How To Connect an External USB Drive to a Hyper-V VM

How To Connect an External USB Drive to a Hyper-V VM

To connect an external USB drive to a Hyper-V virtual machine (VM), you generally need to use a process called USB passthrough, since Hyper-V does not natively support attaching USB devices directly to VMs in the same way other hypervisors do[1][2]. Here is the most common approach to making a USB drive accessible to your Hyper-V VM:

Using Physical Disk Passthrough (most reliable for external drives):

1. **Connect the USB drive** to your Hyper-V host computer (not directly to the VM)[3][4][5].
2. **On the Hyper-V host, open Disk Management:**
   - Right-click the Windows Start button and choose "Disk Management."
   - Find your external USB drive in the list, right-click it, and select **"Offline."** This step is essential—Hyper-V and the host OS cannot use the drive simultaneously[2][3][4].
3. **Open Hyper-V Manager:**[6]
   - Right-click your target VM and choose **Settings**[7].
   - Make sure the VM is powered off for hardware changes.
4. **Add the USB drive to the VM:**
   - In the VM Settings, select the **SCSI Controller** (not IDE—SCSI allows hot swap).
   - Click **Add** > **Hard Drive.**
   - Select the newly created Hard Drive entry, then choose **Physical hard disk.**
   - In the drop-down, select your USB drive, which now appears because it's offline to the host[2][3][5].
5. **Start the VM:** The USB drive should now be accessible to the guest OS as a new disk.

You may need to partition or assign a drive letter from inside the VM[2].

Alternative Methods (if direct passthrough is not suitable):

- **Enhanced Session Mode or RDP:** These methods allow you to redirect USB devices (such as storage drives) via Remote Desktop, but are suitable mostly for USB sticks or for file copy, not for all devices[1].
- **Third-party USB over network software:** Programs like USB Network Gate can also redirect USB devices over the network for more complex scenarios[2][1].

Key Requirements & Limitations:

- You must take the USB drive offline from the host before the VM can use it.
- Only one system (either host or VM) can access the USB drive at a time[2].
- This process works for USB storage devices (drives, sticks), not for all USB peripheral types (like some security dongles or specialized hardware)[8][1].
- For non-storage USB devices, use Enhanced Session Mode or network USB solutions[1][2].

References:

- Official Microsoft guide to USB passthrough[3].
- Step-by-step YouTube tutorials[6][4].
- Detailed written guides with illustrations of each step[5][2].
- Approaches for non-storage USB devices and software options[1][2][8].

If you need steps for a specific kind of USB device (not storage), let me know.

?

1. https://www.nakivo.com/blog/performing-hyper-v-usb-passthrough/

2. https://www.net-usb.com/virtual-usb/hyperv-usb-passthrough/
3. https://learn.microsoft.com/en-us/answers/questions/1009500/how-to-connect-a-usb-dongle-to-virtual-machine-hyp
4. https://www.youtube.com/watch?v=Nn9WaKEJrmQ
5. https://endurtech.com/connecting-a-drive-to-a-vm-in-hyper-v/
6. https://www.youtube.com/watch?v=VoJ1bLCkG1k
7. https://learn.microsoft.com/en-us/answers/questions/2193986/usb-passthrough-in-hyper-v-and-networking-with-hyp
8. https://www.reddit.com/r/PLC/comments/1dubl0p/hyperv_and_usb_devices_solutions_or_alternatives/