



# **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
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 = 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)

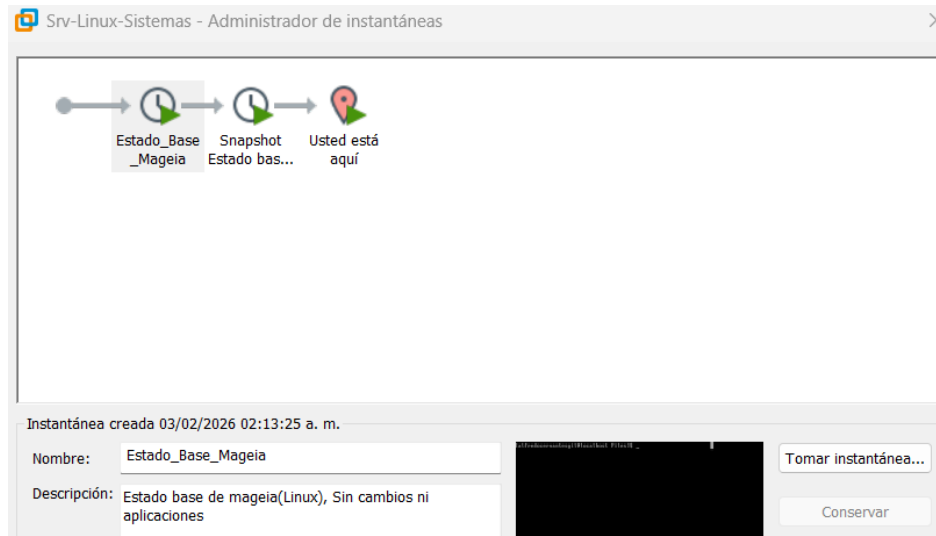
```
[alfredocervantesgil@Srv-Linux-Sistemas ~]$ hostname
Srv-Linux-Sistemas
[alfredocervantesgil@Srv-Linux-Sistemas ~]$ ping -c 4 192.168.100.40
PING 192.168.100.40 (192.168.100.40) 56(84) bytes of data.
64 bytes from 192.168.100.40: icmp_seq=1 ttl=128 time=1.31 ms
64 bytes from 192.168.100.40: icmp_seq=2 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

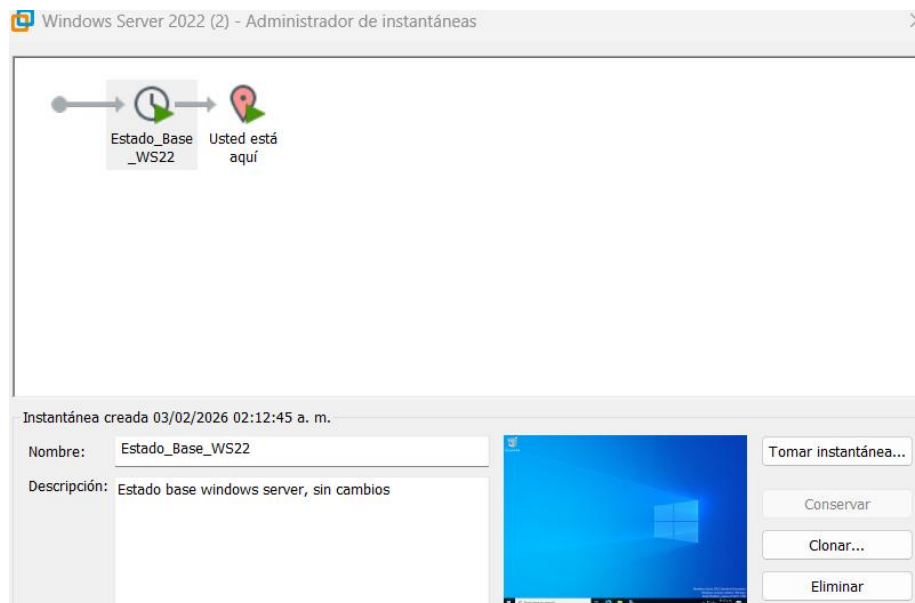
--- 192.168.100.60 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3005ms
rtt min/avg/max/mdev = 0.871/1.188/1.425/0.241 ms
[alfredocervantesgil@Srv-Linux-Sistemas ~]$ _
```

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).

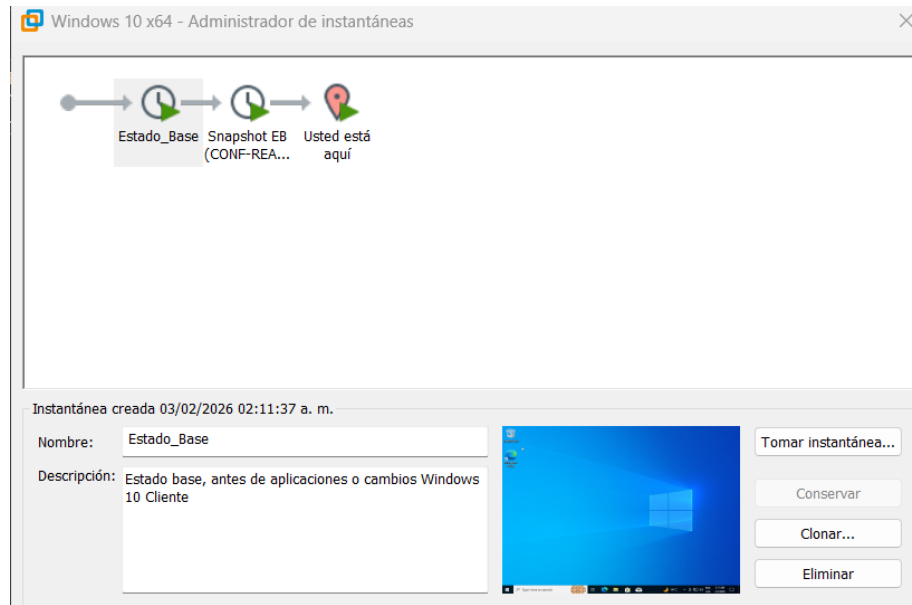
## Snapshots Creados en el Hipervisor



## 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/CervanteSg-0/redes-sistemas-virtualizadas>**