



UNIVERSIDAD AUTÓNOMA DE SINALOA

FACULTAD DE INGENIERÍA MOCHIS

Ingeniería de Software

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Grupo: 3-02

Materia:

Administración de sistemas

Practica:

P1. Entorno de Virtualización e Infraestructura Base

Tabla de direccionamiento.

Nodo	Hostname	SO	Adaptador	Red	IP	Mascara	Gateway
Servidor Linux	Srv-Linux-Sistemas	Mageia	NIC2	red_sistemas	192.168.100.50	255.255.255.0	-----
Servidor Windows	Srv-Win-Sistemas	Windows Server 2022	NIC2	red_sistemas	192.168.100.40	255.255.255.0	-----
Cliente	Cli-Win10-Sistemas	Windows 10 Pro	NIC2	red_sistemas	192.168.100.60	255.255.255.0	-----

Tabla de direccionamiento de red - F.1.1

Se implementó un esquema de direccionamiento IP estático sobre la red interna 192.168.100.0/24, asignando direcciones únicas a cada nodo. Esta configuración permite una comunicación bidireccional estable entre los sistemas, evita conflictos de direccionamiento y mantiene la separación entre la red interna y la salida a Internet proporcionada por NAT.

Ping entre maquinas

```
Windows PowerShell
PS C:\Sistemas> hostname
Cli-Win10-Sistemas
PS C:\Sistemas> ping 192.168.100.50

Pinging 192.168.100.50 with 32 bytes of data:
Reply from 192.168.100.50: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.100.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 1ms, Average = 1ms
PS C:\Sistemas> ping 192.168.100.40

Pinging 192.168.100.40 with 32 bytes of data:
Reply from 192.168.100.40: bytes=32 time=2ms TTL=128
Reply from 192.168.100.40: bytes=32 time=1ms TTL=128
Reply from 192.168.100.40: bytes=32 time=1ms TTL=128
Reply from 192.168.100.40: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.100.40:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms
PS C:\Sistemas>
```

1. Se inicia el ping desde Windows 10 (Cliente) → Mageia (192.168.100.50).
2. Se inicia el ping desde Windows 10 (Cliente) → Windows S (192.168.100.40).

```
Administrator: Windows PowerShell
PS C:\Users\Administrator> hostname
Srv-Win-Sistemas
PS C:\Users\Administrator> ping 192.168.100.50

Pinging 192.168.100.50 with 32 bytes of data:
Reply from 192.168.100.50: bytes=32 time=2ms TTL=64
Reply from 192.168.100.50: bytes=32 time=1ms TTL=64
Reply from 192.168.100.50: bytes=32 time=1ms TTL=64
Reply from 192.168.100.50: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.100.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms
PS C:\Users\Administrator> ping 192.168.100.60

Pinging 192.168.100.60 with 32 bytes of data:
Reply from 192.168.100.60: bytes=32 time=1ms TTL=128
Reply from 192.168.100.60: bytes=32 time=1ms TTL=128
Reply from 192.168.100.60: bytes=32 time<1ms TTL=128
Reply from 192.168.100.60: bytes=32 time=3ms TTL=128

Ping statistics for 192.168.100.60:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 1ms
PS C:\Users\Administrator> -
```

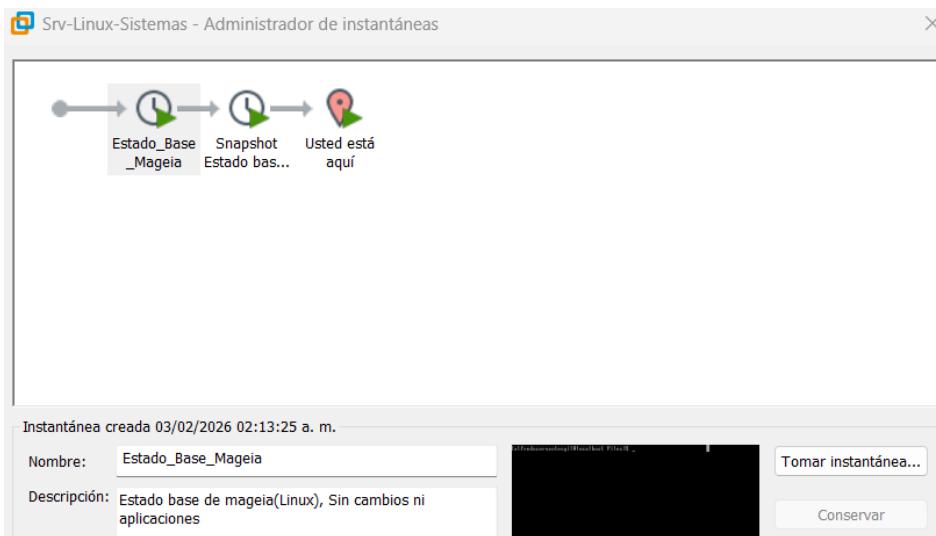
1. Se inicia el ping desde Windows Server → Mageia (192.168.100.50).
2. Se inicia el ping desde Windows Server → Windows Cliente (192.168.100.60).

Distro Mageia (LINUX)

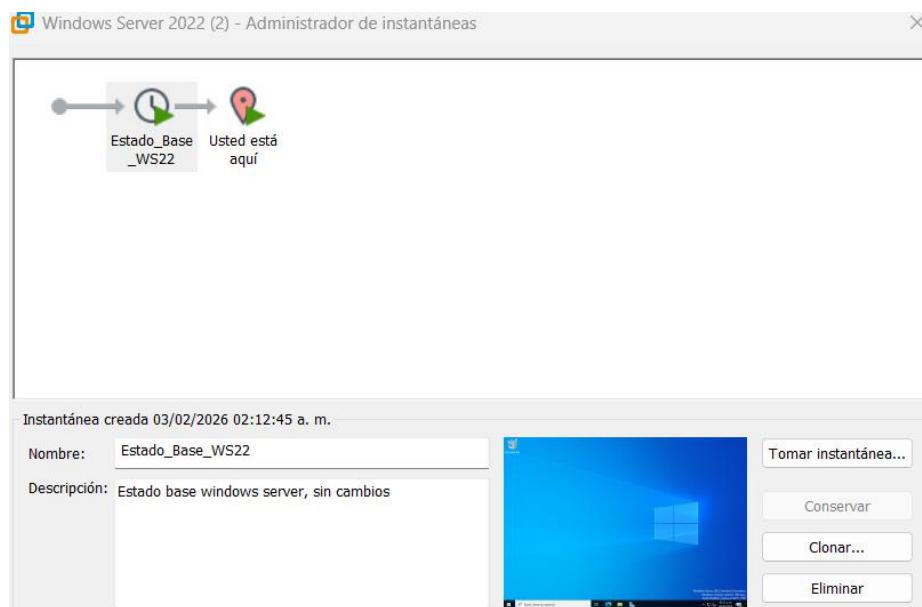
```
[alfredocervantesgil@Srv-Linux-Sistemas ~]$ hostname  
Srv-Linux-Sistemas  
[alfredocervantesgil@Srv-Linux-Sistemas ~]$ ping -c 4 192.168.100.40  
PING 192.168.100.40 (192.168.100.40) 56(84) bytes of data.  
64 bytes from 192.168.100.40: icmp_seq=1 ttl=128 time=1.31 ms  
64 bytes from 192.168.100.40: icmp_seq=2 ttl=128 time=1.05 ms  
64 bytes from 192.168.100.40: icmp_seq=3 ttl=128 time=1.00 ms  
64 bytes from 192.168.100.40: icmp_seq=4 ttl=128 time=1.11 ms  
  
--- 192.168.100.40 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3006ms  
rtt min/avg/max/mdev = 1.002/1.117/1.306/0.115 ms  
[alfredocervantesgil@Srv-Linux-Sistemas ~]$ ping -c 4 192.168.100.60  
PING 192.168.100.60 (192.168.100.60) 56(84) bytes of data.  
64 bytes from 192.168.100.60: icmp_seq=1 ttl=128 time=1.43 ms  
64 bytes from 192.168.100.60: icmp_seq=2 ttl=128 time=1.04 ms  
64 bytes from 192.168.100.60: icmp_seq=3 ttl=128 time=0.871 ms  
64 bytes from 192.168.100.60: icmp_seq=4 ttl=128 time=1.42 ms  
  
--- 192.168.100.60 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3005ms  
rtt min/avg/max/mdev = 0.871/1.188/1.425/0.241 ms  
[alfredocervantesgil@Srv-Linux-Sistemas ~]$ _
```

1. Se inicia el ping desde Mageia → Windows S (192.168.100.40).
2. Se inicia el ping desde Mageia → Windows Cliente (192.168.100.60).

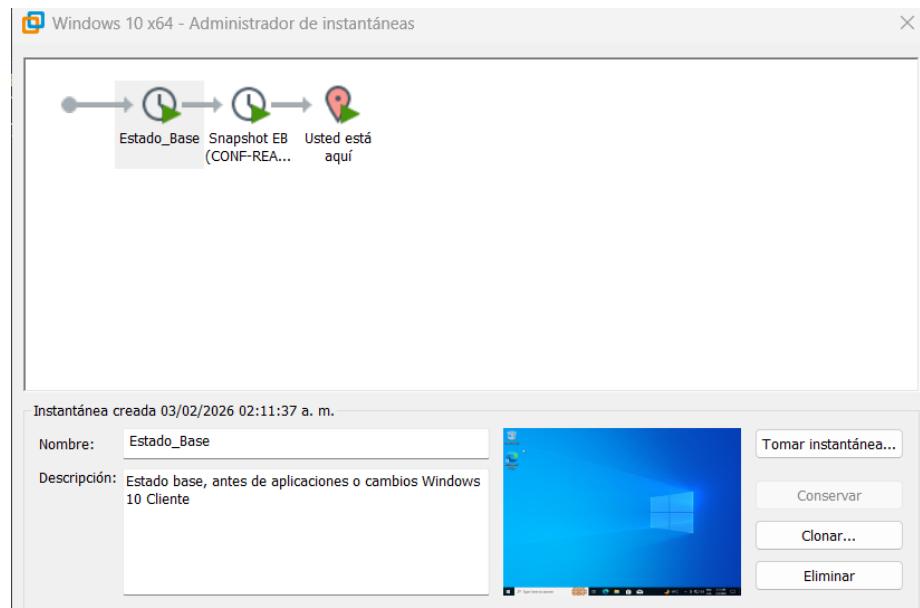
Snapshots Creados en el Hipervisor



Snapshot del SO mageia (INSTALACION LIMPIA).



Snapshot del SO Windows Server (ESTADO BASE LIMPIA).



Snapshot de windows 10 Cliente (INSTALACION LIMPIA).

Enlace al repositorio de GitHub

<https://github.com/CervanteSq-0/redes-sistemas-virtualizadas>