MLOX — MLOps-in-a-Box

Open-source ML infrastructure for everyone

Nico Görnitz, September 2025

The Problem

MLOps is complex, expensive, and built for big players

- **Small teams lack access to production-grade ML infrastructure** → setting up and running tools like MLflow, Airflow, or feature stores requires deep cloud engineer & DevOps skills and dedicated staff that are often not available.
- **Cloud platforms = costly & hard to manage** → vendor lock-in, unpredictable pricing, and steep learning curves block early adoption.
- **High entry barriers slow down innovation** → instead of building ML applications, teams spend resources just on re-inventing the MLOps infrastructure wheel.

Our Solution

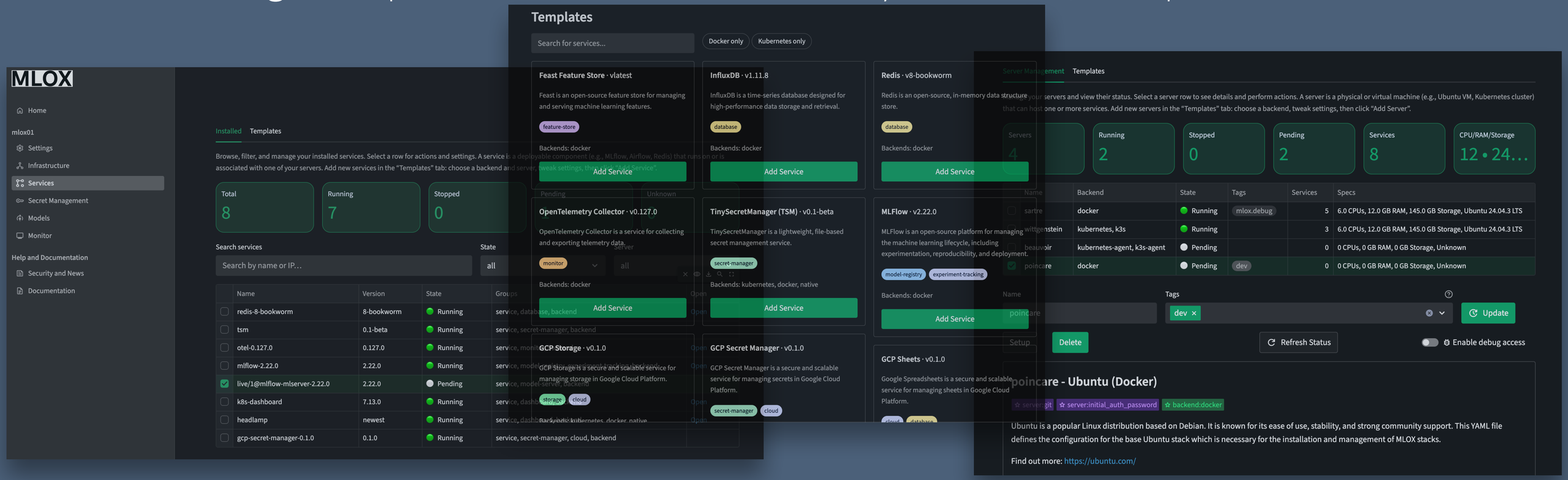
MLOX bundles proven open-source tools into one accessible package

- **Simple install & manage complete MLOps stacks** → Web-UI and CLI let teams provision servers, deploy services, and monitor infrastructure without deep DevOps expertise.
- **On-premise and hybrid cloud** → runs on local machines, dedicated servers, or in the cloud (incl. GCP integration) enabling flexible on-premise and hybrid setups.
- **100% open source & community-driven** → lowers costs, avoids vendor lock-in, ensures transparency and extensibility — and just feels good ❤️.

MLOX User Interface

Not just an idea — a real product

- **Web UI & CLI →** manage servers and services in no time — without breaking a sweat
- **Monitoring →** keep track of what matters: telemetry, databases, Git repos, ML models



Achievements

Early users confirm the need

- **Core infrastructure up & running** → tested deployments of key services (e.g. Airflow, MLflow, MLServer, Redis, Influx, Postgres, MinIO, Kafka, Github) show stability in real scenarios.
- **Multiple backends supported** → run MLOX natively, on localhost, with Docker, or Kubernetes (k3s) for flexible setups.
- **PyPI package released** → integrates directly with user code, enabling config & secret management and first end-to-end workflows right out of the box

*Current focus: most services are Docker-ready; Kubernetes (k3s) support is being expanded.

Vision

Democratizing MLOps in Europe and beyond

- **No barriers** → production-grade ML infrastructure without heavy costs or DevOps overhead
- **Sustainable ecosystem** → building open-source MLOps in Europe and beyond
- **Empower innovators** → Open-source ML infrastructure for everyone

*"From prototype to **platform**"*