

Smarter  
technology  
for all

Lenovo



OSIsoft®

Certified  
Solution  
Partner

Makers of the PI System  
Seamless Data Infrastructure from Edge to Cloud

# The PI System: IIoT Data Infrastructure for Industrial Operators

Seamless Data Management from Edge to On-Premise to Cloud

## Introduction



The Industrial Internet of Things (IIoT) creates opportunities to collect data in ways that were previously too difficult or too expensive.

OSIsoft's PI System – PI Edge, PI Core, and PI Cloud – collects, consolidates, analyses, visualizes and shares large amounts of high-fidelity, time-series data from multiple sources to people and systems across all operations.

Two-thirds of Fortune 500 industrial organizations use the PI System. It is the proven system of record for operational data in essential sectors such as power generation and utilities, water, oil & gas, mining, metals, manufacturing, pharmaceutical, facilities, transportation, food and beverage, and more.

## Challenges



There are a plethora of IIoT device vendors and cloud solution providers that offer single-purpose solutions from their device to their cloud. This creates silos of data that industrial automation needs to consolidate and analyse in order to maximize asset performance, increase visibility, improve efficiency, and drive cost savings.

## Solution



The OSIsoft PI System is a data infrastructure that spans seamlessly from the edge, to on-premise, to the cloud.

By putting all data into one system that is available to personnel and applications enterprise-wide, OSIsoft brings consistency, reliability, and performance that industrial operators and service providers use for:

- Optimized operations
- Improved maintenance and reliability practices
- Incident avoidance and compliance in EH&S
- Energy efficiency improvements

## Features/Results



The PI System is able to collect data from many sources, regardless of location, vendor or technology. It stores, organizes, visualizes, analyses, and notifies natively, and integrates with other enterprise systems like Enterprise Resource Planning, Computerized Maintenance Management, Manufacturing Execution Systems, Data Lakes, and Advanced Analytics. This enables you to:

### Improve efficiency of business processes:

Running the PI Edge technologies on Lenovo Smart Edge computers such as the M90n-1 Nano IoT on remote/mobile assets and plant floor equipment supports local analytics and visualization.

### Make better decisions:

PI Core software runs at the plant data center on Lenovo servers such as the SE-350 for real-time decision-making.

### Enable data science for the enterprise:

PI Edge and PI Core can send data to PI Cloud to support advanced analytics and data sharing to new value networks to drive smarter, strategic decisions across the enterprise.