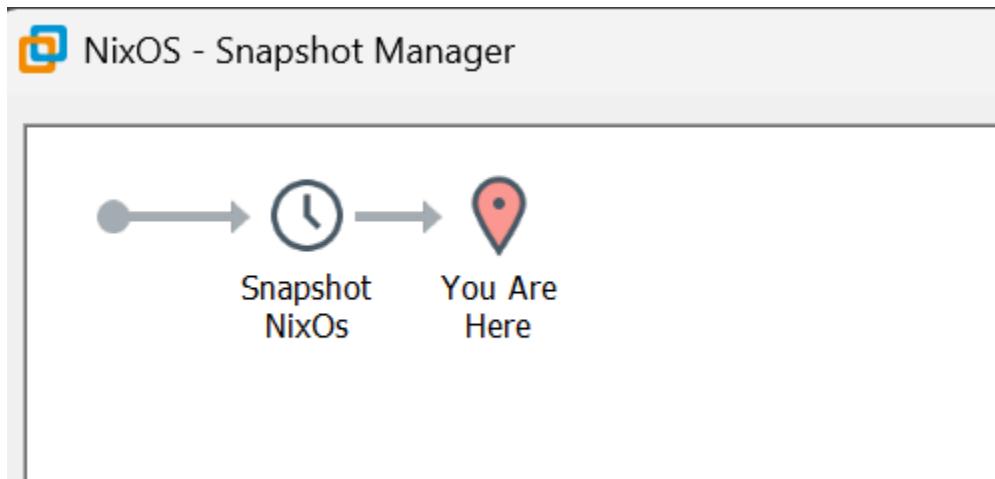
C:\Users\Administrator\Desktop\Scripts>
```

Ping entre NixOs Server y Windows Server 2022:

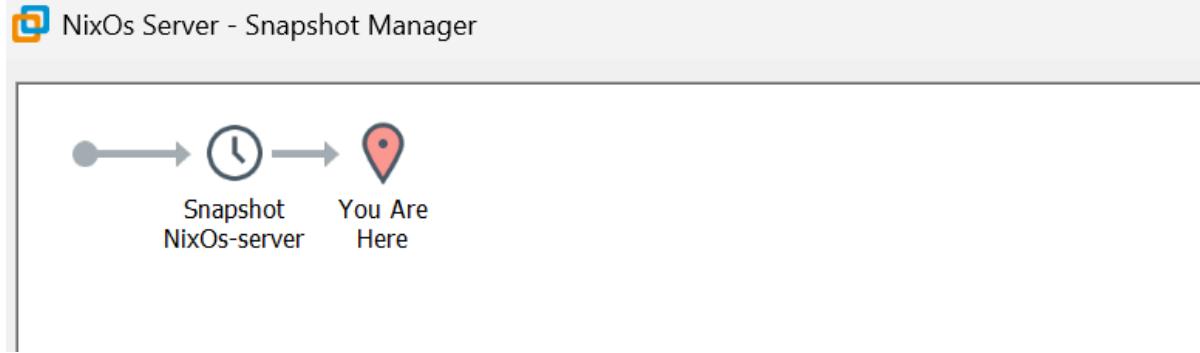
```
/dev/sda1      20G  2.1G  16G  12% /  
  
[adrian@Srv-Linux-Sisremas:~/Scripts]$ ping -c 4 192.168.85.130  
PING 192.168.85.130 (192.168.85.130) 56(84) bytes of data.  
64 bytes from 192.168.85.130: icmp_seq=1 ttl=128 time=2.37 ms  
64 bytes from 192.168.85.130: icmp_seq=2 ttl=128 time=1.73 ms  
64 bytes from 192.168.85.130: icmp_seq=3 ttl=128 time=1.41 ms  
64 bytes from 192.168.85.130: icmp_seq=4 ttl=128 time=0.638 ms  
  
--- 192.168.85.130 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3008ms  
rtt min/avg/max/mdev = 0.638/1.535/2.367/0.622 ms  
  
[adrian@Srv-Linux-Sisremas:~/Scripts]$ _
```

## CAPTURA DE LOS “SNAPSHOTS”:

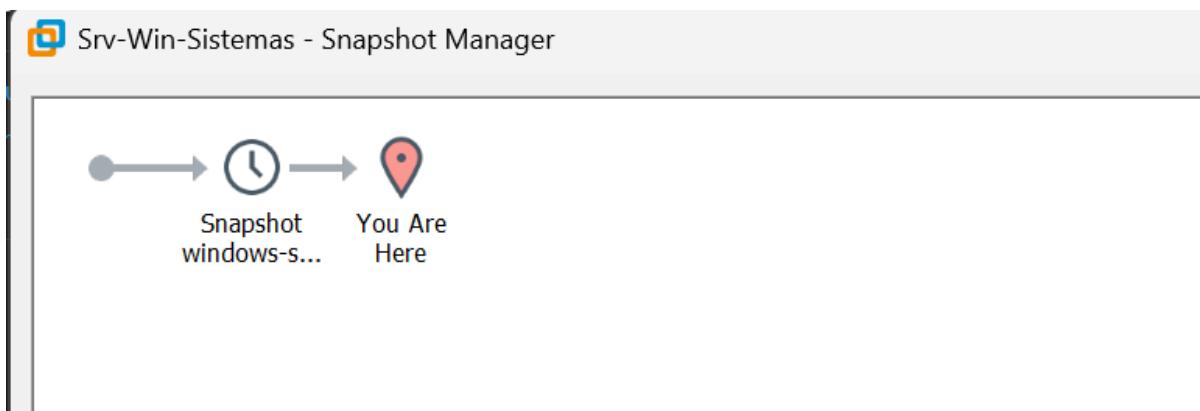
Snapshot de Linux Cliente (NixOS):



Snapshot de Linux Server(NixOs Server):



## Snapshot de Windows Server 2022:



## Pruebas de funcionamiento de `check_status.sh` y `check_status.ps1`

```
[adrian@Srv-Linux-Sisremas:~/Scripts]$ chmod +x check_status.sh
chmod: cannot access 'chech_status.sh': No such file or directory

[adrian@Srv-Linux-Sisremas:~/Scripts]$ chmod +x check_status.sh

[adrian@Srv-Linux-Sisremas:~/Scripts]$ ./chech_status.sh
./chech_status.sh: No such file or directory

[adrian@Srv-Linux-Sisremas:~/Scripts]$ ./check_status.sh
Maquina:
Srv-Linux-Sisremas
Direccion IP:
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    altname enp2s1
    altname enx000c294b5616
    inet 192.168.61.129/24 brd 192.168.61.255 scope global dynamic noprefixroute ens33
        valid_lft 1294sec preferred_lft 1294sec
Espacio del disco:
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda1        20G  2.1G   16G  12% /
[adrian@Srv-Linux-Sisremas:~/Scripts]$
```

To direct input to this VM, click inside or press Ctrl+G.

```
[adrian@nixos:~/Escritorio/Scripts]$ chmod +x Check_status.sh
[adrian@nixos:~/Escritorio/Scripts]$ ./Check_status.sh
Maquina:
nixos
Direccion ip:
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    altname enp2s1
    altname enx000c297a0c60
    inet 192.168.61.128/24 brd 192.168.61.255 scope global dynamic noprefixroute ens33
        valid_lft 1302sec preferred_lft 1302sec
Espacio del disco:
S.ficheros Tamaño Usados Disp Uso% Montado en
/dev/sda1 20G 9.8G 8.8G 53% /
[adrian@nixos:~/Escritorio/Scripts]$
```

```
PS C:\Users\Administrator\Desktop\Scripts> notepad check_status.ps1
PS C:\Users\Administrator\Desktop\Scripts> ./check_status.ps1
Maquina:
WIN-9M8V3M39GMK

Direccion IP:
169.254.183.107
Espacio del disco:

Name      Used (GB)     Free (GB) Provider      Root          CurrentLocation
----      -----      -----      -----      -----
C           6.78         52.59 FileSystem    C:\           Users\Administrator\Desktop\Scripts
D           4.70         0.00 FileSystem    D:\

PS C:\Users\Administrator\Desktop\Scripts> S_
```

## Configuración de los adaptadores de red:

Device	Summary
Memory	3.5 GB
Processors	4
Hard Disk (SCSI)	20 GB
CD/DVD (SATA)	Using file C:\Users\wdcnm\Do...
<b>Network Adapter</b>	<b>NAT</b>
Network Adapter 2	Host-only
USB Controller	Present
Sound Card	Auto detect
Display	Auto detect

Device status

Connected

Connect at power on

Network connection

Bridged: Connected directly to the physical network

Replicate physical network connection state

NAT: Used to share the host's IP address

Host-only: A private network shared with the host

Custom: Specific virtual network

## Repositorio de GitHub:

<https://github.com/ADNTD1/Administracion-de-Sistemas-T1>