kontron

KONTRON
SOVEREIGN CLOUD WITH AI
USE CASE

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BUILDING A SOVEREIGN, DECENTRALIZED AI INFERENCE PLATFORM FOR CLOUD AND EDGE

Kontron is leading the development of a Decentralized AI Platform, providing organizations with a sovereign, secure, and policy-driven alternative to public cloud AI solutions locally.

Our platform enables enterprises to deploy, manage, and infer AI models across hybrid environments, seamlessly spanning on-premise, private cloud, and edge locations, while maintaining full control over data sovereignty, compliance, and security.

Why Sovereign Cloud?

- **Data sovereignty**: Keep sensitive data within national or organizational boundaries,
  fully complying with EU and local regulations.
- **Security & policy control**: AI models can be deployed under strict access and governance and
  enterprises rules, ensuring risk mitigation and auditability.
- **Decentralized inference**: Distribute AI workloads to edge nodes for low-latency,
  real-time processing in critical industrial, healthcare, or infrastructure applications.
- **Resilience & reliability**: On-premise deployments ensure AI services remain operational
 even if external cloud connectivity is limited.

TYPICAL USE CASES:

Kontron Sovergence Cloud with AI addresses a wide range of enterprise needs by enabling **secure, on-premise, and edge AI deployments**:

- **Telecommunications (Telco AI)**: AI-powered network that can be tweak for large data and through AI optimization, predictive maintenance, and real-time customer experience management, running on-premise or at edge nodes to ensure low latency and data sovereignty.

- **Industrial AI & Predictive Maintenance**: Real-time AI inference at manufacturing lines or industrial IoT environments, without exposing sensitive production data externally.

- **Healthcare AI**: Confidential processing of medical imaging and patient data on-premise, ensuring compliance with GDPR and local health regulations.

- **Smart Cities & Infrastructure**: Edge AI for traffic management, energy grids, or surveillance systems while maintaining local control over data.

- **R&D & AI Model Experimentation**: Enterprises can safely train and deploy AI models internally, testing new algorithms without reliance on third-party cloud vendors.

Kontron's Role

The platform gives end users a unified, self-service environment for deploying AI, container, and VM workloads across **cloud and edge locations**—without needing to manage underlying complexity. It delivers fast on-boarding, **secure access**, and consistent operations through **integrated identity, governance, and orchestration**. Built-in networking, storage, and compute (CPU/GPU) services ensure high performance, while **Edge execution reduces latency for real-time applications**. Overall, the platform accelerates innovation, simplifies operations, and provides a **scalable foundation** for modern digital services.
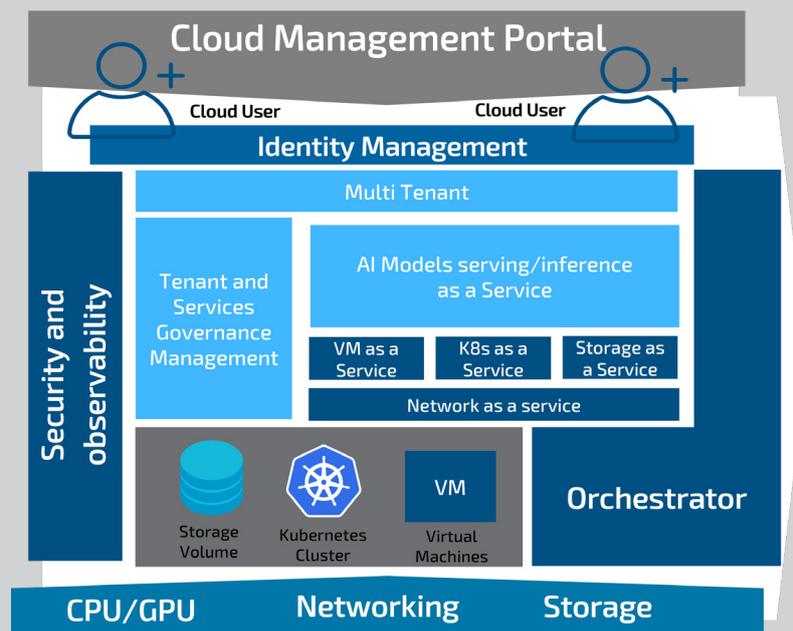
WHY KONTRON?

Kontron delivers a carrier-grade, cloud-native connectivity platform combining 4G/5G Core, Cloud, and AI Voice capabilities, optimized for industrial-grade performance and low-power edge deployments. Built on deep expertise in embedded systems, telco software, and industrial computing, Kontron enables operators and enterprises to deploy secure, standards-based communication networks with seamless scalability from compact starter deployments to nationwide or full-campus coverage. With open integration and edge-ready architecture, Kontron supports Industry 4.0 transformation and mission-critical connectivity across public safety, transportation, utilities, and industrial environments.