Fedora + Windows VM (GPU Passthrough)

Failure Recovery Checklist (No Panic Edition)

Use this when something does not boot, display stays black, or performance suddenly degrades. Work top to bottom. Do not change multiple things at once.

A) Fedora Boots, Windows VM Black Screen

- Confirm monitor is connected to RTX 3090 (or correct input selected).
- Verify vfio binding: `lspci -k | grep -A3 -i nvidia`
- RTX 3090 must show: `Kernel driver in use: vfio-pci`
- Check GRUB params include vfio-pci.ids and video=efifb:off.

B) Windows Boots but NVIDIA Code 43

- Edit VM XML → enable KVM hidden state.
- Set custom hypervisor vendor_id.
- Reboot VM and reinstall NVIDIA driver if needed.

C) VM Does Not Start After Fedora Update

- Reboot and choose previous kernel from GRUB.
- Verify dracut did not drop vfio config: `lsinitrd | grep vfio`
- Rebuild initramfs: `sudo dracut -f`

D) USB or Keyboard/Mouse Not Working in VM

- Confirm the USB controller (or devices) are attached to the VM.
- Avoid sharing the same USB device between host and VM.
- Prefer whole USB controller passthrough over individual devices.

E) Performance Feels Worse Than Expected

- Confirm CPU model is host-passthrough.
- Verify VirtIO disk and VirtIO NIC are used.
- Check Windows power plan is set to High Performance.

Golden Rule: If something breaks, revert to your last known-good snapshot first. Troubleshoot second.