



Microsoft Hyper-V is a powerful virtualization tool built into Windows. It allows you to run multiple operating systems (like Linux or older Windows versions) on a single physical PC. [[1](#), [2](#), [3](#), [4](#), [5](#)]

Prerequisites

- OS Edition: Windows 10/11 Pro, Enterprise, or Education.
- Hardware: 64-bit CPU with SLAT and 4GB+ RAM.
- BIOS: "Virtualization Technology" (VT-x or AMD-V) must be enabled in your BIOS/UEFI settings. [[1](#), [2](#), [3](#), [4](#), [5](#)]

Step 1: Enable Hyper-V [1]

Hyper-V is installed but disabled by default. [1, 2, 3]

1. Press the Windows Key, type `Turn Windows features on or off`, and press Enter.
2. Locate Hyper-V in the list.
3. Check the box for Hyper-V (ensure both "Hyper-V Management Tools" and "Hyper-V Platform" are selected).
4. Click OK and restart your computer when prompted. [1, 2, 3, 4, 5]

You can also use [Windows PowerShell](#) (Run as Administrator) to enable it quickly:

```
Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-Hyper-V -All
```

[1, 2, 3]

Step 2: Set Up Networking [1]

Before creating a Virtual Machine (VM), you need to give it a way to talk to the internet. [1, 2]

1. Open Hyper-V Manager from your Start Menu.
 2. In the Actions pane on the right, click Virtual Switch Manager.
 3. Select External and click Create Virtual Switch.
 4. Give it a name (e.g., "My Internet Switch").
 5. Select your physical network card (Wi-Fi or Ethernet) from the dropdown.
 6. Click OK. [1, 2, 3, 4, 5]
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Step 3: Create a Virtual Machine

1. In Hyper-V Manager, click New > Virtual Machine in the Actions pane. [1]
 2. Name: Name your VM (e.g., "Ubuntu Test"). [1, 2, 3]
 3. Generation: Choose Generation 2 for modern 64-bit operating systems (recommended). [1, 2, 3]
 4. Memory: Assign at least 2048 MB (2GB). Check "Use Dynamic Memory" to let Windows manage RAM efficiently. [1, 2, 3]
 5. Networking: Select the "My Internet Switch" you created in Step 2.
 6. Hard Disk: Choose a size (e.g., 40GB). This creates a `.vhdx` file on your drive. [1, 2, 3, 4, 5]
 7. Installation Options:
 - Select Install an operating system from a bootable image file.
 - Browse to your downloaded ISO file (e.g., Windows or Linux installer). [1, 2, 3, 4, 5]
 8. Click Finish.
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Step 4: Run Your Virtual Machine

1. Right-click your new VM in the list and select Connect.
2. Click the green Start button in the connection window.
3. Follow the on-screen prompts to install the guest operating system just like you would on a physical PC. [1, 2, 3, 4, 5]

 **Pro Tip:** Use Checkpoints (right-click the VM > Checkpoint) before making big changes. This creates a "save point" you can revert to if something goes wrong. [1, 2, 3, 4, 5]

Key Management Tools

- Hyper-V Manager: The main GUI for daily tasks.
- VMConnect: The tool used to interact with the VM's screen.

- PowerShell cmdlets: For advanced users who want to automate VM creation and management. [[1](#), [2](#), [3](#), [4](#), [5](#)]