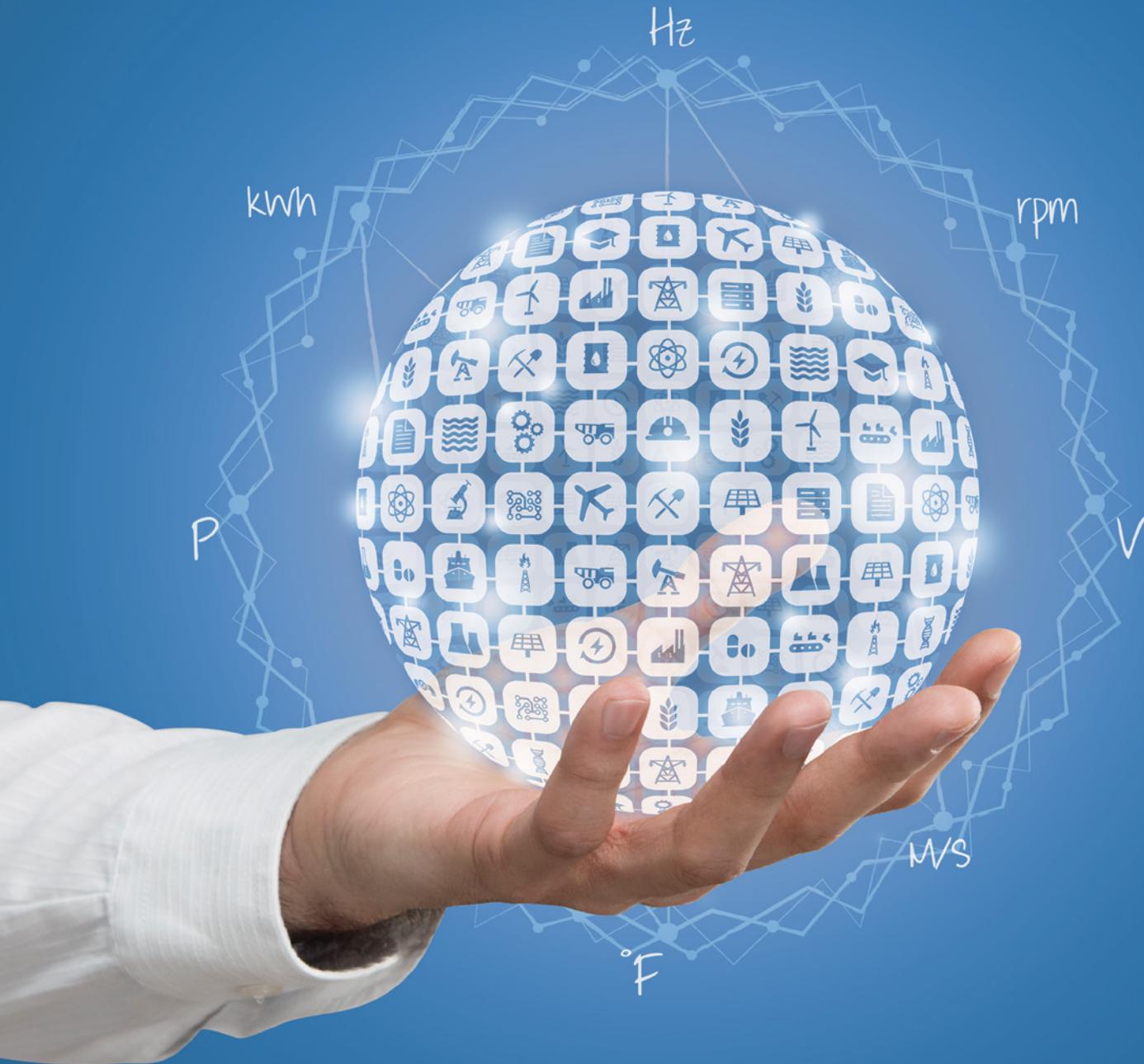




The PI System



Machines and equipment are getting smarter. They are generating more and more time series data. This data can drive transformational changes in your business and improve corporate wide decision making. But this data is typically locked in disparate, siloed, systems and is generated in multiple formats and standards, making it difficult to collect, combine, and leverage across your organization. Data cannot deliver insights, empower real-time decisions, or lead to action unless it's easy to understand and readily available to the people and systems that can act on it.

Through pervasive connectivity, scalability, and a highly developed asset modeling system that scales across geographical, logical, and organizational boundaries, the PI System™ from OSIsoft removes the barriers (and work) associated with capturing, finding, converting, and organizing operational data. The PI System empowers and liberates operators, analysts, and managers to focus on making confident, real-time, decisions to transform operations through Operational Intelligence that supports Asset Health, Process Efficiency, Resource Management, Quality, and Regulatory/Compliance Reporting.

Benefits of the PI System Infrastructure

For over 35 years, the PI System has delivered an enterprise scalable data infrastructure which is now deployed in over 17,000 sites globally. Embracing an infrastructure strategy for enterprise-wide sensor-based data offers many benefits including:

- **Simplified Access to Information:** The PI System creates a common data foundation that scales to an enterprise level and combines disparate data sources, multiple control systems, information silos, and non-standard naming data conventions into a single, comprehensible, information source. With one, complete, source of information, engineers, subject matter experts, centers of excellence, and business managers have easy access to a single version of the truth.
- **Increased Situational Awareness:** The dynamic monitoring capabilities an infrastructure provides enables rapid responses and ensures that vital parameters are continuously monitored. For example, roll-up and asset-based calculations automatically monitor operations and identify faults, process inefficiencies, and under performance across sites.
- **Empowered Users:** The PI System includes self-service tools that empower users to build their own role-specific displays and reports using easy-to-configure, out-of-the-box, tools. This can not only reduce turn-around time, custom coding, and 3rd-party application costs, it also eliminates barriers between users and their visualization needs.
- **Information in Context:** An infrastructure incorporates an asset modelling system to make it easy for users to see and understand data within the larger context of your operations. This context extends to all your PI Server™ data from complex calculations to streaming, real-time, data to archived data. Generating and presenting data in a familiar context not only improves user understanding, it transforms data into meaningful information that users can act upon quickly.
- **Reduced IT Complexity and Cost:** Deploying a common software system between automation systems and enterprise business applications simplifies the integration and architecture of OT and IT systems. Maintaining this layer also offers overall system agility so your enterprise can rapidly take advantage of advances in IT applications, technology, and solutions without having to re-integrate or replace existing OT enterprise architectures.

The Impact of the PI System Infrastructure

The PI System infrastructure empowers transformational change across all areas of operation. From process efficiency to asset health to resource management to quality to regulations, safety, security, and beyond, a data infrastructure delivers the information foundation you need to optimize and improve your business on an enterprise scale. With over 1,100 customer stories available from www.osisoft.com you can hear firsthand, from OSIssoft customers', how the PI System has impacted and transformed their business.





PI System Capabilities

The PI System contains three layers of capabilities:

- PI System Tools
- PI Server
- PI System Connections

PI System Connections

At the root of the PI System are the PI System Connections which connect and integrate data from different systems throughout your enterprise. By:

- providing a common integration layer, the PI System Connections seamlessly gathers data, in real-time, and delivers it to the PI Server which provides a centralized environment for users to access all your time series data and see “one version of the truth”.
- directly integrating PI Server data with third party systems such as Esri® ArcGIS®, Business Intelligence tools, SAP HANA®, and Hadoop® so you can combine your operations data with transactional/business data and unlock new analytic capabilities and operational insights.
- safely and securely delivering PI Server data to your suppliers, business partners, and customers through a VPN free, cloud based solution, for improved cross-company collaboration.
- creating an open and extensible infrastructure that enables rapid and cost effective integration of your operations data with custom applications and proprietary systems through common industry standards including OLEDB, ODBC, JDBC, and Web Services.

Together the PI System Connections capabilities ensure that your data is easy to access, compare, and share. With hundreds of PI Interfaces, PI Connectors, and PI Integrators available OSIsoft offers an unprecedented level of connectivity and provides a robust infrastructure for collecting and connecting data throughout your enterprise now and in the future.

PI Server

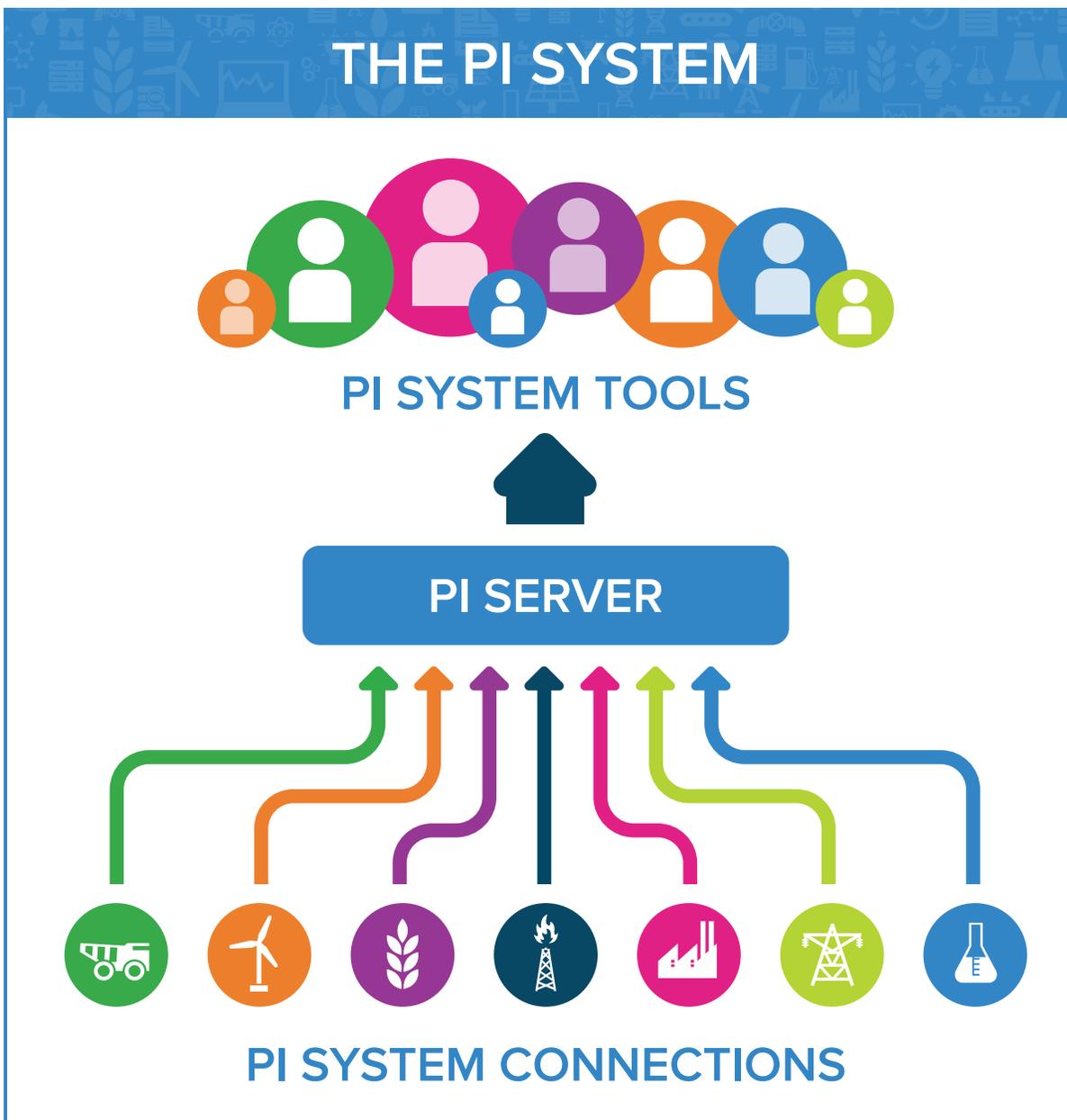
The PI Server handles the storage, aggregation, integration, processing, and delivery of data throughout your enterprise. The PI Server is designed to store millions of data points for decades. It seamlessly integrates new data into its archives as the data is received whether that's at millisecond speeds, once an hour, once a day, or once a year. With the PI Server, engineers no longer have to pick and choose which data values to collect, which to save, and which to abandon – all data, now and in the future, is collected, protected, and accessible.

The PI Server also transforms, refines, calculates, and contextualizes data turning it into actionable information. By universally normalizing data (while preserving the original data fidelity), the PI Server makes it easy to combine and compare information across sites, the enterprise, and your supply chain regardless of where that data came from. The PI Server also adds meaningful context to millions of streams of data as they enter the system making your data easy for any user to understand and act on no matter what their level of familiarity with your processes and systems. When all your information is instantly and universally accessible from one place, the PI System becomes a hub for enterprise-wide collaboration and operational insight.

PI System Tools

The power of data becomes reality when users can instantly access all the data they need, in the format they need, to make decisions. Today consumers of data are diverse and have different needs, expertise, and mobility requirements. From mobile data access to spreadsheet analysis to KPI dashboards to detailed process diagrams to batch/event driven analysis, the PI System Tools provide the diverse options needed to deliver data to all your users. The PI System Tools provide highly configurable visualization and analytical tools that delivers agile, self-service, data access to users, empowering them to make data driven decisions based on real-time and historical information.

For users who prefer alternative visualization and analytic tools, the PI System supports integration with leading third party visualization tools and engines. From continuously updating, real-time data to delivering decades of historical data in seconds, the PI System Tools seamlessly deliver the data needed for historical, real-time, and predictive insights.



Security and Reliability

The PI System is a mission critical system dedicated to protecting and securely delivering data wherever it's needed. For over 30 years OSIsoft customers have been using the PI System. Today the PI Server is deployed in over 125 countries at 17,000 sites and used to monitor just under 1 billion data streams. The PI Server is designed to work within existing networks and can be deployed in a multitude of architecture configurations including in a DMZ, on virtual machines, and in cloud environments. Core functions like automatic tag/asset creation, templated calculations, and automatic archive creation make integrating new data sources fast and easy. The PI System also offers a High Availability function that provides end-to-end redundancy/failover to support disaster recovery needs, supply data to emergency operation centers, and help improve uptime.

Infrastructure Longevity

OSIsoft has been dedicated to software longevity for over 30 years. A core tenant of the company is "no customer left behind". The very first customers to install the PI System in the 1980s are still using it strategically in their business today on the latest operating systems. Over the decades, they have had to upgrade their systems as hardware and operating systems have become obsolete but their PI System has evolved with them. OSIsoft develops products for the long term so you can rely on the PI System as the foundation for your corporate initiatives for decades to come.

A Foundation To Build On

OSIsoft has an extensive partner network that leverages the PI System infrastructure to provide rich applications and domain specific expertise. The OSIsoft Partner EcoSphere includes over 200 partners who offer:

- implementation/integration services
- consulting services
- process design services
- a variety industry/initiative specific software applications

for the PI System. Working with the PI System foundation, OSIsoft's partners help extend the scope and reach of the PI System data to solve strategic business challenges. To learn more about the services and applications the OSIsoft Partner EcoSphere provides, please visit www.osisoft.com/partners/Partner_EcoSphere.aspx.



Support On Demand

As the data foundation for the enterprise, the PI System becomes a mission critical system for day-to-day business. To safe-guard your investment and make sure support is available when needed, OSIsoft provides a comprehensive support offering known as the [Software Reliance Program \(SRP\)](#).



Support is available

24/7

world-wide from dedicated and highly trained employees.

Access to online community

24 hours a day **7** days a week



On-Demand Learning

over **25**

product releases and upgrades per year

9 supported languages from **16** offices in **16** countries

Local support in:

- | | | | |
|-----------|----------------|-----------|-------------|
| Australia | China | Japan | South Korea |
| Bahrain | Czech Republic | Mexico | Spain |
| Brazil | France | Russia | UK |
| Canada | Germany | Singapore | USA |

"Thanks for the best technical support in the industry."

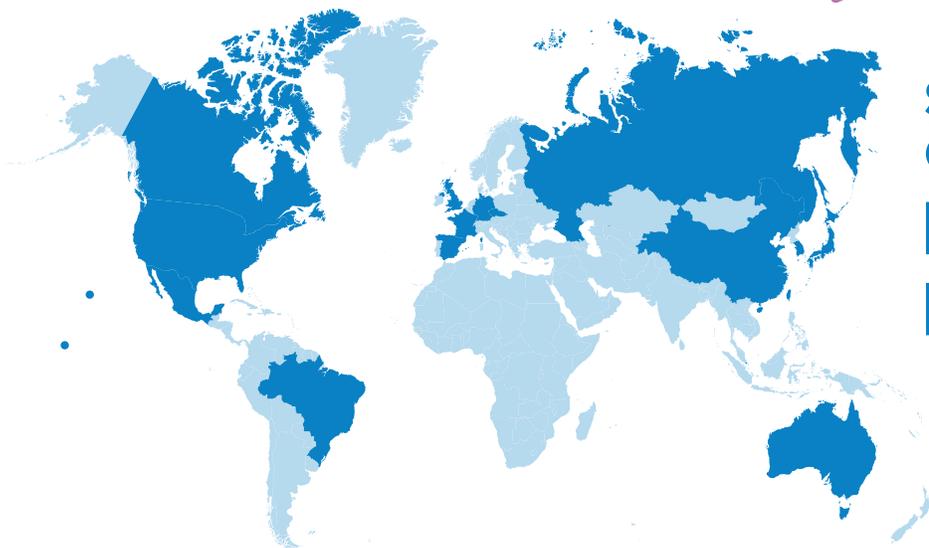
Don O'Quinn,
Arizona Chemical

"OSIsoft Tech support is arguably the best service support I've worked with in decades!"

Tom Bowman,
Packaging Dynamics Corporation

Support Channels:

- | | |
|--------|------------|
| Phone | Forums |
| E-mail | Web Ticket |



Data is one of your most precious business assets and, when leveraged correctly, has the power to transform your business and help organizations continually evolve and thrive. Connecting the right people with the right data at the right time enables organizations to:

- detect emerging trends.
- react quickly to changes and events.
- optimize processes and improve equipment efficiencies.

With the PI System, data – no matter where it's coming from, no matter how old or new it is – is instantly accessible to users wherever they are. With the right information always at their fingertips, the entire enterprise can work together to drive innovation and resiliency to reach new levels of operational understanding and intelligence. To learn more about the benefits of the PI System from OSIsoft, please visit www.osisoft.com.



About OSIsoft, LLC

OSIsoft, a global leader in operational intelligence, delivers an open enterprise infrastructure to connect sensor-based data, operations, and people to enable real-time and actionable insights. As the maker of the PI System, OSIsoft empowers companies across a range of industries in activities such as exploration, extraction, production, generation, process and discrete manufacturing, distribution, and services to leverage streaming data to optimize and enrich their businesses. For over thirty years, OSIsoft customers have embraced the PI System to deliver process, quality, energy, regulatory compliance, safety, security, and asset health improvements across their operations. Founded in 1980, OSIsoft is a privately-held company, headquartered in San Leandro, California, U.S.A., with offices around the world. For more information visit www.osisoft.com.