

Self-Hosting: Co to je a jak začít?

Ondřej Pacovský

Prezentace již na webu



<https://ondrejpacovsky.cz/talks/ld26.pdf>

whoami

- ▶ Linuxák
- ▶ UHK
- ▶ FOSS, Self-Hosting, Smart Home etc.
- ▶ 3D tisk, hudba



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 & bezpečnost dat
- ▶ Nezávislost na cloudu
- ▶ Ušetřené peníze?
- ▶ Zkušenosti



Nevýhody?



FRIC

HW

Nevyužité zařízení



VPS (Virtual Private Server)

The screenshot shows the Hetzner Cloud management interface. The main panel displays details for a VPS instance named 'CX23' (ID: #174718958) running Debian 4GB-40GB. Key metrics include 2 VCPUs, 4 GB RAM, 40 GB disk, and a price of €0.42. The instance is currently online. The left sidebar contains navigation links for Servers, Volumes, Floating IPs, Firewalls, Load Balancers, Networks, DNS, Object Storage, Storage Boxes, and Security. The main panel also shows a list of activities, including 'Server console requested' and 'Firewall applied'. A terminal window is open in the bottom right corner, showing the command 'echo "Hello World!'" being executed successfully.

```
ondrej@thinkpad: ~  
root@vps:~# echo "Hello World!"  
Hello World!  
root@vps:~#
```

Mini PC



NAS



Postavené PC



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

SW

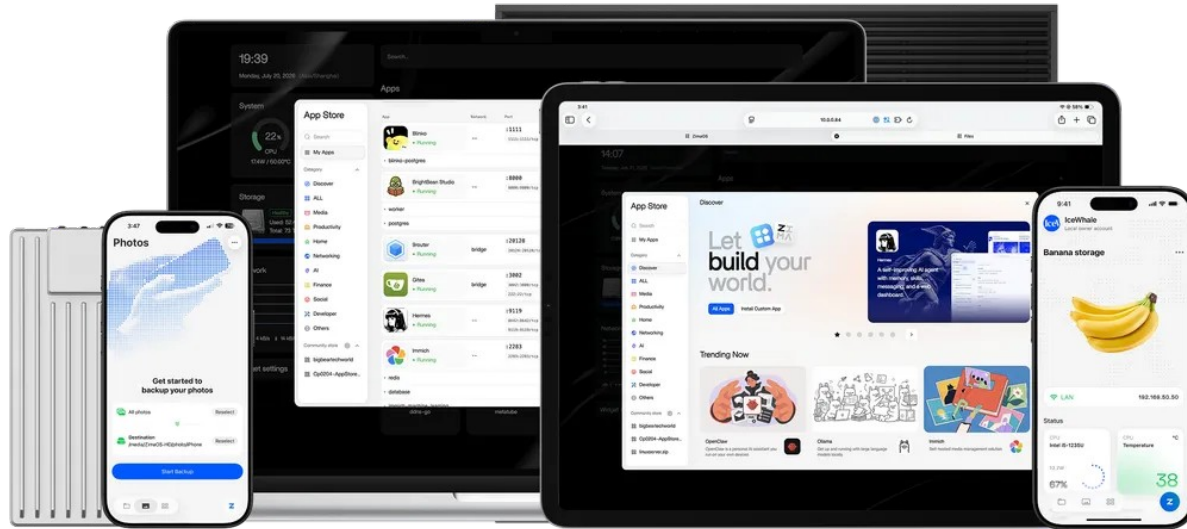
Linux

- Debian, Ubuntu Server, NixOS, RPI OS, Alpine, etc.



“Plug&Play” OS

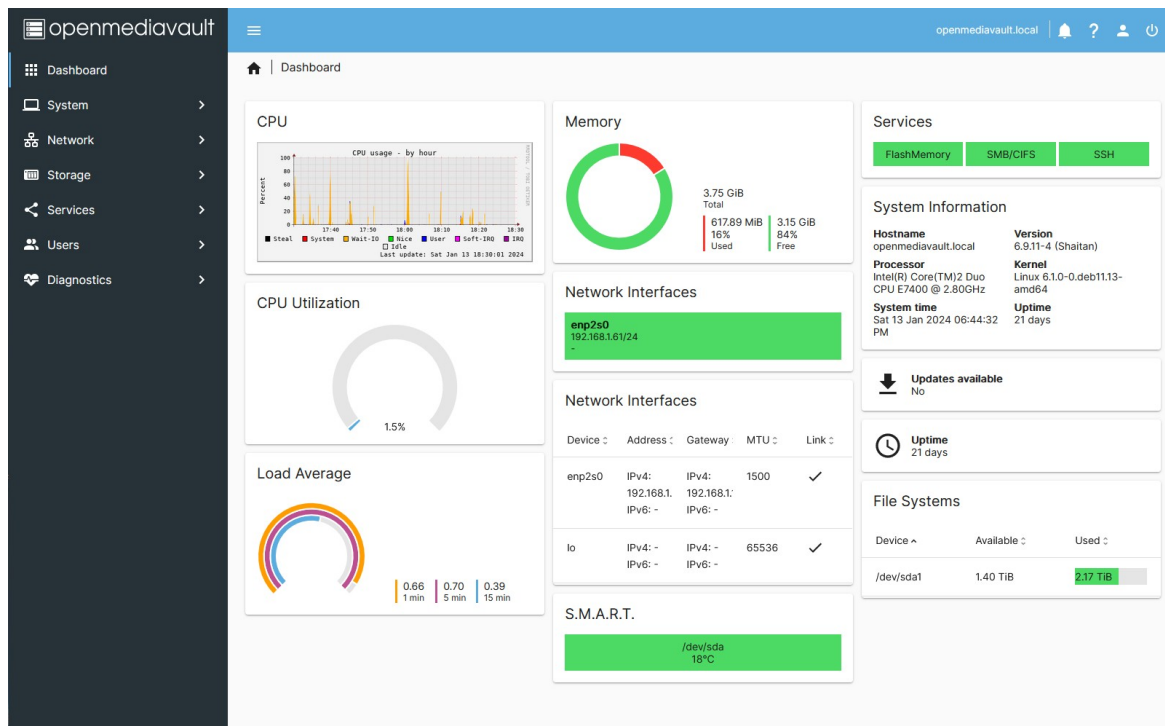
- ZimaOS / CasaOS, umbrelOS, Cosmos Server, etc.



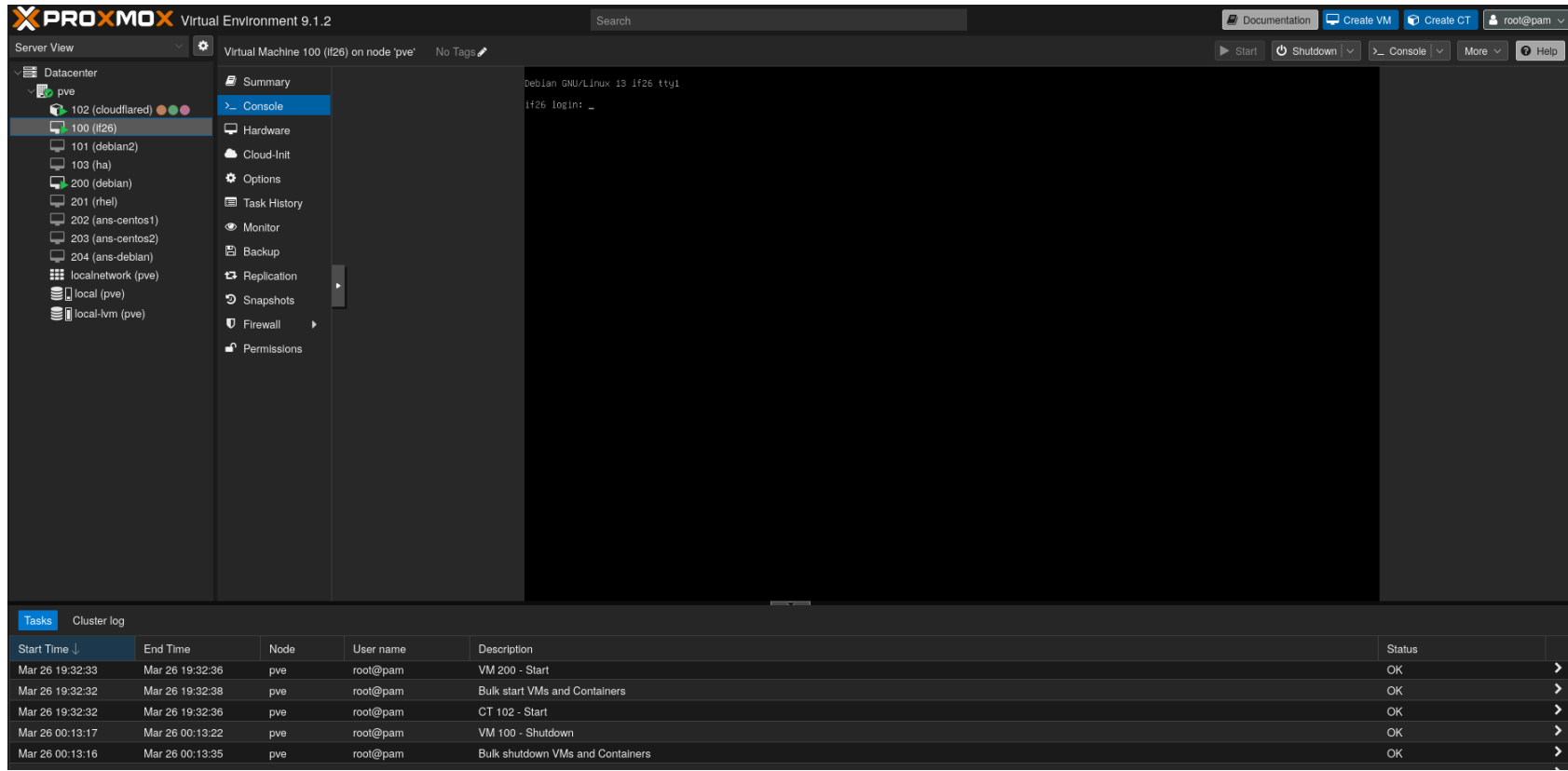
<https://www.zimaspace.com/zimaos>

OpenMediaVault

► Nebo TrueNAS



Proxmox VE



PROXMOX Virtual Environment 9.1.2

Server View

Virtual Machine 100 (if26) on node 'pve' No Tags

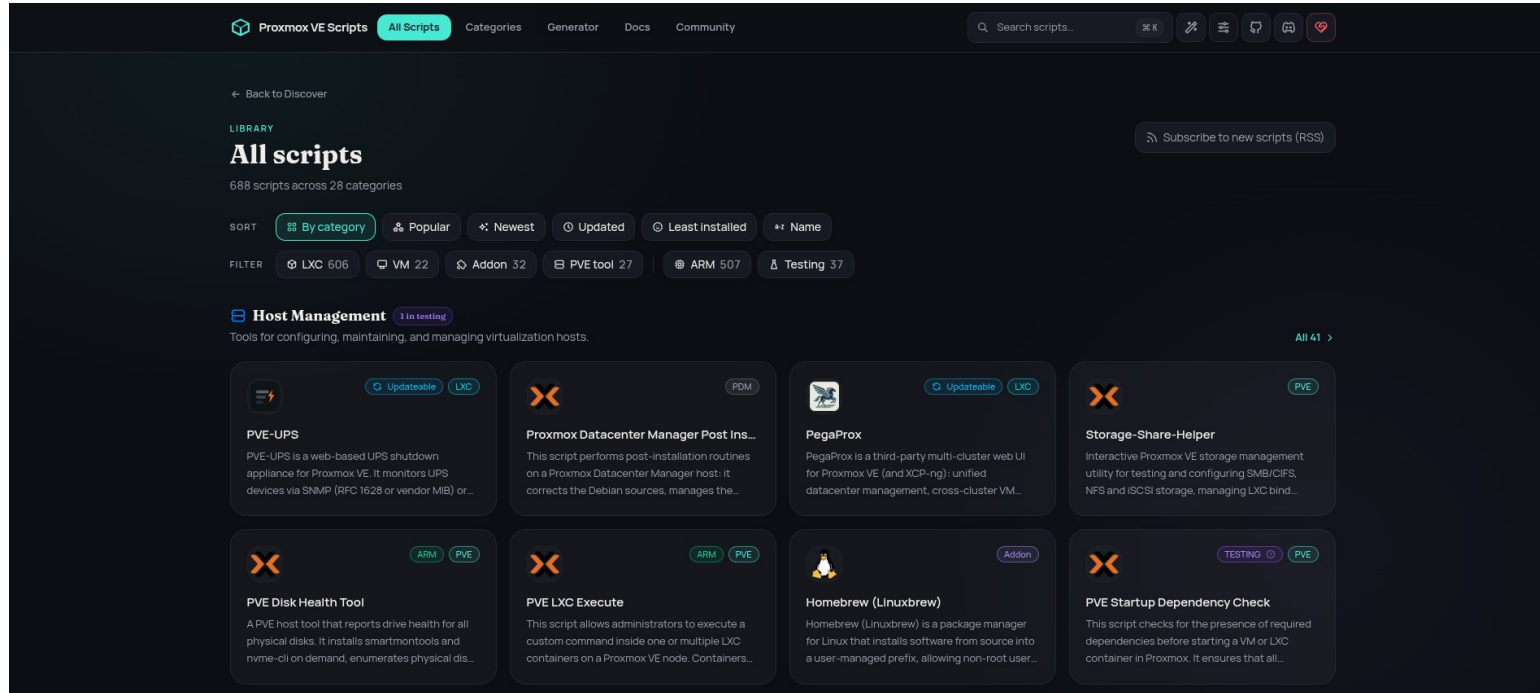
Start Shutdown Console More Help

Summary Console Hardware Cloud-Init Options Task History Monitor Backup Replication Snapshots Firewall Permissions

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

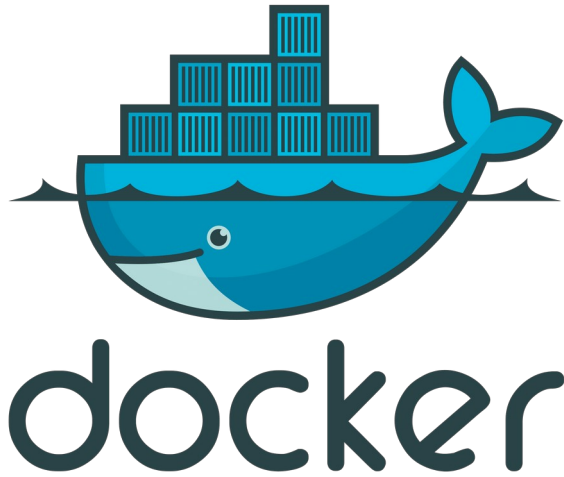
Proxmox VE Helper-Scripts



The screenshot shows the 'Proxmox VE Scripts' website. The top navigation bar includes 'All Scripts', 'Categories', 'Generator', 'Docs', and 'Community'. A search bar is on the right. Below the navigation, there's a 'LIBRARY' section titled 'All scripts' with a subtitle '688 scripts across 28 categories'. A 'Subscribe to new scripts (RSS)' button is present. The 'SORT' section has buttons for 'By category', 'Popular', 'Newest', 'Updated', 'Least installed', and 'Name'. The 'FILTER' section shows counts for 'LXC 606', 'VM 22', 'Addon 32', 'PVE tool 27', 'ARM 507', and 'Testing 37'. A 'Host Management' section is highlighted with a '1 in testing' badge. Below this, there are eight script cards: 'PVE-UPS' (LXC, Updateable), 'Proxmox Datacenter Manager Post Ins...' (PDM), 'PegaProx' (LXC, Updateable), 'Storage-Share-Helper' (PVE), 'PVE Disk Health Tool' (ARM, PVE), 'PVE LXC Execute' (ARM, PVE), 'Homebrew (Linuxbrew)' (Addon), and 'PVE Startup Dependency Check' (TESTING, PVE). Each card includes a brief description of the script's functionality.

<https://community-scripts.org/>

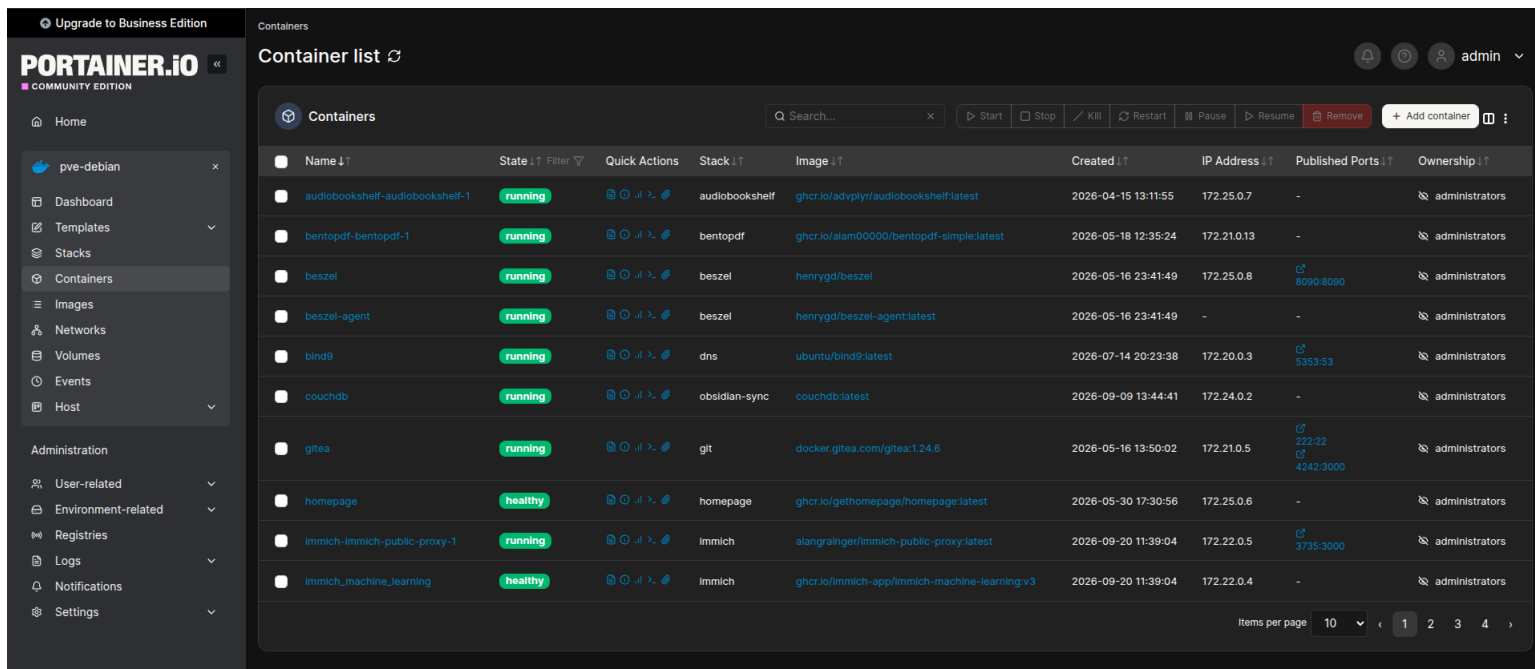
Docker



```
1  services:
2    web:
3      image: myapp/frontend:latest
4      container_name: my_app
5      ports:
6        - "8080:80"
7      volumes:
8        - ./config:/app/config
9        - ./data:/app/data
10     environment:
11       - THEME=dark
12       - API_URL=http://database:5000
13     restart: unless-stopped
14
15   db:
16     image: myapp/backend-db:1.2
17     container_name: my_app_db
18     environment:
19       - DB_PASSWORD=supersecret
20     volumes:
21       - ./db:/app/db
22
```

Portainer

- Dockge, Dockhand, Komodo, Yacht, Arcane, Dozzle, etc.

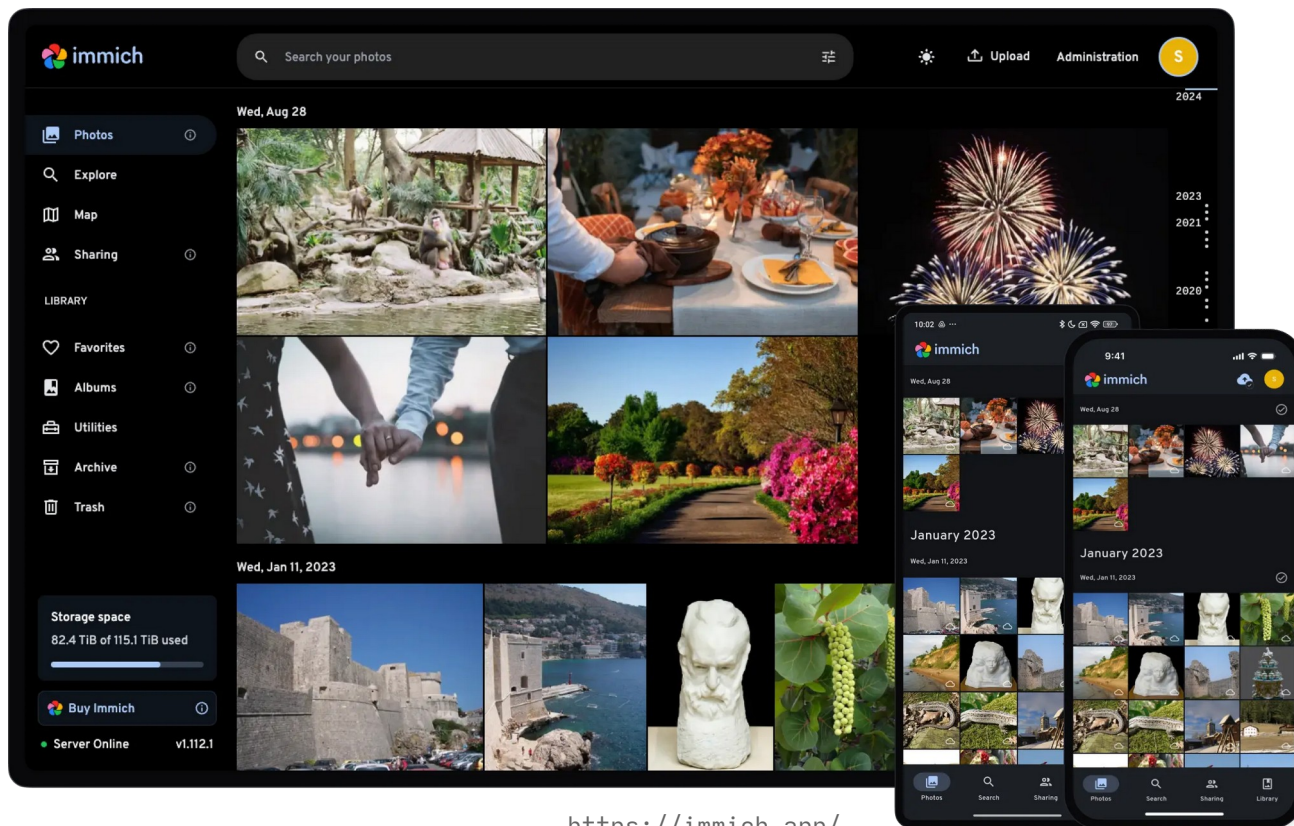


The screenshot displays the Portainer web interface. On the left is a sidebar with navigation options: Home, pve-debian, Dashboard, Templates, Stacks, Containers (selected), Images, Networks, Volumes, Events, Host, Administration, User-related, Environment-related, Registries, Logs, Notifications, and Settings. The main area is titled 'Containers' and shows a 'Container list' table. The table has columns for Name, State, Quick Actions, Stack, Image, Created, IP Address, Published Ports, and Ownership. It lists several running containers like audiobookshelf, bentopdf, beszel, and others. At the bottom right, there's a pagination control showing 'Items per page' set to 10, with page numbers 1, 2, 3, 4.

Name	State	Quick Actions	Stack	Image	Created	IP Address	Published Ports	Ownership
audiobookshelf-audiobookshelf-1	running	[Icons]	audiobookshelf	ghcr.io/advplyr/audiobookshelf:latest	2026-04-15 13:11:55	172.25.0.7	-	administrators
bentopdf-bentopdf-1	running	[Icons]	bentopdf	ghcr.io/alam0000/bentopdf-simple:latest	2026-05-18 12:35:24	172.21.0.13	-	administrators
beszel	running	[Icons]	beszel	henrygd/beszel	2026-05-16 23:41:49	172.25.0.8	8090:8090	administrators
beszel-agent	running	[Icons]	beszel	henrygd/beszel-agent:latest	2026-05-16 23:41:49	-	-	administrators
bind9	running	[Icons]	dns	ubuntu/bind9:latest	2026-07-14 20:23:38	172.20.0.3	5353:53	administrators
couchdb	running	[Icons]	obsidian-sync	couchdb:latest	2026-09-09 13:44:41	172.24.0.2	-	administrators
gitea	running	[Icons]	git	docker.gitea.com/gitea:1.24.6	2026-05-16 13:50:02	172.21.0.5	222:22, 4242:3000	administrators
homepage	healthy	[Icons]	homepage	ghcr.io/gethomepage/homepage:latest	2026-05-30 17:30:56	172.25.0.6	-	administrators
immich-immich-public-proxy-1	running	[Icons]	immich	alangrainger/immich-public-proxy:latest	2026-09-20 11:39:04	172.22.0.5	3735:3000	administrators
immich_machine_learning	healthy	[Icons]	Immich	ghcr.io/immich-app/immich-machine-learning:v3	2026-09-20 11:39:04	172.22.0.4	-	administrators

Co self-hostnout?

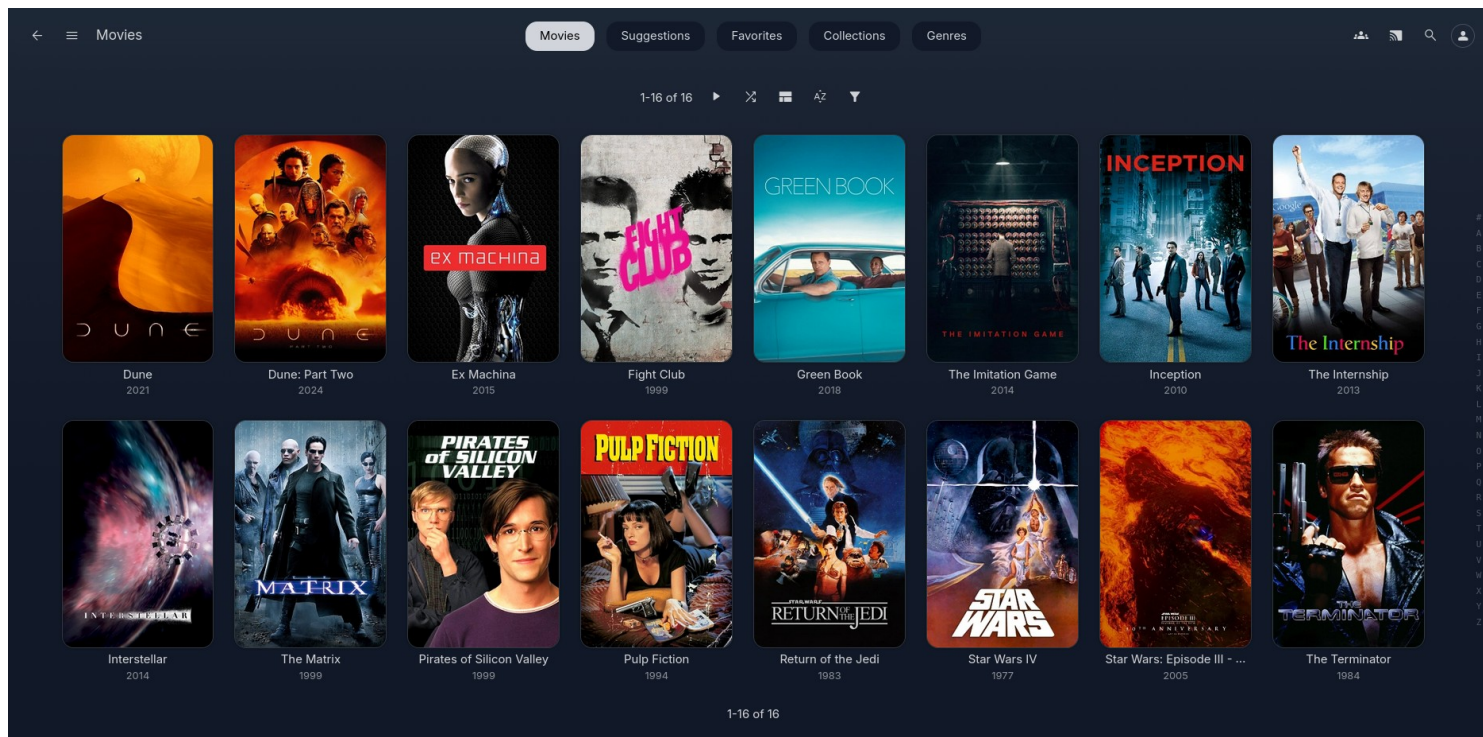
Immich



<https://immich.app/>

Self-Hosting: Co to je a jak začít?

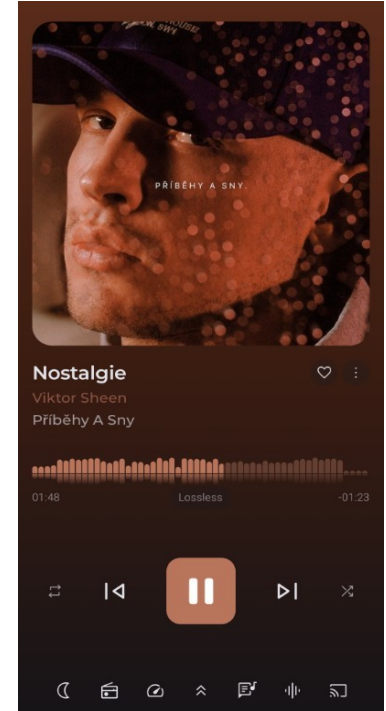
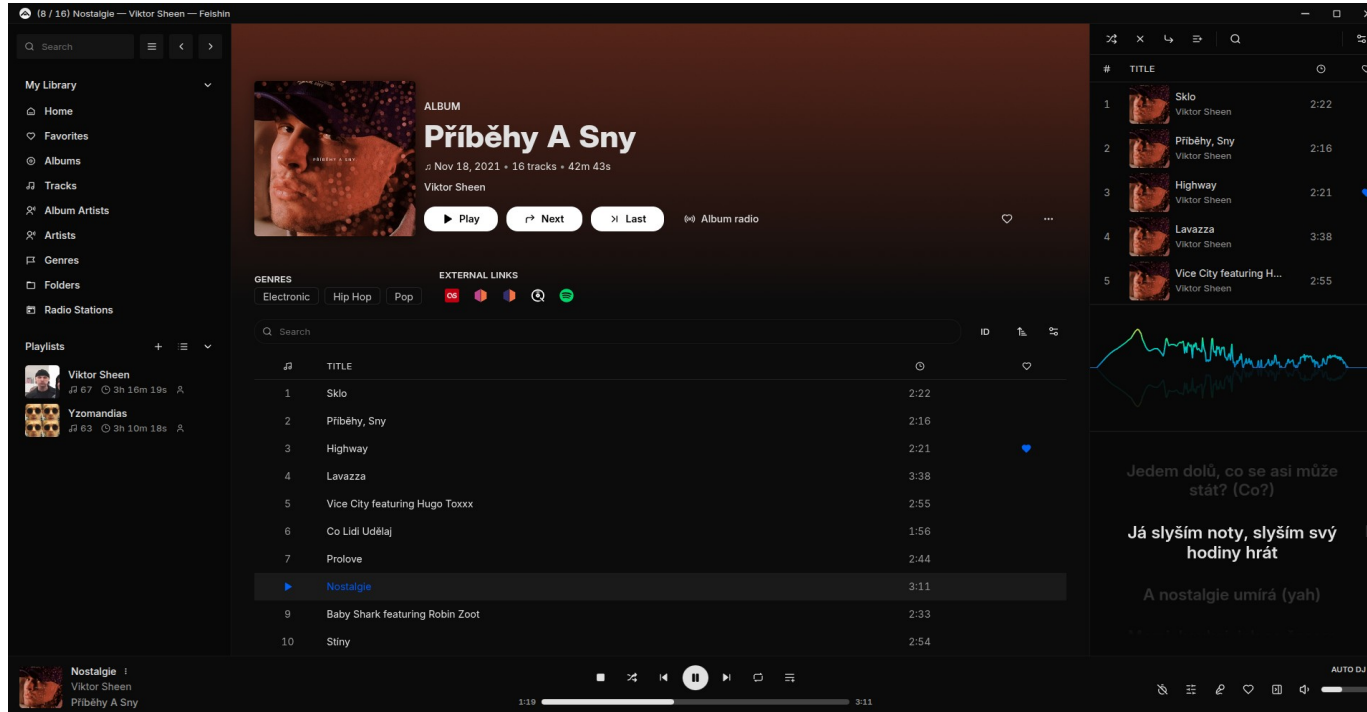
Jellyfin



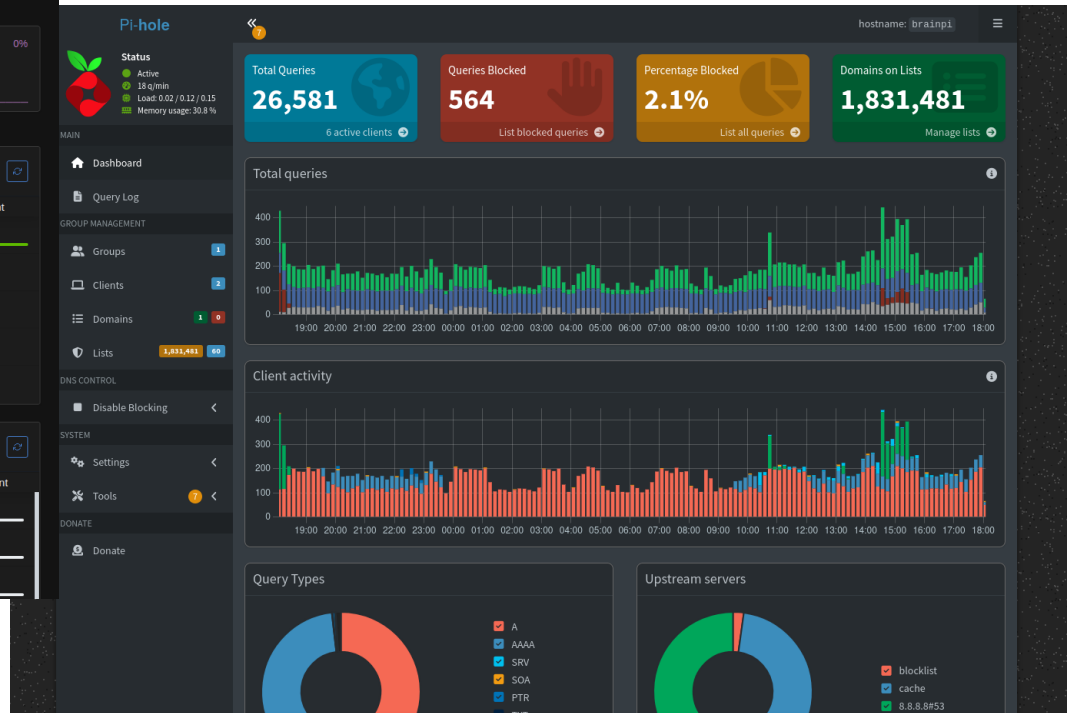
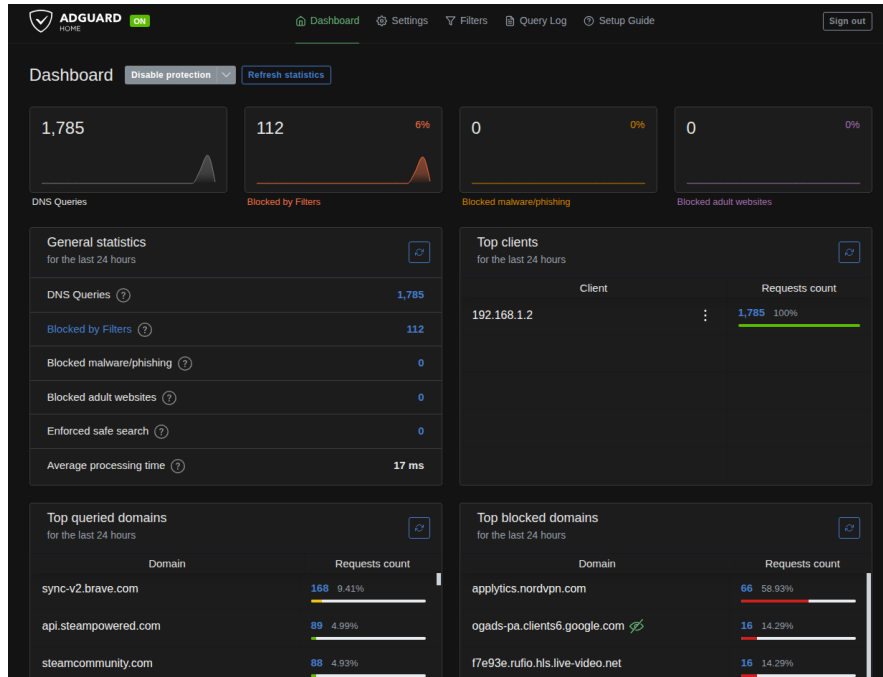
Jellyfin

Feishin (Linux, macOS, Windows, web)

Symfonium (Android)



AdGuard / Pi-hole



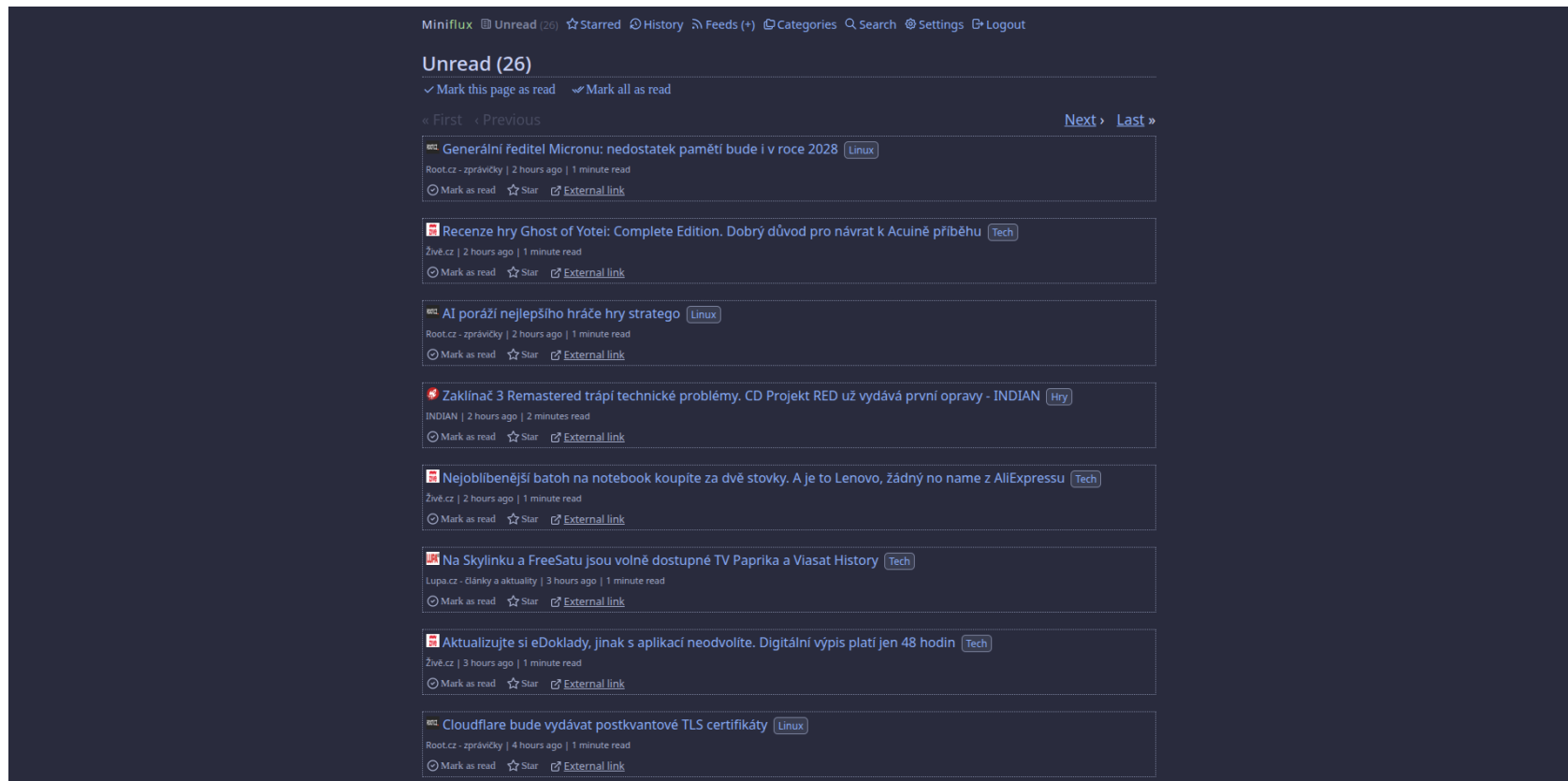
Vaultwarden

The screenshot displays the Vaultwarden Password Manager web interface. On the left is a sidebar with navigation options: Vaults, Send, Tools, Reports, and Settings. The main area is titled 'All vaults' and features a 'FILTERS' panel on the left with a search bar and categories like 'All vaults', 'My vault', 'New organization', 'All items', 'Favorites', 'Login', 'Card', 'Identity', 'Secure note', 'SSH key', 'Folders', 'No folder', 'Archive', and 'Trash'. The central table lists several vaults with columns for Name, Owner, and a menu icon. The vaults listed are: auth.vpsfree.cz (owner: ondra907), Cloudflare (owner: me@ondrejpacovsky.cz), github.com (owner: Ondra9071), immich (owner: ondra907), jellyfin (owner: ondra907), and pihole (owner: admin). In the bottom right corner, a dark overlay promotes the 'bruceforce/vaultwarden-backup' Docker image, describing it as a 'Simple cron powered backup image for vaultwarden' and showing it has 28 stars and over 1 million downloads.

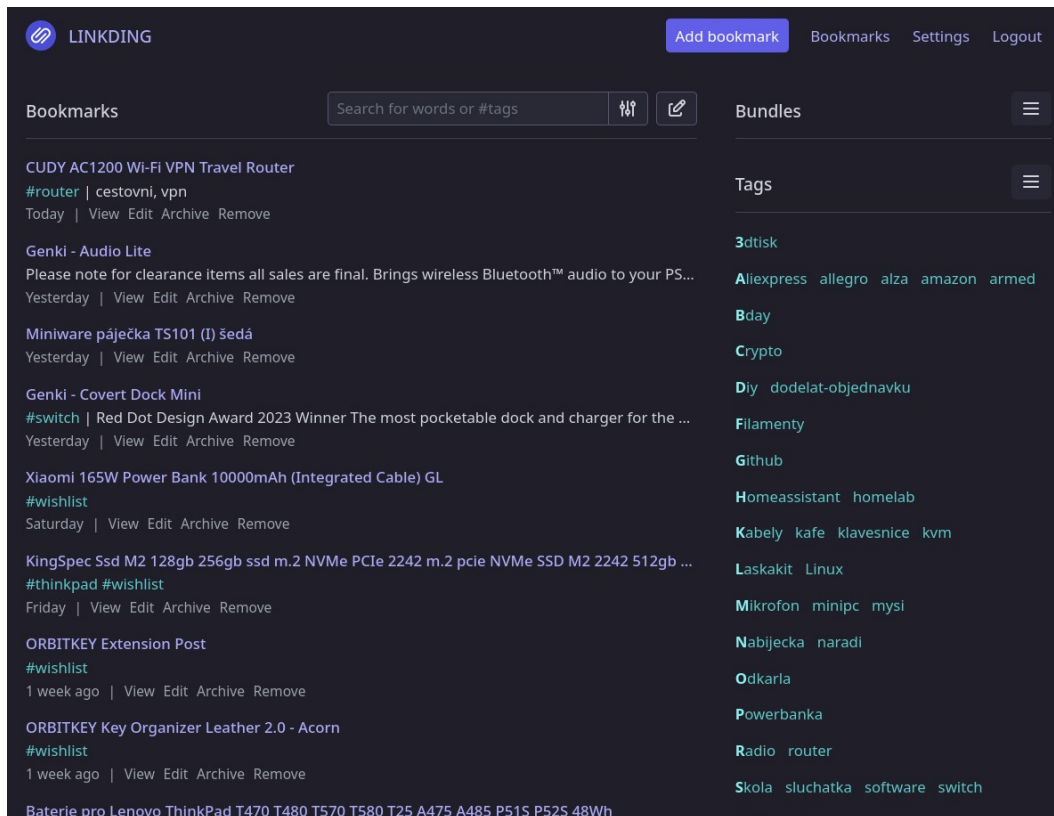
Name	Owner
auth.vpsfree.cz	Me
Cloudflare	Me
github.com	Me
immich	Me
jellyfin	Me
pihole	Me

bruceforce/vaultwarden-backup
By bruceforce · Updated 25 days ago
Simple cron powered backup image for vaultwarden
IMAGE
SECURITY DATABASES & STORAGE
☆28 ↓ 1M+

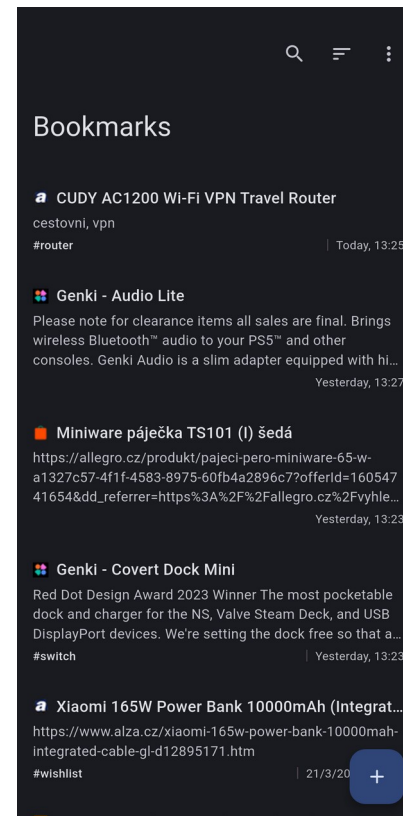
Miniflux



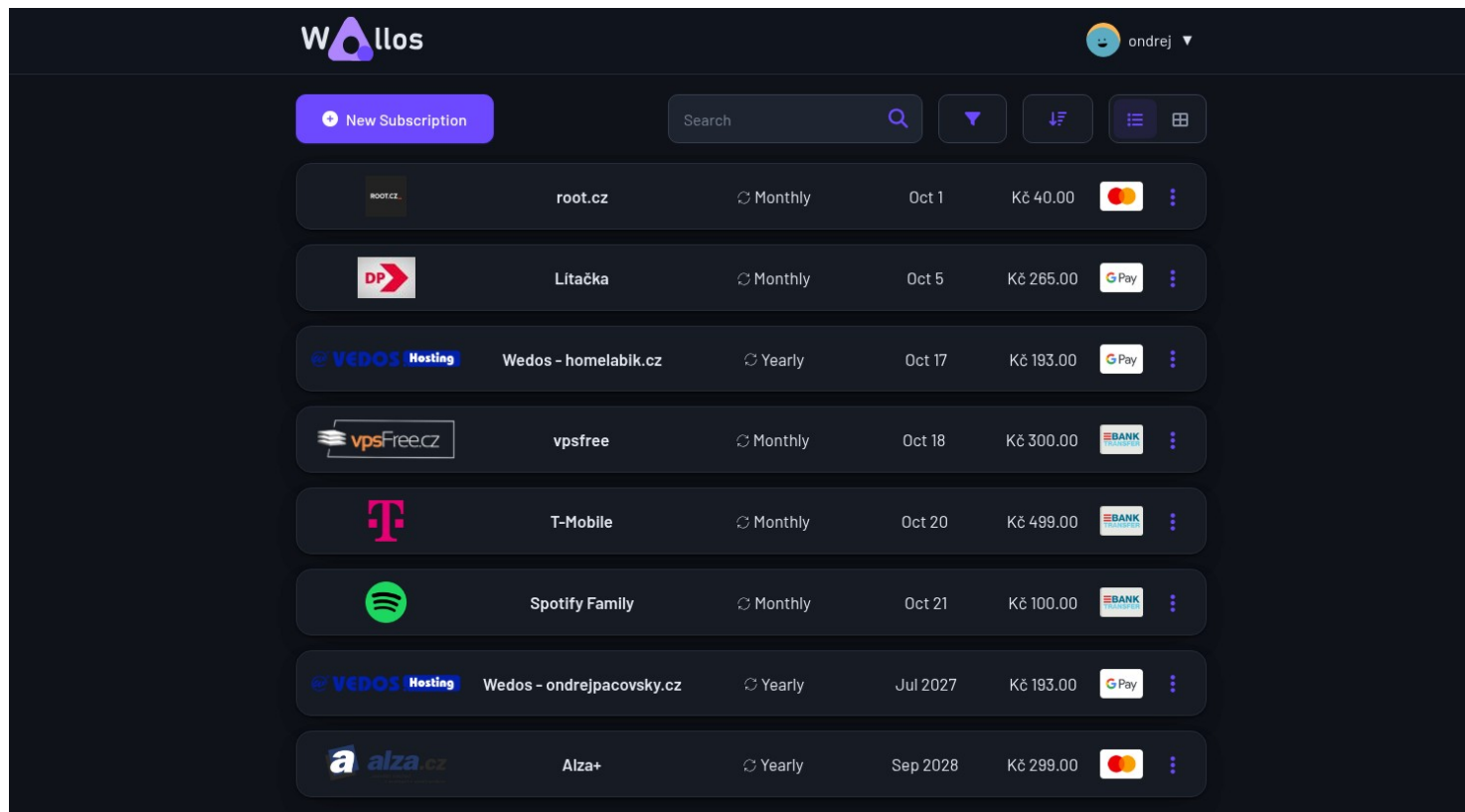
Linkding



Linkdy (Android)



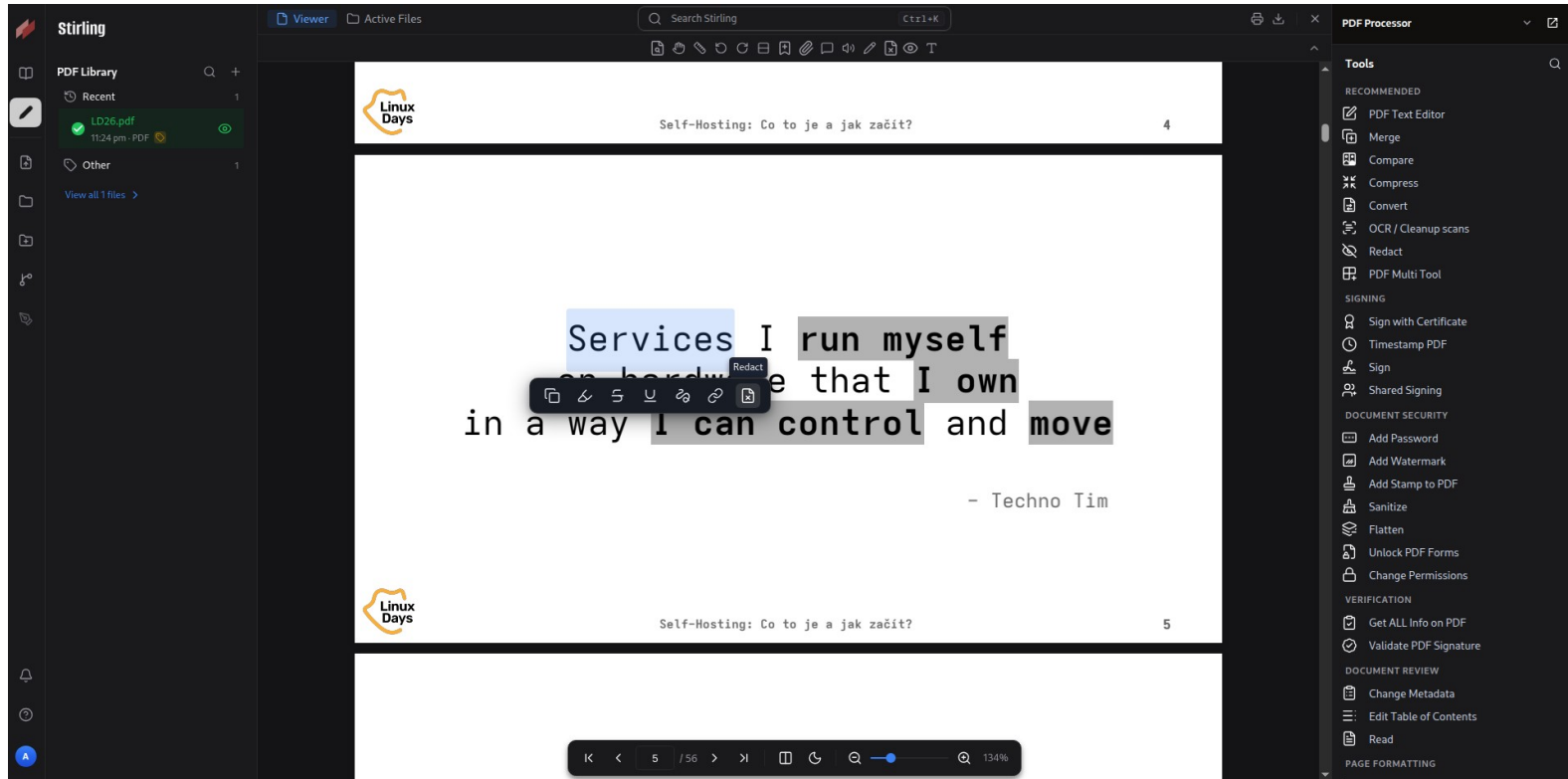
Wallos



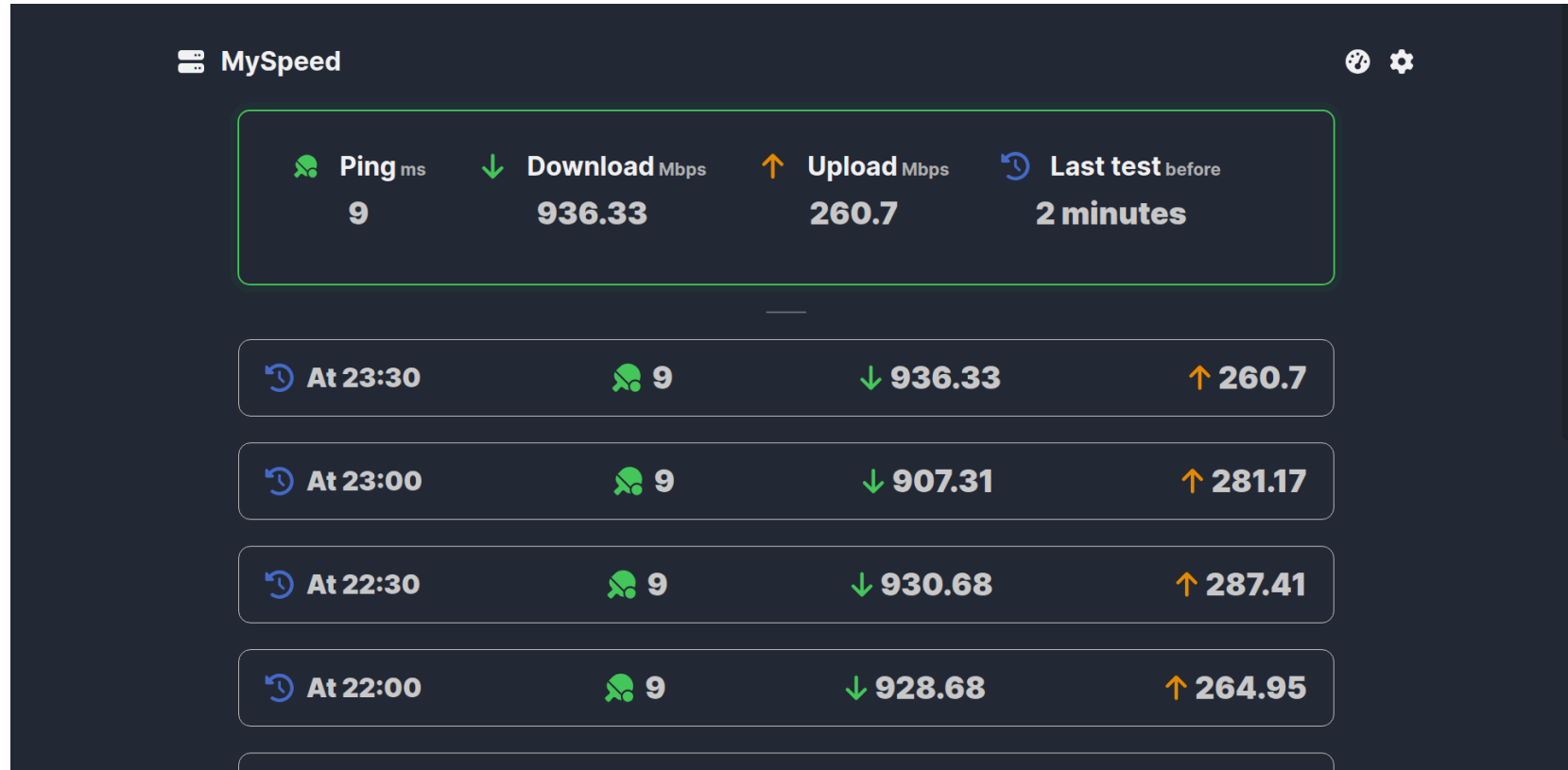
The screenshot shows the Wallos web application interface. At the top, there is a header with the Wallos logo on the left and a user profile icon labeled 'ondrej' on the right. Below the header, there is a navigation bar with a 'New Subscription' button, a search bar, and several filter and view icons. The main content area displays a list of subscriptions, each in a dark-themed card. Each card contains a logo, a name, a frequency, a date, a price in Kč, a payment method icon, and a three-dot menu icon.

Logo	Name	Frequency	Date	Price (Kč)	Payment Method	More
root.cz	root.cz	Monthly	Oct 1	Kč 40.00	MasterCard	
DP	Lítačka	Monthly	Oct 5	Kč 265.00	Google Pay	
VEDOS Hosting	Wedos - homelabik.cz	Yearly	Oct 17	Kč 193.00	Google Pay	
vpsFree.cz	vpsfree	Monthly	Oct 18	Kč 300.00	BANK	
T-Mobile	T-Mobile	Monthly	Oct 20	Kč 499.00	BANK	
Spotify	Spotify Family	Monthly	Oct 21	Kč 100.00	BANK	
VEDOS Hosting	Wedos - ondrejpacovsky.cz	Yearly	Jul 2027	Kč 193.00	Google Pay	
alza.cz	Alza+	Yearly	Sep 2028	Kč 299.00	MasterCard	

Stirlingpdf



MySpeed

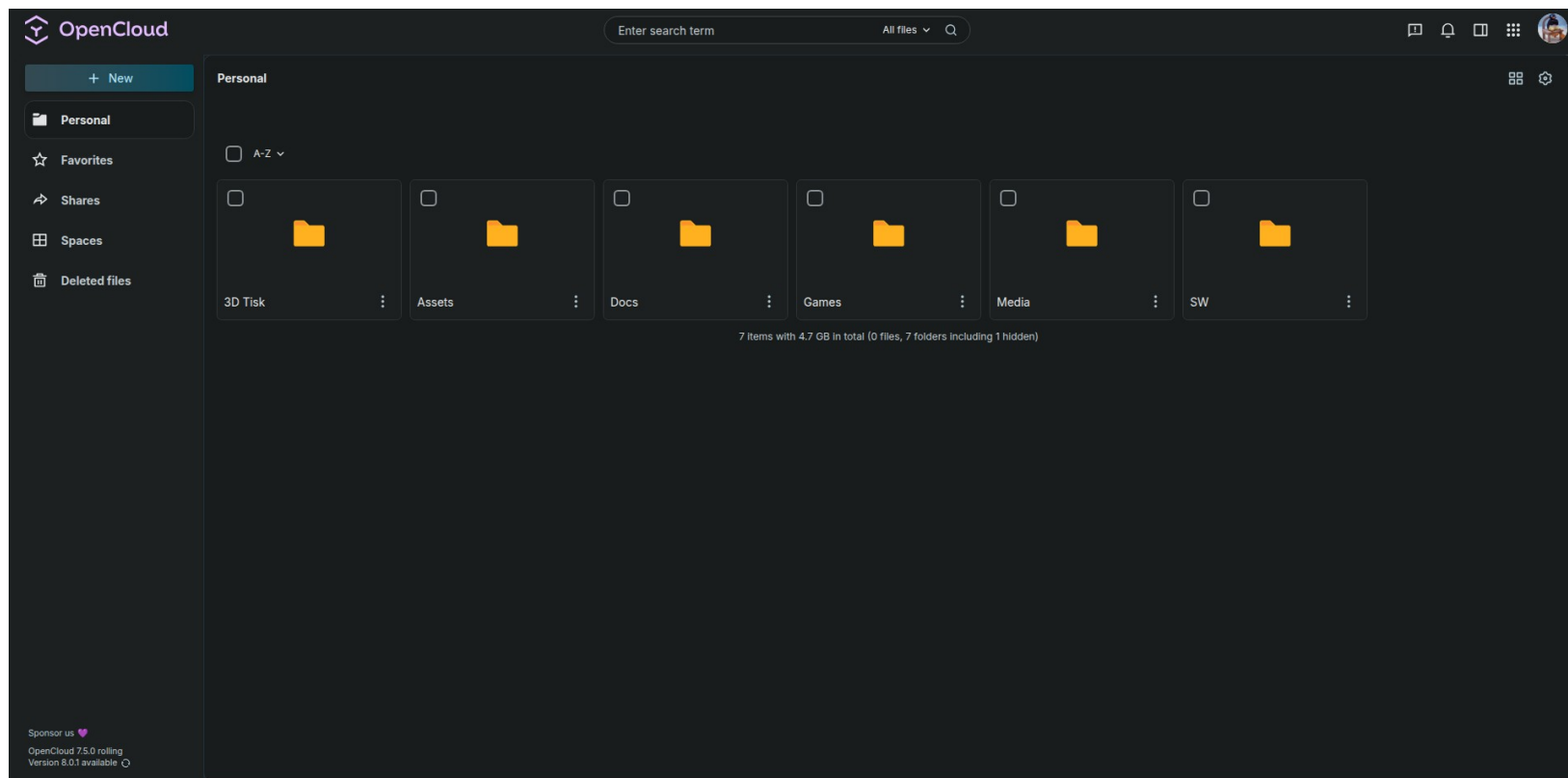


Papra

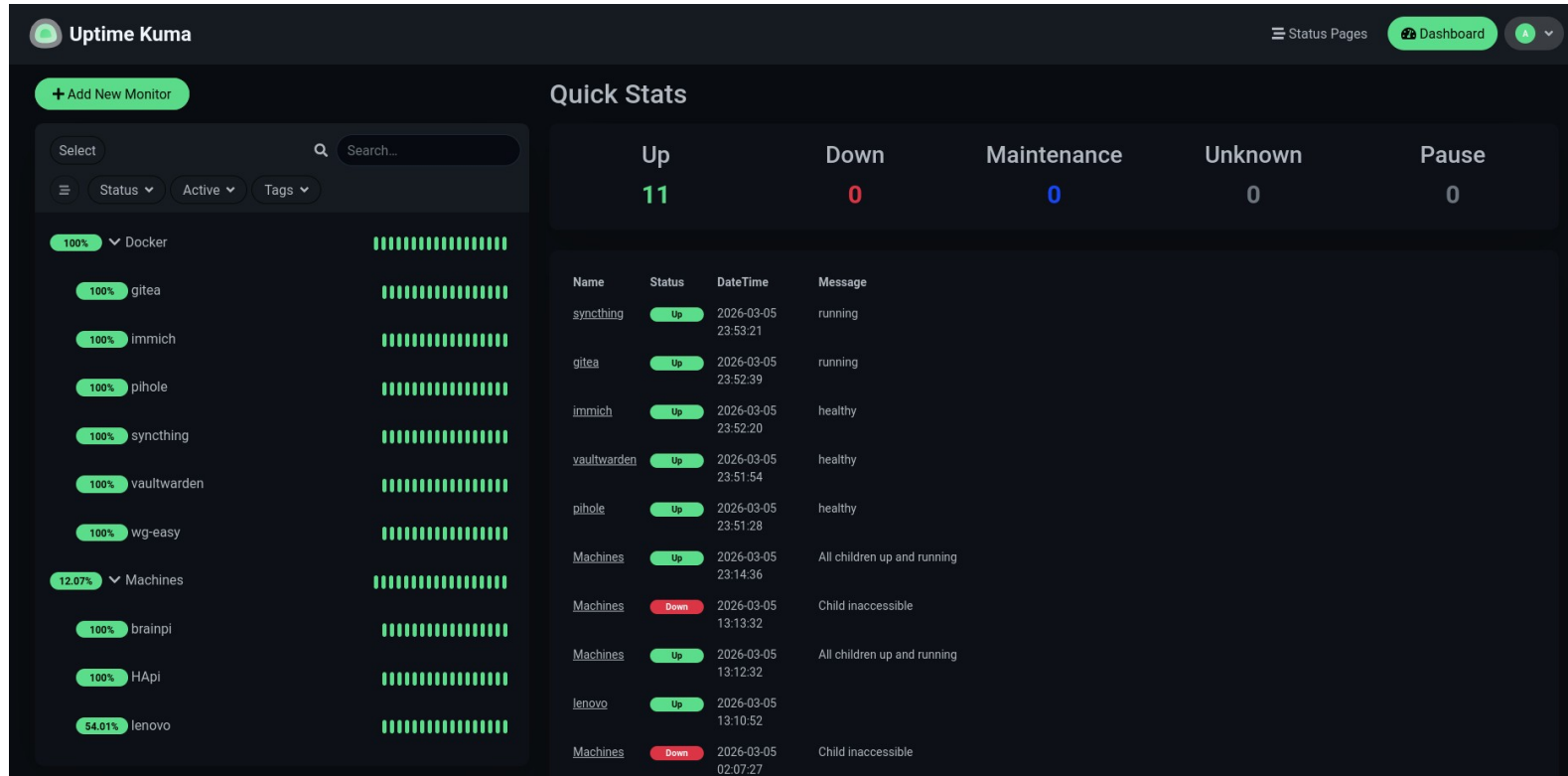
The screenshot displays the Papra web interface for 'ondrej's organizati...'. The left sidebar contains navigation links: Home, Documents, Tags, Custom Properties, Tagging rules, Share links, and Members. The main content area features a 'Quick search' bar, an 'Import a document' button, and a summary box showing '6 documents in total' and '982.54 KB total size'. Below this is a table titled 'Latest imported documents' with columns for File name, Tags, Date, Created, and Actions. The table lists six PDF documents, all with 'No date' and created within the last 11 minutes. At the bottom, there are pagination controls showing 'Page 1 of 1'.

File name	Tags	Date	Created	Actions
invoice_#EU166853 53.13 KB - pdf - 5 minutes ago		No date	5 minutes ago	
invoice_257714885 213.20 KB - pdf - 7 minutes ago		No date	7 minutes ago	
DK_INVOICE_109313432 204.02 KB - pdf - 8 minutes ago		No date	8 minutes ago	
DK_INVOICE_109186175 165.26 KB - pdf - 8 minutes ago		No date	8 minutes ago	
rpishop_VF2024-00854 165.21 KB - pdf - 10 minutes ago		No date	10 minutes ago	
rpishop_VF2024-02870 181.72 KB - pdf - 11 minutes ago		No date	11 minutes ago	

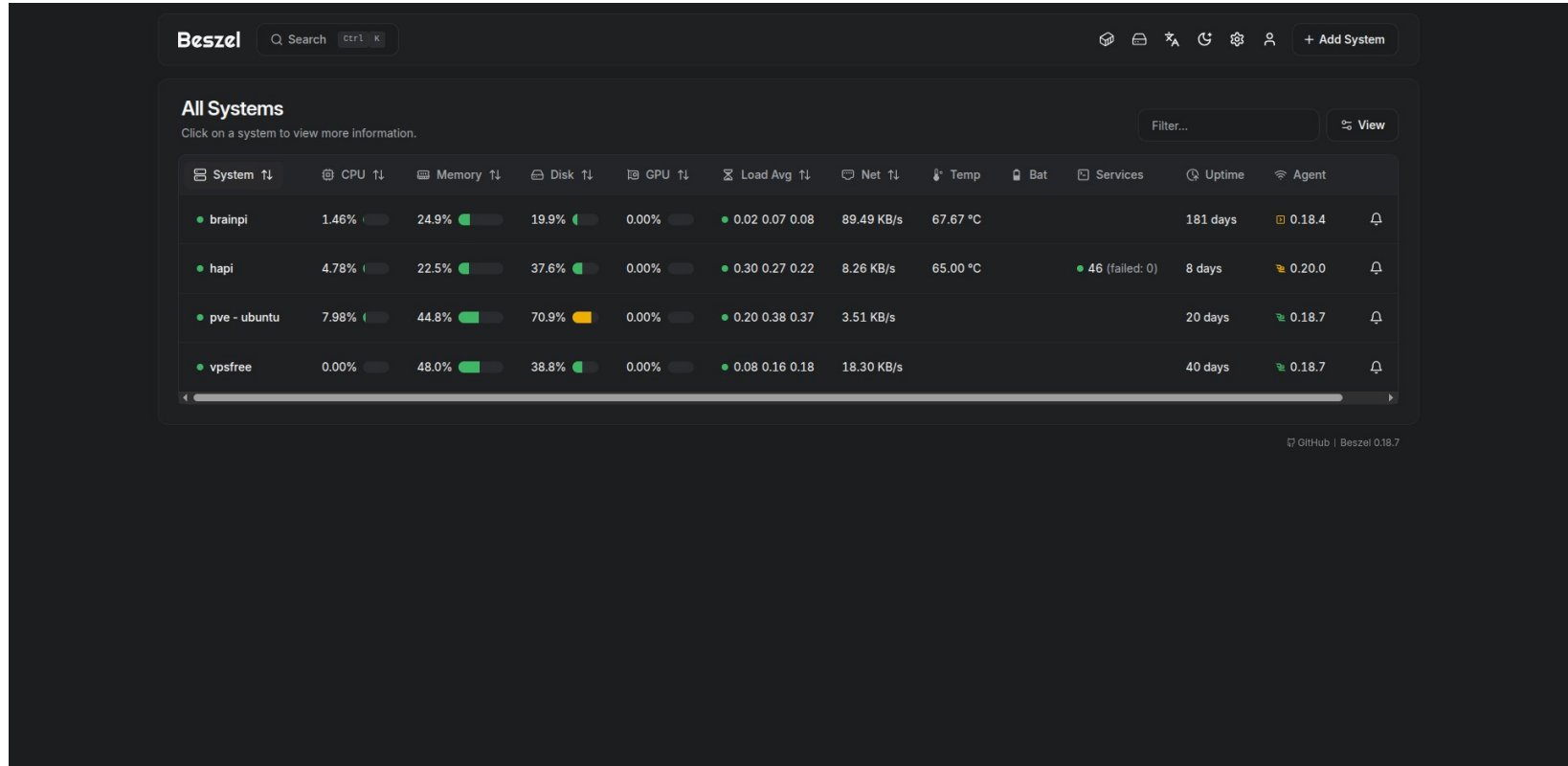
OpenCloud



UptimeKuma

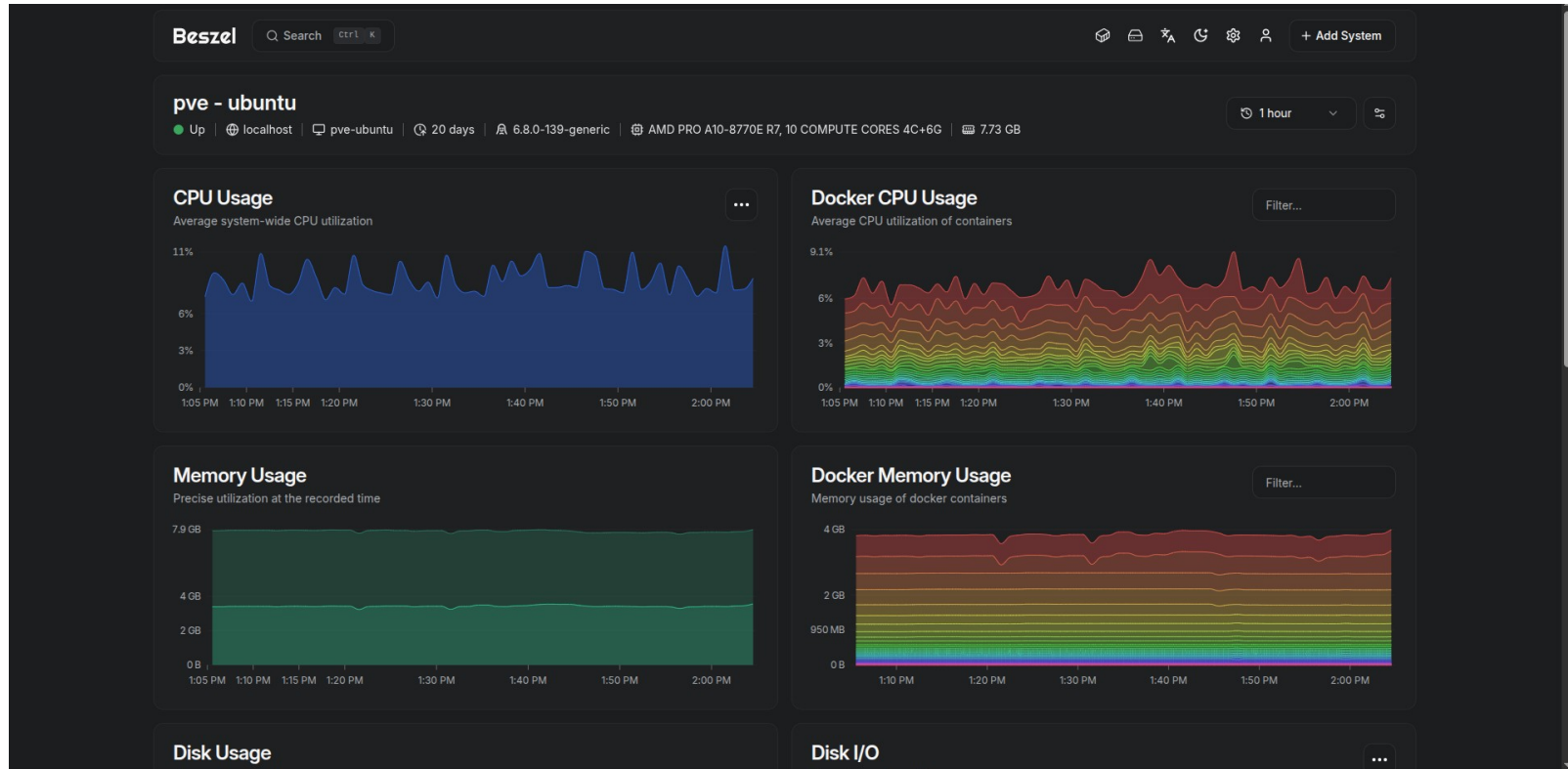


Beszel

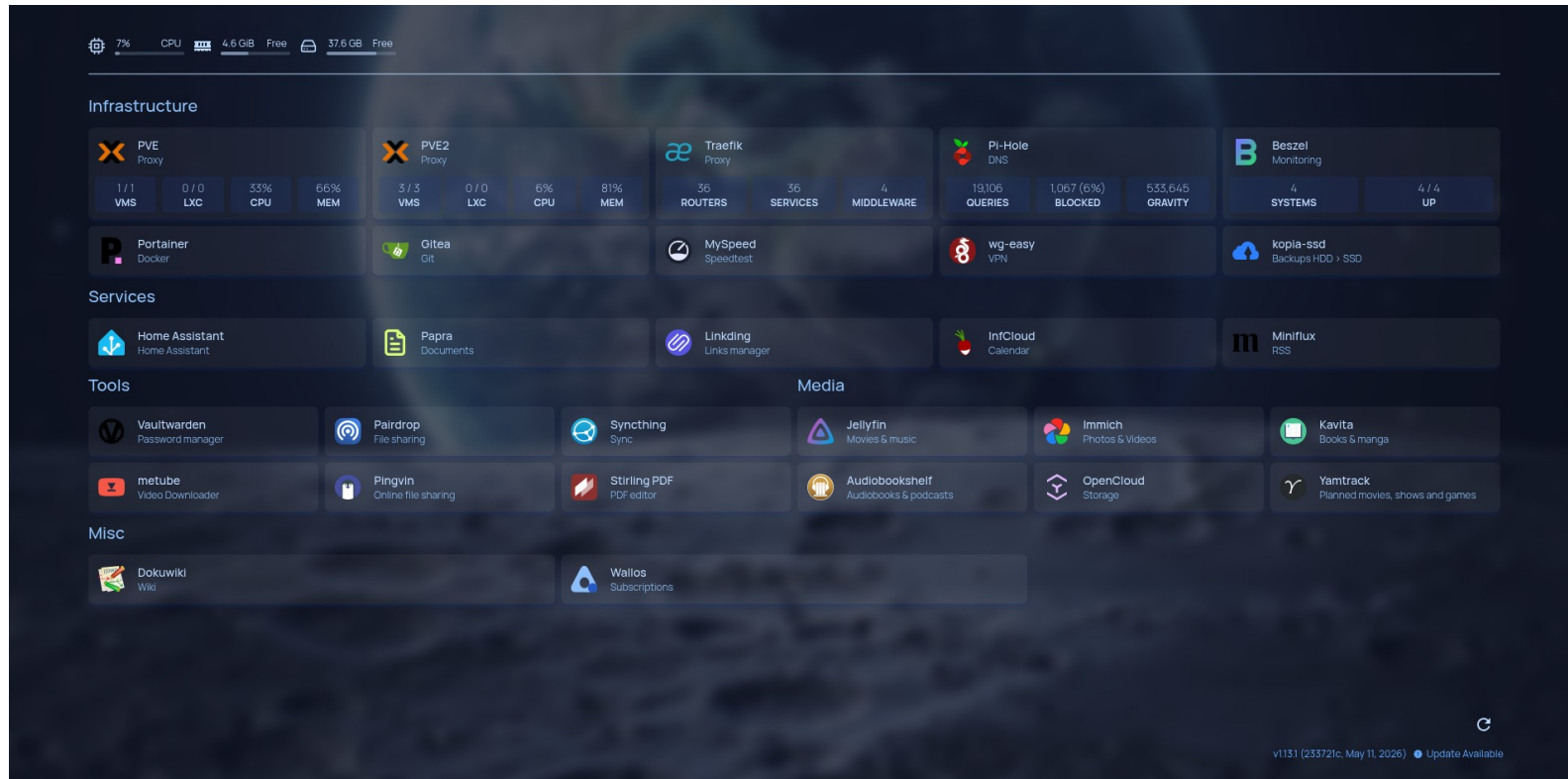


GitHub | Beszel 0.18.7

Beszel



Homepage

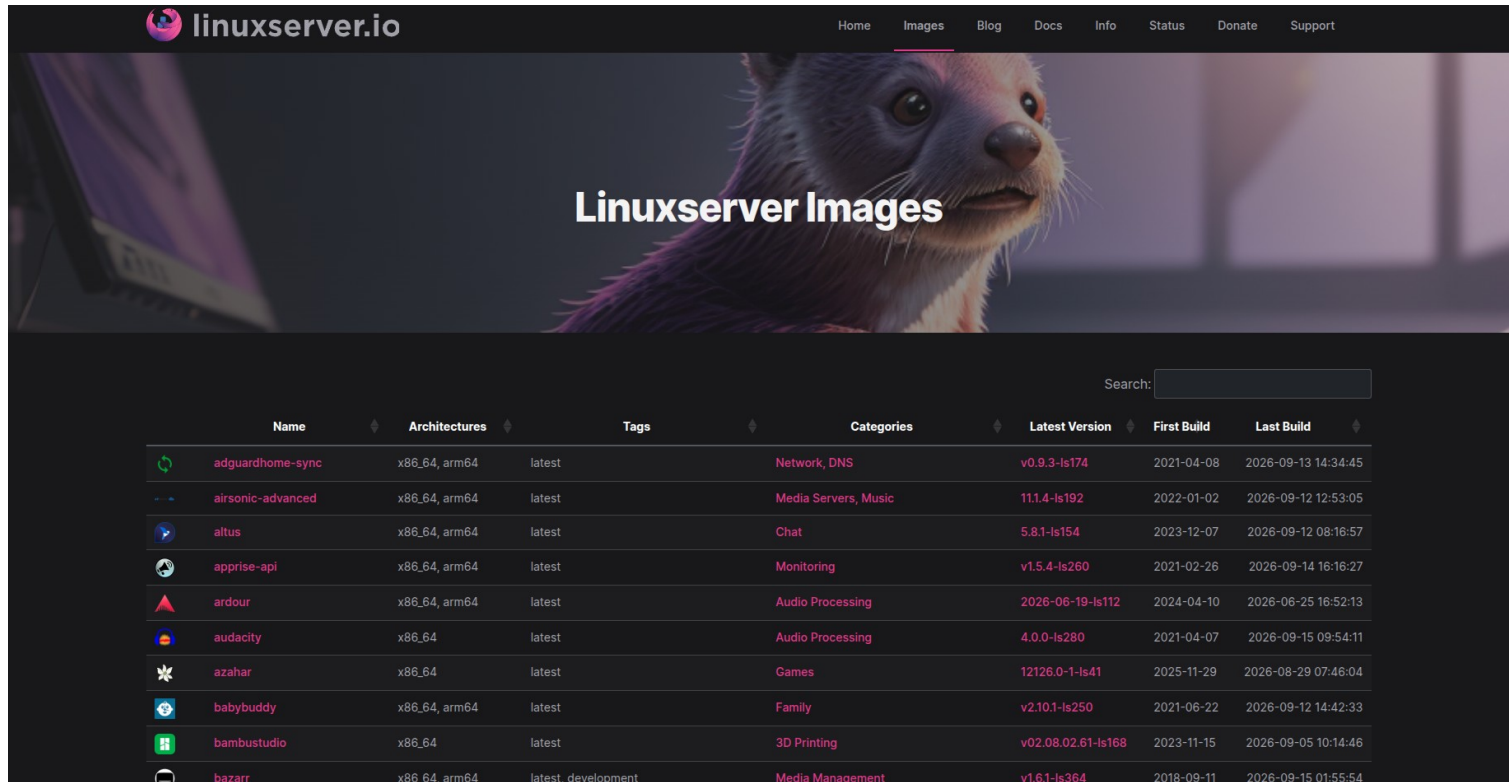


Kde najít další appky?

The screenshot shows the selfh.st website interface. At the top, the logo 'selfh.st' is on the left, and navigation links 'Content', 'Apps', 'Icons', 'Submit Content', a search icon, and a 'Subscribe' button are on the right. The main heading is 'Self-Hosted Apps and Alternatives' with the subtitle 'Explore alternatives to popular software and services'. On the left sidebar, there are sections for 'Links' (Sponsors, Requests, Icons, Affiliate Disclaimer), 'Search' (Search apps...), 'Sort' (Default), 'Categories' (Software, Companions), and 'Filters' (Partners). The main content area displays a grid of app cards. Each card includes an icon, the app name, a description, a 'Run Instantly with PikaPods' button, and a row of statistics (stars, date, categories). The apps shown are Docmost, tirono, n8n, Excalidraw, Supabase, Immich, Storybook, Home Assistant, and Uptime-Kuma.

App Name	Description	Stars	Date	Categories
Docmost	Collaborative documentation and wiki software	22k	2026-09-08	Wiki, Workspace
tirono	Security framework	2k	2026-08-14	Analytics, Security, Web Analytics
n8n	Workflow automation tool	204k	2026-09-15	Workflow Automation
Excalidraw	Virtual whiteboard for sketching diagrams	132k	2026-09-14	Diagrams, Whiteboard
Supabase	Postgres-based development platform	109k	2026-09-15	Development
Immich	Self-hosted photos and videos	114k	2026-09-14	Photos
Storybook	Build UI components and pages in isolation	-	-	-
Home Assistant	Home automation focused on privacy	-	-	-
Uptime-Kuma	Easy-to-use self-hosted uptime monitoring tool	-	-	-

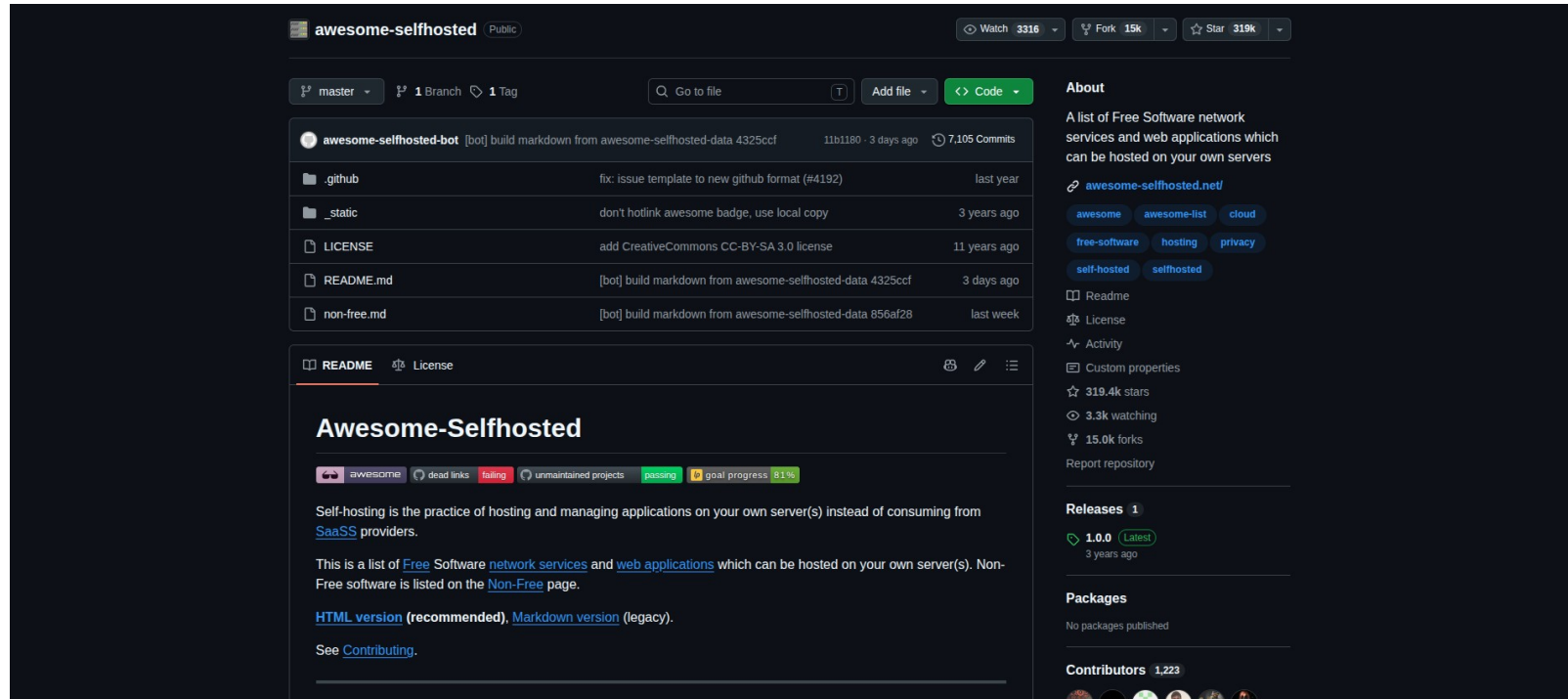
linuxserver.io



The screenshot shows the linuxserver.io website. The header includes the logo and navigation links: Home, Images, Blog, Docs, Info, Status, Donate, and Support. The main banner features a close-up of a raccoon's face with the text "Linuxserver Images". Below the banner is a search bar and a table of Docker images.

Name	Architectures	Tags	Categories	Latest Version	First Build	Last Build
 adguardhome-sync	x86_64, arm64	latest	Network, DNS	v0.9.3-ls174	2021-04-08	2026-09-13 14:34:45
 airsonic-advanced	x86_64, arm64	latest	Media Servers, Music	11.1.4-ls192	2022-01-02	2026-09-12 12:53:05
 altus	x86_64, arm64	latest	Chat	5.8.1-ls154	2023-12-07	2026-09-12 08:16:57
 apprise-api	x86_64, arm64	latest	Monitoring	v1.5.4-ls260	2021-02-26	2026-09-14 16:16:27
 ardour	x86_64, arm64	latest	Audio Processing	2026-06-19-ls112	2024-04-10	2026-06-25 16:52:13
 audacity	x86_64	latest	Audio Processing	4.0.0-ls280	2021-04-07	2026-09-15 09:54:11
 azahar	x86_64	latest	Games	12126.0-1-ls41	2025-11-29	2026-08-29 07:46:04
 babybuddy	x86_64, arm64	latest	Family	v2.10.1-ls250	2021-06-22	2026-09-12 14:42:33
 bambustudio	x86_64	latest	3D Printing	v02.08.02.61-ls168	2023-11-15	2026-09-05 10:14:46
 bazarr	x86_64, arm64	latest, development	Media Management	v1.6.1-ls364	2018-09-11	2026-09-15 01:55:54

awesome-selfhosted



The screenshot shows the GitHub repository for 'awesome-selfhosted'. The repository is public and has 3316 watches, 15k forks, and 319k stars. The main branch is 'master'. The repository contains a list of files and folders, including '.github', '_static', 'LICENSE', 'README.md', and 'non-free.md'. The README.md file is selected, showing the title 'Awesome-Selfhosted' and a description of self-hosting. The README also includes a list of links to various resources, such as 'SaaS providers', 'Free Software network services', and 'web applications'. The repository is maintained by 'awesome-selfhosted-bot' and has 7,105 commits. The right sidebar shows the repository's statistics, including the number of stars, forks, and watchers, and a list of releases and packages.

awesome-selfhosted Public

Watch 3316 Fork 15k Star 319k

master 1 Branch 1 Tag

Go to file Add file Code

awesome-selfhosted-bot [bot] build markdown from awesome-selfhosted-data 4325ccf 11h180 · 3 days ago 7,105 Commits

File	Description	Time
.github	fix: issue template to new github format (#4192)	last year
_static	don't hotlink awesome badge, use local copy	3 years ago
LICENSE	add CreativeCommons CC-BY-SA 3.0 license	11 years ago
README.md	[bot] build markdown from awesome-selfhosted-data 4325ccf	3 days ago
non-free.md	[bot] build markdown from awesome-selfhosted-data 856af28	last week

README License

Awesome-Selfhosted

awesome dead links failing unmaintained projects passing goal progress 81%

Self-hosting is the practice of hosting and managing applications on your own server(s) instead of consuming from [SaaS](#) providers.

This is a list of [Free Software network services](#) and [web applications](#) which can be hosted on your own server(s). Non-Free software is listed on the [Non-Free](#) page.

[HTML version](#) (recommended), [Markdown version](#) (legacy).

See [Contributing](#).

About

A list of Free Software network services and web applications which can be hosted on your own servers

[awesome-selfhosted.net/](#)

awesome awesome-list cloud

free-software hosting privacy

self-hosted selfhosted

Readme License Activity Custom properties 319.4k stars 3.3k watching 15.0k forks Report repository

Releases 1

1.0.0 Latest 3 years ago

Packages

No packages published

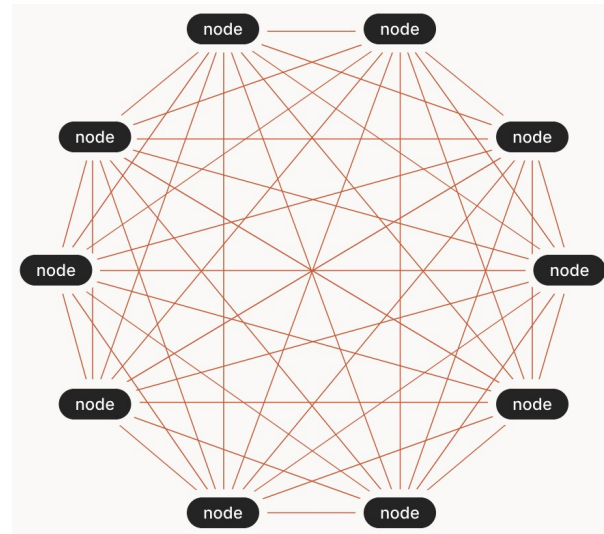
Contributors 1,223

github.com/awesome-selfhosted/awesome-selfhosted

Vzdálený přístup

Tailscale

- ▶ Mesh
- ▶ Plug&play
- ▶ Prostě to funguje
- ▶ (Headscale)



Cloudflare Tunnel

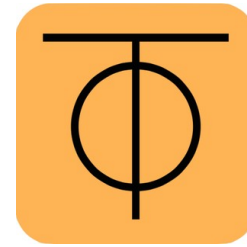
- ▶ Doména, NS u CF
- ▶ Cloudflared, WARP
- ▶ http/s, tcp, ssh, rdp, smb...
- ▶ Zero Trust



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

Další možnosti?

- ▶ Port forwarding (fuj)
- ▶ WireGuard
- ▶ ZeroTier
- ▶ NetBird
- ▶ Pangolin
- ▶ Twingate
- ▶ Pinggy



Last tips

Víc kontejnerů
≠
Víc adidas

BACKUP!!!

Odkazy

- ▶ `reddit.com/r/selfhosted`
- ▶ `reddit.com/r/homelab`
- ▶ YouTube: Techno Tim, NetworkChuck, Hardware Haven, Christian Lempa, ServeTheHome, Jeff Geerling, NetBird, Wolfgang's Channel, Raid Owl, Jim's Garage
- ▶ `noted.lol`
- ▶ `openalternative.co`

HomeLabik.cz



Dotazy?

