



FoxOS

Operating system concepts for local-first control planes

PLATFORM

RESEARCH

Product Overview

Mission

FoxOS explores how a local-first control plane can keep operator authority when connectivity drops or cloud regions fail.

What it is

FoxOS is not a desktop operating system product. It is FoxHeight's research line on runtime orchestration, service discovery, and offline-capable operator tooling.

Core Capabilities

- Local-first runtime concepts for constrained networks
- Operator-facing service discovery models
- Offline continuity playbooks
- Clear separation of control vs data plane duties

Use Cases

- Lab control-plane prototypes
- Offline operator consoles
- Runtime discovery experiments

Technology

Architecture

Control plane services remain separable from data-plane workloads. Discovery registries, process boundaries, and device interfaces are modelled so failure in one plane does not silently escalate privilege in another.

Security Posture

FoxOS security work prioritises least privilege for control actions, session-bound operator identity, and explicit denial of silent remote root patterns.

Ecosystem & Roadmap

Declared Relations

- FoxOS USES foxdata
- FoxOS SECURED BY foxshield
- FoxOS DEPLOYED ON foxedge
- foxbuild SUPPORTS FoxOS

Open Research Question

Can “operator control” be measured as a testable property under intermittent East African connectivity profiles?

Roadmap

Near term: document control-plane interfaces. Mid: simulation harnesses. Vision: broader device-class coverage — labelled research until implemented.

Status: FoxOS is labelled "research" in the FoxHeight Continuum product registry. This label reflects verified implementation state, not a marketing claim. Source: SOURCE_DATA/products/foxos.json.