



# AVEVA™ Asset Information Management - Discovery Service Description



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# AVEVA Asset Information Management - Discovery

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## Document Purpose and Audience

### Document Purpose

This document describes Asset Information Management - Discovery, including key features and limitations, as well as the operational parameters.

This document must be read in conjunction with the CONNECT service description, which describes the common services available for all functional digital services on 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 Asset Information Management - Discovery

AVEVA Asset Information Management - Discovery service turns data from multiple information sources and systems into trusted "actionable information", delivering improved operational safety, asset information integrity and reduced risk.

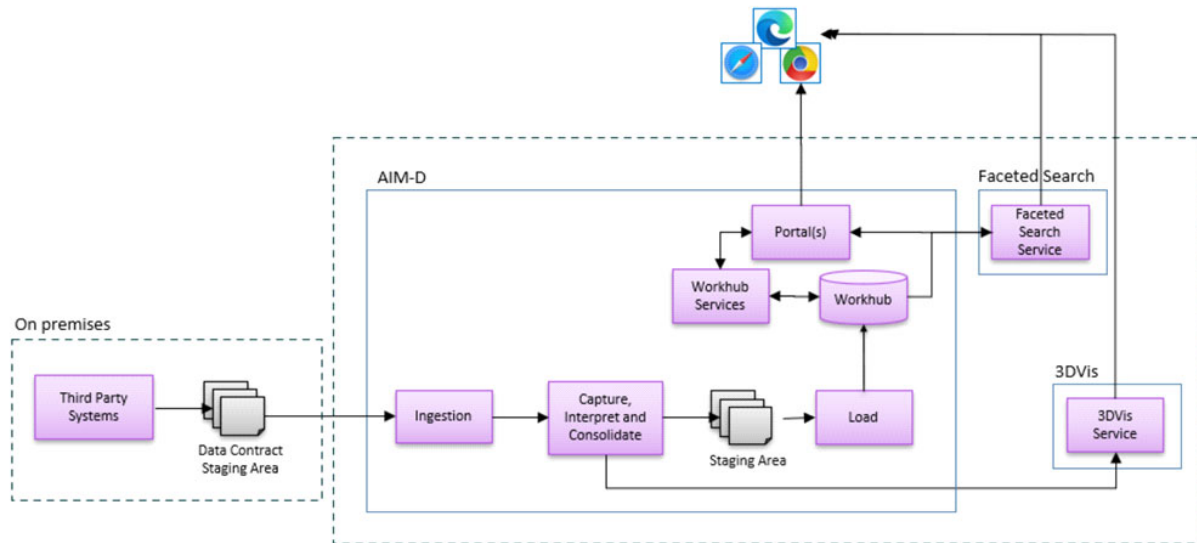
AVEVA Asset Information Management - Discovery delivers a "digital twin" of up-to-date information that accurately describes the current condition of the physical asset, rather than how it was originally designed. This directly addresses the common business issues of ensuring that data and documentation are up to date and complete, that information is collated and verified as available and accurate, thereby simplifying decision making through the integration and access of trusted asset data and ensuring that safety is always treated as paramount.

### Key Benefits

- Improved decision-making enabled by:
  - Easy access to a trusted digital representation of the true as-operating state of the asset to ensure efficient, safe, and compliant operations
  - Richer information about the operating plant and equipment to support document authoring, reviewing and the distribution process
  - Less time spent searching for required information, more time spent on making informed decisions to support critical business processes
- Greater ease of ensuring regulatory and contractual compliance
- Improved workforce efficiency and overall equipment effectiveness

- Standardized provisioning, significantly lowering the barrier to entry
- Lower total-cost-of-ownership, removing the upfront costs in IT infrastructure and support
- Scalable solutions to maintain service levels, while operating within the defined operational parameters
- Lower risk of implementation and operations through delivery as a managed service

### Architecture



The functional architecture for the AVEVA Asset Information Management - Discovery service is shown in the diagram above.

AVEVA Asset Information Management - Discovery is a data driven information management solution. It is built from two sets of components - one set being deployed on-premises and the second set being deployed in the cloud. The on-premises components are used to load data from third party systems of record into the cloud. This data can consist of three-dimensional models, documents and drawings and engineering metadata. All the data must comply with the predefined AVEVA Asset Information Management - Discovery data contracts.

Once the data has been loaded it undergoes an automatic set of capture, interpret, and consolidate processes. These processes allow the data to be presented in a common data model which can subsequently be loaded into the Workhub persistent store. The rules that drive the capture, interpret and consolidation processes are templated and only support minimum configuration via the AVEVA Asset Information Management - Discovery data contracts.

Once the data has been loaded into the cloud, it is automatically loaded into the Workhub persistent store and exposed to AVEVA Asset Information Management - Discovery web application via the Workhub services.

## Service Overview

AVEVA Asset Information Management - Discovery, provisioned on CONNECT, is deployed on a per customer organization, or per customer business unit basis. One production environment is provided per deployment by default.

AVEVA Asset Information Management - Discovery provides users the ability to search, view and navigate engineering information. Its powerful mapping system allows related information to be automatically linked together to add context which provides a single environment to view and understand information from multiple systems.

### Search Features

#### Simple Search

This refers to simple string searches using part of keyword or a wildcard character. The searches are applied to either the identifier or name of the item. Filters that are defined as part of the class library can be applied to these searches

#### Advanced Search

The advanced search functionality provides the ability to filter search results, based on the criteria that certain users (with appropriate rights) have created for others to execute. The criteria can be:

- Constituent class of the Items
- Attribute relationship between Items
- Attributes of related Items

#### Query Forms

Query forms provide the ability to find information using a form-based search mechanism. The query forms can be displayed within the form or as a table view.

A default set of queries are provided as part of the standard AVEVA Asset Information Management - Discovery.

#### Faceted Search

Faceted search is an optional search capability which provides the ability to search engineering tags and document metadata and the content of the document files. The search results can be filtered based on the selection of the specific engineering attribute values. The list of attribute values that can be filtered are fixed as part of the standard AVEVA Asset Information Management - Discovery solution.

#### Summary Views

When an item is selected, a summary view is displayed containing multiple panes that display different types of information. The content of the panes in the summary view is different, depending on the type of item being displayed and based on the high-level core classification of the object, for example equipment, document and event, etc. Typical information that is displayed includes attributes, relationships, and for documents a file viewer which displays a rendition of the document file associated to the document.

### **Document Visualization**

The default view for a document on selection is its associated rendition file, displayed in a file viewer.

In general, the default file that is displayed is a simple rendition of the file that has been uploaded to the AVEVA Asset Information Management - Discovery solution. The one exception is an AutoCAD file which is processed to extract tags. In this case, a rendition of the AutoCAD file, which includes hotspots for the identified tags, is displayed.

The default background color for the AutoCAD rendition is white and all other colors are converted to black.

### **Three-Dimensional Visualization**

The default view for a three-dimensional model on selection is its associated three-dimensional file, displayed in a three-dimensional file viewer.

The viewer supports panning, zooming, clipping, and sectioning of the three-dimensional model. Any tags that are hotspotted can be selected and it is possible to perform measurements between two selected points.

### **User Management**

All users and user groups are defined and managed using CONNECT, which includes assignment to access specific AVEVA Asset Information Management - Discovery instances within CONNECT.

AVEVA Asset Information Management - Discovery supports multiple roles, with each role defining a set of permissions. All users are assigned to at least one role and may be assigned to multiple roles.

- Default User - Read-only access
- Render User - Required to visualize 3D models
- Administrator – Full access, able to alter configuration via UI
- Core Team Admin – Access to all functionality other than configuration changes
- Power User – General use, restricted functionality
- ImportProgress – Able to view Load Status report pages
- ImportReport – Able to download Load Reports

## Service Limitations

The following table presents the verified operational parameters and known limitations for a standard Asset Information Management - Discovery instance. For operational requirements which fall outside these, please discuss with the AVEVA team.

Area	Summary	Criteria, Notes
Documents	Maximum number of Document Records in one instance	0.75 million
Documents	Maximum number of files in one instance	1.25 million
Documents	Total storage volume for all documents	1.75 TB
Documents	Supported file types	Defined in the Data Contract
Data	Maximum number of Tags in one instance	500,000
Data	Maximum number of Events in one instance	750,000 Event records
Data	Input from core Registers	Documents, Equipment Tags, Lines, Cables, Events, Aliases, Associations
Data	Input from user-defined dataset Registers	Up to 5. (number of user-defined datasets supported as standard)
Data	Data quality	Customer is responsible for the delivery of data in compliance with the data contracts and in alignment rules of the AVEVA Drive Sync application.
3D	RVM files	For 3D requirements, please discuss with AVEVA. See Note below.
Drive Sync	Upload limitations	0.5TB maximum total in a single load
Daily updates	Change limited to a total 10% data change in the registers, where the scope of change is limited to one column field in each register (up to a maximum of 100,000 changes)	Shall be processed in less than 4 hours



Area	Summary	Criteria, Notes
Data Load Processing Timeout	Timeout for processing individual CAD files	4 hours
PDF Timeout	Timeout for processing PDF files	1 hour
Permissioned users	Number of users set up with access to an instance	2000
Concurrent users	Number of users to an instance at any one time, based on assumed usage patterns.	100
User roles	Number of user roles defined for one instance	2 User roles
Asset Security Roles	SecurityGroupN (these are numbered 1-10) These are used to restrict Asset Visibility	

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**NOTE:** Native Three-Dimensional Model files correspond to Three-Dimensional Model records in the solution.

Native Three-Dimensional Model files are processed to create web-viewable, hot-spotted streamed Three-Dimensional Models. The Three-Dimensional Model files are uploaded and associated to the corresponding Three-Dimensional Model record in the solution. All tags identified in the Tag to Model association file (TMA) are hotspotted in the corresponding streamed Three-Dimensional Model.

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Additional limitations of AVEVA Asset Information Management - Discovery are as follows:

- **Printing**

When printing large documents, for example, greater than one hundred pages, it is possible for the viewer to run into browser memory constraints. In these cases, it is recommended that larger documents are downloaded as PDF files and then printed.

- **Documents**

AVEVA Asset Information Management - Discovery provides the ability to view all submitted documents in a rendered format that can be viewed in a web browser.

There can be some cases when the rendered documents are not exactly the same as the source documents. AVEVA will endeavor to assist customers to address these issues, but this may not be possible in all cases, due to limitation in the rendering technology, and where the use of embedded custom fonts has occurred.

**• Other Limitations**

- AutoCAD – As all colors are transformed to black, any colored text that overlays another color will not be viewable in the rendered file.
- AutoCAD – Hotspotting of block attributes through attribute mapping is not supported.
- PDF Portfolio files are not supported.
- Excel Macro files (xlsm) are not supported.
- Very large PDF files may cause some performance problems due to their physical size.

## Regional Cloud Availability

AVEVA Asset Information Management - Discovery is accessed via the public Internet using HTTPS/TLS (a secure transport mechanism). The web applications can be accessed via any supported web browser.

For AVEVA Asset Information Management - Discovery, engineering data can be located in a cloud region subject to the availability of the underlying cloud services.

AVEVA Asset Information Management - Discovery is available for deployment in public cloud regions located in:

Component	Regions
AVEVA Asset Information Management - Discovery Faceted Search	<ul style="list-style-type: none"> <li>• Americas - US East - Northern Virginia</li> <li>• Asia-Pacific - Australia - Sydney</li> <li>• Asia-Pacific - Japan - Tokyo</li> <li>• Europe North - Ireland</li> </ul>
3DVis	<ul style="list-style-type: none"> <li>• Americas - Canada Central</li> <li>• Asia-Pacific - Singapore</li> <li>• Europe West - Netherlands</li> <li>• Asia-Pacific - Japan - Tokyo</li> </ul>

## Hardware and Software Requirements

The AVEVA Asset Information Management - Discovery service can provide access to complex and large documents, imposing requirements for a minimum-level of client hardware and software. Graphical performance is optimized for supported browsers only.

**Desktop Client Computer Hardware Requirements**

Component	Minimum	Recommended
Processor	Intel i3	Latest
Memory	2GB	4GB
Graphics Card	Intel HD Graphics	Intel HD Graphics

### Software

Component	Minimum	Recommended
Operating system	Windows 10 Professional (64 bit)	
Web browser	Google Chrome Microsoft Edge	Latest version of Google Chrome is recommended for optimal 3D performance.

## Security Standards and Compliance

For enhanced security AVEVA Asset Information Management - Discovery service follows these practices:

- **SOC2:** The operational practices for the AVEVA Asset Information Management - Discovery service are in the process of being re-structured to align with SOC2.
- **Access control:** Each AVEVA Asset Information Management - Discovery user requires a CONNECT account, provided as part of the customer subscription when signing up to the CONNECT framework agreement.
- **Restricting access to source IP ranges (Allowlist):** AVEVA Asset Information Management - Discovery offers the option to restrict access to each instance. The service can be configured to permit allowlisted IP ranges only. Allowlisting your organization's trusted IP range(s) marks them as safe networks from which users can log in. Access from other IP ranges is explicitly denied.
- **Server-side encryption:** AVEVA Asset Information Management - Discovery uses server-side encryption with managed encryption keys to ensure the encryption of all data-at-rest throughout the system.

## Decommission of the Service

Upon request and confirmation from the customer to decommission an Asset Information Management 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 at least 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/>.

## High Availability, Business Continuity, and Data Protection

To ensure high availability, business continuity, and data protection, AVEVA Asset Information Management - Discovery follows the timelines given below.

### Disaster Recovery

In the event of a service failure, AVEVA initiates a recovery process in accordance with RPO and RTO objectives detailed below.

Cloud Service	Recovery Point Objective (RPO)
AVEVA Asset Information Management - Discovery	24 hours

Cloud Service	Recovery Time Objective (RTO)
AVEVA Asset Information Management - Discovery	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>.

## 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/>.

## Appendix A: File Types Supported by the File Viewer

The following table gives a list of files supported by the File Viewer.

Type	Extension
Text	etf, txt, csv
Office	xls, ppt, doc, xlsx, docx, dot, dotx, xlt, xltx, xltm, xlsx, pot, pps, pptx, potx, ppsx
Open Document	odt, ott, fodt, ods, ots, fods, odp, otp, fodp, odf, odg, otg, fodg
AutoCAD	dwg, dxf, dwf
Microstation	dgn
Visio	vsd, vsdx, vdx
Image	dcm, dicom, dcm, dicm, jpeg, jpg, jp2, jpc tiff, tif, png, bmp, gif, psd, psb, dib, pct, pic, pict, wmf, emf, pcx, dcx, ras, pcd, tga, tpic, cal, cals, ico, cur, xwd, sgi, wbmp, wpg, xbm, pgm, pbm, ppm, img, svg
Application	pdf, rtf, xhtml, xhtm, msg, eml, ncr, svg