MISADVENTURES in Homelabbing

What worked, what didn't,

and what made me slap my forehead

Christopher Thompson | KWLug | February 2026

About Me

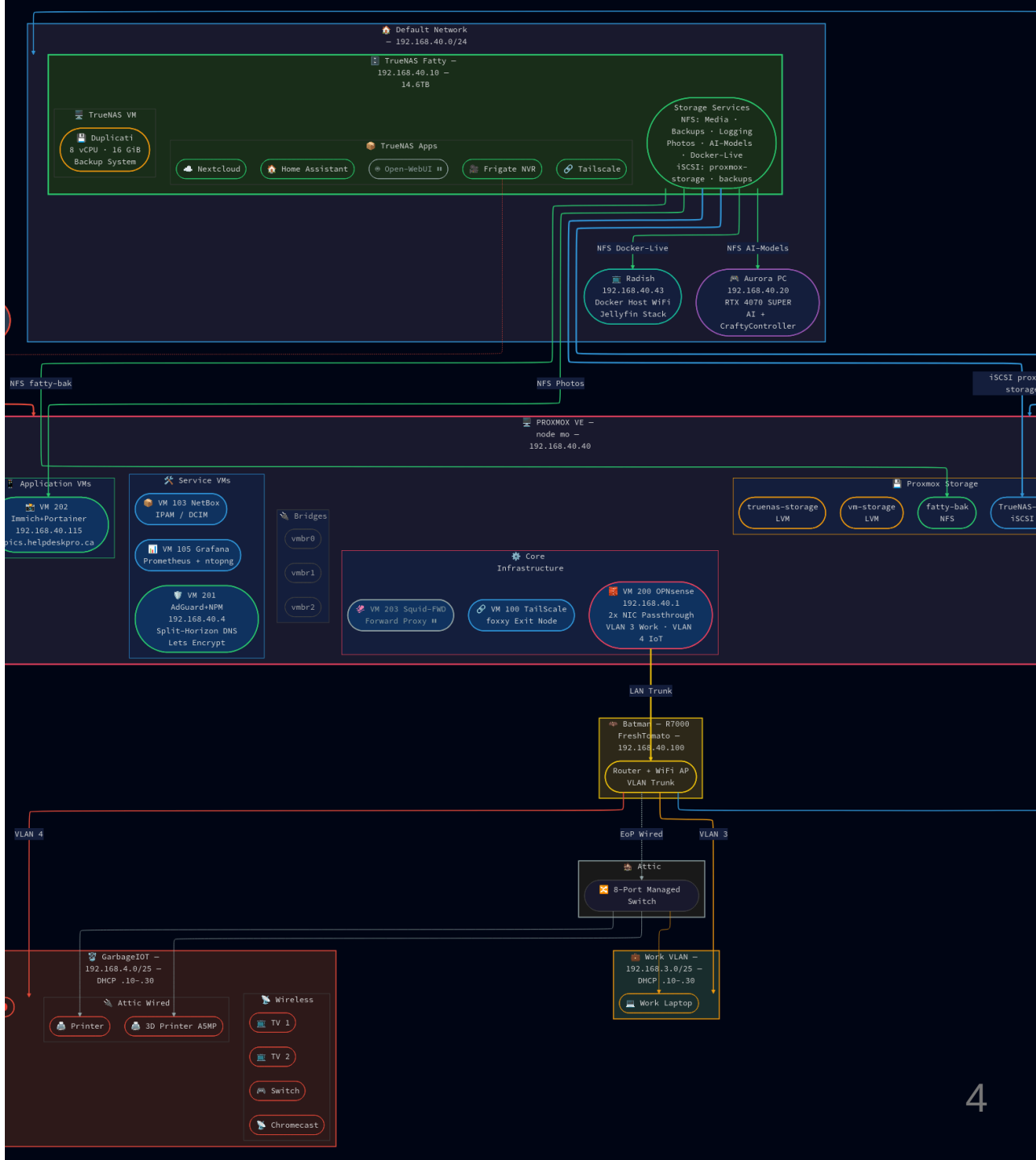
- Sys Admin
- In industry for over 15 years
- I was going to put in stuff here, but I gave up, there's a list, it's boring.
- Homelab: Proxmox, TrueNAS, OPNsense, ntopng, NextCloud, Grafana, Ansible, AdGuardHome, NPM -Network Proxy Manager, HomeSense, JellyFin, maltrail, NetBox, OpenText, MultiMC, LMStudio

Tonight's Three Stories

- **File sharing** — the hard way
- **GPU failure** — forensic edition
- **Nextcloud** — sync ≠ backup

The Lab

- Proxmox: hypervisor
- TrueNAS: storage (VM on Proxmox)
- OPNsense: routing + firewall
- Fedora desktop: daily driver



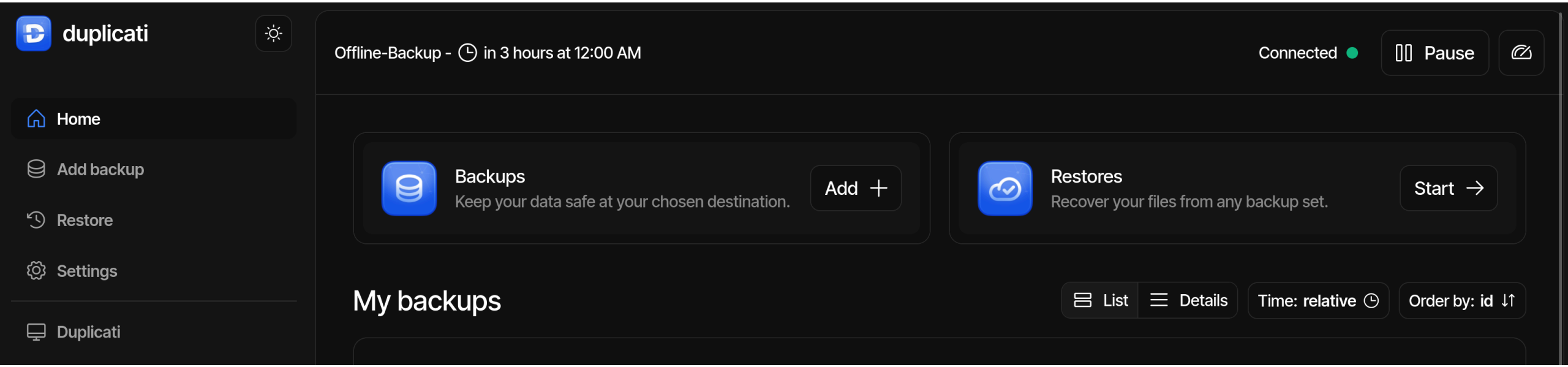
Section 1

Learning File Sharing the Hard Way

Duplicati + NFS + iSCSI + a surprise

What is Duplicati?

- Open-source backup software
- Web UI, cross-platform
- Deduplication + encryption built-in
- My instance: VM on Proxmox


duplicati
Offline-Backup - in 3 hours at 12:00 AM
Connected
Pause
Home
Add backup
Restore
Settings
Duplicati
Backups
Keep your data safe at your chosen destination.
Add
Restores
Recover your files from any backup set.
Start
My backups
List
Details
Time: relative
Order by: id

Protocol Choices

- **NFS** → source data (fast, native)
- **iSCSI** → backup target (block device)
- NFS: TrueNAS datasets exposed
- iSCSI: Duplicati sees a real disk

The Architecture

Docker host with persistent storage → *(NFS)* → **Duplicati VM**

- VM reads NFS source data
- All systems ingested properly based on existing mounts
- Cold storage is from Duplicati → cold storage

The Failures Begin

- Duplicati freezing mid-backup
- Jobs hanging — no error, no exit
- Only on NFS-sourced jobs
- Local-source jobs: fine

Stale File Handle Errors

- `vzdump` files pruned mid-backup
- Proxmox rotation = deletion mid-read
- NFS handle goes stale
- Duplicati can't recover — freezes

Permission Failures

- Duplicati not running as expected user
- systemd service — wrong group context
- NFS squash rules don't match
- Files readable manually, not by service
- https://github.com/duplicati/duplicati/issues/6556

What is SSHFS?

- Filesystem over SSH — FUSE-based
- Great for: remote file browsing
- Not great for: high-throughput backup
- Adds per-file SSH latency at scale

The Discovery

- Auditing mounts while debugging
- Three mountpoints… using sshfs
- Not NFS — had been sshfs all along
- Set up for convenience, never changed

```
sshfs root@domain.com:/var /rem_mount
fuse: bad mount point `/rem_mount': Transport endpoint is not connected
```

The Fix

- Replaced sshfs mounts with NFS
- Freezing: gone
- Permission errors: gone
- Latency: gone
- Duplicati: happy

Section 2

An Adventure with New Hardware

RTX 4070 SUPER: Hardware Failure, Forensic Diagnosis, Successful RMA

Meet the RTX 4070 SUPER

- New ASUS card — gaming + inference
- Day 1: instant system crashes
- No warning, no BSOD buildup
- Windows just… stopped

The Numbers — 24 Hours

- **361** GPU hardware failures
- **1,234** Video Scheduler Internal Errors (0x1b8)
- **367** Video TDR Timeouts (0x117)
- **137** Display Driver Timeouts (0x141)
- **20** crash dump files

ASUS Support — Ticket Opened

- Service No. N2510022092-0001
- Submitted Event Log exports
- Submitted crash dump summary
- Full PowerShell hardware queries

ASUS Response

- "Please send AI Suite 3 screenshot"
- AI Suite 3 = motherboard utility
- GPU and motherboard: unrelated
- Canned script, not engaged

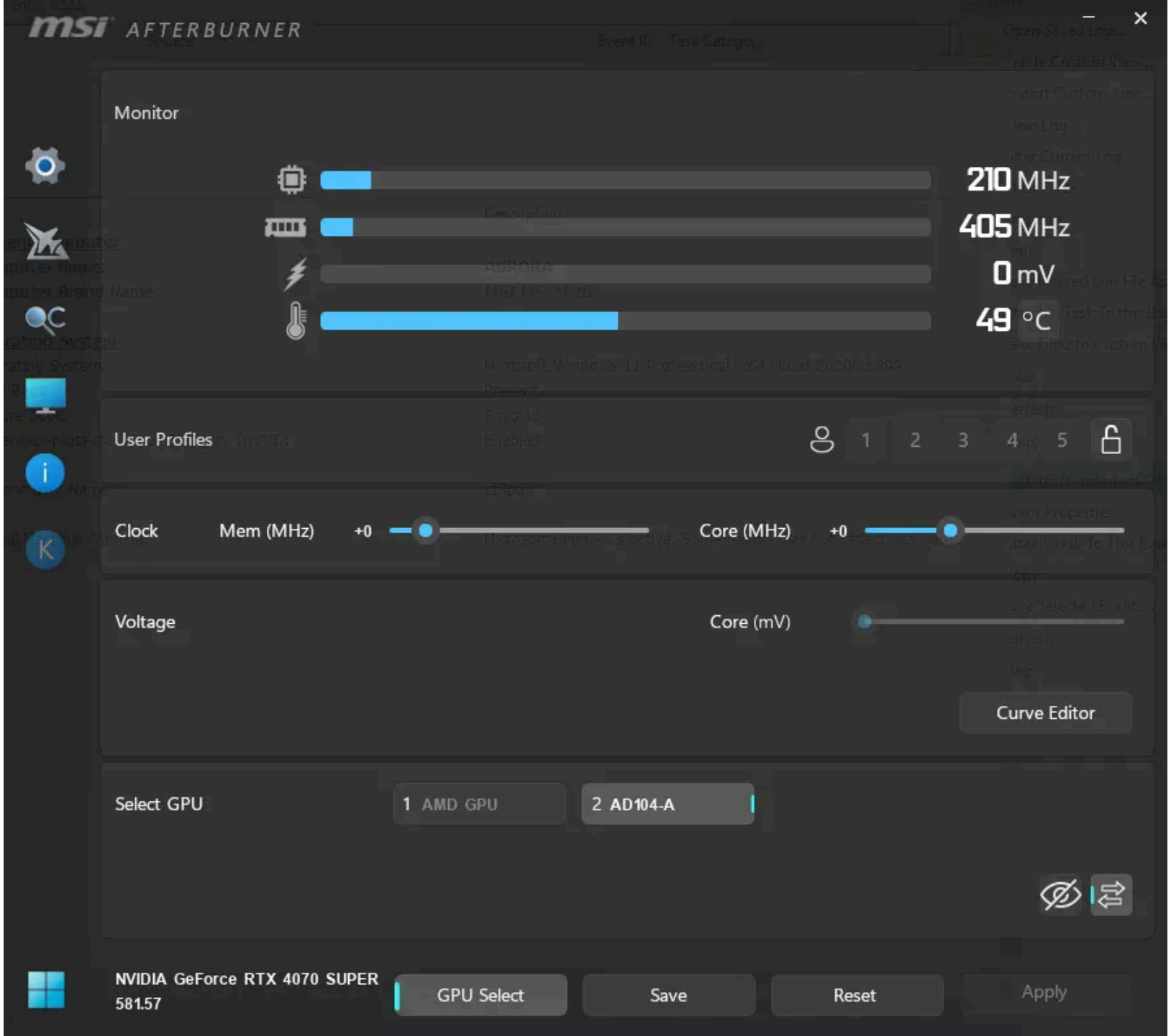
Going Overboard — Grafana

- Built Grafana dashboard post-failure
- GPU-Z → InfluxDB → Grafana
- Temps, power draw, clocks, fan RPM
- Timestamped evidence for RMA


Home › Dashboards › Aurora
Server 192.168.40.20:9182
Last 1 hour
Refresh
Critical System Errors
0
Unexpected Shutdowns(24h)
0
Hardware Errors - WHEA
0
GPU Crash Reports(24h)
0
GPU Fan Speed
GPU Clock Speed
405 MHz
GPU Power Draw
GPU Memory Usage
GPU Utilization %
GPU Temperature
Uptime
6 days
Processors
16
RAM
63.6 GB
CPU Usage
7.27%
Memory Usage
39.9%
Disk Usage
C: 96.3%
D: 59.6%
NTP Status(NTP Offset)
CPU Load
Bandwidth
Disk R/W
Bandwidth
Hard Disk Usage
C: 96%
D: 60%
HarddiskVolume1 35%
HarddiskVolum... 89%
Total SWAP
75 MB
Memory Details
CPU Usage
Flow Per Hour
Network discarded/error packets
Hard disk i/o ops total
system_threads
Services by state

GPU Stats — Suspiciously Normal

- Temps: 38–40°C idle
- Power draw: 9–10W idle
- Zero thermal throttling
- Not a heat problem


msi AFTERBURNER
Monitor
210 MHz
405 MHz
0 mV
49 °C
User Profiles
1 2 3 4 5
Clock
Mem (MHz)
+0
Core (MHz)
+0
Voltage
Core (mV)
Curve Editor
Select GPU
1 AMD GPU
2 AD104-A
NVIDIA GeForce RTX 4070 SUPER
581.57
GPU Select
Save
Reset
Apply

Minecraft as a Stress Test

- Needed persistent, reproducible GPU load
- Minecraft: consistent draw, easy to script
- High render distance = sustained GPU use
- Crashes reproduced reliably

The Evidence Package

- PowerShell Event Log export
- Grafana screenshots (timestamped)
- Crash dump file listing
- Thermal data ruling out heat
- Failure timeline, annotated

Control Panel › System and Security › Security and Maintenance › Reliability Monitor

Search Control Panel

Review your computer's reliability and problem history

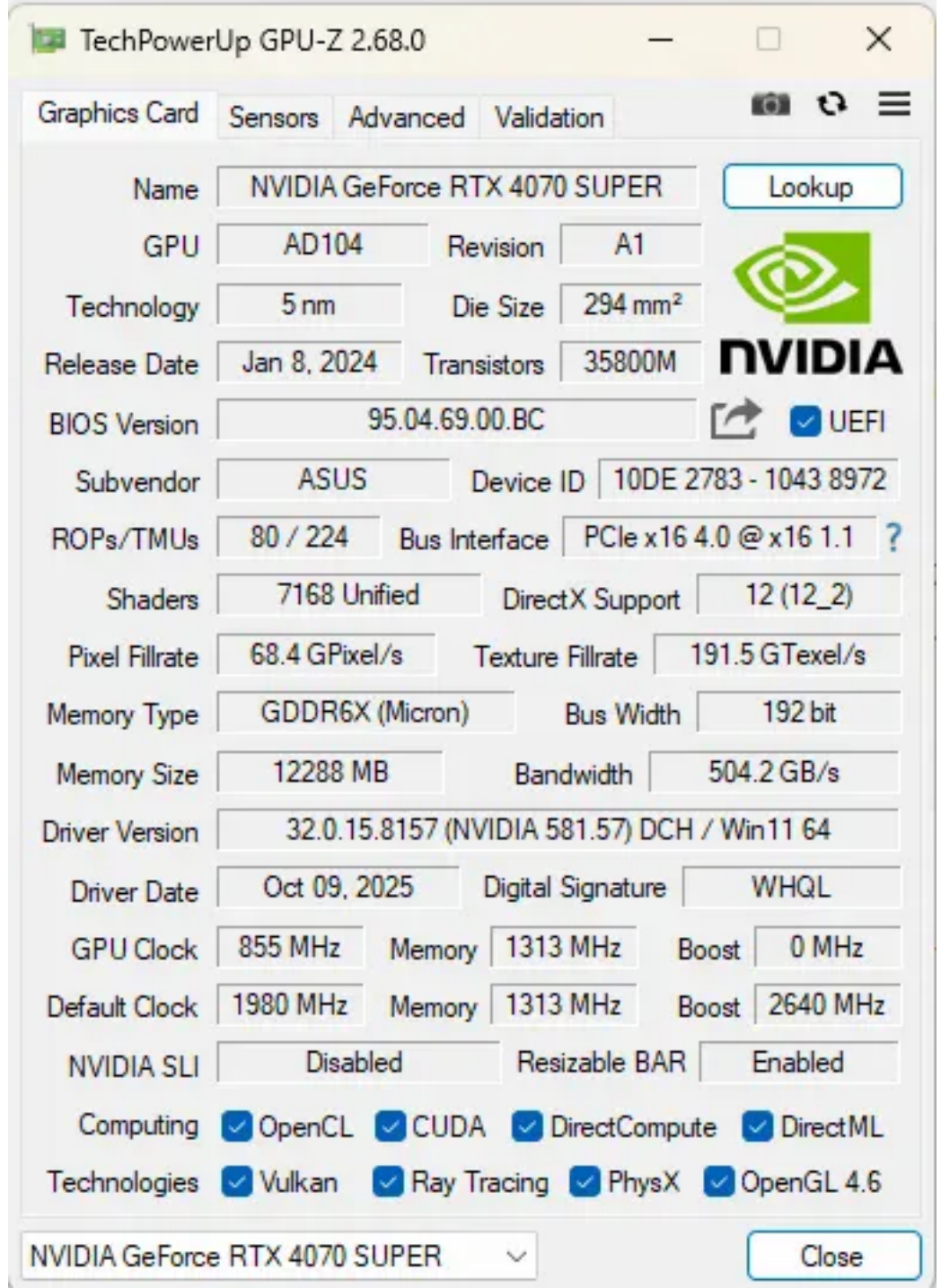
The stability index assesses your system's overall stability on a scale from 1 to 10. By selecting a specific period in time, you may review the specific hardware and software problems that have impacted your system.

View by: Days | Weeks

Last updated: 2025-10-18 11:00 PM

Reliability details for: 2025-10-18

Source	Summary	Date	Action
Informational events (5)			
Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.439.267.0) - Current Channel (Broad)	Successful Windows Update	2025-10-18 9:12 AM	View technical details
9PC1H9VN18CM-Microsoft.StartExperiencesApp	Successful Windows Update	2025-10-18 12:45 PM	View technical details
9WZDNCRD29V9-MICROSOFT.MICROSOFTOFFICEHUB	Successful Windows Update	2025-10-18 12:45 PM	View technical details
9NHT9RB2F4HD-Microsoft.Copilot	Successful Windows Update	2025-10-18 12:45 PM	View technical details
Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Version 1.439.280.0) - Current Channel (Broad)	Successful Windows Update	2025-10-18 8:41 PM	View technical details


TechPowerUp GPU-Z 2.68.0
Graphics Card
Sensors
Advanced
Validation
Name
NVIDIA GeForce RTX 4070 SUPER
Lookup
GPU
AD104
Revision
A1
Technology
5 nm
Die Size
294 mm²
Release Date
Jan 8, 2024
Transistors
35800M
BIOS Version
95.04.69.00.BC
UEFI
Subvendor
ASUS
Device ID
10DE 2783 - 1043 8972
ROPs/TMUs
80 / 224
Bus Interface
PCIe x16 4.0 @ x16 1.1
Shaders
7168 Unified
DirectX Support
12 (12_2)
Pixel Fillrate
68.4 GPixel/s
Texture Fillrate
191.5 GTexel/s
Memory Type
GDDR6X (Micron)
Bus Width
192 bit
Memory Size
12288 MB
Bandwidth
504.2 GB/s
Driver Version
32.0.15.8157 (NVIDIA 581.57) DCH / Win11 64
Driver Date
Oct 09, 2025
Digital Signature
WHQL
GPU Clock
855 MHz
Memory
1313 MHz
Boost
0 MHz
Default Clock
1980 MHz
Memory
1313 MHz
Boost
2640 MHz
NVIDIA SLI
Disabled
Resizable BAR
Enabled
Computing
OpenCL
CUDA
DirectCompute
DirectML
Technologies
Vulkan
Ray Tracing
PhysX
OpenGL 4.6
NVIDIA GeForce RTX 4070 SUPER
Close

RMA — Approved

- Replacement card: approved and shipped
- Evidence package: no pushback
- Lesson: document before diagnosing
- New card: zero issues since

Section 3

Nextcloud as an OneDrive Replacement

Self-hosted sync, a catastrophic mistake, and why sync ≠ backup

Why Nextcloud?

- Chronic distro-hopper problem
- Reinstall = redo file management
- OneDrive: works, but Microsoft
- Self-hosted, cross-platform sync

What OneDrive Was Doing

- Syncing full `$HOME` directories
- Multiple users, multiple machines
- Reliable — just Microsoft-dependent
- Cloud lock-in concern

The Nextcloud Setup

- Nextcloud on TrueNAS-adjacent infra
- Sync: Linux desktops + Windows machines
- Windows client: confirmed at boot
- Registry-confirmed autostart

Virtual Files Meets AppData

- Nextcloud: Virtual Files enabled
- AppData synced — but dehydrated
- Placeholder stubs, not real files
- Apps launch, find nothing, fail

The Catastrophic Mistake

- Distro reinstall — clean slate
- Assumed Nextcloud = source of truth
- Local data wiped before confirming sync
- Some directories: never actually synced

Nextcloud to the Rescue

- Nextcloud: had most of it
- Version history: recovered changed files
- Duplicati on TrueNAS: got the rest
- Full recovery: possible

Sync ≠ Backup

- Sync propagates changes — including deletes
- Corruption syncs everywhere too
- Backup = point-in-time snapshot
- You need both; they're different jobs

Nextcloud: The Outcome

- Still running Nextcloud — no OneDrive
- Nextcloud = sync layer
- Duplicati = backup layer
- Complementary, not competing

Three Lessons

- **Check your protocols** — NFS ≠ sshfs
- **Document first** — then argue with vendors
- **Sync ≠ backup** — you need both
- **Boring infrastructure** is good infrastructure

One More Thing

- Homelab exists for learning
- Breaking things safely — on purpose
- Every lab disaster ≠ production disaster
- Share your misadventures — we all learn

Questions

War Stories Welcome

What's your best forehead-slap moment?

Christopher Thompson
HelpDeskPro.ca