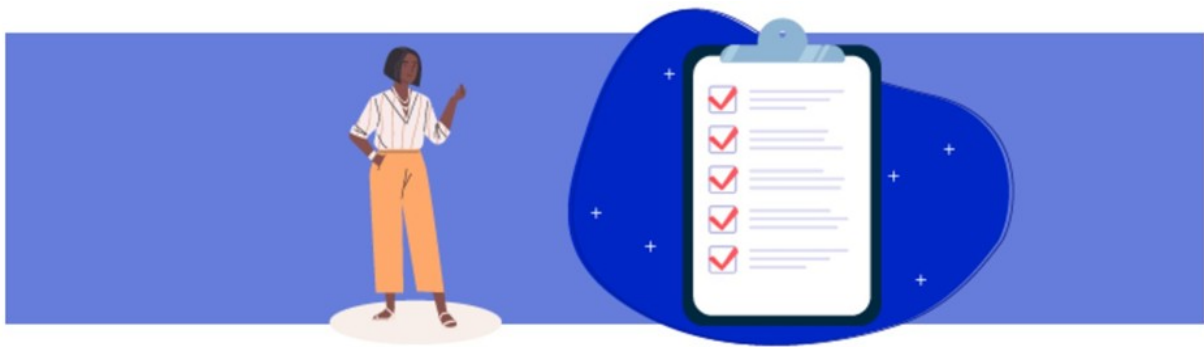


Automate Enterprise Windows 11 Deployments with MDT and WDS

Prepare Your Virtual Environment in a Few Steps



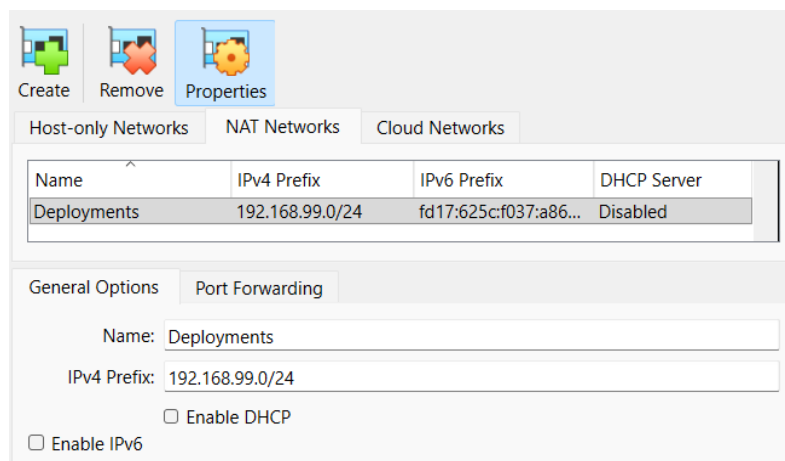
This resource will guide you through setting up a virtual lab in VirtualBox so you can complete the different tasks presented in this course. [Virtualbox](#)

Prerequisite :

- Download Windows Server 2022 ISO (64-bit edition) : [Microsoft Evaluation Center](#)

A. Virtual network creation

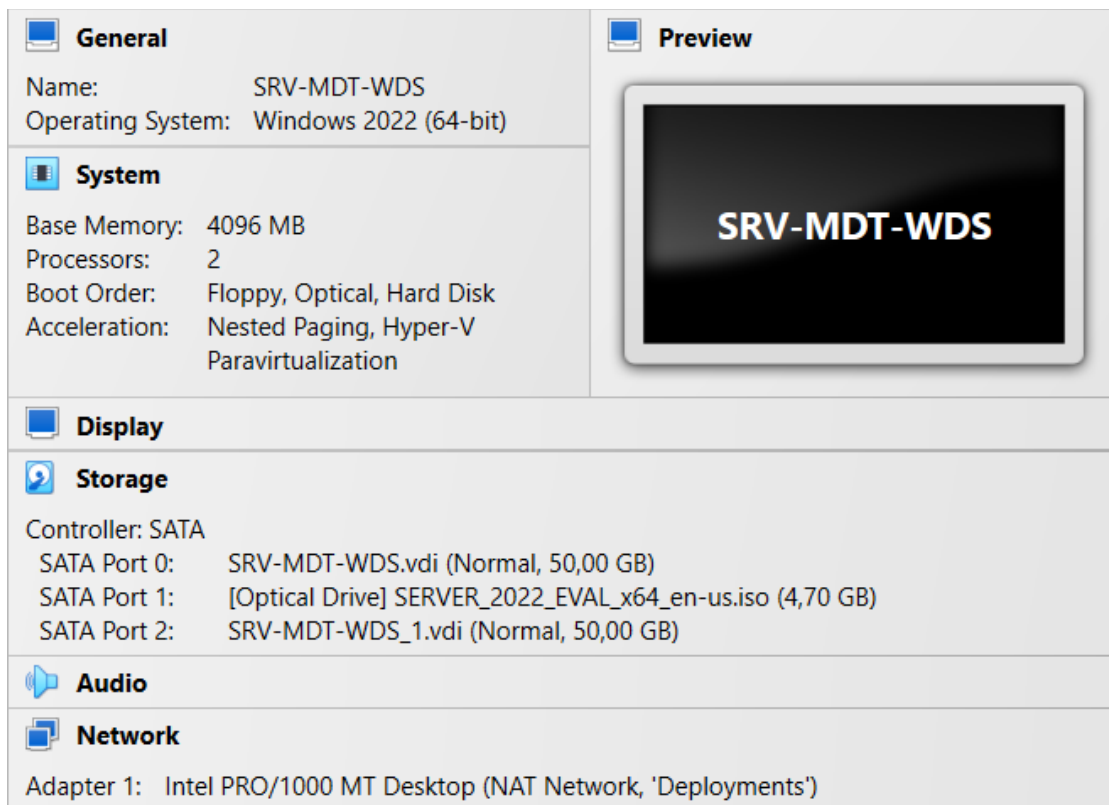
- In VirtualBox, go to the File menu > Tools > Network Manager > Tab NAT Networks > Create button.
- Configure the network properties :
 - Name : Deployments
 - IPv4 Prefix : 192.168.99.0/24
 - Uncheck the box “Enable DHCP”
- Click the Apply button to confirm.



B. Server virtual machine creation

- In VirtualBox, create a new virtual machine for the operating system > Insert the Windows Server 2022 ISO > Check the box “Skip Unattended Installation”
- Hardware setup :

- Base Memory : 4096 MB
- Processors : 2
- Hard Disk : 50 GB
- Edit settings of the newly created VM :
 - Storage Menu > Click the “Adds hard disk” icon > Create > Size 50 GB
 - Network Menu > Attached to “NAT Network” > Name “Deployments”



C. Windows Server installation with graphical interface

- During the Windows Server installation, select the Standard edition with “Desktop Experience.”

Select the operating system you want to install

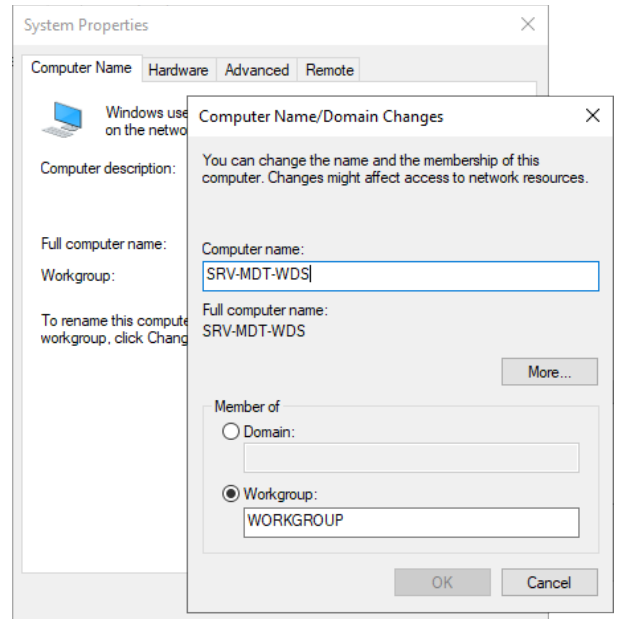
Operating system	Architecture	Date modifie
Windows Server 2022 Standard Evaluation	x64	3/3/2022
Windows Server 2022 Standard Evaluation (Desktop Experience)	x64	3/3/2022
Windows Server 2022 Datacenter Evaluation	x64	3/3/2022
Windows Server 2022 Datacenter Evaluation (Desktop Experience)	x64	3/3/2022

Description:

This option installs the full Windows graphical environment, consuming extra drive space. It can be useful if you want to use the Windows desktop or have an app that requires it.

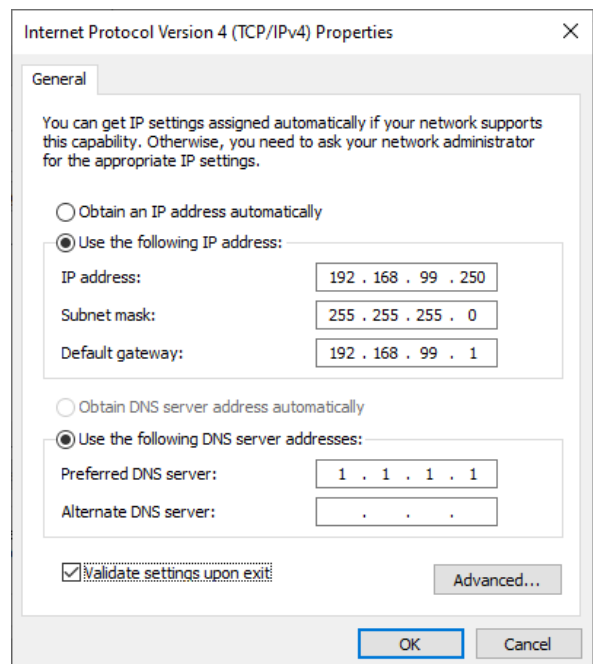
D. Server name change

- In Server Manager, Local Server menu, click the current computer name
- Tab Computer Name > Click the Change button > Set the server name to “SRV-MDT-WDS.”
- Click OK twice and restart to apply.



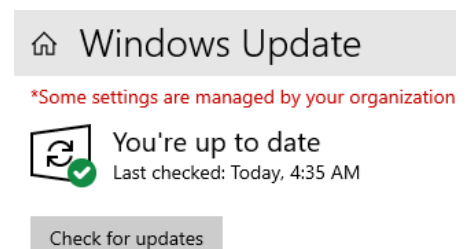
E. Static IP addressing configuration

- In Server Manager, Local Server menu, click “Assigned by DHCP” in the Ethernet line
- Right-click the network adapter > Properties > Uncheck the box “Internet Protocol Version 6” > Double-click “Internet Protocol Version 4”
- Configure the network adapter properties :
 - Select the two “Use...” options
 - IP Address : 192.168.99.250
 - Subnet mask : 255.255.255.0
 - Default gateway : 192.168.99.1
 - Preferred DNS Server : 1.1.1.1
- Click OK and close to apply > Close the troubleshooter



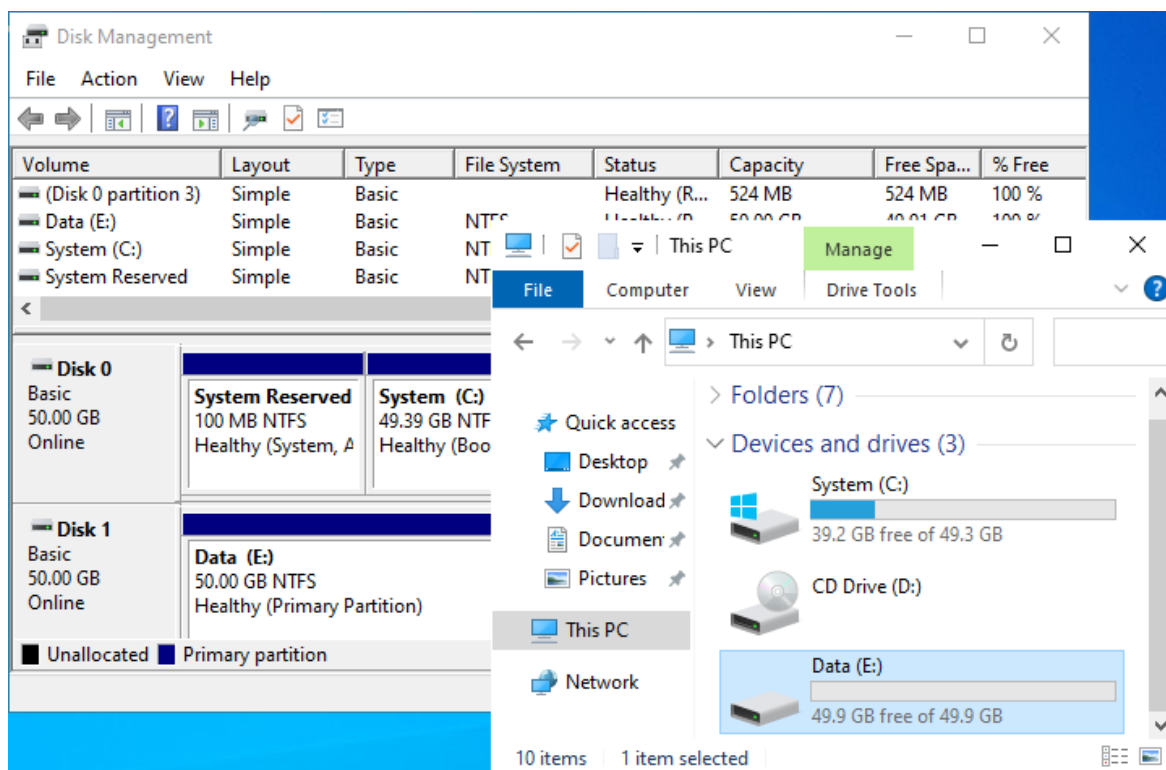
F. System update

- In Server Manager, Local Server menu, click “Download updates only using...” in the Windows Update line > Check for updates > Install all available updates.



G. Initialization of the secondary storage disk

- Right-click the Start menu > Disk Management > Click the OK button to initialize Disk 1.
- Right-click the “Unallocated” area of Disk 1 > New Simple Volume
- Keep the full volume by default > Assign the letter E > Perform a quick NTFS format



H. DHCP role installation and configuration

The method described here uses PowerShell commands. For the manual method with a graphical interface, see the [Install a DHCP Server](#) chapter of the [Manage Windows Server](#) course.

⚠ If the Guest Additions are installed in the VM and the clipboard is enabled between the physical machine and the virtual machine, it is recommended to copy and paste the following commands directly on the server to reduce the risk of errors : [VirtualBox : How to enable the copy and paste clipboard](#)

- Install the DHCP Server role and its management tools.

```
Install-WindowsFeature -Name DHCP -IncludeManagementTools
```

- Add the DHCP security groups on the server.

```
Add-DhcpServerSecurityGroup
```

- Restart the DHCP Server service.

```
Restart-Service DhcpServer
```

- Disable the false incomplete DHCP configuration warning in Server Manager.

```
Set-ItemProperty -Path "HKLM:\SOFTWARE\Microsoft\ServerManager\Roles\12"  
-Name ConfigurationState -Value 2
```

- Create a DHCP scope assigning IP addresses between 192.168.99.101 and 192.168.99.200.

```
Add-DhcpServerv4Scope -Name LAN -StartRange 192.168.99.101 -EndRange  
192.168.99.200 -SubnetMask 255.255.255.0
```

- Configure the Router option to 192.168.99.1 (gateway) and the DNS Server option to 1.1.1.1 for DHCP clients.

```
Set-DhcpServerv4OptionValue -Router 192.168.99.1 -DnsServer 1.1.1.1
```