

SOLUTION BRIEF

AVEVA™ PI Data Infrastructure

Hybrid, edge-to-cloud data management for industrial operations

Experience industrial data without boundaries—without the restrictions of data silos or the cost of traditional infrastructure and related IT support. Deploy an industrial data foundation that easily provides decision makers in any location with all the real-time industrial data they need.

Modern operations produce valuable data in an expanded environment including remote sites outside the control network, mobile assets and thousands of sensors and IIoT devices. Increasingly, data users work collaboratively outside the plant to achieve industrial transformation and sustainability, increase asset reliability and perform AI-enhanced analysis.

AVEVA PI Data Infrastructure is a hybrid data infrastructure designed to meet the needs of today's modern industrial enterprise. Use this solution to collect, enrich, visualize, analyze and share operations data anywhere you need it: at the industrial edge, within and across plants and operating sites and in the cloud.

Benefits

- Collect and store high-volume, vendor-neutral data streams automatically from hundreds of industrial data sources.
- Aggregate real-time and historical data in the cloud for cost-efficient scalability and easy integration with other data and applications.
- Ensure enterprise-level protection for the data you choose to share with trusted stakeholders inside and outside the company.
- Move industrial data seamlessly from edge to plant to cloud to community, as needed.
- Scale up or down as needed with ease using a subscription-based solution.

Key functionality

AVEVA PI Data Infrastructure is the natural evolution of AVEVA™ PI System™, expanding data management beyond the plant to include data from remote assets outside the control network and to support data aggregation and access from the cloud. The complete, edge-plant-cloud solution is available as a single purchase, offering all the functionality you need. This integrated, hybrid solution offers:

Visibility of data across the enterprise:

Access and act on real-time industrial data, even from assets in geographically distant locations. AVEVA PI Data Infrastructure includes the functionality of AVEVA™ Edge Data Store—to collect, store and analyze data from sensors, IIoT devices, mobile assets and other sources outside your control network. Deploy this lightweight software on low-cost Windows or Linux devices.

Vendor-neutral data collection:

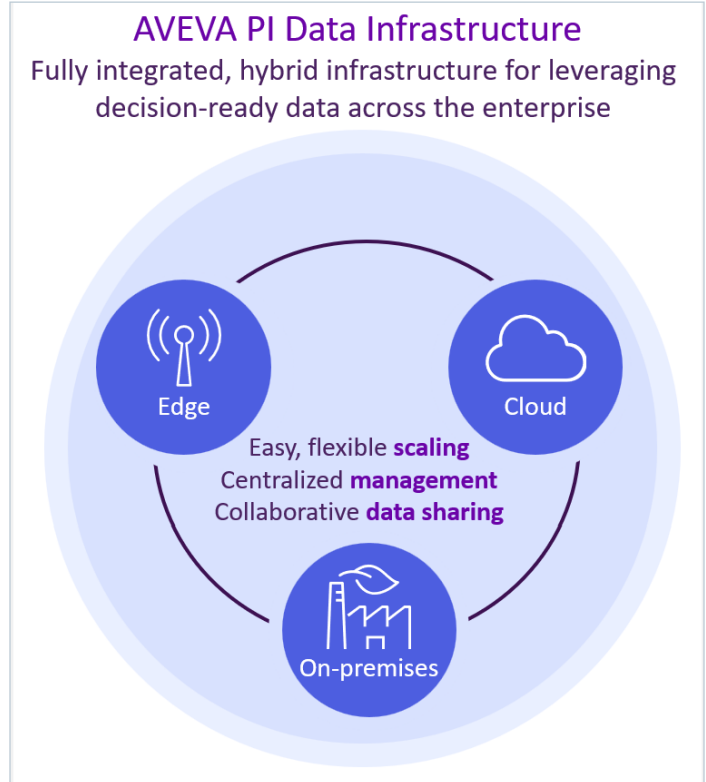
Connect to any data source, irrespective of the underlying vendor system or environment. AVEVA supplies a full set of off-the-shelf interfaces, connectors and adapters, as well as an SDK, to enable automatic, high-volume data collection.

High-volume storage and processing:

Collect, enrich and process industrial data using the proven, high-performance capabilities of AVEVA™ PI Server. More than a data historian, AVEVA PI Data Infrastructure lets you manage huge volumes of historical, real-time and forecast data, along with its relevant context, to support your data needs today and in the future.

Cloud scalability and easy access:

Integration with [CONNECT, the industrial intelligence platform](#), is an essential component of AVEVA PI Data Infrastructure. CONNECT has services that enable you to remotely configure, deploy, monitor, and update data collection and edge software. It lets you aggregate data from the industrial edge, from AVEVA PI Servers on-premises, from other AVEVA solutions, and from third-party systems into a single source of truth.



AVEVA PI Data Infrastructure works at the edge, on-premises and in the cloud

From there, apply modeling and analytics to your data or send the data to your choice of business intelligence or analytics tools. Then, bring the results from those advanced analytics and trusted stakeholders back on-premises, empowering operations with the insights.

Enterprise-wide visualization:

Rapidly study operational conditions to make key business decisions. AVEVA™ PI Vision™, the flagship self-service tool for visualizing AVEVA PI System data, helps you quickly identify trends, detect anomalies, and focus on relevant data for further analysis. CONNECT also includes visualization services that converge engineering, operations, and business data in context in the cloud. Create custom and pre-defined views to support the specific needs of different users.

Data without boundaries

Expanding your industrial data management beyond your on-premises plants lets you move data where you need it to drive decision-making and optimize business results.

AVEVA PI Data Infrastructure forms a digital data highway that enables fast, secure transfer of high-fidelity industrial data with complete data integrity and end-to-end security.

Meaningful contextualization

As a specialist in industrial software, AVEVA helps you attach meaningful contextual details to real-time data streams. This information allows engineers and non-experts alike to easily understand the data. In addition, the asset framework feature lets data users build their own, reusable data structures to represent physical assets or logical process flows.

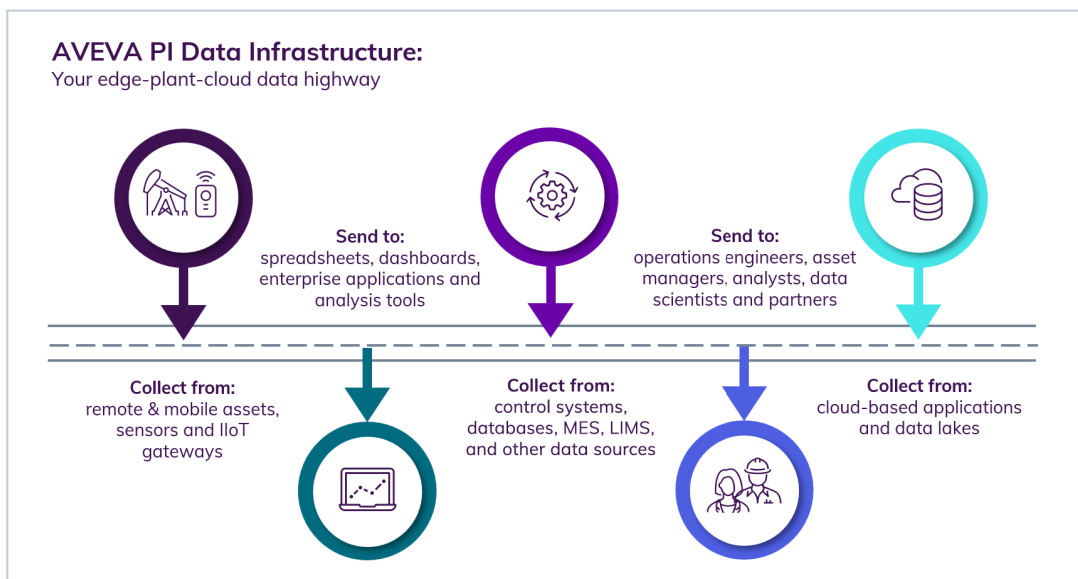
Modern security options

Use modern claims-based authentication via OpenID Connect (OIDC) and encrypted transport layer security (TLS) certificates. With OpenID Connect, you can integrate your data management software with your enterprise's common source of account authentication and single sign-on (SSO).

Flexible hybrid architecture

A hybrid architecture allows you to locate data storage and processing where it is most efficient for your data users. For example, you can feed edge data directly to local applications to support field engineers. Or you can aggregate data from multiple plants or sites in the cloud to support enterprise-level monitoring and analysis. A cloud-based industrial intelligence platform also lets you share data with third-party data scientists, service providers, and other stakeholders.

The components of AVEVA PI Data Infrastructure work together seamlessly, out-of-the-box, to support a wide variety of use cases and accelerate time-to-value for industrial applications that rely on real-time data.



Flexible purchasing



You purchase AVEVA PI Data Infrastructure as a subscription, giving you access to all the capabilities you need to seamlessly manage your data at the edge, in your plants and in the cloud. Subscription purchasing makes it easy for you to scale capacity up or down or add new users as your business needs change, without the paperwork required when setting up new contracts. Subscriptions also reduce your upfront investment and reduce the IT costs associated with software management and maintenance.

AVEVA PI Data Infrastructure is available for purchase using AVEVA™ Flex credits. The credit system lets you adjust your data infrastructure without new purchasing contracts.

Learn more about the AVEVA Flex [subscription program](#).

For more information about AVEVA PI Data Infrastructure, please contact your local sales representative or visit our website at <https://www.aveva.com/en/products/pi-data-infrastructure/>