

MK1 Command - Control Plane Case Study

Auditable operations, durable state and bounded automation

OWNER-BUILT PUBLIC PROJECT - DEMO DATA REMAINS LABELED

System intent

MK1 Command is an owner-built control plane for durable, auditable company operations. The system separates persisted state from a synthetic demo runtime and makes permissions, grants, human gates and audit events explicit.

Architecture evidence

- TypeScript monorepo with web, API, domain, policy, application and PostgreSQL packages.
- PostgreSQL-backed read models and append-only audit-oriented workflows.
- Role and resource policies with purpose-bound, expiring grants.
- Signed runner protocol and replay protection designed around bounded execution.
- Public production behind Caddy TLS, with API and database kept container-internal.

Operations and security

Authentication	Strong owner authentication with TOTP in production.
Backups	Encrypted backup and restore procedure.
Deployment	Isolated staging and production, immutable release rollback.
Observability	Monitoring, health checks and persisted operation state.
Boundary	Real provider, send, publish, purchase and payment actions are intentionally disabled.

What it demonstrates

The reference shows that workflow automation is not only a button or model call. It requires durable state, authorization, evidence, safe recovery, bounded side effects and an operator interface that makes provenance visible.

Scope note: factual claims follow the public claim register at docs.mk1.rocks/claims.json.