



AVEVA™ Edge Management on AVEVA Connect

Service Description

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AVEVA Edge Management on AVEVA Connect

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Document Purpose and Audience

Document Purpose

This document describes AVEVA Edge Management 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 Edge Management

AVEVA Edge Management is a service within AVEVA Connect, AVEVA's industrial cloud platform. With AVEVA Connect, you can securely consume and manage AVEVA's cloud services. Connect provides centralized access to our hybrid SaaS portfolio and these offerings allow you to adopt a hybrid architecture of capabilities.

AVEVA Edge Management is a key piece of this hybrid architecture that connects edge to on premises to cloud by giving you the ability to remotely deploy, configure, and manage your IIoT devices.

AVEVA Edge Management features:

- A cloud-based device management solution that helps to reduce the risk, effort, and cost of managing operations data from remote assets by providing centralized device and configuration management.
- A digital twin of your edge devices provides visibility into all your devices out in the field, so you can see and manage AVEVA software running on each device, including the version and current configuration of the software.
- An easy-to-use, no-code software management solution allows you to quickly and easily deploy and configure AVEVA software using flexible subscription models.
- Standardized applications, software versions, and application configuration are available through centralized management.

AVEVA Edge Management enables AVEVA software to be successfully incorporated into a variety of hybrid architectures that connect edge to cloud. The result is an edge application lifecycle that enables operational excellence and asset performance anywhere via the cloud.

Modules

For the list of edge modules supported by AVEVA Edge Management, see [Understand Supported Modules](#).

The AVEVA Edge Management service has been tested with up to 1,000 devices in order to support a large number of devices as per your requirements.

Architecture

Selected AVEVA applications are provided as industry-standard Docker images that have been enhanced to interoperate with AVEVA Edge Management. These applications are called edge modules. Think of an edge module as a compact virtual machine that contains exactly what you need without extra software bloat.

An edge module is composed of the following:

- Configurations: software-specific configurations the module will execute
- Embedded software: the AVEVA software executable or runtime
- Container OS: the components of the OS needed (Linux)

Service Overview

AVEVA Edge Management is a cloud-based offering built on top of components from the Microsoft Azure platform and natively integrated with AVEVA Connect, which provides the identity management and authentication mechanism for AVEVA Edge Management. AVEVA Edge Management leverages Azure IoT Hub in the cloud and Azure IoT Edge on devices to provide remote management capabilities.

Service Limitations

AVEVA Edge Management has the following limitations:

- There is a 2GB file upload size limit, for uploading application files to the edge module.

Regional Cloud Availability

AVEVA Edge Management is available for deployment in public cloud regions located in:

- North America - West US
- Northern Europe - Ireland

Hardware and Software Requirements

For latest and detailed information, see the documentation for AVEVA Edge Management.

Ports

AVEVA Edge Management facilitates the transfer of data between your edge devices and device digital twins. The recommended protocols below facilitate throughput and continuous connectivity.

To ensure that the AVEVA Edge Management service can communicate with your edge devices, you must open the following required outbound ports on your firewall depending on the protocol you wish to use. Ports marked as optional may improve connection speeds.

You do not need to open inbound ports.

Protocol	Outbound Port	Required/Optional
TCP	80	Required
HTTPS	443	Required
MQTT	8883	Optional
MQTT over WebSockets	443	Optional
AMQP	5671	Optional
AMQP over WebSockets	443	Optional (Required if port 5671 is not open)

Supported Edge Device Operating Systems

AVEVA Edge Management target devices must be running on a Windows or Linux operating system supported by Azure IoT Edge. For a full list of supported operating systems, see [Understanding Operating System and Bandwidth Requirements](#).

Minimum Bandwidth for Pairing

750 kbps. 1mbps or faster is recommended for optimal performance.

Security Standards and Compliance

In addition to the technologies and architectural practices that ensure high security for AVEVA Connect, the AVEVA Edge Management service undergoes application penetration testing (Dynamic Application Security Tests) on a yearly basis, using test categories from industry standards including the OWASP top ten.

For information on security features of AVEVA Connect, read the AVEVA Connect service description.

High Availability, Business Continuity, and Data Protection

To ensure high availability, business continuity, and data protection, AVEVA Edge Management follows the timelines given below.

- **Data Storage:** AVEVA Edge Management runs on the Microsoft SQL Azure database, and storage account.
- **Data Backup**
 - Full backups are completed **every week**, with differential backup available every **12 hours**.
 - The transaction log is available every **10 minutes**.
 - All backup data is retained for **7 days**. Backup on Saturdays is maintained for **4 weeks**.

Azure Data Storage Service Name	Data	Primary Server	Secondary Server
Storage Account	Logs, Module applications	West US	East US
SQL Server	Device and Templates configuration	West US	North Europe
IoT Hub	Edge device twin information	West US	East US

- **Disaster Recovery**

In case of a disaster, services and data are restored in an alternate environment leveraging the latest available backup.

Cloud Service	Recovery Point Objective (RPO)
AVEVA Edge Management	2 hours

Cloud Service	Recovery Time Objective (RTO)
AVEVA Edge Management	24 hours

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>.

Decommission of the Service

In the event of a customer wishing to decommission AVEVA Edge Management, 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 will be retained for **30 days** after receiving the deletion request to safeguard against accidental or wrongful deletion. After this period, the process of deleting data will be initiated.

Refer to AVEVA Software Legal Information and Policies 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/>.