



## DATASHEET

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# Edge Data Store

Rugged IIoT storage to connect from edge to cloud

Edge Data Store (EDS) 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

- Deploys and 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.

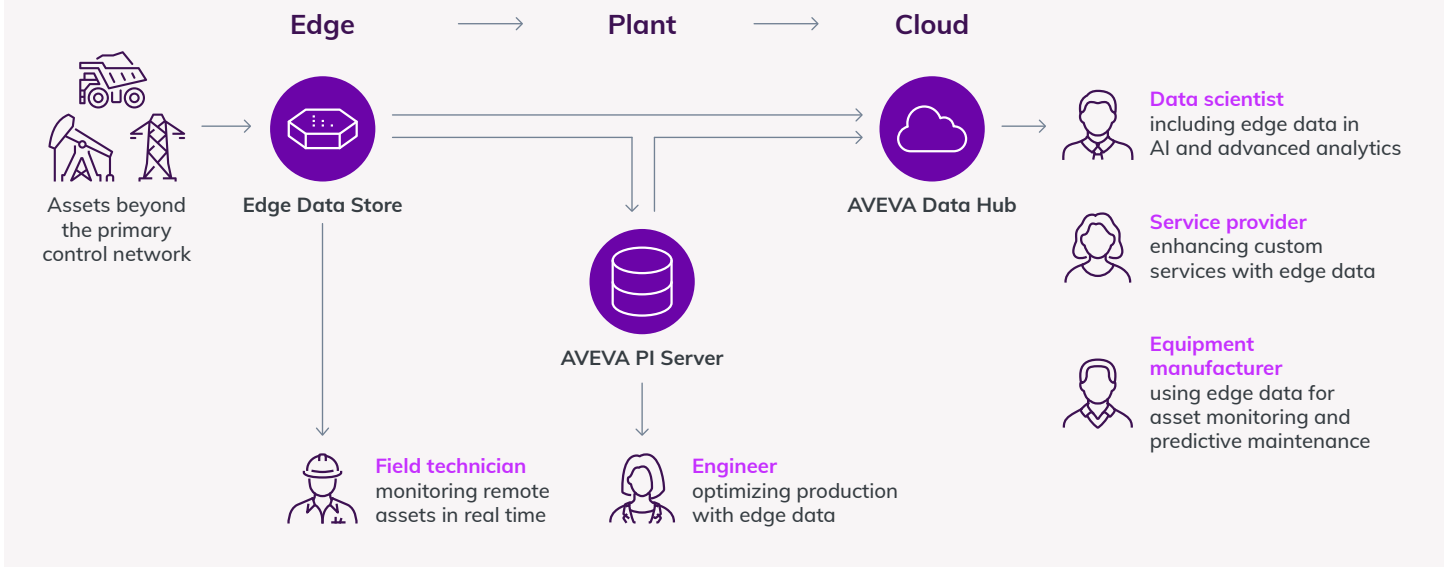
In remote environments, data transfer often depends on long-range wireless networking technologies with limited bandwidth and sporadic connectivity. Therefore, remote solutions must be rugged and able to recover from power outages on their own, without manual intervention. In addition, the ideal remote 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.

We designed our Edge Data Store (EDS) software to overcome the challenges of remote environments and enable industrial operations to take full advantage of edge data. EDS 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.

## 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, EDS 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. Wide-scale deployments can be handled with simple scripting.

### Adaptive to multiple communication protocols

EDS provides 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 from AVEVA Adapters, or EDS supports the Message Format, a specification that allows you to easily transfer operations data to EDS using HTTPS. The vendor-neutral architecture of EDS gives you the freedom to use best-of-breed technology with the assurance that your edge data can be captured regardless of sensor type.

### Supports edge visualization and analytics

EDS 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 EDS 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 EDS 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

EDS is easy to download, install, and configure. 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.

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

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