Universidad Autónoma de Sinaloa

ADMINISTRACIÓN DE SISTEMAS

Nombre de la práctica:
Tarea 1: Entorno de Virtualización e Infraestructura Base

Grupo:

3-02

Alumno:

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Repositorio de GitHub:

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	192.168.100.30	255.255.255.0
Srv-Win-Sistemas	Windows Server 2022	192.168.100.20	255.255.255.0
Cliente-Sistemas	NixOs	192.168.100.10	255.255.255.0

CAPTURA DEL COMANDO PING:

Ping entre NixOs Cliente y Windows Server 2022:

```
        vattd_trt forever preferred_trt forever
[adrian@nixos:~/Escritorio/Scripts]$ ping 192.168.100.20
PING 192.168.100.20 (192.168.100.20) 56(84) bytes de datos.
64 bytes desde 192.168.100.20: icmp_seq=1 ttl=128 tiempo=1.29 ms
64 bytes desde 192.168.100.20: icmp_seq=2 ttl=128 tiempo=0.920 ms
64 bytes desde 192.168.100.20: icmp_seq=3 ttl=128 tiempo=1.32 ms
64 bytes desde 192.168.100.20: icmp_seq=4 ttl=128 tiempo=1.29 ms
^C
--- 192.168.100.20 estadísticas ping ---
4 paquetes transmitidos, 4 recibidos, 0% packet loss, time 3008ms
rtt min/avg/max/mdev = 0.920/1.204/1.319/0.164 ms

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

Ping entre Windows Server 2022 y NixOs Cliente:

```
    Default Gateway . . . . . . . . . :
PS C:\Users\Administrator\Desktop\Scripts> ping 192.168.100.10

Pinging 192.168.100.10 with 32 bytes of data:
Reply from 192.168.100.10: bytes=32 time=1ms TTL=64
Reply from 192.168.100.10: bytes=32 time<1ms TTL=64
Reply from 192.168.100.10: bytes=32 time<1ms TTL=64
Reply from 192.168.100.10: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.100.10:
    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\Desktop\Scripts>
```

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:

```
rtt min/avg/max/mdev = 0.920/1.204/1.319/0.164 ms

[adrian@nixos:~/Escritorio/Scripts]$ ping 192.168.100.30
PING 192.168.100.30 (192.168.100.30) 56(84) bytes de datos.
64 bytes desde 192.168.100.30: icmp_seq=1 ttl=64 tiempo=0.966 ms
64 bytes desde 192.168.100.30: icmp_seq=2 ttl=64 tiempo=1.20 ms
64 bytes desde 192.168.100.30: icmp_seq=3 ttl=64 tiempo=0.652 ms
64 bytes desde 192.168.100.30: icmp_seq=4 ttl=64 tiempo=0.886 ms
^C
--- 192.168.100.30 estadísticas ping ---
4 paquetes transmitidos, 4 recibidos, 0% packet loss, time 3011ms
rtt min/avg/max/mdev = 0.652/0.926/1.201/0.196 ms

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

Ping entre WindowsServer y NixOS server:

```
    Default Gateway . . . . . . . . . :
PS C:\Users\Administrator\Desktop\Scripts> ping 192.168.100.30

Pinging 192.168.100.30 with 32 bytes of data:
Reply from 192.168.100.30: bytes=32 time=1ms TTL=64
Reply from 192.168.100.30: bytes=32 time<1ms TTL=64
Reply from 192.168.100.30: bytes=32 time=1ms TTL=64
Reply from 192.168.100.30: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.100.30:
    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\Desktop\Scripts>
```

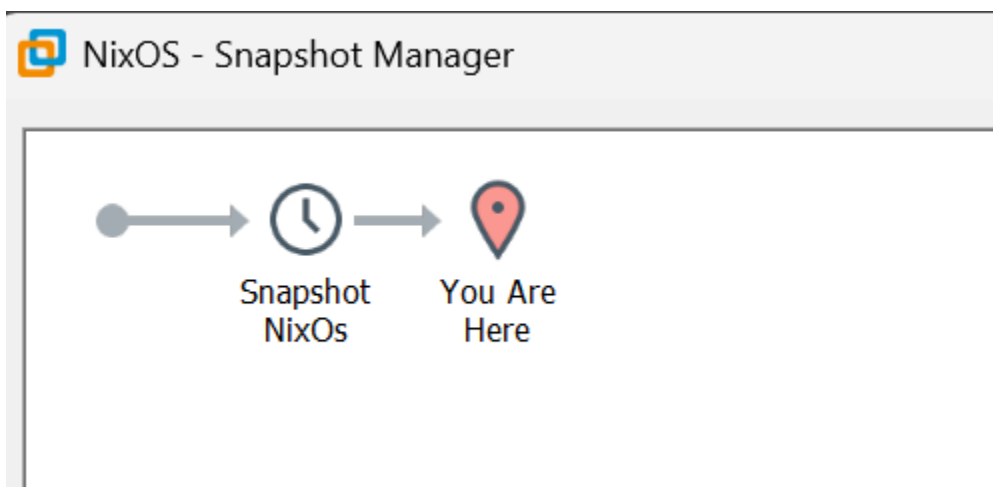Ping entre NixOs Server y Windows Server 2022:

```
[adrian@Srv-Linux-Sisremas:~/Scripts]$ ping -c 4 192.168.100.20
PING 192.168.100.20 (192.168.100.20) 56(84) bytes of data.
64 bytes from 192.168.100.20: icmp_seq=1 ttl=128 time=1.49 ms
64 bytes from 192.168.100.20: icmp_seq=2 ttl=128 time=1.47 ms
64 bytes from 192.168.100.20: icmp_seq=3 ttl=128 time=1.08 ms
64 bytes from 192.168.100.20: icmp_seq=4 ttl=128 time=0.967 ms

--- 192.168.100.20 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3011ms
rtt min/avg/max/mdev = 0.967/1.252/1.493/0.234 ms

[adrian@Srv-Linux-Sisremas:~/Scripts]$ _
```
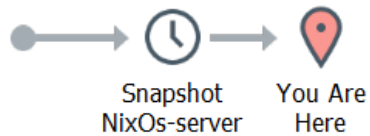
CAPTURA DE LOS "SNAPSHOTS":
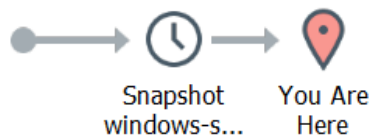
Snapshot de Linux Cliente (NixOS):

NixOS - Snapshot Manager

Snapshot NixOs → You Are Here

Snapshot de Linux Server(NixOs Server):

Snapshot de Windows Server 2022:

Pruebas de funcionamiento de check_status.sh **y** check_status.ps1

```
[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...
Network Adapter	NAT
Network Adapter 2	Host-only
USB Controller	Present
Sound Card	Auto detect
Display	Auto detect

Device status
- [ ] Connected
- [x] 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

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