Specification Sheet (English)

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Project Title:

SafeNode as a Service – Platform for Secure Online Services (locally hosted, modularly extensible)

Project Objective:

Development of a locally hosted, modular system to provide security-relevant network services (VPN, DNS, Monitoring) with optional extensions for awareness training and future cloud operation readiness.

Target Audience:

- Self-hosters focused on security

- Small teams & home office environments (up to 25 users)

- Power users / admins

- Later: SMEs, hosting providers, managed service providers

Provided Services:

a) VPN Service (WireGuard)

- Peer management via UI (keys, routing, DNS)

- Configuration export (QR code, file)

- Logging and role control

b) DNS Service (Bind9)

- Zone management (forward/reverse)

- DNSSEC and logging

- DoH/DoT support

c) Monitoring Service (Uptime Kuma)

- Web check, ping, port monitoring

- Notifications (email, Telegram, webhook)

- SLA views, multi-tenant support

d) Awareness Module (local, offline)

- Learning modules with quiz and progress tracking

Non-functional Requirements:

- Resource-efficient (e.g., Raspberry Pi 4, ZimaBlade)

- Containerized (Docker Compose)

- Web-GUI & CLI, responsive & accessible

- Multi-tenant: user and config isolation

- Future-proof: prepared for cloud (Kubernetes-ready)

Success/Acceptance Criteria:

- Services can be configured via UI

- VPN fully functional incl. routing & peer export

- Monitoring provides clear status and notifications

- DNS configuration with logging

- Awareness content accessible with quiz functionality