Home Infrastructure Cluster & WireGuard Mesh Networking

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Data Sovereignty Through Self-Hosting

Built a comprehensive home infrastructure cluster using repurposed MacMini hardware to maintain complete data sovereignty and avoid cloud dependencies. This project represents a complete shift away from cloud services, with self-hosted email, DNS, and over 100 additional services.

Infrastructure Components

- **Repurposed MacMini Cluster:** Sustainable infrastructure using existing hardware
- **Self-Hosted Email:** Complete email sovereignty and control
- **DNS Infrastructure:** Custom DNS services for complete control
- **100+ Services:** Comprehensive self-hosting ecosystem
- **Data Sovereignty:** Complete control over personal and business data

WireGuard Mesh Networking Innovation

Developed a custom WireGuard mesh networking tool designed to simplify deployment of mesh networks as opposed to traditional hub-and-spoke architectures. This tooling enables ease of deployment for quantum-resistant networking solutions.

Technical Achievements

- **Mesh vs Hub-Spoke:** Alternative to traditional networking architectures
- **Simplified Deployment:** Tooling to make mesh networks easier to implement
- **Quantum-Resistant:** Future-proof networking solutions
- **Infrastructure Innovation:** Advancing networking technology

Impact

This infrastructure represents a complete commitment to data sovereignty, infrastructure innovation, and building future-proof networking solutions. The home cluster provides complete control over personal and business data, while the WireGuard mesh networking tool advances the state of secure, distributed networking.

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