Self-Hosting: Co to je a jak začít?

Ondřej Pacovský

Prezentace již na webu

https://ondrejpacovsky.cz/talks/if26.pdf

Obsah

- Něco o mně
- Co to je?
- Výhody x Nevýhody
- Výběr HW/SW
- Co self-hostnout?
- Vzdálený přístup

whoami

- Student SŠ a VOŠ Aplikované kybernetiky
- Open-Source, Self-Hosting, Smart Home
- 3D tisk, hudba
- Rozbíjím systémy
- Hraju si na admina :)

Co to tedy je?

Services I **run myself**
on hardware that **I own**
in a way **I can control** and **move**

– Techno Tim

Výhody

- Soukromí a bezpečnost dat
- Nezávislost na cloudu
- Ušetřené peníze
- Zkušenosti

Nevýhody?

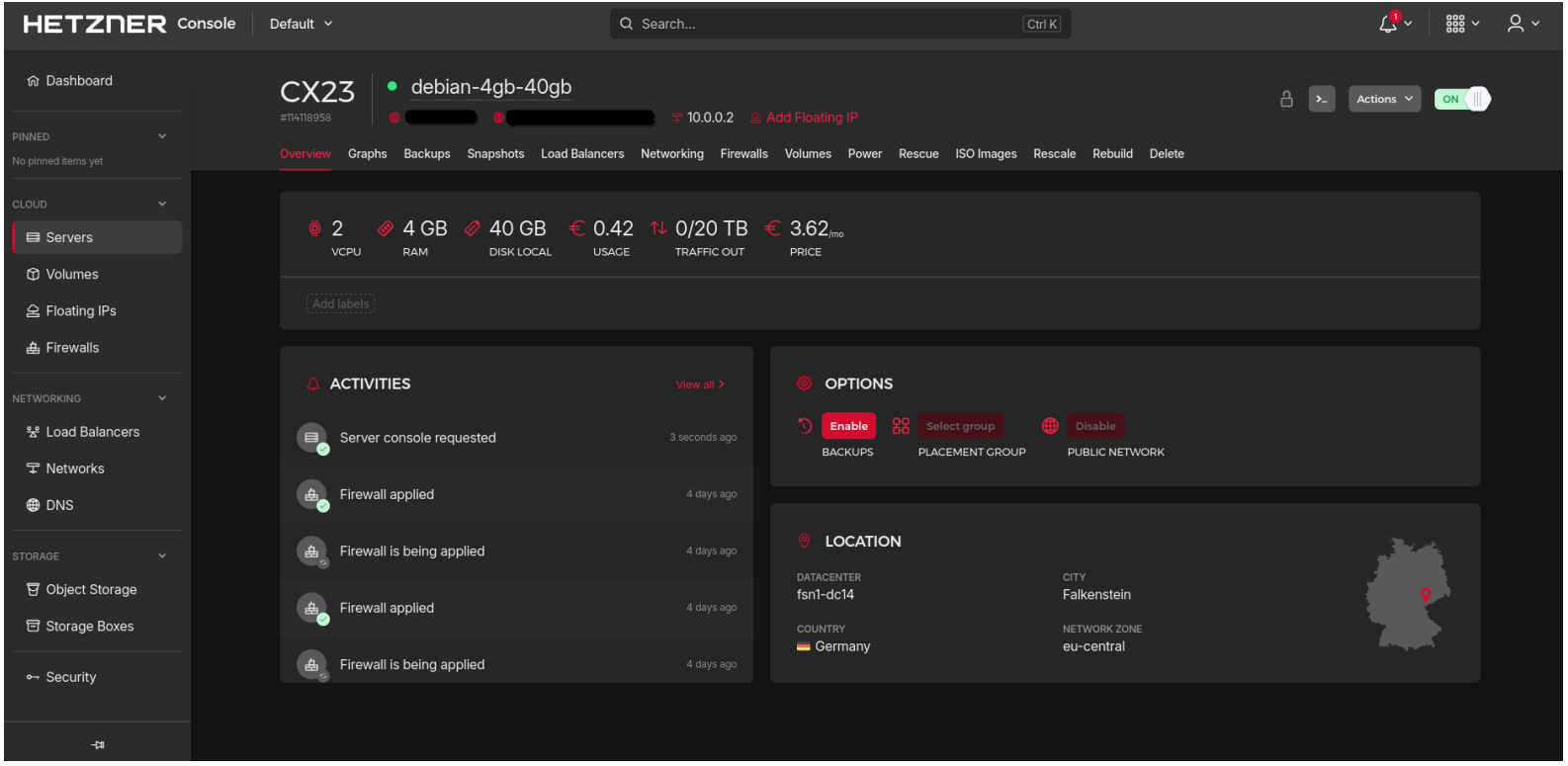
FRIC

HW

https://www.datacenters.com/news/and-the-title-of-the-largest-data-center-in-the-world-and-largest-data-center-in

Nevyužité zařízení

VPS (Virtual Private Server)



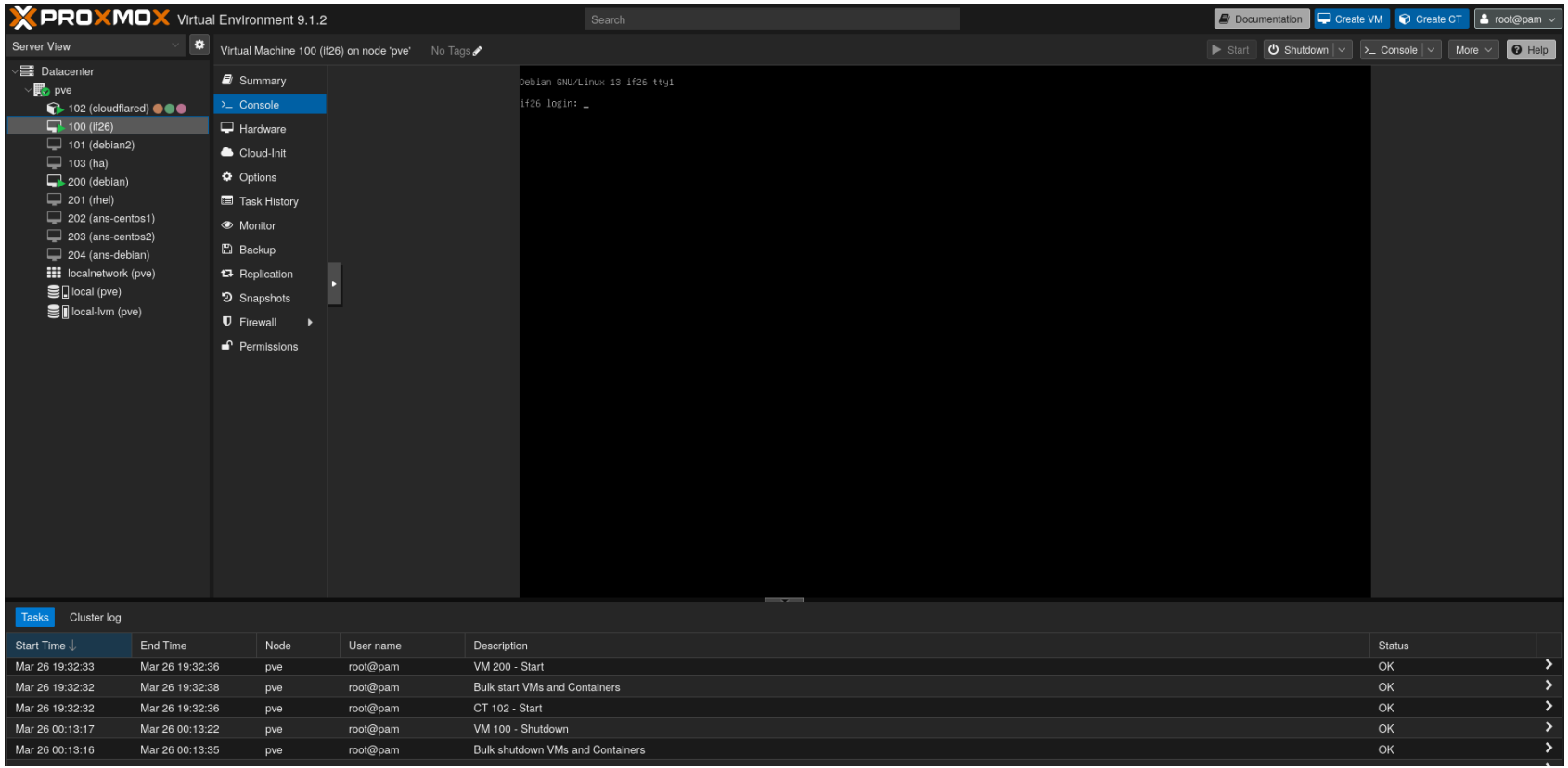
Mini PC

Postavené PC

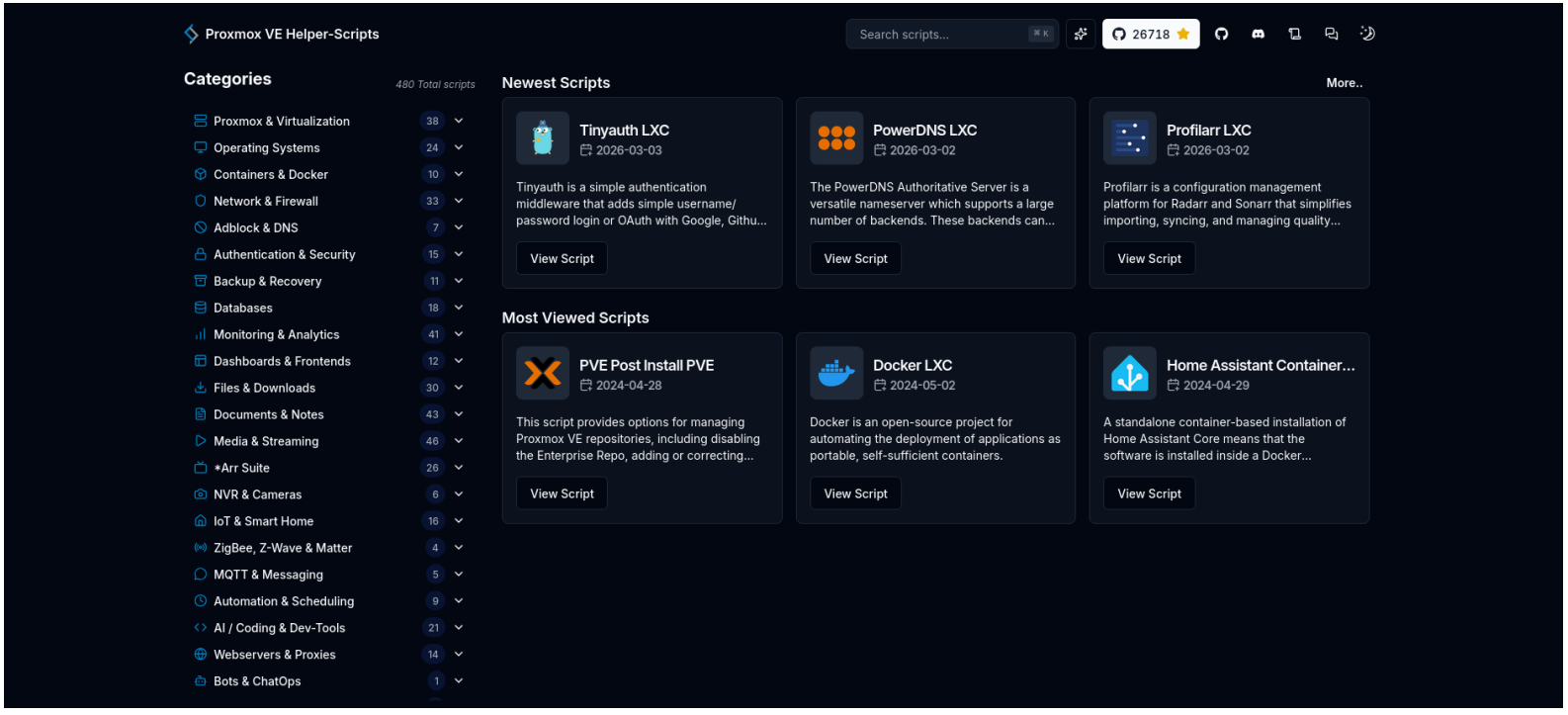
https://forums.serverbuilds.net/t/guide-nas-killer-4-0-fast-quiet-power-efficient-and-flexible-starting-at-125/667

SW

Proxmox VE


PROXMOX Virtual Environment 9.1.2
Search
Documentation
Create VM
Create CT
root@pam
Server View
Virtual Machine 100 (if26) on node 'pve'
No Tags
Start
Shutdown
Console
More
Help
Datacenter
pve
102 (cloudflared)
100 (if26)
101 (debian2)
103 (ha)
200 (debian)
201 (rhel)
202 (ans-centos1)
203 (ans-centos2)
204 (ans-debian)
localnetwork (pve)
local (pve)
local-lvm (pve)
Summary
Console
Hardware
Cloud-Init
Options
Task History
Monitor
Backup
Replication
Snapshots
Firewall
Permissions
Debian GNU/Linux 13 if26 tty1
if26 login:
Tasks
Cluster log
Start Time
End Time
Node
User name
Description
Status
Mar 26 19:32:33 Mar 26 19:32:36 pve root@pam VM 200 - Start OK
Mar 26 19:32:32 Mar 26 19:32:38 pve root@pam Bulk start VMs and Containers OK
Mar 26 19:32:32 Mar 26 19:32:36 pve root@pam CT 102 - Start OK
Mar 26 00:13:17 Mar 26 00:13:22 pve root@pam VM 100 - Shutdown OK
Mar 26 00:13:16 Mar 26 00:13:35 pve root@pam Bulk shutdown VMs and Containers OK

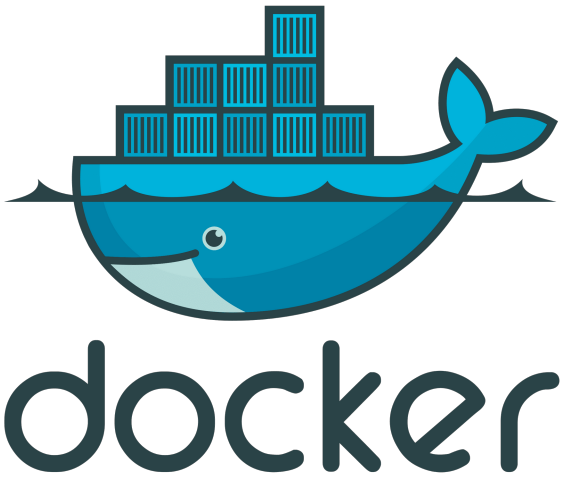
Proxmox VE Helper-Scripts



https://community-scripts.github.io/

Linux

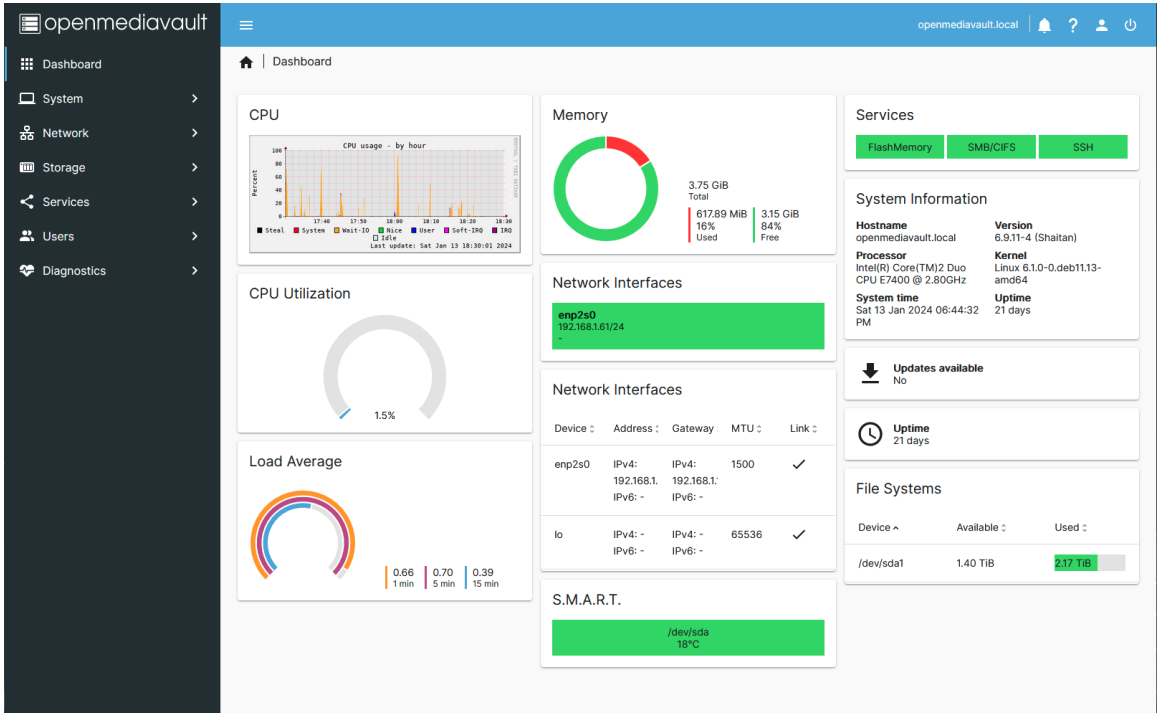
Docker




```yaml
services:
  web:
    image: myapp/frontend:latest
    container_name: my_app
    ports:
      - "8080:80"
    volumes:
      - ./config:/app/config
      - ./data:/app/data
    environment:
      - THEME=dark
      - API_URL=http://database:5000
    restart: unless-stopped

  db:
    image: myapp/backend-db:1.2
    container_name: my_app_db
    environment:
      - DB_PASSWORD=supersecret
    volumes:
      - ./db:/app/db

```

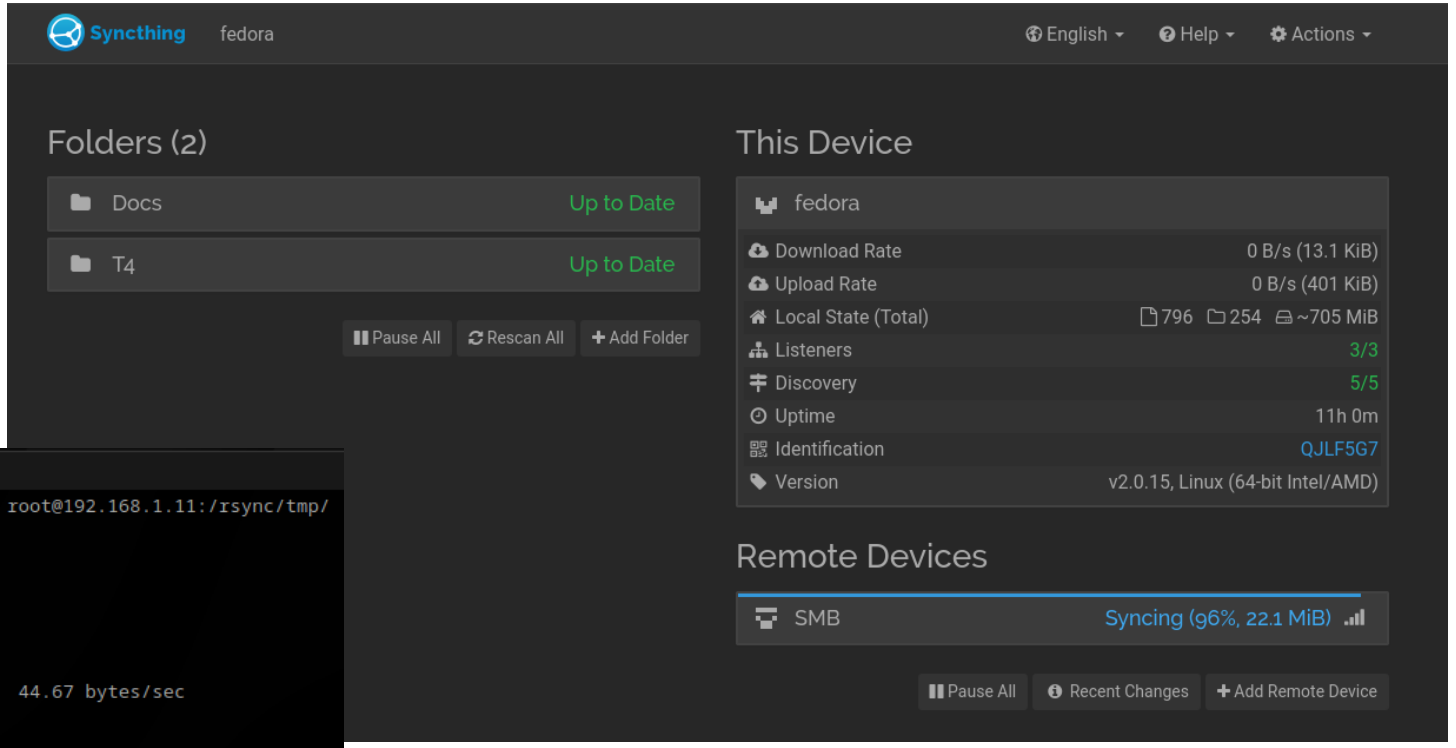
Co self-hostnout?

OpenMediaVault



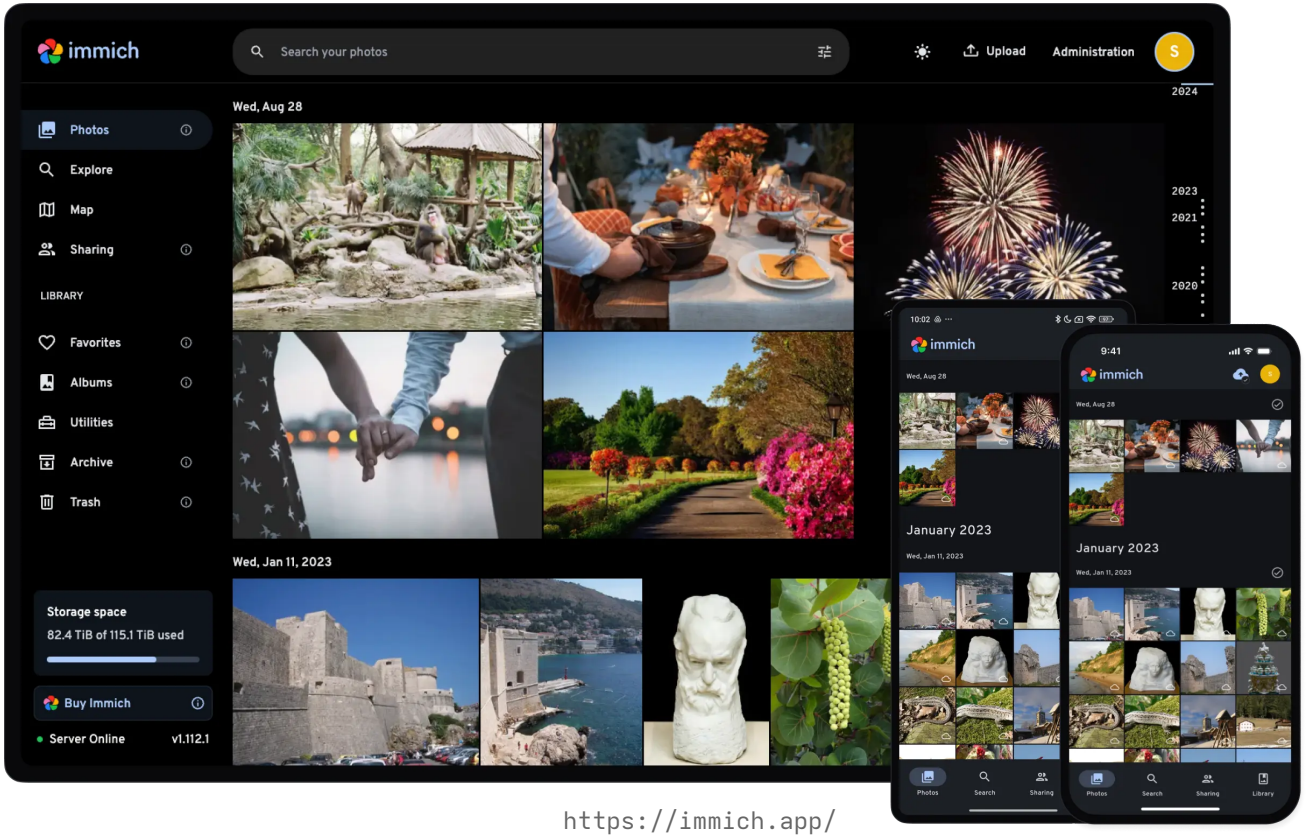
https://en.wikipedia.org/wiki/OpenMediaVault

Rsync, Syncthing



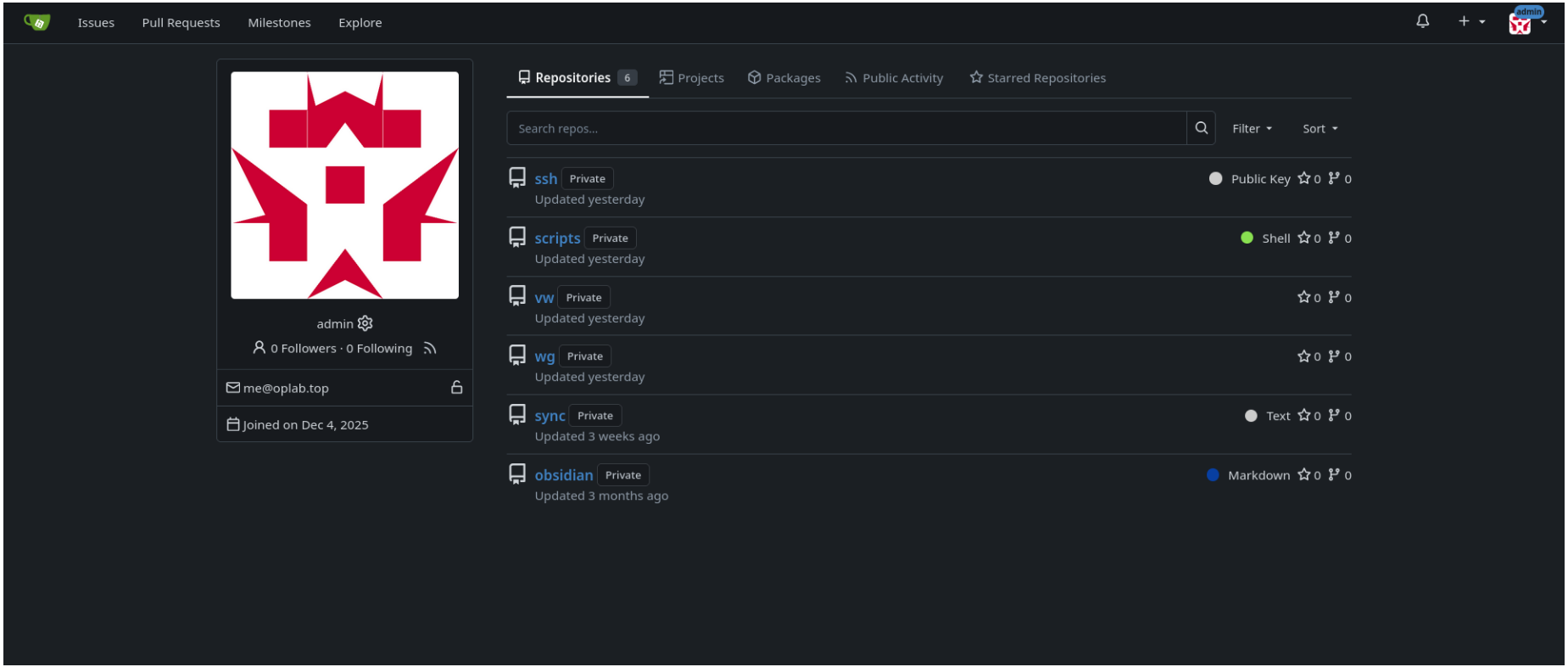

```
ondrej@fedora:~$ rsync -av ./tmp/ root@192.168.1.11:/rsync/tmp/
root@192.168.1.11's password:
sending incremental file list
created directory /rsync/tmp
./
test.txt

sent 130 bytes  received 71 bytes  44.67 bytes/sec
total size is 0  speedup is 0.00
ondrej@fedora:~$
```

Immich

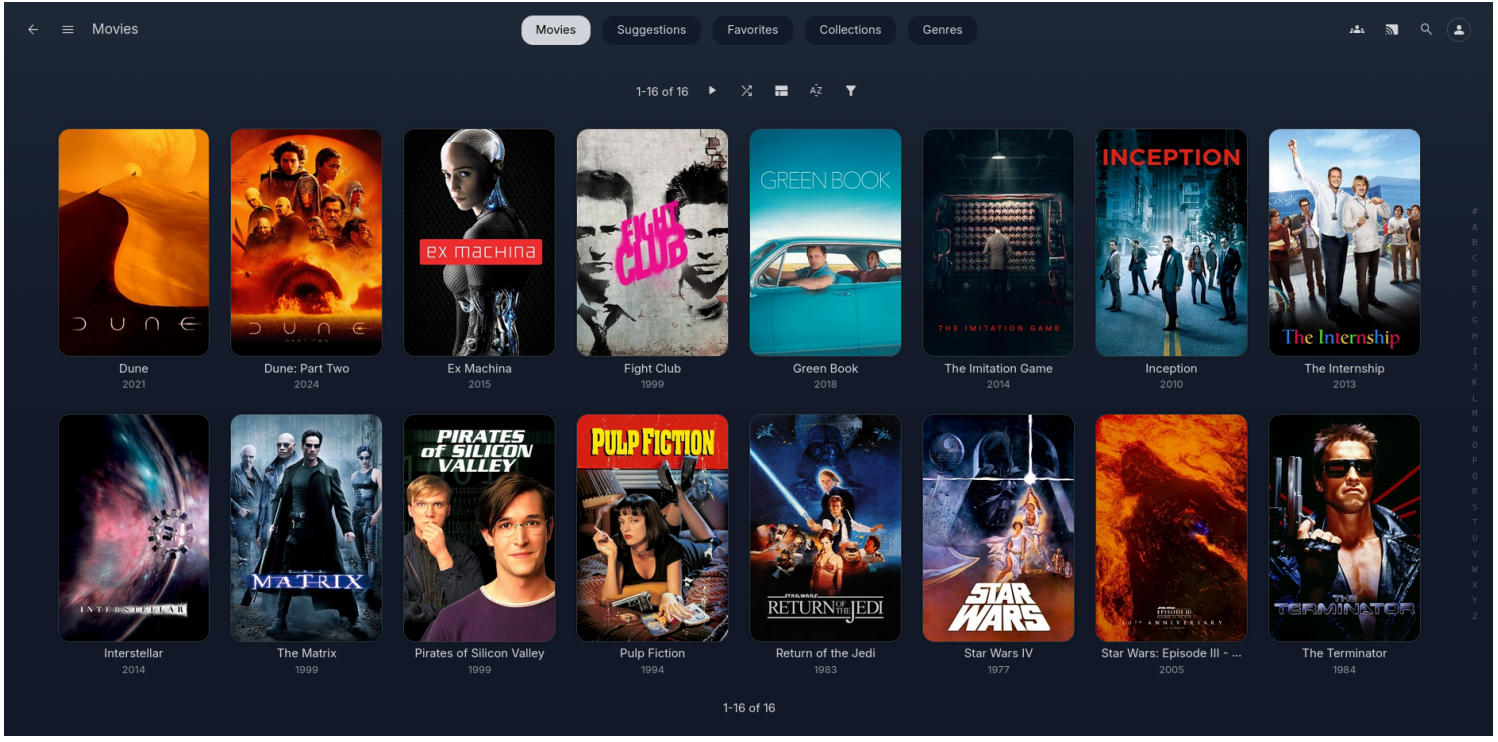


https://immich.app/

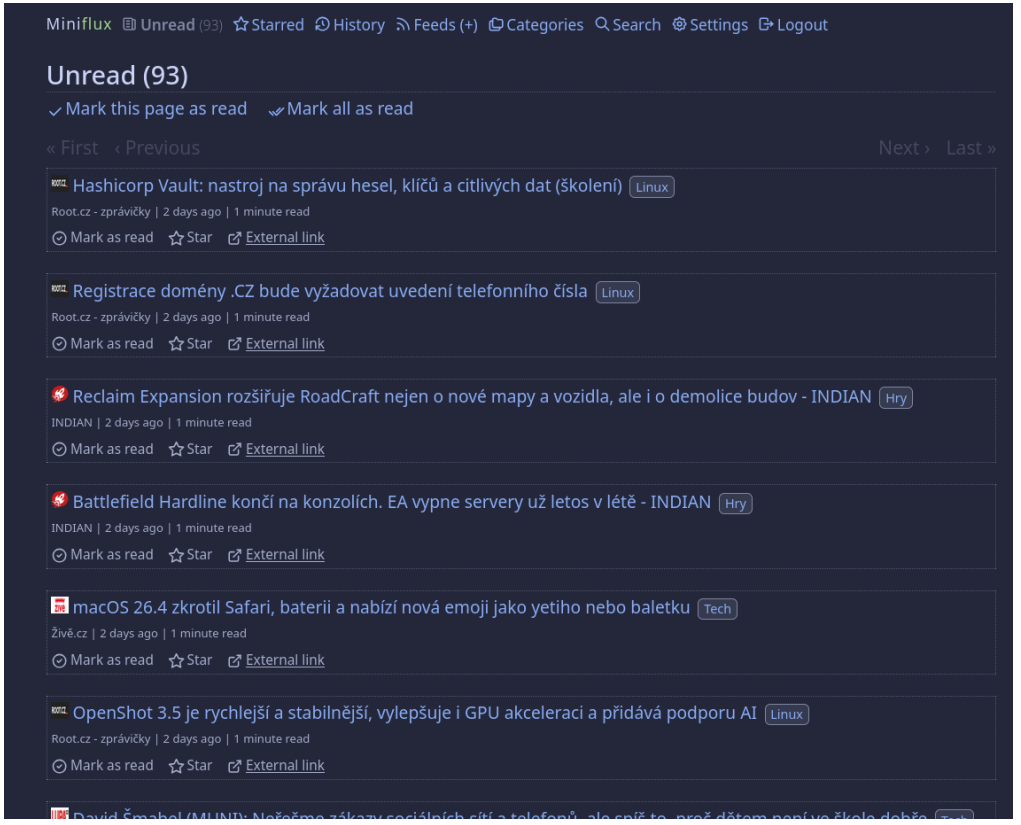
Gitea


Issues
Pull Requests
Milestones
Explore
admin
admin
0 Followers · 0 Following
me@oplab.top
Joined on Dec 4, 2025
Repositories 6
Projects
Packages
Public Activity
Starred Repositories
Search repos...
Filter
Sort
ssh Private
Updated yesterday
Public Key 0 0
scripts Private
Updated yesterday
Shell 0 0
vw Private
Updated yesterday
0 0
wg Private
Updated yesterday
0 0
sync Private
Updated 3 weeks ago
Text 0 0
obsidian Private
Updated 3 months ago
Markdown 0 0

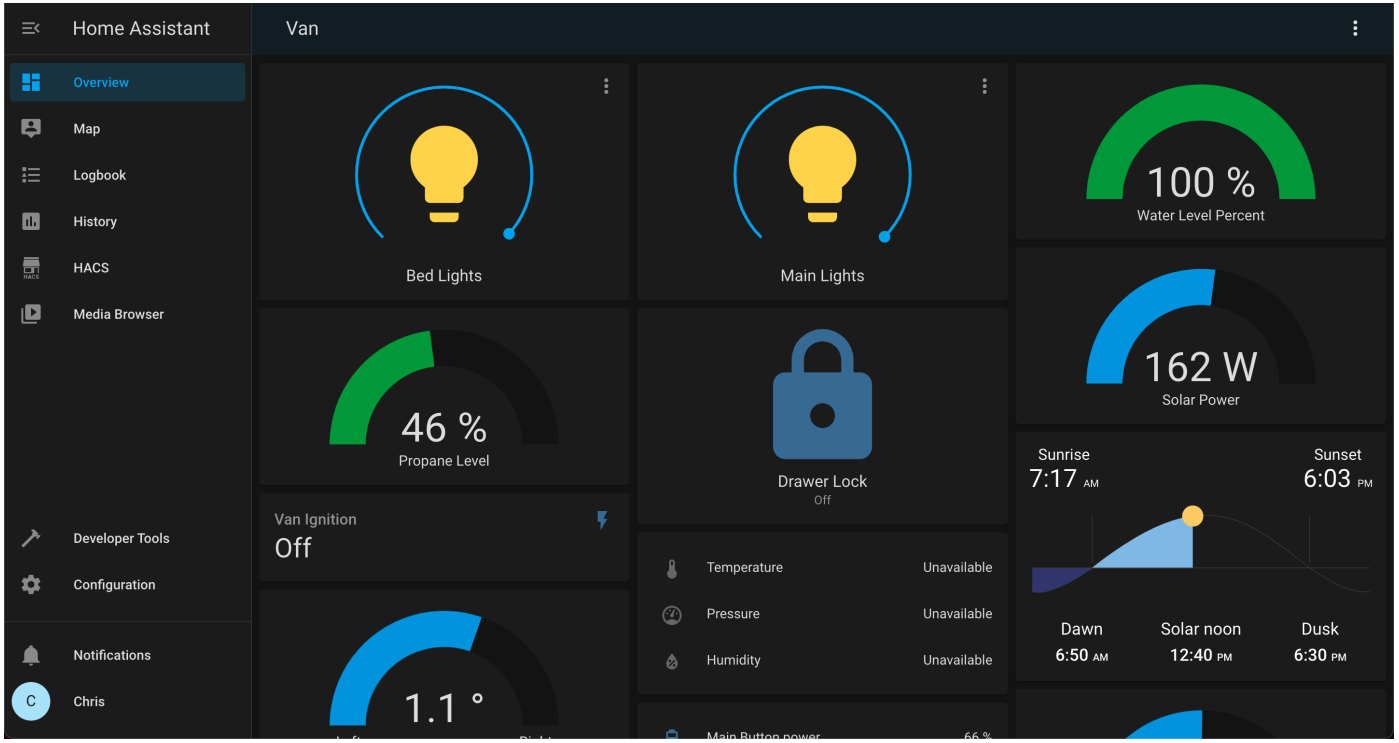
Jellyfin


Movies
Movies
Suggestions
Favorites
Collections
Genres
1-16 of 16
Dune
2021
Dune: Part Two
2024
Ex Machina
2015
Fight Club
1999
Green Book
2018
The Imitation Game
2014
Inception
2010
The Internship
2013
Interstellar
2014
The Matrix
1999
Pirates of Silicon Valley
1999
Pulp Fiction
1994
Return of the Jedi
1983
Star Wars IV
1977
Star Wars: Episode III - ...
2005
The Terminator
1984
1-16 of 16

Miniflux

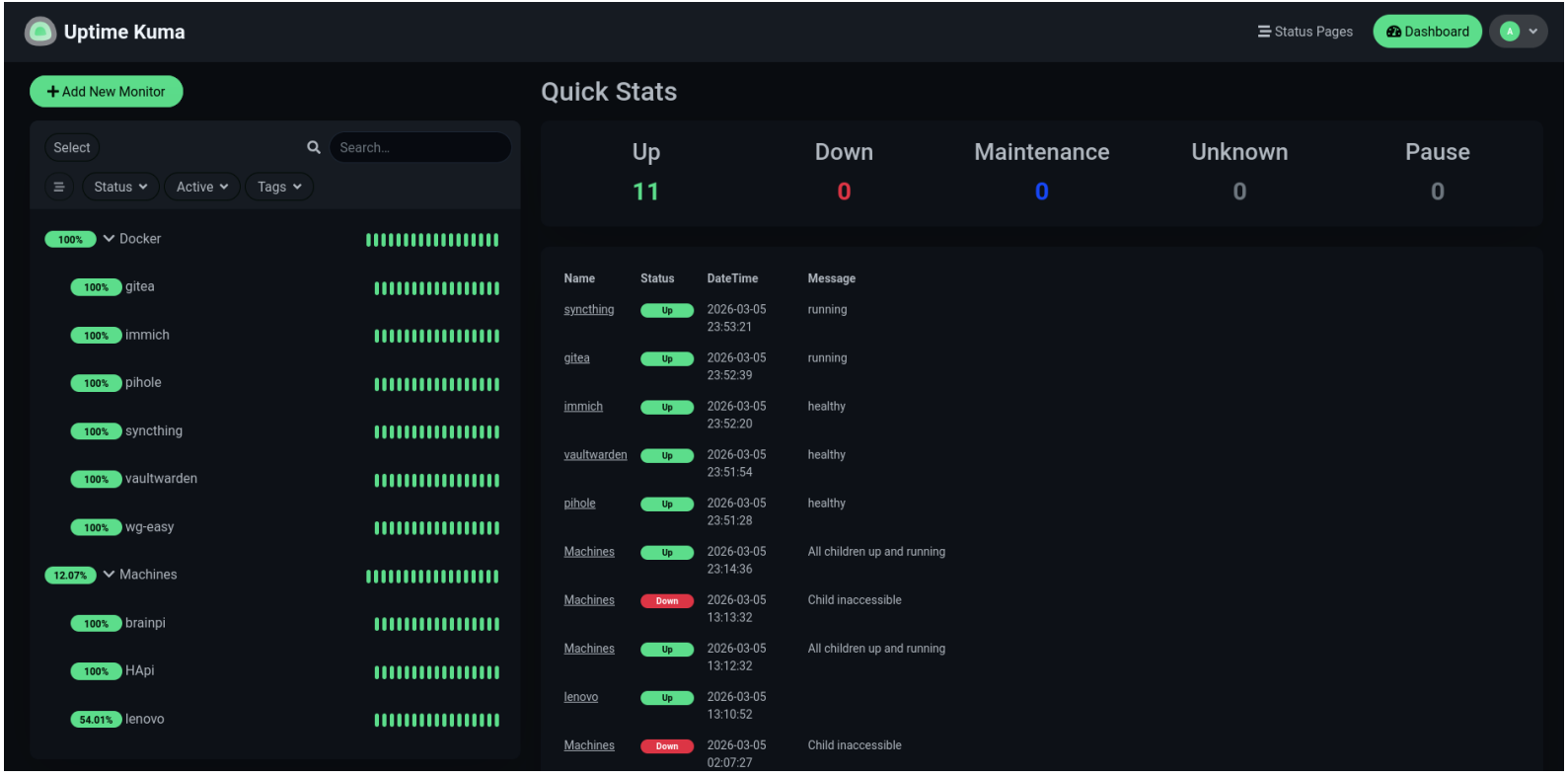

Miniflux
Unread (93)
Starred
History
Feeds (+)
Categories
Search
Settings
Logout
Unread (93)
Mark this page as read
Mark all as read
« First
‹ Previous
Next ›
Last »
Hashicorp Vault: nastroj na správu hesel, klíčů a citlivých dat (školení)
Linux
Root.cz - zprávičky | 2 days ago | 1 minute read
Mark as read
Star
External link
Registrace domény .CZ bude vyžadovat uvedení telefonního čísla
Linux
Root.cz - zprávičky | 2 days ago | 1 minute read
Mark as read
Star
External link
Reclaim Expansion rozšiřuje RoadCraft nejen o nové mapy a vozidla, ale i o demolice budov - INDIAN
Hry
INDIAN | 2 days ago | 1 minute read
Mark as read
Star
External link
Battlefield Hardline končí na konzolích. EA vypne servery už letos v létě - INDIAN
Hry
INDIAN | 2 days ago | 1 minute read
Mark as read
Star
External link
macOS 26.4 zkrotil Safari, baterii a nabízí nová emoji jako yetiho nebo baletku
Tech
Živě.cz | 2 days ago | 1 minute read
Mark as read
Star
External link
OpenShot 3.5 je rychlejší a stabilnější, vylepšuje i GPU akceleraci a přidává podporu AI
Linux
Root.cz - zprávičky | 2 days ago | 1 minute read
Mark as read
Star
External link

Home Assistant

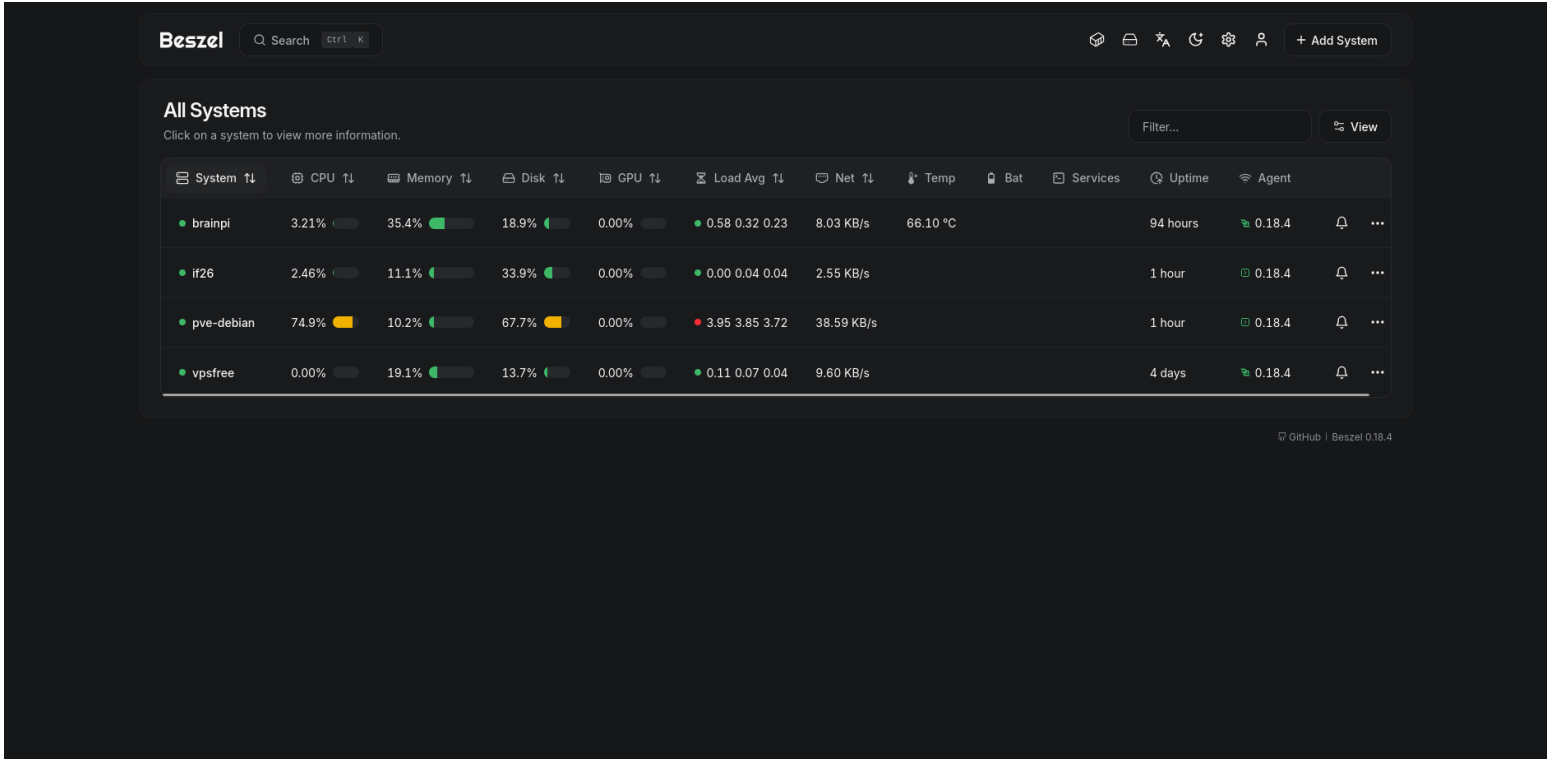


https://van-automation.com/installing_home_assistant.html

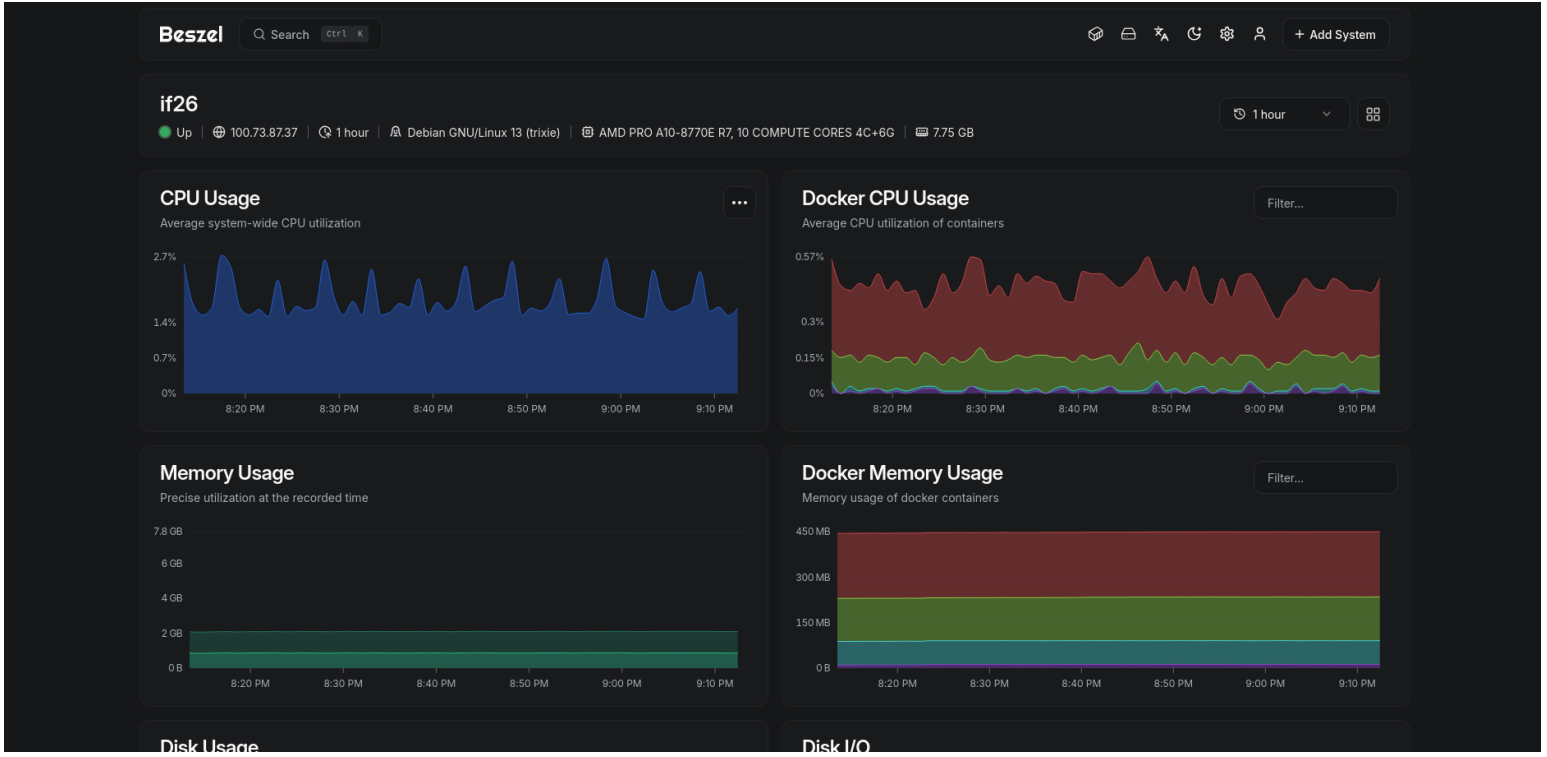
UptimeKuma


Uptime Kuma
Status Pages
Dashboard
+ Add New Monitor
Quick Stats
Select
Search...
Status
Active
Tags
Up
Down
Maintenance
Unknown
Pause
11
0
0
0
0
100% Docker
100% gitea
100% immich
100% pihole
100% syncthing
100% vaultwarden
100% wg-easy
12.07% Machines
100% brainpi
100% HApi
54.01% lenovo
Name
Status
DateTime
Message
syncthing
Up
2026-03-05 23:53:21
running
gitea
Up
2026-03-05 23:52:39
running
immich
Up
2026-03-05 23:52:20
healthy
vaultwarden
Up
2026-03-05 23:51:54
healthy
pihole
Up
2026-03-05 23:51:28
healthy
Machines
Up
2026-03-05 23:14:36
All children up and running
Machines
Down
2026-03-05 13:13:32
Child inaccessible
Machines
Up
2026-03-05 13:12:32
All children up and running
lenovo
Up
2026-03-05 13:10:52
Machines
Down
2026-03-05 02:07:27
Child inaccessible

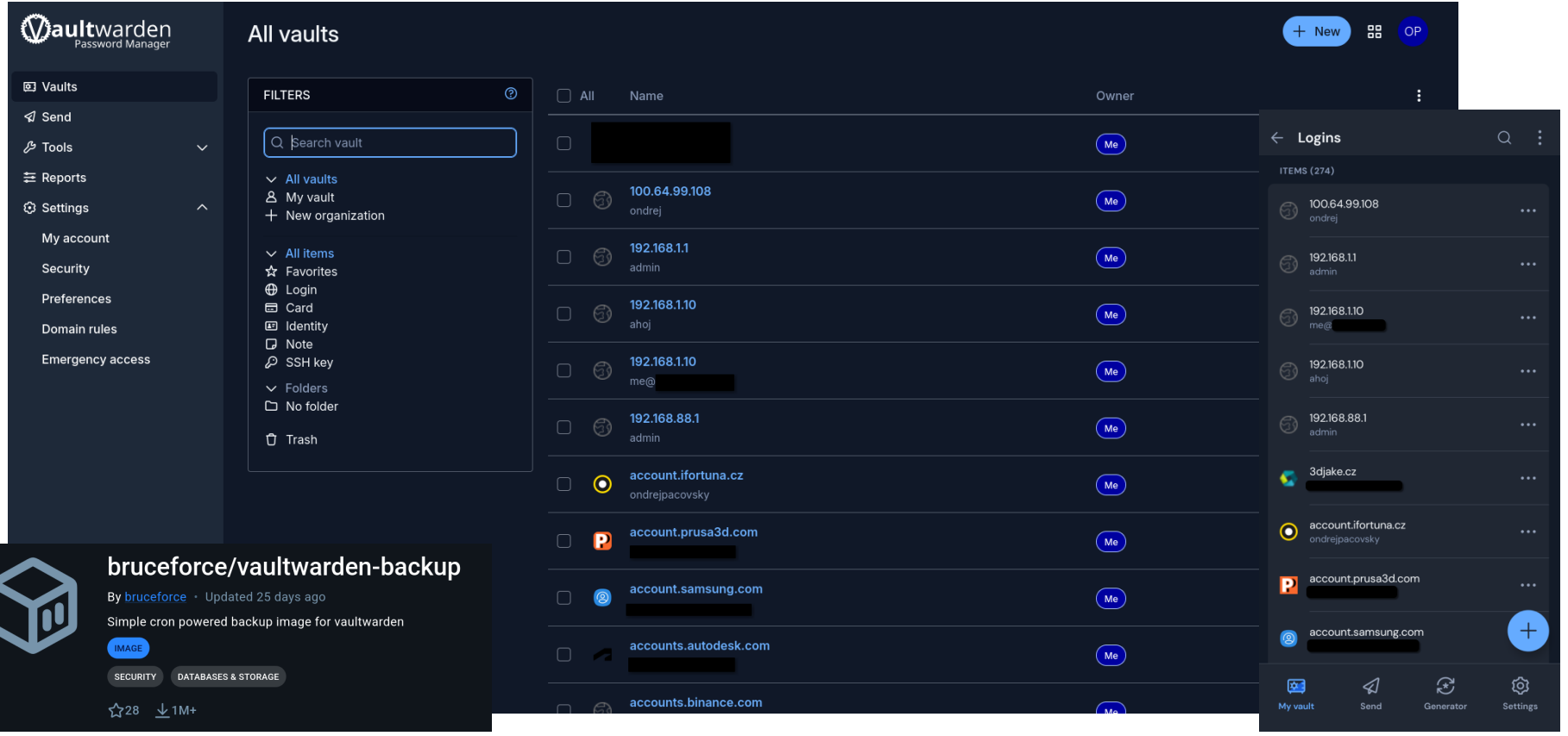
Beszel


Beszel
Search ctrl K
+ Add System
All Systems
Click on a system to view more information.
Filter...
View
System
CPU
Memory
Disk
GPU
Load Avg
Net
Temp
Bat
Services
Uptime
Agent
brainpi 3.21% 35.4% 18.9% 0.00% 0.58 0.32 0.23 8.03 KB/s 66.10 °C 94 hours 0.18.4
if26 2.46% 11.1% 33.9% 0.00% 0.00 0.04 0.04 2.55 KB/s 1 hour 0.18.4
pve-debian 74.9% 10.2% 67.7% 0.00% 3.95 3.85 3.72 38.59 KB/s 1 hour 0.18.4
vpsfree 0.00% 19.1% 13.7% 0.00% 0.11 0.07 0.04 9.60 KB/s 4 days 0.18.4
GitHub | Beszel 0.18.4

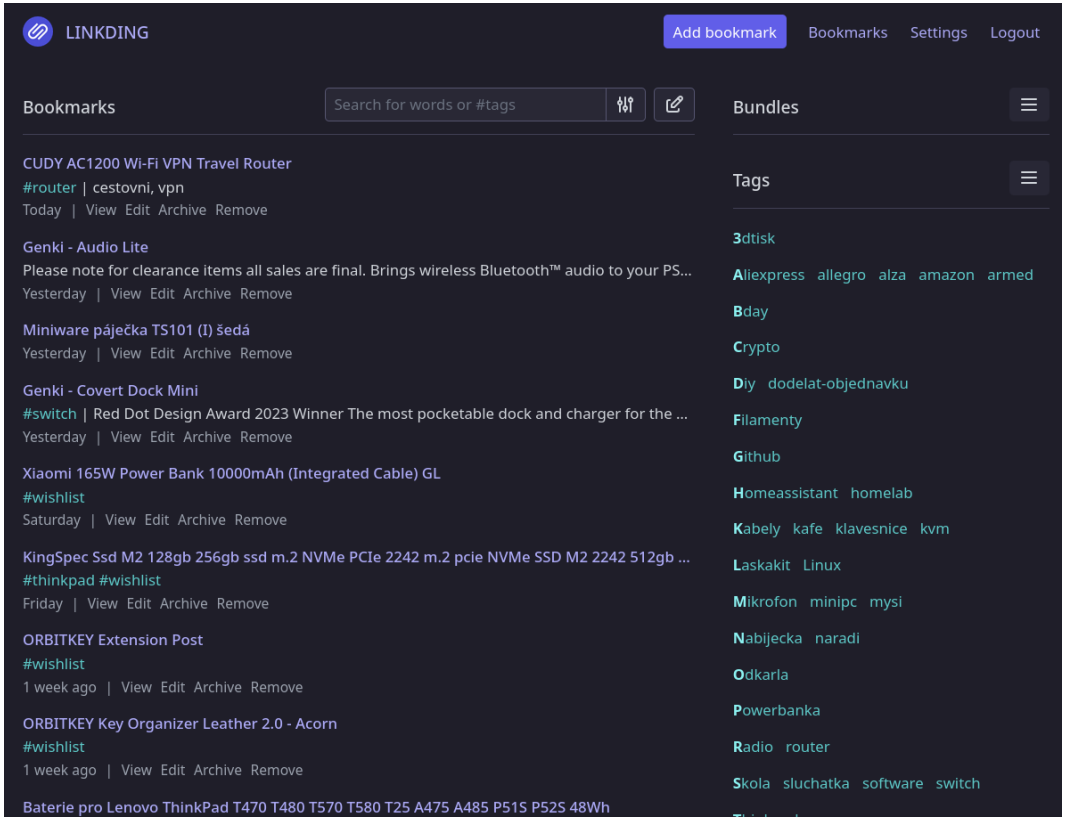
Beszel


Beszel
Search ctrl K
+ Add System
if26
Up | 100.73.87.37 | 1 hour | Debian GNU/Linux 13 (trixie) | AMD PRO A10-8770E R7, 10 COMPUTE CORES 4C+6G | 7.75 GB
1 hour
CPU Usage
Average system-wide CPU utilization
2.7%
1.4%
0.7%
0%
8:20 PM
8:30 PM
8:40 PM
8:50 PM
9:00 PM
9:10 PM
Docker CPU Usage
Average CPU utilization of containers
Filter...
0.57%
0.3%
0.15%
0%
Memory Usage
Precise utilization at the recorded time
7.8 GB
6 GB
4 GB
2 GB
0 B
Docker Memory Usage
Memory usage of docker containers
450 MB
300 MB
150 MB
0 B
Disk Usage
Disk I/O

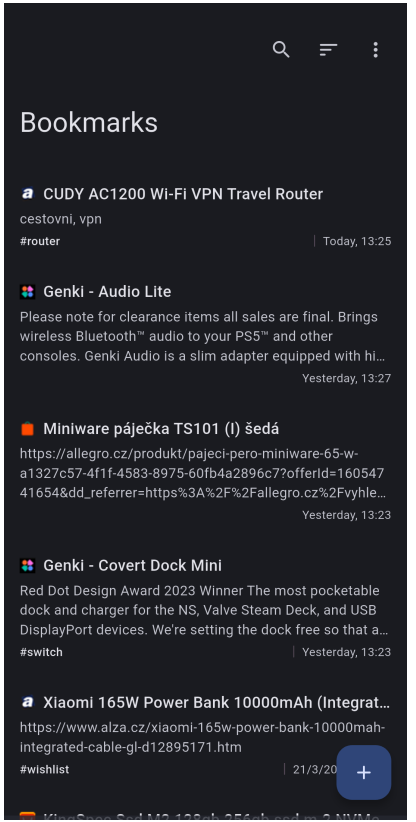
Vaultwarden



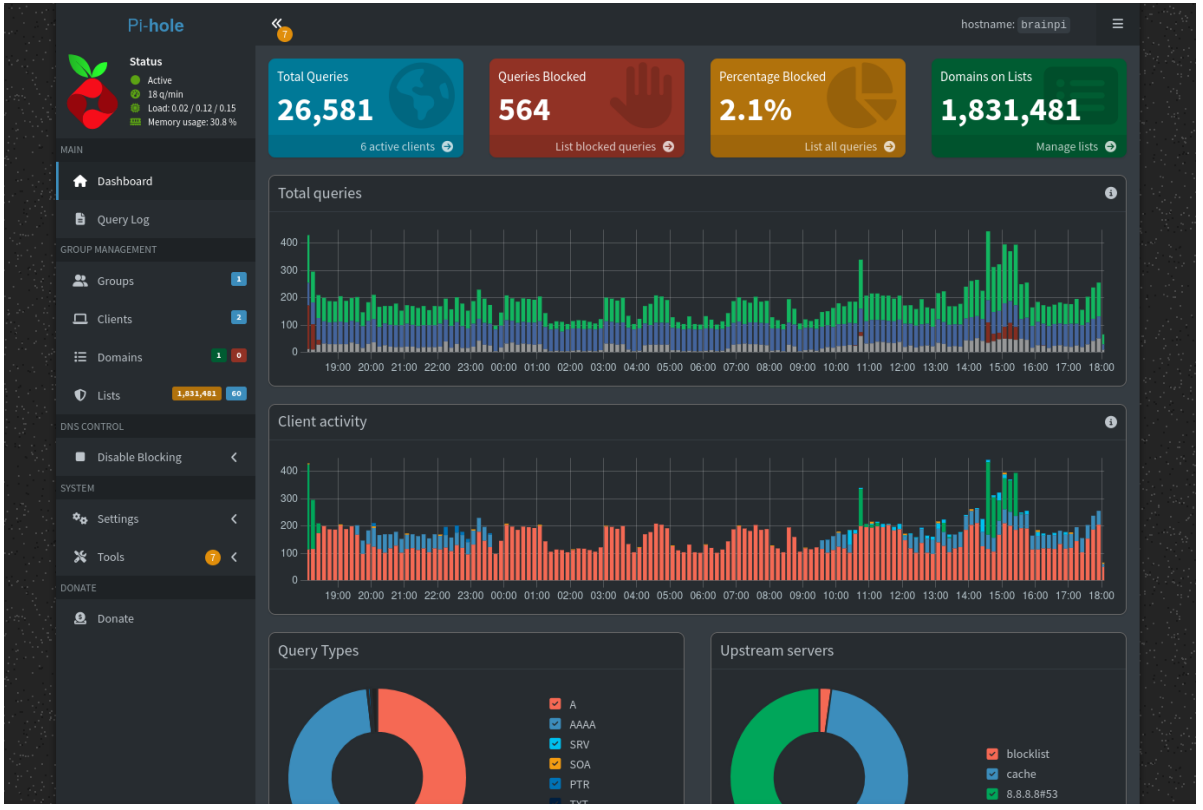
Linkding



Linkdy (Android)

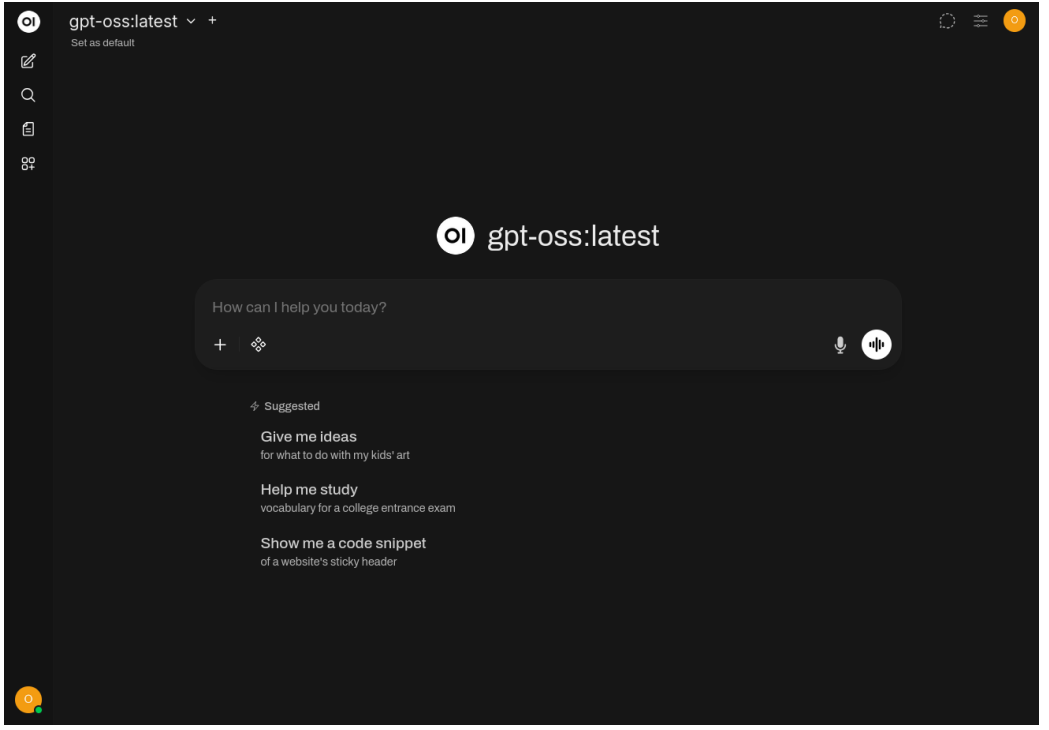


Pi-hole


Pi-hole
hostname: brainpi
Status
Active
18 q/min
Load: 0.02 / 0.12 / 0.15
Memory usage: 30.8 %
MAIN
Dashboard
Query Log
GROUP MANAGEMENT
Groups
Clients
Domains
Lists
DNS CONTROL
Disable Blocking
SYSTEM
Settings
Tools
DONATE
Donate
Total Queries
26,581
6 active clients
Queries Blocked
564
List blocked queries
Percentage Blocked
2.1%
List all queries
Domains on Lists
1,831,481
Manage lists
Total queries
Client activity
Query Types
A
AAAA
SRV
SOA
PTR
Upstream servers
blocklist
cache
8.8.8.8#53

AI?

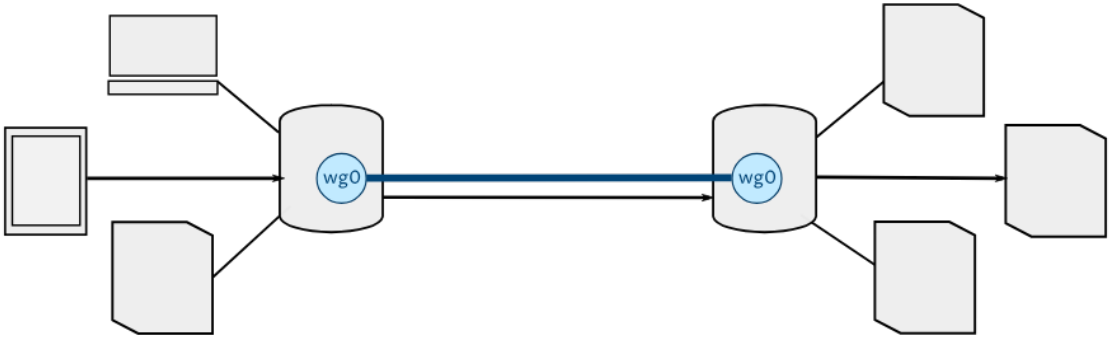
- Ollama + open-webui
- Perplexica
- Whisper, Piper
- ComfyUI
- OpenClaw



Vzdálený přístup

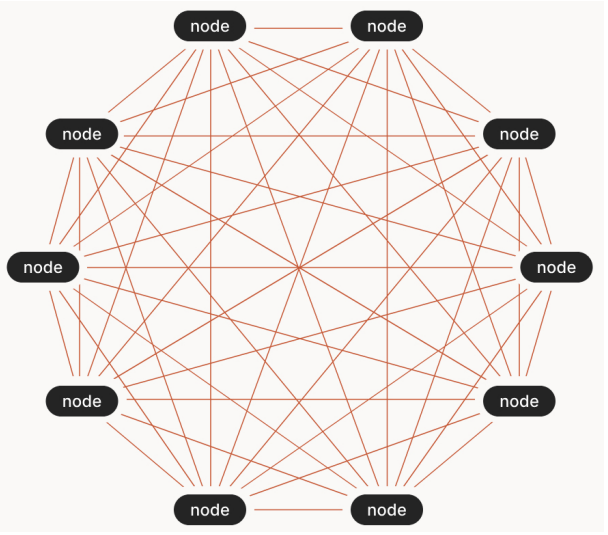
WireGuard

- Peer-to-Peer
- Moderní
- Rychlý, bezpečný
- Veřejná IPv4, NAT



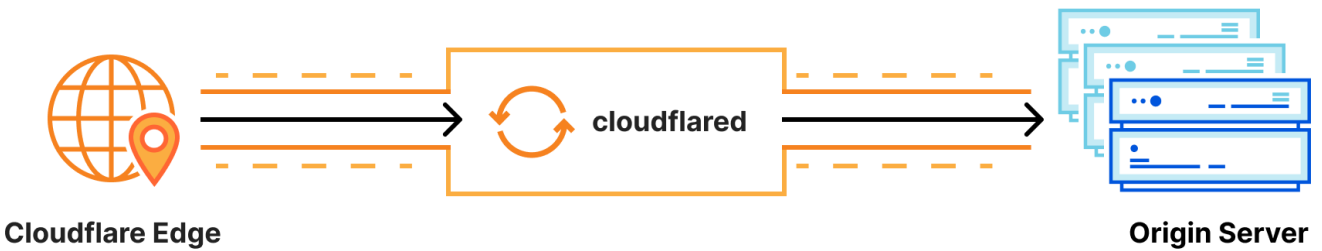
Tailscale

- Mesh
- Plug&play
- Prostě to funguje
- Headscale



Cloudflare Tunnel

- Doména, NS u CF
- Cloudflared, WARP
- http/s, tcp, ssh, rdp, smb…
- Zero Trust



https://blog.cloudflare.com/highly-available-and-highly-scalable-cloudflare-tunnels/

Odkazy

- github.com/awesome-selfhosted/awesome-selfhosted
- selfh.st
- linuxserver.io
- reddit.com/r/selfhosted
- reddit.com/r/homelab
- YouTube: Techno Tim, NetworkChuck, Hardware Haven, Christian Lempa, ServeTheHome, Jeff Geerling

Dotazy?