DATA Layer

Platform for distributed data management across the continuum.

Holistic and unified framework for managing data across the edge-to-cloud continuum, able to seamlessly run on heterogeneous and possible small devices. It also minimizes data transfers, improving performance and trust, by exploiting near-data processing and providing smart data placement and dynamic adaptation to changes in the infrastructure during operation.

Key Benefits:

- By providing a unified, open-source solution that bridges communication, storage, and computation, the DATA Layer empowers organisations to deploy scalable, resilient, and AI-ready infrastructures across heterogeneous environments.
- Unlike fragmented middleware stacks or centralized cloud solutions, it delivers a fully integrated, adaptable, and future-proof platform for the edge-to-cloud continuum.
- The framework reduces integration complexity, avoids vendor lock-in, and enhances operational efficiency, while enabling secure, real-time decision-making in latency-sensitive and bandwidth-constrained environments.
- It enables lightweight, low-latency, and fault-tolerant communication between heterogeneous devices, supporting peer-to-peer and pub/sub patterns ideal for constrained environments.
- It complements this by providing seamless access to complex object graphs and collections, enabling in-situ computation, data locality, and transparent integration with third-party libraries.