

Apps & Services

Below is a comprehensive list of the diverse applications and services currently operational within my home lab, a dedicated environment where I experiment, develop, and fine-tune software, services, and configurations without impacting my production environment. This home lab serves as a versatile testing ground, enabling me to explore a wide range of technologies and solutions.

Backups and Password Management

[Duplicati](#)

Duplicati is a versatile and reliable backup solution that offers robust data protection features, cloud integration, encryption, and flexible backup scheduling. It's suitable for both individual users and businesses looking to safeguard their data against unexpected data loss or disasters, making it an essential tool for data backup and recovery.

[Minio](#)

MinIO offers a robust and scalable solution for managing large-scale data storage with exceptional performance and strong security. Whether you're handling cloud-native environments, big data, or AI/ML workloads, MinIO provides the flexibility and reliability you need.

[Proxmox Backup Server](#)

Proxmox Backup Server is a robust and feature-rich backup solution tailored for virtualized environments. It combines data protection, storage efficiency, ease of management, and security, making it an attractive choice for businesses and organizations seeking reliable backup and recovery capabilities for their critical data.

[Vaultwarden](#)

Vaultwarden is a self-hosted, open-source password manager and digital vault solution that offers Bitwarden compatibility. It emphasizes data privacy and security, making it an ideal choice for individuals and organizations seeking to take control of their password management while maintaining the convenience of a user-friendly interface and cross-platform compatibility.

Containerization, DevOps and Virtualization

[Ansible Semaphore](#)

Ansible Semaphore is a game-changer for IT automation, offering a streamlined way to manage and run Ansible playbooks through its user-friendly web interface. Its scheduling capabilities and secure secret management ensure your automation tasks are efficient and well-organized. Once configured, Semaphore provides a powerful platform for handling complex automation workflows with ease.

[Docker](#)

Docker is a powerful platform for containerization that simplifies the development, deployment, and management of applications by encapsulating them and their dependencies into portable containers. Its efficiency, portability, and strong ecosystem have made it a popular choice for modern software development and deployment workflows.

[Gitlab](#)

GitLab is a robust platform that brings together everything developers and teams need to manage the entire DevOps lifecycle in one place. Offering features like CI/CD pipelines, issue tracking, and collaboration tools, it simplifies workflows and boosts efficiency. Hosting GitLab on your own server with Docker Compose gives you full control over your data and infrastructure. Whether you're handling a small project or scaling up for larger deployments, GitLab delivers the flexibility and strength to support every step of your DevOps process.

[HashiCorp Harbor](#)

Hashicorp Harbor provides a robust and secure platform for managing container images and artifacts. Equipped with features like vulnerability scanning, replication, and role-based access control, it's perfect for enterprises, small teams, or anyone seeking a scalable and efficient container management solution. Harbor integrates seamlessly with various DevOps tools, offering a streamlined approach to securing and managing container images. With Docker Compose, setting up Harbor is simple and customizable, making it an essential tool for managing containerized environments.

[Jenkins](#)

Jenkins is a versatile automation server that simplifies CI/CD workflows and integrates seamlessly with various tools. Its extensive plugin ecosystem and flexibility make it ideal for both small and large projects. With Docker Compose, setting up Jenkins is straightforward, allowing you to enhance your development processes and ensure efficient software delivery quickly.

[Netbox](#)

NetBox is a powerful tool for managing and documenting network infrastructure. With features like IPAM, DCIM, and visualization tools, it's ideal for network administrators and engineers.

[Portainer](#)

Portainer and Portainer Agents together offer a powerful solution for simplifying the management of Docker containers. Whether you're working with a single host or a complex, distributed container infrastructure, Portainer's user-friendly interface and agent-based architecture provide the tools you need to efficiently deploy, monitor, and maintain containerized applications.

[Proxmox](#)

Proxmox Virtual Environment is a feature-rich and robust virtualization platform that provides the flexibility and scalability needed for managing VMs, containers, and storage resources effectively. Its comprehensive set of tools and features makes it an ideal choice for organizations looking to optimize resource utilization, ensure high availability, and simplify virtualization management in diverse IT environments. Whether you're a small business or a large enterprise, Proxmox VE offers the versatility and performance needed to meet your virtualization needs.

[Terraform](#)

Terraform is a robust tool for managing infrastructure efficiently through code. Its ability to handle multi-provider environments, coupled with its declarative configuration language and modular architecture, simplifies infrastructure management. By following the straightforward installation and setup steps, you can quickly leverage Terraform to automate and streamline your infrastructure workflows.

Development and Productivity

[Code-Server](#)

Code-Server is a powerful and flexible web-based development environment that extends the capabilities of Visual Studio Code to remote and web-based coding scenarios. It offers a familiar, feature-rich code editor accessible from any browser, making it an invaluable tool for developers who need flexibility, collaboration, and cross-platform capabilities in their coding workflow.

[IT-Tools](#)

IT-Tools is a versatile IT management platform that simplifies monitoring and managing your IT environment through a unified dashboard, real-time metrics, and customizable alerts.

[Joplin](#)

Joplin is a versatile and privacy-focused note-taking application that excels in its compatibility across platforms, Markdown support, synchronization capabilities, and robust organization features. Whether for personal note-taking, project management, or research, Joplin offers a user-friendly and feature-rich solution for efficiently managing your digital notes and documents.

[BookStack](#)

BookStack is a versatile and user-friendly documentation platform that simplifies the creation, management, and sharing of information. Whether you're building an internal knowledge base or documenting project processes, BookStack provides the tools you need to make your documentation efforts efficient and effective.

Email, Office, and Communication

[Jitsi](#)

Jitsi is a feature-rich and secure video conferencing and messaging platform that excels in accessibility, customization, and privacy. Whether for business meetings, educational webinars, or casual catch-ups with friends and family, Jitsi provides a reliable and user-friendly solution for real-time communication and collaboration.

[Mailcow](#)

Mailcow is a powerful and feature-rich email server and groupware platform suitable for individuals and organizations seeking a self-hosted and customizable email solution. With its user-friendly web interface, advanced security features, and integration options, Mailcow empowers users to have full control over their email services while ensuring the privacy and security of their communication.

[Nextcloud](#)

Nextcloud is a versatile, self-hosted cloud platform that combines secure file storage, synchronization, collaboration tools, and communication features. It offers control over data privacy and security while providing a comprehensive suite of tools for individuals and organizations to enhance productivity, streamline collaboration, and maintain data sovereignty.

[OpenAI-WebGUI](#)

OpenAI-WebGUI offers a straightforward and user-friendly platform for managing and interacting with OpenAI's AI models. It simplifies the process of sending queries, managing settings, and

viewing responses, making it an excellent tool for both developers and enthusiasts.

[Paperless-Ng](#)

Paperless-Ng is an essential tool for simplifying document management and reducing paper clutter. With features like automatic OCR, tagging, and metadata extraction, it offers a seamless way to organize and find documents. Its intuitive web interface, robust search capabilities, and multi-user support make it ideal for both personal and business use. Deploying Paperless-Ng with Docker Compose ensures a quick and straightforward setup, allowing you to efficiently manage your digital documents in no time.

Media Management and Home Automation

[Airsonic](#)

Airsonic is a versatile, open-source media streaming server that provides a comprehensive and customizable solution for managing and streaming your personal music collection. With its user-friendly interface, multi-user support, and extensive features, Airsonic is a valuable tool for music enthusiasts who want complete control over their music streaming experience.

[Calibre](#)

Calibre is an all-in-one e-book management solution that simplifies the organization, conversion, and reading of digital books. Whether you're an avid reader or a digital book collector, Calibre provides the tools you need to make the most of your e-book library.

[CalibreWeb](#)

CalibreWeb is a versatile and user-friendly web application that simplifies the management and access of e-book libraries. It enhances the e-book cataloging and reading experience by providing a web-based interface to interact with your Calibre e-book library, making it a valuable tool for avid readers and e-book enthusiasts.

[Grocy](#)

Grocy is a versatile and user-friendly household management application that simplifies grocery shopping, inventory tracking, task management, and more. Whether you want to reduce food waste, stay organized, or improve your budget management, Grocy offers a comprehensive solution for enhancing your household efficiency and overall quality of life.

[Home Assistant](#)

Home Assistant is a versatile and open-source home automation platform that empowers users to create a personalized and unified smart home experience. With its compatibility with a wide range of devices, powerful automation capabilities, and focus on privacy and customization, Home Assistant is a valuable tool for anyone looking to make their home smarter and more efficient.

[Jellyfin](#)

Jellyfin is a versatile and user-friendly media server platform that empowers users to take control of their digital media collections and enjoy a personalized media streaming experience. With its cross-platform compatibility and open-source nature, Jellyfin is an excellent choice for individuals and families seeking an alternative to commercial media server solutions while maintaining full control over their media content.

[Immich](#)

Immich offers a streamlined solution for managing your photo and video library, combining powerful features with user-friendly functionality. Its self-hosted nature ensures you retain full control over your media, safeguarding your privacy while providing extensive organizational tools and automatic backup options. The intuitive interface, coupled with secure sharing and robust backup capabilities, makes Immich a standout choice for anyone looking to efficiently manage their digital media. By following the installation and setup instructions, you can quickly deploy Immich on your server and start enjoying a well-organized and easily accessible media library.

Monitoring and Visualization

[Monitoring Stack](#)

Building a Docker-based monitoring stack offers a scalable solution for tracking infrastructure performance across physical servers, virtual machines, and containers. This setup provides a comprehensive view of system health and resource usage, making it easy to start monitoring efficiently.

Networking and Web Management

[Gotify](#)

Gotify offers a robust, self-hosted solution for managing notifications while prioritizing privacy. It delivers real-time updates, customizable notifications, and seamless API integrations, making it perfect for those who want to stay informed without external tracking.

[HAProxy](#)

HAProxy is an open-source software that provides high-performance load balancing and proxying for TCP and HTTP-based applications. It distributes incoming network traffic across multiple servers to ensure high availability, improve performance, and maintain reliability. Key features include advanced load-balancing algorithms, SSL termination, health checks, and session persistence. HAProxy is widely used to enhance web application scalability and ensure continuous service availability.

[Organizr](#)

Organizr is a versatile and customizable web dashboard that simplifies the management of multiple web services and applications. Whether you're a power user with a diverse set of online tools or a team member collaborating across various web-based platforms, Organizr offers a streamlined and personalized solution for centralizing access and improving overall productivity.

[Pi-hole](#)

Pi-hole is a highly effective and customizable network-level ad blocker and DNS sinkhole application. It enhances internet browsing experiences by blocking unwanted ads and tracking domains at the network level, offering privacy, security, and improved performance for all devices on your network.

[Syncthing](#)

Syncthing is a secure, decentralized, and versatile file synchronization solution that prioritizes privacy and security. Its ability to work across various platforms, provide end-to-end encryption, and offer selective synchronization makes it an ideal choice for individuals and organizations seeking a reliable and private method to sync and share files across their devices and networks.

[Traefik](#)

With Traefik, managing and securing services in your homelab becomes incredibly simple and efficient. It handles traffic routing seamlessly with FQDNs and automates SSL certificate management, making security hassle-free. Whether you're running a handful of containers or a more complex setup, Traefik offers the flexibility and power to create a scalable, professional-grade infrastructure. Give it a try and elevate your homelab experience!

[Whoogle](#)

Whoogle is a self-hosted, open-source search engine proxy that prioritizes user privacy and data protection. By acting as an intermediary between users and search engines, it helps individuals maintain their online privacy while enjoying a customized and ad-free search experience.

Security and Privacy Apps

[Authentik](#)

Authentik SSO offers a robust solution for simplifying user access to multiple applications while enhancing security and productivity. It's a valuable tool for organizations seeking to streamline their authentication and access management processes.

[Crowdsec](#)

CrowdSec is an open-source security solution that detects and blocks attacks like brute force and DDoS. It analyzes logs from various sources, adapts to new threats, and can block attackers. Its unique feature is crowd-sourced intelligence for improved detection. It's flexible and suitable for various setups, from individual servers to large deployments.

[Endlesssh](#)

Endlesssh is a clever and lightweight security tool that adds an extra layer of defense to servers by presenting attackers with deceptive SSH banner messages. By creating confusion and uncertainty for potential attackers, it helps protect servers from unauthorized access and potential security breaches, making it a valuable component of a comprehensive security strategy.

[NetAlertx](#)

NetAlertX provides a comprehensive and adaptable solution for monitoring and managing network performance. With its real-time monitoring capabilities, flexible alerting system, and user-friendly interface, it empowers you to keep a close watch on your network's health and respond quickly to any issues. The automatic device discovery and customizable dashboards further enhance its functionality, making it a powerful tool for both small and large networks. By following the installation and setup guide, you can easily deploy NetAlertX and start leveraging its features to ensure your network operates smoothly and efficiently. Whether you're a network administrator or an IT enthusiast, NetAlertX offers the tools you need to maintain optimal network performance and swiftly address potential problems.

[pfSense](#)

pfSense is a powerful and versatile open-source firewall and routing platform that offers robust security features, advanced networking capabilities, and scalability. Whether used in home

networks or complex enterprise environments, pfSense provides a flexible and highly configurable solution for enhancing network security and performance.

[Uptime Kuma](#)

Uptime Kuma is a powerful and accessible web-based monitoring tool that helps organizations and individuals proactively ensure the uptime and performance of their critical network resources and services. With its user-friendly interface, alerting capabilities, and extensive monitoring options, Uptime Kuma empowers users to maintain the reliability and availability of their digital assets.

[Wazuh](#)

Wazuh is a comprehensive, open-source security monitoring and threat detection platform that enhances an organization's security posture by providing real-time threat detection, log analysis, vulnerability assessment, and incident response capabilities. Its modular and customizable nature makes it a valuable tool for organizations looking to strengthen their cybersecurity defenses in an ever-evolving threat landscape.

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