

Technical Stack

Server Infrastructure

Hetzner Dedicated Server

- **Purpose:** Primary host for all services and applications.
- **Specifications:**
 - **CPU:** Intel Xeon
 - **RAM:** 256 GB DDR4
 - **Storage:** 2 x 480GB Enterprise SSD
 - **Network:** 1+ Gbps Uplink

Proxmox Virtualization

- **Purpose:** Hypervisor for managing and isolating virtual environments.
- **Features:**
 - Virtual Machine and Container orchestration.
 - Snapshot and backup management.
 - Resource monitoring and allocation.

Application and Service Management

Coolify

- **Purpose:** Simplified orchestration of Docker containers and CI/CD pipelines.
- **Features:**
 - Application deployments and monitoring.
 - Automated builds from GitHub repositories.
 - Reverse proxy and SSL management.

Services Deployed via Coolify

1. Redis

- **Purpose:** In-memory data store for caching and key-value storage.
- **Use Case:** High-performance caching for the Next.js application.

2. Next.js Application

- **Version:** 14
- **Features:**
 - App Router for advanced routing.
 - Developed in TypeScript for type safety and maintainability.
- **Deployment:** Built and served via Coolify.

Code Repository

GitHub

- **Purpose:** Version control and collaboration platform for application development.
- **Key Features:**
 - Centralized repository for all application code.
 - Integrated with Coolify for CI/CD pipelines.
 - Branch management and pull request workflows.

Network and DNS

Cloudflare

- **Purpose:** DNS management and proxy services for enhanced security and performance.
- **Domain:** `z.razar.io`
- **Features:**
 - DNS resolution for the Hetzner server.
 - Proxy and caching services for improved application performance.
 - SSL/TLS certificate management for secure communication.

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