AVEVA

AVEVA™ PI Data Infrastructure

Service Description

Contents

AVEVA PI Data Infrastructure on AVEVA Connect

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Document Purpose and Audience

Document Purpose

This document describes the functioning digital services of AVEVA PI Data Infrastructure on AVEVA Connect, including key features and limitations, as well as the operational parameters.

This document must be read in conjunction with the AVEVA Connect service description, which describes the common services available for all functional digital services on AVEVA Connect. Any additions or exceptions to the common services are described in this document.

Audience

The audience of this document are IT departments and business decision makers who are investigating whether to leverage AVEVA cloud offers in their own IT landscape.

About AVEVA PI Data Infrastructure on AVEVA Connect

The AVEVA PI System is a data infrastructure solution for real-time data management, allowing users to use real-time operations data to drive operational excellence and business value. The multiple layers of the system allow users to collect, store, contextualize, visualize, and analyze asset and operations information. It is now more commonplace to see multi-site, distributed PI System deployments which brings the challenge of information governance and configuration across the enterprise as well as aggregating site-level data with a standard-driven approach. AVEVA PI Data Infrastructure complements the PI System by leveraging the power of AVEVA Connect (AVEVA's industrial cloud platform) and AVEVA Data Hub (AVEVA's cloud-native data management software as a service) to add transformational value to business operations.

AVEVA PI Data Infrastructure augments the on-premises PI System with cloud-enabled functionalities, providing enough data scope and scale to manage ever increasing data sources as well as enable enterprise collaboration. The solution provides a data infrastructure expanding from edge to plants to community.

AVEVA PI Data Infrastructure provides more flexibility for scaling data usage in large, multi-site deployments, giving users more control over the architecture and deployment of their PI System.

Key Benefits

- Connecting on-premises PI Systems to AVEVA Connect allows an enterprise or globally deployed system to be more easily managed. The system can be viewed in aggregate or as a single data infrastructure.

- As part of the AVEVA PI Data Infrastructure solution, remote maintenance engineers can utilize AVEVA Connect visualization services which provides enhanced value for remote maintenance engineers, simplifying sharing of operational data to remote users.

Key Features

- AVEVA PI Data Infrastructure provides a seamless data infrastructure from edge to plant to community by leveraging Edge Data Store, AVEVA PI Server and AVEVA Data Hub.

- AVEVA Connect visualization services provides added value on top of the seamless data infrastructure.

- Reduces IT effort by enabling Single Sign-on and supporting Open ID Connect (OIDC).

Architecture

AVEVA PI Data Infrastructure includes AVEVA PI Server, Edge Data Store, AVEVA Data Hub starter plan, PI System connectivity products (AVEVA Adapters, and standard PI Interfaces and PI Connectors), and AVEVA Connect visualization services. Other PI System products include AVEVA PI Vision, AVEVA PI DataLink and AVEVA PI Web API.

- **AVEVA PI Server**. Data storage and processing software for managing huge volumes of time-series operational data and associated contextual information, analytics, events, and notifications.

- **AVEVA PI Vision**. Web-based dashboard tool for configurable, self-service visualization and analysis of AVEVA PI Server data. It includes straightforward web and mobile interfaces for rapidly building, managing, and sharing reusable, real-time displays without programming.

- **AVEVA PI Datalink**. Microsoft Excel add-in that enables users to pull information from AVEVA PI Server directly into a worksheet. Users can aggregate, monitor, analyze, and report data using the familiar computational, graphical, and formatting capabilities of Excel.

- **AVEVA PI Web API**. Retrieve and manipulate time series, asset meta data, and events stored in AVEVA PI Server with this RESTful API.

The PI to Data Hub Agent is included with the PI Server installation kit and is required for reporting tag metrics to the cloud for the aggregate tag model of PI Data Infrastructure. Both the PI Server and PI to Data Hub Agent are installed on-premises.

The PI to Data Hub Agent optionally transfers process data to AVEVA Data Hub.
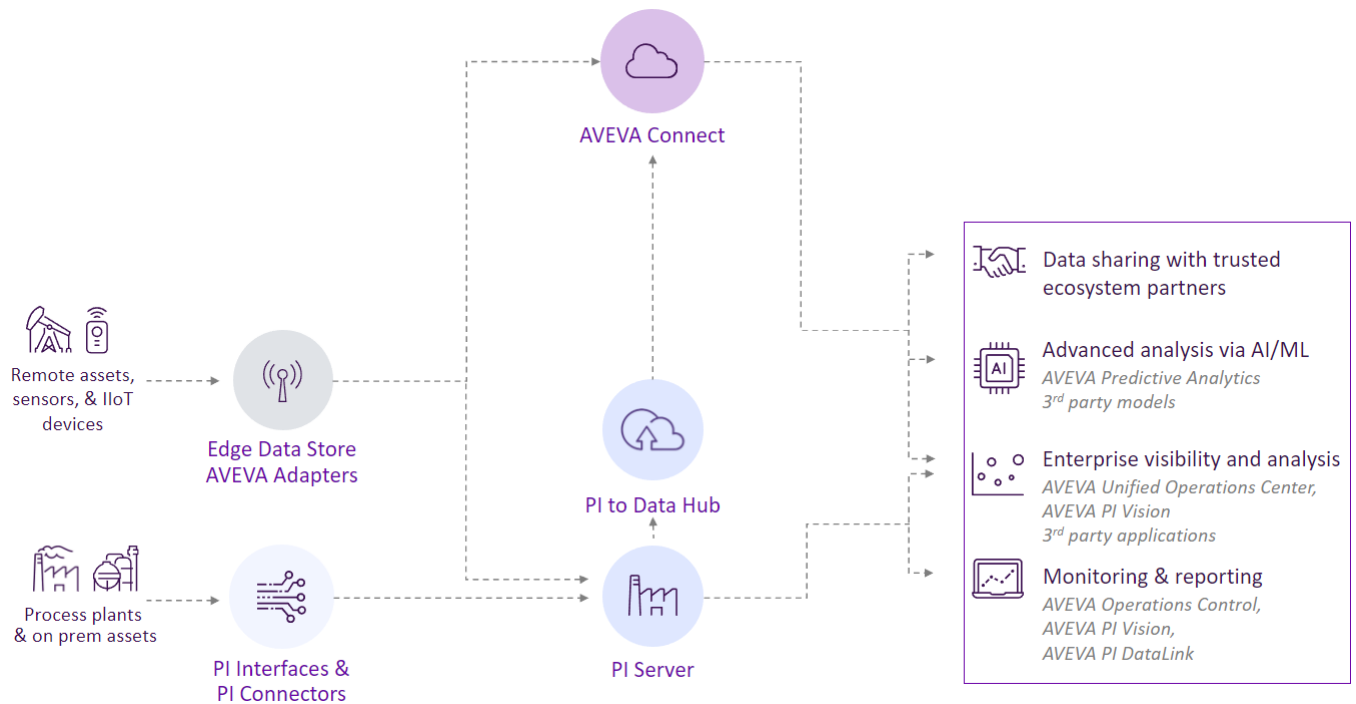
Service Overview

AVEVA PI Data Infrastructure interacts with AVEVA Connect and AVEVA Data Hub.

Service Limitations

AVEVA PI Data Infrastructure has the same service limitations as AVEVA Data Hub. AVEVA Data Hub has the following limitations:

- The default maximum for number of namespaces per AVEVA Data Hub tenant is limited to five (5). To increase this maximum for a particular tenant, customers must communicate this request to AVEVA.

- The AVEVA Data Hub portal only supports the English language.

For more information, see the AVEVA Data Hub on AVEVA Connect service description.

Regional Cloud Availability

AVEVA PI Data Infrastructure supports the same deployed geographic locations as AVEVA Data Hub. For more information, see the AVEVA Data Hub on AVEVA Connect service description.

Hardware and Software Requirements

AVEVA PI Data Infrastructure has the same browser requirements as AVEVA Data Hub, which are shown in the following table:

Operating System	Supported Browser
Windows	Microsoft Edge, Google Chrome, Mozilla Firefox
Mac OSX	Microsoft Edge, Google Chrome, Mozilla Firefox, Safari*

Operating System	Supported Browser
iPadOS	Safari*
Android	Google Chrome

*Due to the known limitations with the Safari browser, users might experience some minor using interface issues. Therefore, it is advisable to use other browsers where possible.

For AVEVA PI Data Infrastructure purchased with the aggregate tag model, PI Servers will need to report their tag count to AVEVA Connect (through the PI to Data Hub Agent) to be in compliance with their contract. If an AVEVA PI Data Infrastructure PI Server loses the connection to AVEVA Connect, the customer will continue to be charged. There are no other latency or bandwidth requirements for AVEVA PI Data Infrastructure and AVEVA Connect.

Security Standards and Compliance

Because AVEVA PI Data Infrastructure is reporting usage data to AVEVA Connect, the same security policies for AVEVA Connect apply. For more information, see the AVEVA Connect service description.

The 2023 version of a collection on on-premises PI System products adds support for Open ID Connect (OIDC). The PI System also supports Windows Integrated Security, and Access Control over the data within the PI System. For more information about PI System security, see the knowledge base article *KB00833: Seven best practices for securing your PI Server.*

High Availability, Business Continuity, and Data Protection

To ensure high availability, business continuity, and data protection, AVEVA PI Data Infrastructure adheres to the timelines given below.

- **Database Storage**

  o Because AVEVA PI Data Infrastructure is reporting to AVEVA Connect, the procedures for data storage, backup, and retention are the same as AVEVA Connect. For more information, see the AVEVA Connect service description.

  o For on-premises PI Servers, it is up to the customer to provide sufficient data storage (drive space), perform backups, and store backups in a safe place.

- **Disaster Recovery**

  In the event of a service failure, AVEVA initiates a recovery process in accordance with RPO and RTO objectives for AVEVA Connect, which are:

Cloud Service	Recovery Point Objective (RPO)
AVEVA PI Data Infrastructure	1 hour

Cloud Service	Recovery Time Objective (RTO)
AVEVA PI Data Infrastructure	24 hours

Decommission of the Service

In the event of a customer wishing to decommission an AVEVA Connect service, AVEVA will follow a process for the decommissioning and destruction of data to include the deletion of all files and data held within the service. Data is retained for 30 days after receiving the deletion request to safeguard against accidental or wrongful deletion. After this period, the process of deleting data is initiated. Refer to AVEVA Software Legal Information and Policies on the AVEVA Legal site at: https://www.aveva.com/en/legal/

For any additional functional service specific decommissioning and data destruction details, refer to the respective functional service descriptions.

AVEVA Customer Support

Access to customer support is subject to a valid support agreement and entitlement.

Service Level Commitment

AVEVA Cloud Services are governed by the AVEVA General Terms and Conditions.

The AVEVA Cloud Service Level Commitment is a supporting document that describes the service level commitment for all available AVEVA Cloud Services.

Both documents are available on the AVEVA web site at https://www.aveva.com/en/legal.

Additional Services

AVEVA offers an extensive collection of Customer Success Accelerators, well-defined, outcome-based services that are designed to ensure you realize the maximum benefit from your investment in our software through all the lifecycle stages of your software application.

For more details, visit the Customer Success Accelerators site at https://www.aveva.com/en/support/customer-first/success-accelerators/.