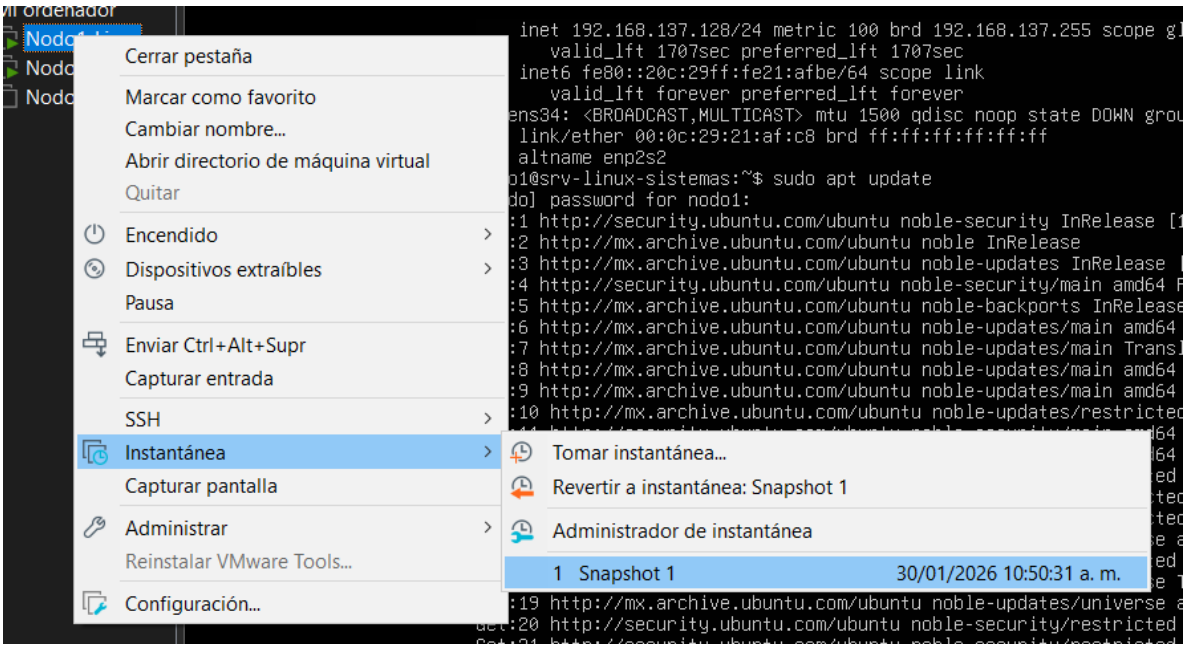
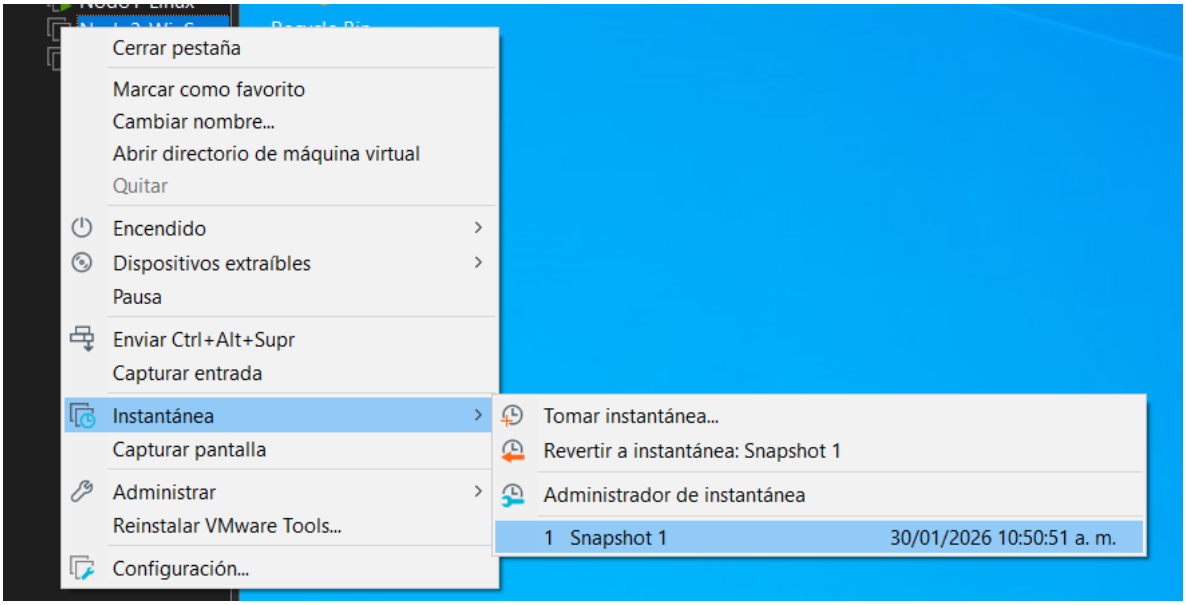
Tarea 1: Entorno de Virtualización e Infraestructura Base

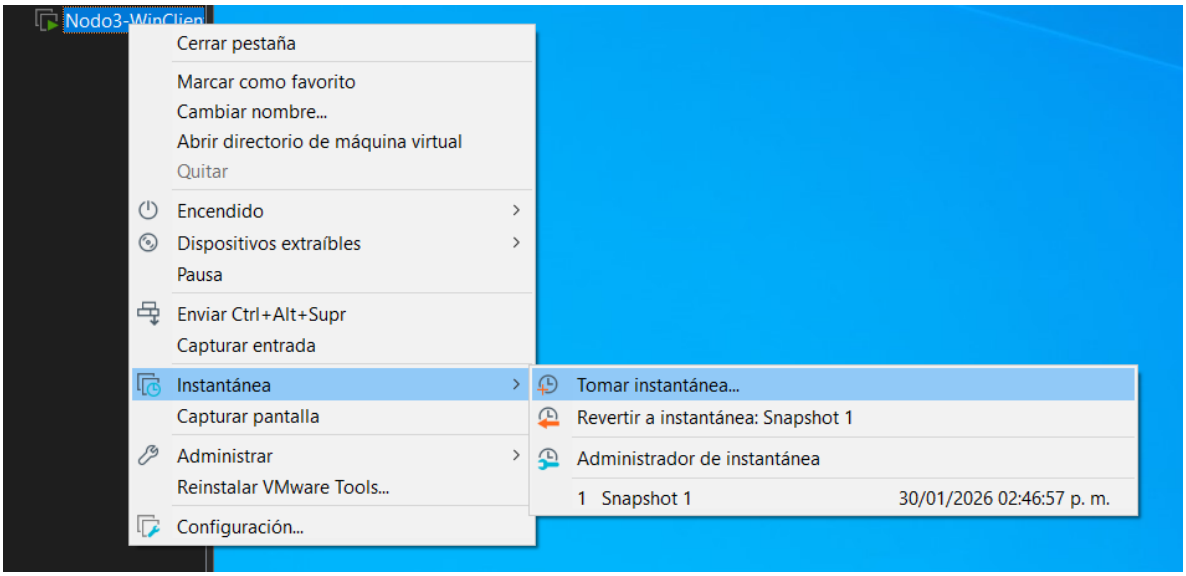
1.Crear instantáneas a cada máquina virtual



Caso 1 Linux con Ubuntu



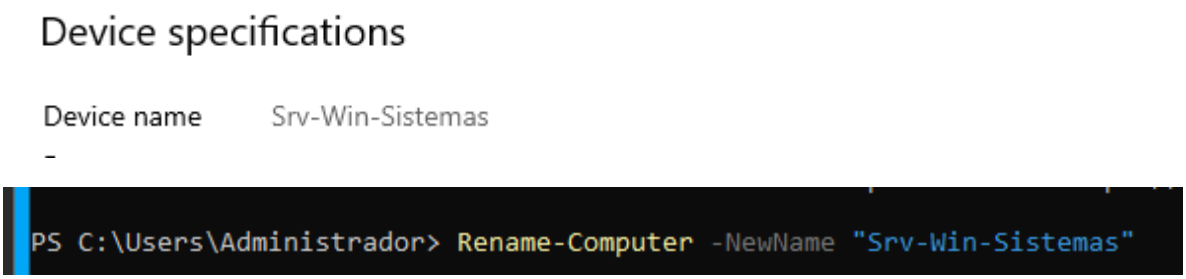
Caso 2 Windows Server 2022



Caso 3 Windows 10 cliente

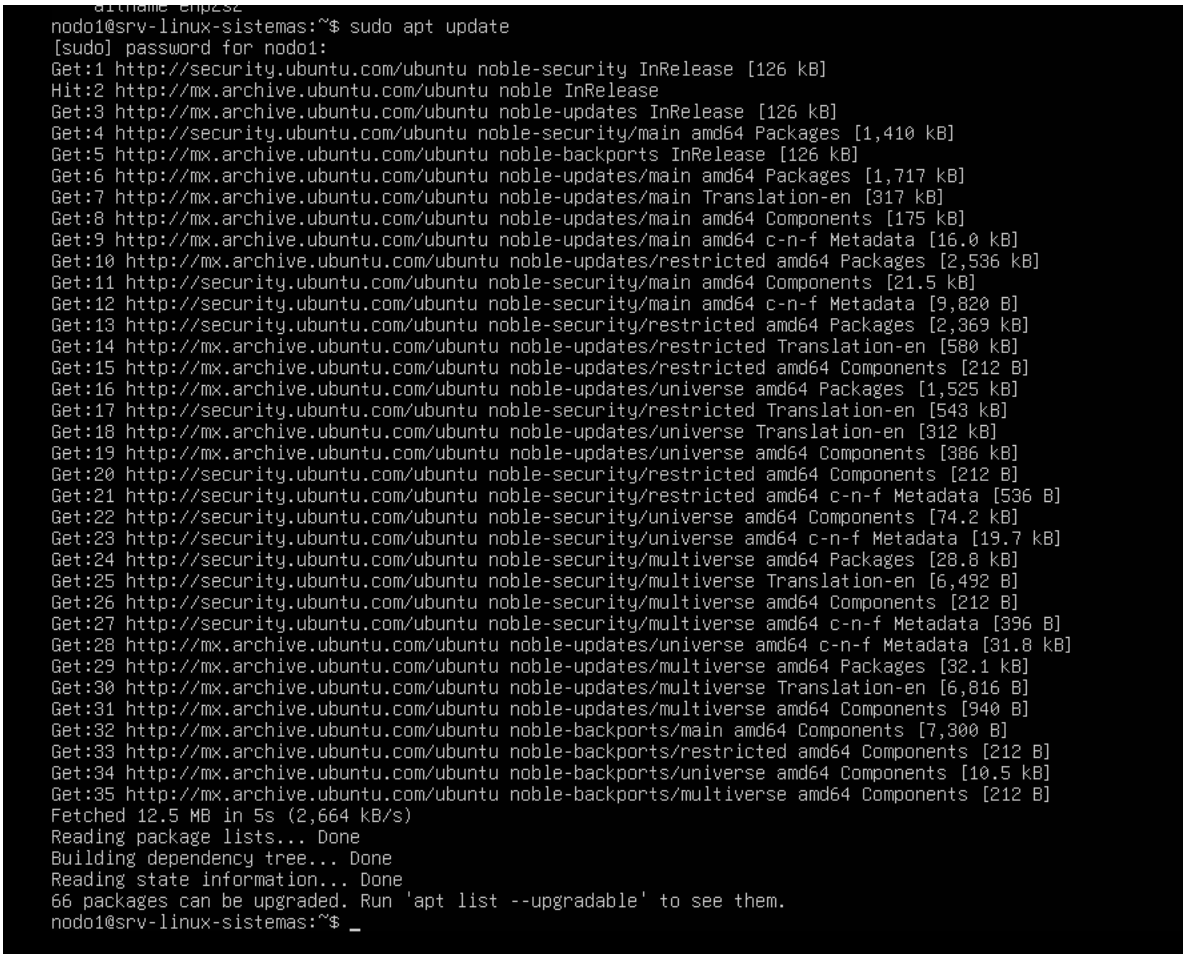
2.Cambiar hostname a cada maquina virtual

Caso 1 Nodo Linux



Caso 2 Nodo Windows Configurado en base de comandos powershell

3. Ejecutar comandos de actualización inicial en ambos SO.



Caso 1 Linux con Ubuntu

```
PS C:\Users\Administrador> start ms-settings:windowsupdate-action
PS C:\Users\Administrador>
```

(View policies)

Actualización de inteligencia de seguridad para Microsoft Defender Antivirus - KB2267602 (versión 1.443.963.0) - Canal actual (ampliado)
Status: Pending install

Actualización para la plataforma antimalware Microsoft Defender Antivirus: KB4052623 (versión 4.18.25110.6) - Canal actual (ampliado)
Status: Pending install

Herramienta de eliminación de software malintencionado de Windows x64, v5.138 (KB890830)
Status: Installing - 0%

2025-10 Actualización acumulativa para .NET Framework 3.5, 4.8 y 4.8.1 para Microsoft server operating system version 21H2 para x64 (KB5066743)
Status: Pending restart

Restart now Schedule the restart

Caso 2 Windows para actualización

4. Crear script

```
  GNU nano 7.2
#!/bin/bash
echo "---ESTADO DEL SISTEMA ---"
echo "Nombre del equipo: $(hostname)"
echo "IP Interna: $(hostname -I | awk '{print $2}')"
echo "Espacio en disco:"
df -h / | grep /
```

```
nodo1@srv-linux-sistemas:~$ nano tarea1_diagnostico.sh
```

Caso 1 Linux

tarea1_diagnostico.ps1

```
1   Write-Host "--- ESTADO DEL SISTEMA ---" -ForegroundColor Cyan
2   Write-Host "Nombre del equipo: $env:COMPUTERNAME"
3   Write-Host "IP Actual:" (Get-NetIPAddress -AddressFamily IPv4 | Whe
4   Write-Host "Espacio en disco:"
5   Get-PSDrive C | Select-Object Used, Free
```

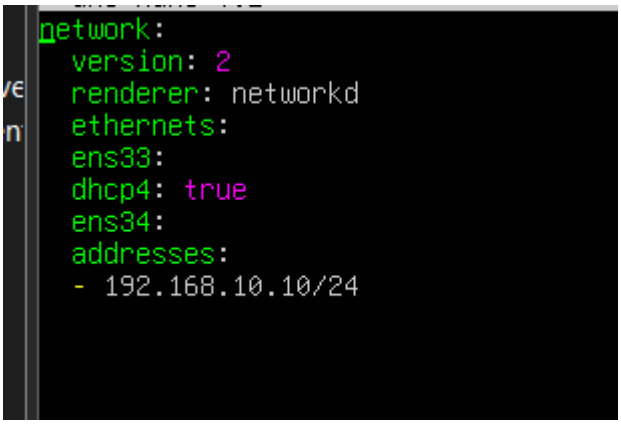
Caso 2 Windows

5. Conectividad entre todas

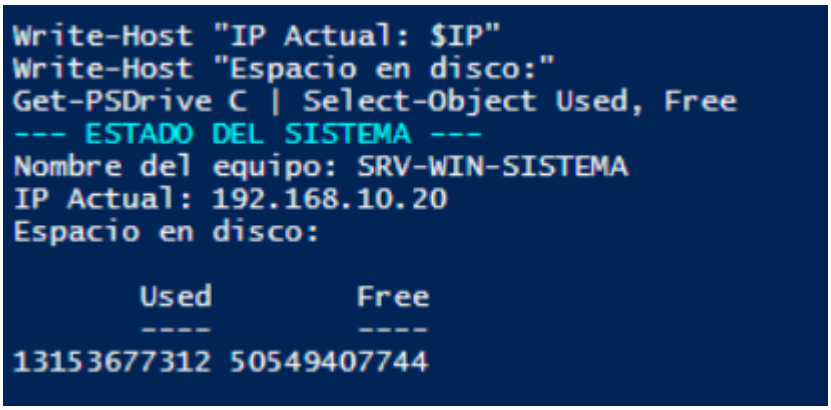
Tabla de dirrecionamiento

Nodo	**Hostname**	**Interfaz de Red**	**IP Estática**	**Máscara**
Nodo 1 (Linux)	Srv-Linux-Sistemas	ens34	**192.168.10.10**	255.255.255.0
Nodo 2 (Win Server)	Srv-Win-Sistemas	Ethernet 2	**192.168.10.20**	255.255.255.0
Nodo 3 (Win 10)	Cli-Win-Sistemas	Ethernet 2	**192.168.10.30**	255.255.255.0

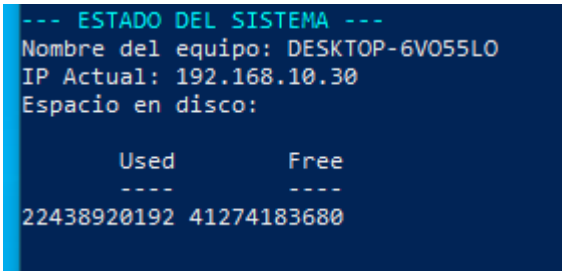
```
nodo1@srv-linux-sistemas:~$ ip addr show ens34
3: ens34: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:21:af:c8 brd ff:ff:ff:ff:ff:ff
    altname enp2s2
    inet 192.168.10.10/24 brd 192.168.10.255 scope global ens34
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe21:afc8/64 scope link
       valid_lft forever preferred_lft forever
nodo1@srv-linux-sistemas:~$ _
```



Caso 1 Linux



Caso 2 Windows Server



Caso 3 Win Cliente

```
nodo1@srv-linux-sistemas:~$ ping c- 194.168.10.20
ping: c-: Temporary failure in name resolution
nodo1@srv-linux-sistemas:~$ ping c- 192.168.10.20
ping: c-: Temporary failure in name resolution
nodo1@srv-linux-sistemas:~$ ping -c 4 192.168.10.20
PING 192.168.10.20 (192.168.10.20) 56(84) bytes of data.
64 bytes from 192.168.10.20: icmp_seq=1 ttl=128 time=1.22 ms
64 bytes from 192.168.10.20: icmp_seq=2 ttl=128 time=0.816 ms
64 bytes from 192.168.10.20: icmp_seq=3 ttl=128 time=0.830 ms
64 bytes from 192.168.10.20: icmp_seq=4 ttl=128 time=0.781 ms

--- 192.168.10.20 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3005ms
rtt min/avg/max/mdev = 0.781/0.912/1.221/0.179 ms
nodo1@srv-linux-sistemas:~$
```

```
nodo1@srv-linux-sistemas:~$ ping -c 4 192.168.10.30
PING 192.168.10.30 (192.168.10.30) 56(84) bytes of data.
64 bytes from 192.168.10.30: icmp_seq=1 ttl=128 time=0.839 ms
64 bytes from 192.168.10.30: icmp_seq=2 ttl=128 time=0.732 ms
64 bytes from 192.168.10.30: icmp_seq=3 ttl=128 time=0.580 ms
64 bytes from 192.168.10.30: icmp_seq=4 ttl=128 time=0.680 ms

--- 192.168.10.30 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3065ms
rtt min/avg/max/mdev = 0.580/0.707/0.839/0.093 ms
nodo1@srv-linux-sistemas:~$ _
```

```
PS C:\Users\Administrador> ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:
Reply from 192.168.10.10: bytes=32 time<1ms TTL=64
Reply from 192.168.10.10: bytes=32 time<1ms TTL=64
Reply from 192.168.10.10: bytes=32 time<1ms TTL=64
Reply from 192.168.10.10: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

PS C:\Users\Administrador>
```

```
PS C:\Users\Administrador> ping 192.168.10.30

Pinging 192.168.10.30 with 32 bytes of data:
Reply from 192.168.10.30: bytes=32 time<1ms TTL=128
Reply from 192.168.10.30: bytes=32 time<1ms TTL=128
Reply from 192.168.10.30: bytes=32 time<1ms TTL=128
Reply from 192.168.10.30: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.30:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

PS C:\Users\Administrador>
```

Win Server

```
PS C:\Windows\system32> ping 192.168.10.10

Haciendo ping a 192.168.10.10 con 32 bytes de datos:
Respuesta desde 192.168.10.10: bytes=32 tiempo<1m TTL=64
Respuesta desde 192.168.10.10: bytes=32 tiempo=1ms TTL=64
Respuesta desde 192.168.10.10: bytes=32 tiempo<1m TTL=64
Respuesta desde 192.168.10.10: bytes=32 tiempo<1m TTL=64

Estadísticas de ping para 192.168.10.10:
    Paquetes: enviados = 4, recibidos = 4, perdidos = 0
    (0% perdidos),
Tiempos aproximados de ida y vuelta en milisegundos:
    Mínimo = 0ms, Máximo = 1ms, Media = 0ms
PS C:\Windows\system32>
```

```
PS C:\Windows\system32> ping 192.168.10.20

Haciendo ping a 192.168.10.20 con 32 bytes de datos:
Respuesta desde 192.168.10.20: bytes=32 tiempo<1m TTL=128
Respuesta desde 192.168.10.20: bytes=32 tiempo<1m TTL=128
Respuesta desde 192.168.10.20: bytes=32 tiempo<1m TTL=128
Respuesta desde 192.168.10.20: bytes=32 tiempo<1m TTL=128

Estadísticas de ping para 192.168.10.20:
    Paquetes: enviados = 4, recibidos = 4, perdidos = 0
    (0% perdidos),
Tiempos aproximados de ida y vuelta en milisegundos:
    Mínimo = 0ms, Máximo = 0ms, Media = 0ms
PS C:\Windows\system32>
```

Win Cliente