



DATASHEET

Edge Data Store

Rugged IIoT storage to connect from edge to cloud

Edge Data Store is software for the Industrial Internet of Things (IIoT) that allows you to collect, store and access operations data from sensors and assets beyond your primary control network. Deployed on low-cost, rugged devices, Edge Data Store helps you access and act on data that is otherwise stranded in rough environments due to unreliable network connectivity or unpredictable power outages. You can combine remote edge data with data from your primary control network to create a more holistic view of your industrial operations.

Benefits

- Remotely deploy, configure and update from the cloud with AVEVA™ Edge Management.
- Works in harsh environments without IT support.
- Integrates natively with AVEVA™ PI Server and AVEVA™ Data Hub.
- Optimizes bandwidth with simple configuration options.
- Empowers remote technicians with local data access.
- Enables edge analytics.



Access real-time operations data at the network edge

The rise of the industrial internet of things (IIoT) and Industry 4.0 has brought a proliferation of new, low-cost sensors that provide a reliable means of gathering measurements from legacy or low-tech assets. While sensor data has increased the visibility into assets within the primary control network, key readings remain largely unavailable for remote assets, particularly those located in environments where computing power, IT support and network connectivity are limited. Without real-time edge data, field technicians are left without the information or analytic capabilities they need to optimize asset operations.

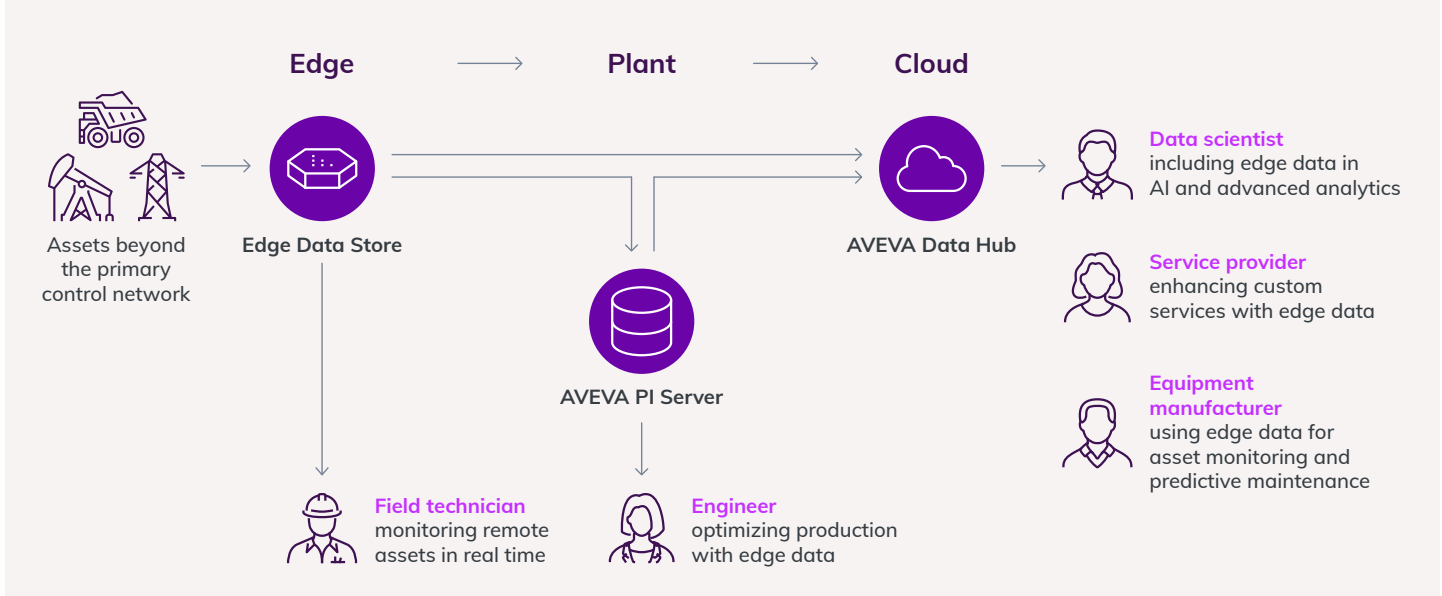
In remote environments, data transfer often depends on long-range wireless networking technologies with limited bandwidth and sporadic connectivity. Therefore, remote solutions must be rugged and able to recover from power outages on their own, without manual intervention. In addition, the ideal remote solution must also deliver high-fidelity operations data to both local technicians and enterprise analysts.

The data must be presented in a scalable fashion, easily integrated into existing datasets and reports that drive business decisions.

AVEVA has designed Edge Data Store software to overcome the challenges of remote environments and enable industrial operations to take full advantage of edge data. Edge Data Store provides:

- Out-of-the-box connectivity to industrial protocols such as OPC UA and Modbus TCP.
- Local storage and data access for use by field technicians.
- Native integration to AVEVA PI Server and AVEVA Data Hub.
- A feature-rich, programmatic API for application development.

Edge data expands industrial use cases



Edge Data Store allows you to easily send data from remote assets and sensors to AVEVA PI Server or AVEVA Data Hub for full edge-to-cloud data management.

Built for the edge of the industrial network

Flexible deployment options

Designed to be hardware agnostic, Edge Data Store runs on small, lightweight devices like IIoT gateways or single-board computers (e.g., Raspberry Pi) and supports both Linux- and Windows-based operating systems. You can manually deploy Edge Data Store, utilize simple scripting for wide-scale deployments, or you can use AVEVA Edge Management to remotely deploy from AVEVA's centralized cloud platform.

Adaptive to multiple communication protocols

Edge Data Store provides built-in, no-code connectivity via OPC UA and Modbus TCP for rapid IIoT data collection. For other industrial or proprietary communication protocols, you can send data to Edge Data Store with AVEVA Adapters. Additionally, you can use Open Message Format to easily transfer operations data from your custom applications to Edge Data Store via any message protocol that defines headers and bodies.

The vendor-neutral architecture of Edge Data Store gives you the freedom to use best-of-breed technology with the assurance that you can capture your edge data regardless of sensor type.

Supports edge visualization and analytics

Edge Data Store uses a proprietary sequential data store that efficiently stores and exposes ordered operations data and integrates natively with AVEVA PI Server and AVEVA Data Hub. You can access data collected by Edge Data Store through a REST API to create visualizations for field technicians or send it to IIoT applications for predictive or advanced analytics. Manufacturers and application developers can embed Edge Data Store in their offerings to provide onboard data analytics or aftermarket monitoring and maintenance services without the heavy lift of recreating their own data collection, storage and forwarding functionality.

Simple, lightweight software for edge insight

Edge Data Store is easy to download, install and configure by itself. When paired with AVEVA Edge Management, it just takes a few clicks. You can now easily enrich your AVEVA™ PI System™ data and asset models with edge data to create a more holistic view of your operations. You can also send these augmented data sets with important context to business intelligence and machine-learning platforms to derive further insights and create predictive models for remote assets. Unlock savings and create new opportunities to optimize your operations with edge-to-cloud data management.

Available on the AVEVA™ Flex subscription program

Achieve faster return-on-investment and remove traditional barriers to software adoption with a flexible subscription program. The AVEVA Flex subscription program spans any mix of cloud, hybrid and on-premises solutions with simplicity in the license purchase, usage and management.

Edge Data Store is now globally available through the AVEVA Flex program.

Learn more about the AVEVA Flex subscription program: aveva.com/flex

“In our red zone system, everything stays on the rig—it’s full edge. We focus on the core service development and Edge Data Store serves as a historian on board. AVEVA sent us the installers, we went through the API management, and an hour later I had it spun up. Edge Data Store was really easy to do.”

—
Martijn Handels

Director of Product Development at Rolloos

Find out more

Learn how:

This [service provider](#) to oil and gas companies used Edge Data Store to create a remote monitoring solution for drilling rigs, using edge analytics to protect employee safety and improve drilling performance.

This [automotive parts manufacturer](#) gained real-time insight into its assembly line process using Edge Data Store, generating an overall efficiency gain of 10%.

Interested in the technical details?
Check out this [documentation](#)