AVEVA™ Operator Training Simulator on AVEVA Connect

Service Description
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AVEVA Operator Training Simulator (AVEVA OTS) on AVEVA Connect

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Document Purpose and Audience

Document Purpose
This document describes AVEVA Operator Training Simulator 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 Operator Training Simulator

AVEVA Operator Training Simulator on AVEVA Connect enables operators of a plant to train on a computer in an identical environment as a control room, providing an in-depth understanding of plant operations through simulation models. The operator can learn how to perform full startup and shutdown of a plant or facility in a completely risk free environment, avoiding costly mistakes.

Key Features

- **Training flexibility**: Ability to run training sessions for one trainee or for a team with or without an instructor.
- **Multiple concurrent sessions**: Ability to run multiple concurrent sessions for different scenarios of training.
- **Content separation**: User content is saved in central repositories and downloaded into on-demand sessions. When the session is complete, the content is saved back to the repository and the session resources are terminated. The content data is automatically linked back the next time a session is requested.
- **Simplified IT overhead**: New versions of AVEVA Operator Training Simulator services are available to you as soon as they are released, and offer on-demand provisioning with subscription based usage.
Architecture

AVEVA Operator Training Simulator (AVEVA OTS) includes a central cloud platform consisting of the secure central storage, automation engine and OTS image templates, and an OTS Portal. See Compatibility With Other Products on page 6 to view the supported products for on-demand sessions.

**AVEVA™ Operator Training Simulator**

Service Overview

The cloud system configuration for the AVEVA Operator Training Simulator service supports three configuration types:

- **Generic**
  
  This consists of:
  
  - One instructor station running AVEVA Dynamic Simulation
  - One operator station running AVEVA InTouch HMI

- **Custom Emulated**
  
  This consists of:
  
  - One instructor station running AVEVA Dynamic Simulation
  - (Optional) One control emulation station running AVEVA PLC Simulation
  - Up to three operator stations running AVEVA InTouch HMI
Custom Stimulated with Schneider Electric Controls
This consists of:
- One instructor station running AVEVA Dynamic Simulation
- One or more control emulation stations running any combination of AVEVA Simulation for Foxboro Control, AVEVA Simulation for Triconex Systems and AVEVA PLC Simulation
- One operator station running AVEVA System Platform Simulation and Schneider Electric DCS HMI

All users and user groups are defined and managed using AVEVA Connect, which includes assignment to access specific AVEVA Operator Training Simulator service instances within AVEVA Connect. AVEVA Operator Training Simulator 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.

Compatibility With Other Products
The following products are compatible with AVEVA Operator Training Simulator:
- AVEVA Dynamic Simulation
- AVEVA System Platform Simulation
- AVEVA Simulation for Triconex Systems
- AVEVA Simulation for Foxboro Control CP280
- AVEVA Simulation for Foxboro Control CP270
- AVEVA PLC Simulation
- AVEVA InTouch HMI

Service Limitations
These are the limitations of various configurations of AVEVA Operator Training Simulator:
- Generic
  - For the generic configuration of one Dynamic Simulation and one operator AVEVA InTouch HMI, there are no known service limitations for the AVEVA Operator Training Simulator service on AVEVA Connect.
- Custom Emulated
  - A maximum of 4 HMI screens are supported.
- Custom Stimulated with Schneider Electric Controls
  - For Foxboro Control: Currently up to 40 virtual CPs are supported by AVEVA Simulation for Foxboro Control in the cloud.
  - Only one operator station is supported (with Schneider Electric controls).
Regional Cloud Availability

AVEVA Operator Training Simulator service is accessed via the public Internet using HTTPS/TLS and PCoIP (secure transport mechanisms).

AVEVA Operator Training Simulator service is available from the following public cloud regions:
- West US
- Central US
- North Europe - Ireland
- West Europe - Netherlands
- Southeast Asia - Singapore
- Brazil South
- Central India
- Japan East

Hardware and Software Requirements

AVEVA Operator Training Simulator service is executed through application streaming technology. Therefore, client hardware requirements are minimal. Client software requirements are given below.

### Client Software

<table>
<thead>
<tr>
<th>Component</th>
<th>Minimum/Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web browser</td>
<td>Any modern browser (Internet Explorer and Safari are not supported)</td>
</tr>
</tbody>
</table>

### Client Network

<table>
<thead>
<tr>
<th>Component</th>
<th>Minimum/Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandwidth</td>
<td>Minimum 16 Mbps</td>
</tr>
<tr>
<td></td>
<td>Recommended bandwidth to the Internet per user for required performance:</td>
</tr>
<tr>
<td></td>
<td>&lt;16 Mbps - Poor</td>
</tr>
<tr>
<td></td>
<td>17 - 20 Mbps - Fair</td>
</tr>
<tr>
<td></td>
<td>21 - 50 Mbps - Good</td>
</tr>
<tr>
<td></td>
<td>&gt;50 Mbps - Very Good</td>
</tr>
<tr>
<td>Latency</td>
<td>&lt; 150 ms to Azure datacenter</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Benchmark:</td>
<td></td>
</tr>
<tr>
<td>• &lt;50 ms - Very Good</td>
<td></td>
</tr>
<tr>
<td>• 50-150 ms - Good</td>
<td></td>
</tr>
<tr>
<td>• 151-250 ms - Marginal</td>
<td></td>
</tr>
<tr>
<td>• &gt;250 ms – Poor</td>
<td></td>
</tr>
</tbody>
</table>

*Tester here: https://azurespeedtest.azurewebsites.net/

<table>
<thead>
<tr>
<th>Whitelist</th>
<th>*. Websockets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain:*.chp.connect.aveva.com</td>
<td></td>
</tr>
</tbody>
</table>

**Security Standards and Compliance**

For enhanced security, AVEVA Operator Training Simulator service implements access control. Each AVEVA Operator Training Simulator user requires an AVEVA Connect account, provided as part of the customer subscription when signing up to the AVEVA Connect framework agreement.

**High Availability, Business Continuity, and Data Protection**

AVEVA Operator Training Simulator on AVEVA Connect ensures high availability, business continuity and data protection.

- **Database Storage**: Data is stored in an online Git repository for each user separately.
- **Data Backup**
  - Full backups are provided of the online Git repository are performed every 12 hours.
  - Data retention is open-ended until the account is deleted.
Disaster Recovery

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

<table>
<thead>
<tr>
<th>Cloud Service</th>
<th>Recovery Point Objective (RPO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVEVA Operator Training Simulator</td>
<td>12 hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cloud Service</th>
<th>Recovery Time Objective (RTO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVEVA Operator Training Simulator</td>
<td>16 hours</td>
</tr>
</tbody>
</table>

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.


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.


Customized process model development services are available for AVEVA Operator Training Simulator on request. Contact AVEVA for details.