

Full meta-data synchronization from source to the lake house including tag, asset and meta data models.

Optimized data schemas that handle tens of millions of tags and hundreds of TB of data in your lake house.

Open cloud framework providing ownership and transparency with the support of a leader in the domain

Productized **historical data load** without impacting source performance with business process capabilities

Data pipeline resilience with **source system protection** and **native store & forward** to ensure lake house data integrity

Streaming data with delivery possible in seconds from source to dashboard

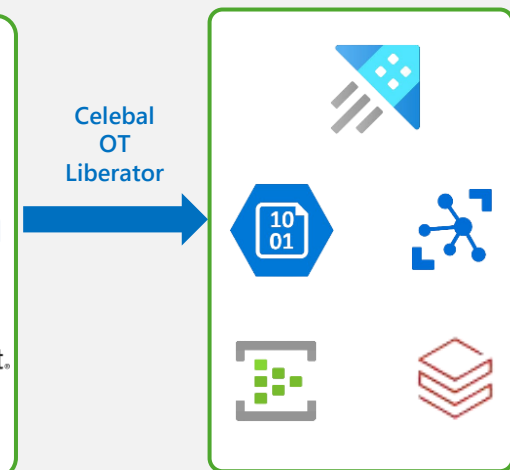
Native connectivity to Historians, SCADA, PLCs and MES

Scalable with proven capability to handle the largest OT systems (>5M tags) with the lowest possible impact to CPU & memory.

Traditional Operational Technology



Where we want the data today



Celebal OT Liberator

All data remains within customer network and tenant from end-to-end

OT Data Lake – Liberator & OT Convergence Strategy

Connect & Integrate



Seamlessly & securely bring together all OT data (e.g. Sensor, Alarm, MES, Recipe)



Harmonize operational data with asset management, HSEQ & other corporate apps



Built-in data request and historical upload workflows enabling existing data import as needed

Analyze & Curate



Intelligently curate the data and associate models across systems and domains



Smart data monitoring, alerting and correction/fill based on poor source data



Natural language access to the data through your platform and tools of choice

Infra. & Cybersecurity



Unified incident response with automation & integration of lifecycle & threats



Advanced threat monitoring with behavior analysis looking at the device & data

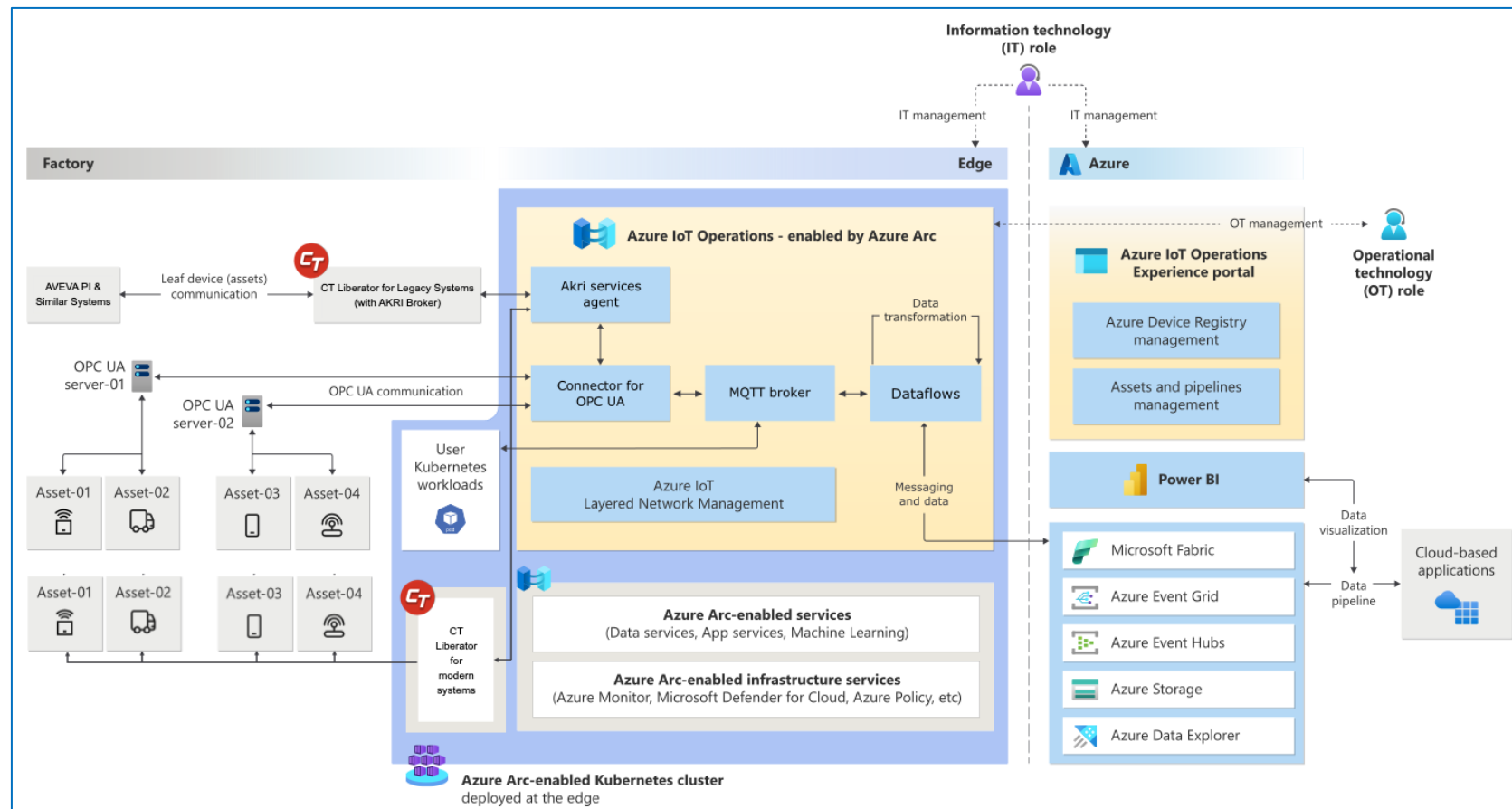


Simplified IoT & Edge device lifecycle management for updates and devices

A complete connectivity solution leveraging the full capabilities of IoT Operations & Akri with:

Akri ready data brokers for legacy systems that run using .NET Framework, DCOM & COM (such as OPC-DA/HDA, PI, Wonderware, etc.) supporting autodiscovery and configuration

Containerized Akri data collectors for modern systems and protocols that support operating in containers (e.g. ModbusTCP, BacNET, DNP, etc.)



Connect and read – Source data from operational systems including SCADA, PLC, DCS & MES

Streaming - Data available in the cloud in real-time

Modernization - with users able to submit requests to backfill historical data when needed

Safety - Monitoring of underlying source performance turning off connector when high loading is detected

Securely transfer of data from source to the cloud either and protect the underlying source system

Synchronize and maintain consistency of meta-data from source

Resilience - Outage handling and management

Integrity - Full store & forward to ensuring your data arrives even with communication outages

Speed – Systems work sub-second and are sensitive to load