AVEVA™ Advanced Analytics Service Description

Contents

AVEVA Advanced Analytics

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Document Purpose and Audience

Document Purpose

This document describes the functional digital services of AVEVA Advanced Analytics, which is an add-on application to AVEVA Data Hub, including its 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. Also, read the AVEVA Data Hub service description to know more about the base service underlying AVEVA Advanced Analytics.

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 Advanced Analytics

AVEVA Advanced Analytics re-imagines continuous improvement with the latest digital technologies and artificial intelligence (AI)—enabling the next frontier in automation that you can apply more consistently and much faster than previous automation technologies. Advanced Analytics starts by transforming industrial data into predictive models. Automating this step means engineers do not have to waste time finding and curating data. Advanced Analytics then gives customers the ability to operationalize those models and automate performance monitoring—meaning the system of algorithms provided by Advanced Analytics will watch over industrial processes with an expert eye, whether a human is watching or not.

Advanced Analytics offers advanced warning alerts paired with recommendations for resolution, so customers can prevent issues from occurring instead of reacting to them as they are happening. Advanced Analytics produces an analysis of industrial processes automatically—extracting deep insights that would not be practical to extract through manual analysis. This, again, saves subject matter experts time and empowers them to learn much faster than previously possible. The ultimate goal of a predictive operations solution is to give customer teams the tools they need to optimize processes and equipment.

Advanced Analytics comes standard with pre-built predictive applications that automate every aspect of model development and operationalization. These applications work out-of-the-box, not only to deliver insights, but to drive proactive action in real time. Some of the key use cases, and the metrics they solve for, are:

- **Predictive Quality.** Solving quality issues before they occur. For example, customers may achieve 100% First Pass Quality by predicting outside optimal conditions during production—ensuring customers prevent outside specification products and unnecessary waste.

- **Predictive Throughput.** Proactive, real-time recommendations to maximize production. Customer Production Rate can be continuously improved because this application constantly uncovers opportunities for optimization within customer processes.

- **Predictive Energy Efficiency.** Insights that allow customers to operate within an energy consumption sweet spot. If lowering Energy Cost / Unit is the customer's goal, this predictive application delivers everything you need to decrease your energy footprint.

Components

AVEVA Advanced Analytics is based on Cloud software provided by AVEVA's partner TwinThread, hosted in AVEVA's Azure subscription, along with other AVEVA Software as a Service (SaaS). The system boundaries are specific components of TwinThread's infrastructure, software, people, and policies and procedures that support the services provided to customers.

Architecture

An optional component of the AVEVA Advanced Analytics solution can run on a customer's on-premises server for transactional data not available in AVEVA Data Hub. This is a remote Agent that pulls on-premises data and forwards it to TwinThread's cloud repository.
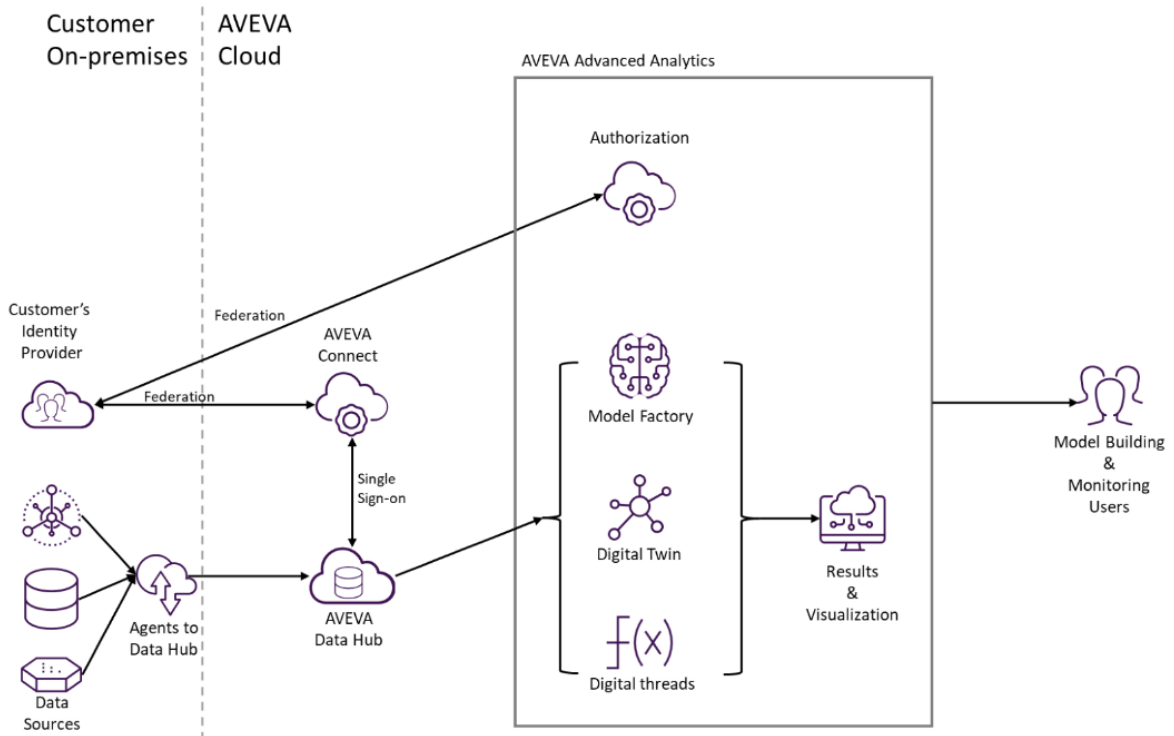
Service Overview

AVEVA Advanced Analytics is a multi-tenanted application leveraging Microsoft Azure services and AVEVA Connect for its general administration (user management, authentication, authorization, usage reporting). This service is available to geographically dispersed users.

Service Limitations

These are the limitations of AVEVA Advanced Analytics:

- AVEVA Advanced Analytics leverages AVEVA Data Hub (ADH) as its time-series repository and as such, retrieves historical data from AVEVA Data Hub and writes outputs of calculations and models in AVEVA Data Hub.

- On-premises data must first be published to AVEVA Data Hub, which makes this data available not only for AVEVA Advanced Analytics, but for any other AVEVA application leveraging AVEVA Data Hub.

Regional Cloud Availability

AVEVA Advanced Analytics is accessed through the public Internet using HTTPS/TLS, and is available from the following public cloud regions:

- Americas - US West - California

- Europe North - Ireland

Software Requirements

AVEVA Advanced Analytics is provisioned on AVEVA Connect, and a supported browser is the only requirement to use it.

Component	Minimum/Recommended
Web browser	HTML5 compatible browser, including the latest versions of Google Chrome, Mozilla Firefox, and Microsoft Edge
Internet connection	10 Mbps or higher per user

Security Standards and Compliance

In addition to the technologies and architectural practices that ensure high security for AVEVA Connect, AVEVA Advanced Analytics restricts access by roles, and users must be assigned to roles to have access to the relevant software functions.

High Availability, Business Continuity, and Data Protection

To ensure high availability, business continuity, and data protection, AVEVA Advanced Analytics follows the following practices:

- **Database Storage.** AVEVA Advanced Analytics on AVEVA Connect runs on Microsoft SQL Azure database.

- **Data Backup.** Backup tasks are performed hourly, daily and monthly, and the backup files are encrypted and stored in Microsoft Azure storage in at least two separate data centers.

- **Disaster Recovery.** In case of a disaster, services and data are restored in an alternate environment leveraging the latest available backup. In the event of a service failure, AVEVA initiates a recovery process in accordance with RPO and RTO objectives detailed as follows.

Cloud Service	Recovery Point Objective (RPO)
AVEVA Advanced Analytics	1 hour

Cloud Service	Recovery Time Objective (RTO)
AVEVA Advanced Analytics	24 hours

Cloud Service Recovery Point Objective (RPO)

- For catastrophic failure that takes down the pair of Azure Data Centers, our Recovery Point Objective is 12 hours plus the duration of the paired data center outage.

Cloud Service Recovery Time Objective (RTO)

- AVEVA Advanced Analytics operates on a paired Azure data center that supports transparent rollover between sites. The recovery time for any failure in one of the two paired sites is seconds because the transfer to the second site is transparent and virtually instantaneous.

- For human error or malicious action that destroys any of the key data storage systems or application code, our Recovery Time Objective is 24 hours from the awareness of the issue. Based on our monitoring tools, this will be within minutes.

- For a catastrophic failure that takes down the pair of Azure Data Centers, our Recovery Time Objective is 24 hours after the Azure Data Center returns to an operational state.

Decommission of the Service

Customers can request a copy of their data for up to 60 days from termination. Beyond this AVEVA does not have the obligation to continue to store customer data. During this period, if a customer deletes a solution, then after 10 days of deletion, data will be deleted and will not be recoverable.

Normal maintenance process ensures that data is deleted between 61-75 days from the termination date.

Decommission of the service can happen under these scenarios:

- By customer request
  Termination date is taken as the date when the request is received.

- If renewal becomes 21 days overdue
  Termination date is taken as the renewal date.

For more generic information on decommission and data destruction, see the AVEVA Connect service description.

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/.