



DATASHEET

AVEVA™ Edge Data Store

Rugged IIoT storage to connect from edge to cloud

AVEVA 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, AVEVA Edge Data Store helps you access and act on data that is otherwise stranded in remote or mobile assets due to unreliable network connectivity or unpredictable power outages. You can combine remote edge data with data on-premises' to create a more holistic view of your industrial operations.

Benefits

- Remotely deploy, configure and update edge devices from the cloud with AVEVA™ Edge Management.
- Works in harsh environments without IT support.
- Integrates natively with AVEVA™ PI Server and CONNECT data services.
- Reduces demands on network through selective data transfer.
- Gives remote operators access to local data.
- Supports analytics at the edge.



Access real-time operations data in remote locations

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 data from assets distributed across a wide geographic area, mobile assets or assets disconnected from the company's network in remote or dangerous conditions. The challenge is how to reliably capture and store data generated outside the plant and make it available to local operators when the site itself may be too small, too remote or too hazardous to have local IT services. Without real-time data, field technicians are left without the information or analytic capabilities they need to optimize asset operations.

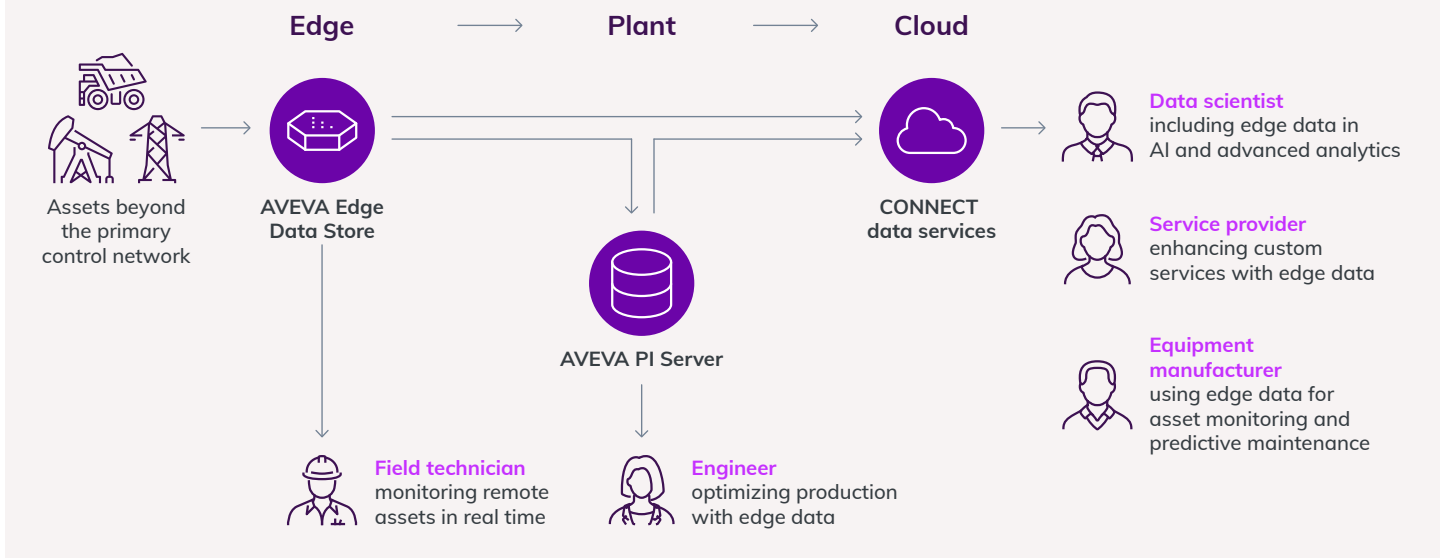
In remote environments, data transfer often depends on long-range wireless networking technologies with limited bandwidth and sporadic connectivity. Therefore, remote solutions must be rugged and able to recover from power outages on their own, without manual intervention. In addition, the ideal remote solution must also be able to deliver high-fidelity operations data back to the central datastore for permanent archiving and future use.

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

AVEVA Edge Data Store software to overcome the challenge of seeing what is happening in real-time in remote locations. This solution 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 CONNECT data services.
- A feature-rich, API for application development.
- Ability to configure automatic delivery of data that meets specific requirements from the edge to AVEVA PI Server or CONNECT in the cloud.

Edge data expands industrial use cases



AVEVA Edge Data Store lets you easily capture data from remote assets and sensors and send to AVEVA PI Server or the cloud.

Built for the edge of industrial operations

Flexible deployment options

AVEVA 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 deploy the solution manually, through simple scripting when dealing with multiple sites, or by using AVEVA Edge Management remotely from AVEVA's centralized cloud platform.

Adaptive to multiple communication protocols

AVEVA 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 AVEVA Edge Data Store from AVEVA Adapters or use the Open Message Format specification to transfer data using HTTPS or other protocol.

The vendor-neutral architecture of AVEVA 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

AVEVA 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 CONNECT data services. 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

AVEVA Edge Data Store is easy to download, install and configure. When paired with AVEVA Edge Management, it just takes a few clicks. You can now easily expand your operations data management beyond the plant, to create a more holistic view of your operations. You can also send contextualized edge data to businesses 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.

“In our red zone system, everything stays on the rig—it’s full edge. We focus on the core service development and AVEVA Edge Data Store serves as the 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.”

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Martijn Handels

Director of Product Development at Rolloos

Success at the Edge

Learn how:

This [service provider](#) to oil and gas companies used AVEVA Edge Data Store to create a remote monitoring solution for drilling rigs to protect employee safety and improve drilling performance. Or, learn how this automotive parts manufacturer. 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](#)



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