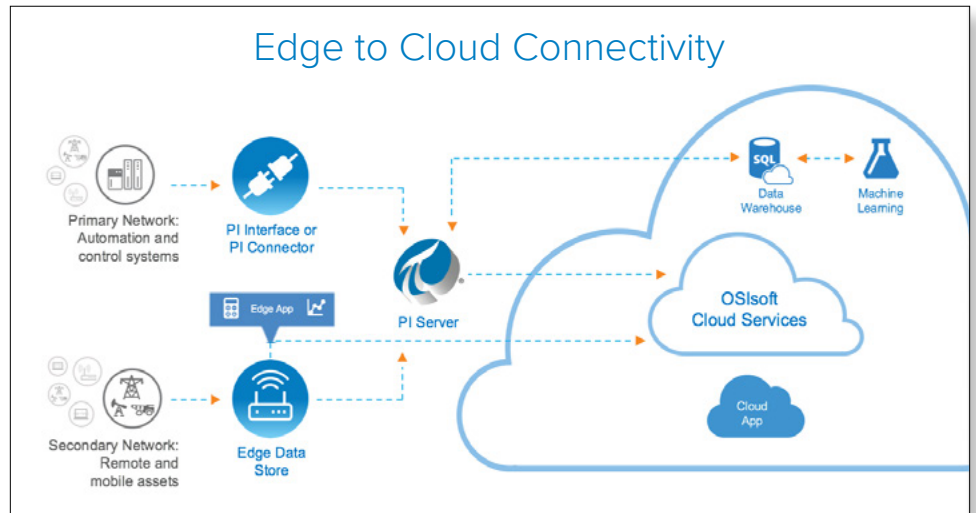


AT A GLANCE

Edge Data Store is software for industrial IoT that allows you to collect, store, and access operations data from remote sensors and assets. Supported on low-cost, rugged devices, Edge Data Store helps you act on data that is otherwise stranded in rough environments due to unreliable network connectivity or unpredictable power outages. It allows you to 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 help.
- Native integration to PI Server and OSIsoft Cloud Services.
- Optimizes bandwidth with simple configuration options.
- Empowers remote technicians with local data access.
- Enables edge analytics.



Edge Data Store allows you to easily send data from remote assets and sensors to PI Server or OSIsoft Cloud Services for full edge-to-cloud connectivity.

Simple, Lightweight Edge Software for Delivering Real-time Operations Data

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 viable means of gathering measurements from legacy or low-tech assets. While these sensors have increased data visibility of assets within the primary control network, key readings remain largely unavailable for remote assets, where field technicians need to be more self-sufficient and maintenance must be carefully planned in advance. Valuable edge data is often stranded beyond the reach of automation systems, held up by unreliable network conditions, and in environments too rough or too remote for traditional computers.

Remote environments pose a unique set of challenges. Data transfer often depends on wireless, long-range networking technologies that are bandwidth limited with sporadic connectivity. Removed from the corporate office and IT staff, remote solutions must be rugged, able to recover on their own from power outages, without manual intervention. And while fulfilling these requirements, the ideal remote solution also meets the standards of industrial operations to deliver high-fidelity data to both local technicians and headquarters in a scalable fashion, easily integrated into existing datasets and reports that drive business decisions.

OSIsoft's Edge Data Store is software designed to address the challenges of remote environments and enable industrial operations to fully leverage 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 PI Server and OSIsoft Cloud Services.

Purpose-Built for the Industrial Network Edge

Flexible Deployment Options

Built to be hardware agnostic, Edge Data Store runs on small, lightweight devices like industrial IoT 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

Edge Data Store provides no-code connectivity to OPC UA and Modbus TCP for rapid IIoT data collection. For other industrial or proprietary communication protocols, Edge Data Store supports the OSIsoft Message Format (OMF), a specification that allows you to easily package operations data into an HTTPS request that is sent to Edge Data Store. Independent of the sensor type, Edge Data Store gives you the freedom to use best-of-breed technology with the assurance that your edge data will always be captured.

Supports Edge Visualization and Analytics

Embedded within Edge Data Store is OSIsoft's proprietary Sequential Data Store that efficiently stores and exposes data and integrates natively to PI Server and OSIsoft Cloud Services. Data collected by Edge Data Store can be accessed through a REST API to create visualizations for field technicians or used in IIoT applications to provide predictive or advanced analytics capabilities. Application developers and equipment vendors can embed Edge Data Store to create industry-specific, value-add solutions without the heavy lift of recreating data collection, storage, and forwarding functionality.

An Easy Edge Solution for Industrial Operations

Edge Data Store offers a simple download, install, and configure experience to gather data from remote operations and send it natively to PI Server or [OSIsoft Cloud Services](#). PI System data and asset models are now easily enriched with edge data to give you a more holistic view of your operations. These augmented data sets can be sent, in context, to business intelligence and machine-learning platforms to derive further insights and create predictive models for remote assets. Edge Data Store enables you to leverage the full spectrum of edge to cloud capabilities to improve your remote operations.

FIND OUT MORE

Learn how [this company](#) used OSIsoft's 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 information.

*“The Product Manager
sent us the installers.
We went through the
API Management.
And an hour later
I had it spun up.*

*— Martijn Handels
Director of Product
Development at Rolloos
OSIsoft PI World Gothenburg 2019*

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