Tonestream

Cloud Administration Tools Guide

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Overview

Cloud Administration Tools is a solution that contains access to multiple cloud service functions, each enabling OneStream Cloud Administrators to perform their role with greater efficiency.

User Management Console

The User Management Console manages the relationship between users hosted in the Microsoft Azure Active Directory (Azure AD) and OneStream Framework. With this console, a system administrator can self-manage their Azure AD users in OneStream by inviting, creating, deleting (disabling), and importing users and resetting passwords.

NOTE: User Management Console is only available with Azure AD hosted by OneStream Cloud Services and to members of the administrator's security group.

Application Management

Application Management maintains OneStream applications in a cloud environment. System administrators can copy existing applications, and create, replace, or remove new applications within OneStream. With Application Management, administrators can make changes for testing or archival purposes.

This functionality is only available to members of the administrator's security group.

Key Management

Key Management enables administrators to manage Azure Key Vaults by uploading .pfx encrypted files. Administrators on Platform 8.0 can manage secrets and certificates as well. The loss of service availability due to expired keys does not count against OneStream availability

Setup and Installation

This section contains important details related to the planning, configuring, and installation of your solution. Before you install the solution, familiarize yourself with these details.

See MarketPlace Solution Modification Considerations.

IMPORTANT: If your environment Platform version is 8.0, or you use the User Management Console, the OneStream Cloud Support Team must perform all installation, setup, and configuration tasks. Contact OneStream Support for assistance. All others can install Cloud Administration Tools without assistance.

Dependencies

Component	Description
OneStream 8.0.0 or later	Minimum OneStream Platform version required to install this version of Cloud Administration Tools.

Install Cloud Administration Tools

 On the OneStream MarketPlace Dashboard, go to MarketPlace > Cloud Administration Tools.



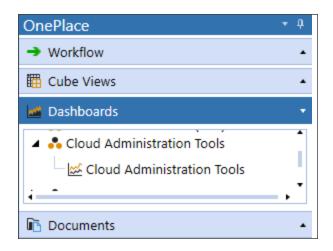
Cloud Administration Tools

- 2. On the Cloud Administration Tools Solution page, in the Platform Version drop-down list, select the appropriate OneStream Platform version.
- In the Solution Version drop-down list, select the most recent version. Click Download.
- 4. Log into OneStream.
- 5. On the **Application** tab, go to **Tools** > **Load/Extract**.
- On the Load tab, use the Select File icons to locate the solution package. Click Open.
- 7. When the solution file name appears, click **Load**.
- 8. Click **Close** to complete the installation.

Set Up Cloud Administration Tools

The first time Cloud Administration Tools is run, you are guided through the table setup process.

In OneStream, go to OnePlace > Dashboards > Cloud Administration Tools > Cloud Administration Tools.



Create Tables

1. Click Step 1: Create Tables.

This step may be necessary when upgrading even if tables are already present. Cloud Administration Tools will not remove any tables that already exist but will modify table structures and add new ones if necessary.



2. When setup is complete, click **Step 2: Launch Solution** to open Cloud Administration Tools.

Package Contents

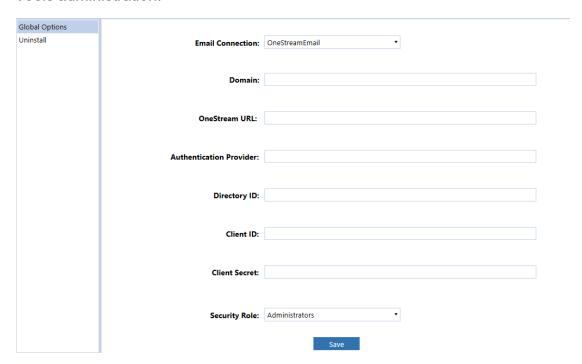
The Dashboard Maintenance Unit provides the user interface for Cloud Administration Tools and includes the required Dashboard Groups, Components, Data Adapters, Parameters, and files.

Settings

The **Settings** page contains the **Global Options** tab in which key properties that guide administration are set as well as **Uninstall** options.

Global Options

The **Global Options** page contains key properties that guide global Cloud Administration Tools administration.



Email Connection

Select an email connection from the drop-down list. The email connections are configured in the OneStream Application Server Configuration File and contain all the necessary

Settings

setup information for the local email provider, including the sending email address, server credentials, host, and port. The email connections list is pulled from the Database Server Connections list in the Application Server Configuration File.

For more details on email database connections, see the *Installation and Configuration Guide*. This setting can be changed by the administrator to send emails from a different connection.

Domain

The Azure Active Directory (Azure AD) domain name is @mydomain.onestreamcloud.com and should not be modified with the exception of a direction by Support.

OneStream URL

The Azure URL of the customer environment is

https://xxxxxx.onestreamcloud.com/onestreamweb and should not be modified with the exception of a direction by Support.

Authentication Provider

The name of the authentication provider service for the OneStream Framework database in this server environment. Do not modify this setting unless directed to do so by Support.

Directory ID

This directory ID is the Azure Tenant ID.

Client ID

The client ID is configured by the OneStream Cloud Services Team. This encrypted key is masked and will display as a blank entry after the initial setup. Do not modify this setting unless directed to do so by Support.

Client Secret

The client secret is used to authenticate with the Azure Active Directory service.

Security Role

Since security is governed at the global level, it is the assignment of the user group to the Security Role that determines who will be global Cloud Administration Tools Administrators. This group is granted access to all areas of Cloud Administration Tools and are the only users who can see the Settings Page icon.

Uninstall

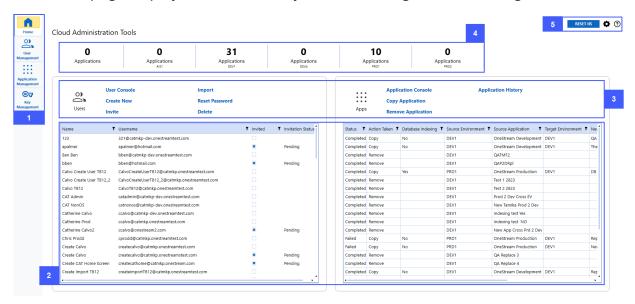
Use the Uninstall feature to remove the Cloud Administration Tools User Interface or the entire solution. If part of an upgrade, any modifications performed on standard Cloud Administration Tools objects are removed. These are the uninstall options:

- Uninstall UI removes Cloud Administration Tools, including related dashboards
 and business rules, but retains the database and related tables. For some releases,
 perform this step before accepting a new solution version as some of the
 dashboards or other objects may have changed. Choose this option to update
 Cloud Administration Tools without removing the data tables. The Release Notes
 indicate if an overinstall is supported.
- Uninstall Full removes all related data tables, data, and Cloud Administration
 Toolsdashboards and business rules. Choose this option to completely remove
 Cloud Administration Tools or to perform an upgrade that is so significant in its
 changes to the data tables that this method is required.

CAUTION: Uninstall procedures are irreversible.

Home

The Home page displays the functionality enabled through Global Settings.



1. Navigational Tabs

- Home: Enables system administrators to monitor users, applications, and key performance metrics in one centralized location.
- User Management: Enables system administrators to perform all user account maintenance tasks in a single interface.
- Application Management: Enables system administrators to create, replace, or remove applications within theOneStream Azure environment.
- Key Management: Enables system administrators to manage the key vault and Bring Your Own Key (BYOK) settings.

2. Overviews

- User Management Overview: Displays a list of users, their type, and current status, such as active or inactive.
- Application Management Overview: Displays a list of applications, their type, and current status, such as active or inactive.

3. Quick Links

System administrators can use quick links to navigate through the solution to perform key tasks.

4. Key Performance Indicators (KPIs)

KPIs display an overview of the environment. Use the scroll bar to view additional metrics.

5. Settings

• Reset IIS: This button manually resets the environment.

IMPORTANT: Performing an IIS reset ends all tasks currently in progress.

- Settings: Icon that provides access to the Settings page.
- **Help**: Icon that links to solution documentation.

TIP: If the Home screen displays any errors or fails to render, see Troubleshooting.

User Management Console

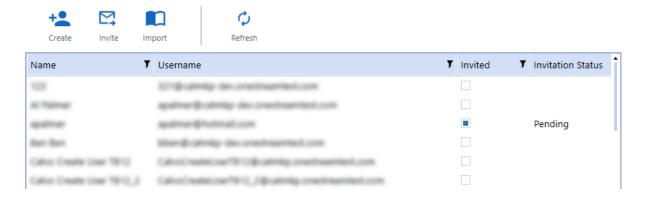
The User Management Console displays a grid containing all Azure AD users and their related actions.

Administrators running Platform 6.x and above, who currently have access to the User Management Console, can create, invite, import, and delete users and reset user passwords.

When launched, the User Management Console displays a user list in a grid view, which shows the following information about each user:

- Name: User's name in OneStream.
- Username: User's Azure AD username.
- Invited: Indicates if the user was invited from an external Azure AD tenant.
- **Invitation Status**: Indicates if the user responded to the invitation.

User Management Console



User Details

The following user details are displayed if the Azure AD member is a OneStream user:

User Info

- Name
- Description
- Ext Auth Provider
- Ext UserName
- Email
- Is Enabled
- Culture Code

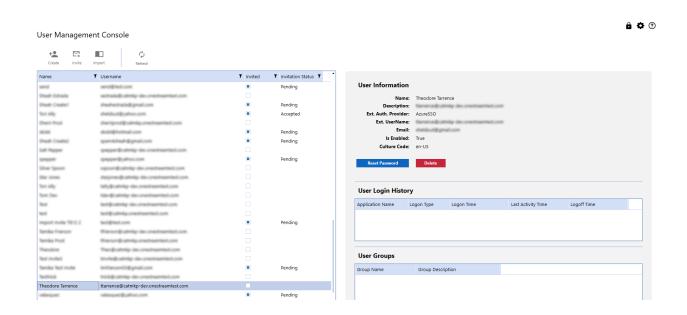
User Logon History

- Application Name
- Logon Type
- Logon Time
- Last Activity Time
- Logoff Time

User Groups

- Group Name
- Group Description

User Management Console

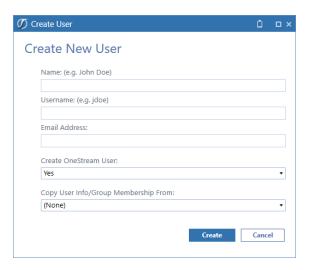


Create User

Create User adds new users to the Azure AD tenant and optionally to the OneStream Framework.

To create a user:

 On the User Management Console page, click Create and complete the following fields:



- Name: Enter the user's name.
- **Username**: Enter the name used to log into Azure AD.
- Email Address: Enter a valid email address.
- Create OneStream User: Select Yes to add the user to the OneStream
 Framework database.
- Copy User Info/Group Membership From: Select to copy an individual user's information or group information.
- 2. Click the Create button.
- 3. Repeat the procedure for each user to add.
- 4. Click close to exit the **Create User** dialog box.

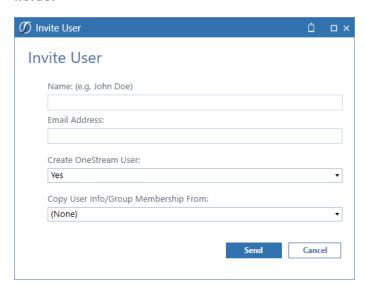
NOTE: Copied security groups can allow access to multiple applications in the OneStream Framework environment, requiring additional security group adjustments in OneStream **System > Administration > Security**.

Invite User

Invite User enables a system administrator to send an invitation to a user who has an existing Azure AD or Office 365 account not currently in the Azure AD tenant hosted by OneStreamCloud Services. After accepting the invitation, that existing account can access OneStream. This email also contains the company's OneStream environment URL.

Send an Invitation

 On the User Management Console page, click Invite and complete the following fields:



- Name: Enter the user's name.
- Email Address: Enter a valid email address.

- Create OneStream User: Select Yes to add the user to the OneStream Framework database.
- Copy User Info/Group Membership From: Select to copy an individual user's information or group information from the security user information.
- 2. Click the **Send** button to send the invitation.

Import Users

Import Users enables a system administrator to perform a bulk create or invite by importing a valid comma-separated values (.csv) file of user properties.

The bulk import process creates users but does not assign a default security group in OneStream. Additional security group maintenance in the OneStream **System** > **Administration** > **Security** tab is necessary to finalize the new user's access.

Create Users Import Format

The format for **Create Users** is a 4-column, .csv file with the following fields:

- Name
- Username
- Email
- OneStream User

The OneStream User column determines if a user is added as a OneStream user or an Azure-only user.

- A **True** or **Yes** response designates them as a OneStream and Azure user.
- A False or No response designates them as an Azure-only user.

IMPORTANT: Do not add column headers to the .csv files. Headers will cause an import to fail.

Example Create User

OneStream and Azure User

```
Name, Username, Email, OneStream User
John Doe, jdoe, jdoe@mycompany.com, True
John Doe, jdoe, jdoe@mycompany.com, Yes
```

Azure-only User

```
Name, Username, Email, OneStream User
John Doe, jdoe@mycompany.com, False
John Doe, jdoe@mycompany.com, No
```

Invite Users Import Format

The format for Invite Users is a 3-column, .csv file with the following fields:

- Username
- Email
- OneStream User

The OneStream User column determines if a user is added as a OneStream user or an Azure-only user.

- A **True** or **Yes** response designates them as a OneStream and Azure user.
- A False or No response designates them as an Azure-only user.

IMPORTANT: Do not add column headers to the .csv files. Headers will cause an import to fail.

Example Invite User

```
Username, Email, OneStream User mdoe, mdoe@mycompany.com, True mdoe, mdoe@mycompany.com, Yes
```

Import a Create/Invite User File

- 1. On the User Management Console page, click Import.
- In the Import Users dialog box, use the Import Type drop-down list to select Create Users or Invite Users. Click the Import button.



3. Navigate to the location of the file and click **Open**. The Import Users process runs a data management job for the imported users. This job will run as a background task that can be monitored from the Task Activity screen.

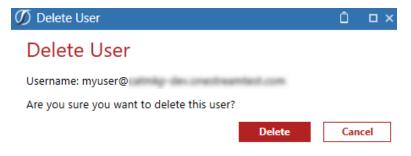
Delete User

The **Delete** button enables a system administrator to remove a user from Azure AD and disable them in the OneStream security.

When a user is deleted from the system, their user information remains in OneStream to preserve the integrity of the audit trail, which contains the activity history associated with the user ID.

To delete a user:

- 1. On the User Management Console page, select the user.
- 2. Under **User Information**, click **Delete**.
- 3. In the **Delete User** dialog box, click the **Delete** button to confirm.

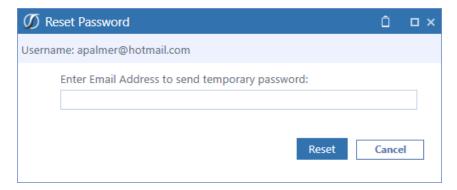


Reset Password

System administrators can use the **Reset Password** button to initiate the password reset process for a user.

To reset a user's password:

- 1. On the **User Management Console** page, select the name of the user.
- 2. Under User Information, click Reset Password.
- 3. In the **Reset Password** dialog box, enter the user's email address.
- 4. Click the **Reset** button to send the temporary password.



Refresh

° Click Refresh to update a page.

Refresh User Details updates the displayed information for changes in the security domain or the OneStream system security.

Security

* Security accesses the OneStream framework.

User Management Console

Security opens the **OneStream System > Administration > Security** page to manage the system security framework for OneStream users and groups.

Application Management

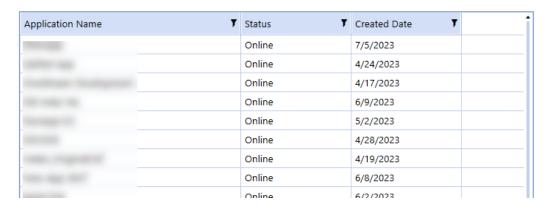
Application Management enables you to create or replace applications as a copy of existing applications or remove applications within your OneStream Azure environment.

Administrators running platform version 6.x can use Application Management to copy, replace, and remove applications and view historical activity on applications.

When you launch Application Management, the **Application Console** displays all applications in grid view and includes the following information:

- Application Name: Title of the application.
- Status: Indicates if the application is online or deleted.
- Created Date: Indicates when the application was created.

Application Console



Application Details

Select an application to view the following application details:

Application Information

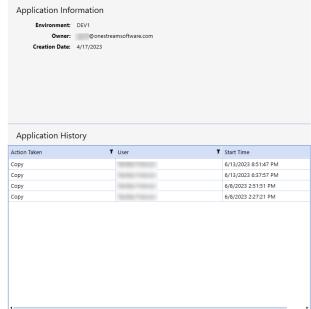
- Environment
- Owner
- Creation Date

Application History

- Action Taken
- User
- Start Time

Application Console

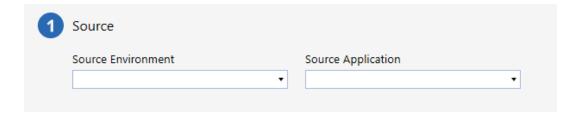




Copy Application

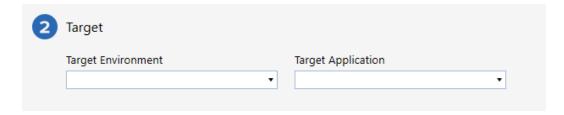
Administrators can create or replace applications across environments using the **Copy Application** tab in the Application Management solution.

Source



- Select a Source Environment, which is the environment of the application being copied or replaced. The Source Environment will display active OneStream environments.
- 2. Select a **Source Application**, which is the data that will be copied to create a new application or replace an existing application. The Source Application will display all active OneStream applications.

Target



1. Select a **Target Environment**, which is the environment where the source application data will be copied or replaced. Only the current environment can be

selected from the drop-down list.

2. Select a **Target Application** to create a new application or replace an existing application. The drop-down list allows for a new application copy or displays all available applications that can be replaced.

IMPORTANT: Replacing the application removes all existing data and replaces it with a copy of the source application data.

Application Properties

Use **Application Properties** to configure options on the application being created or replaced.



Application Name

Type a unique application name in the **Application Name** field.

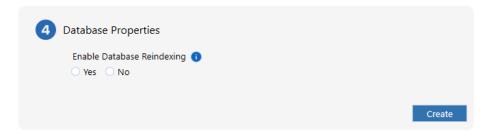
NOTE: Application names can be 4–128 characters in length and contain the following characters: period, space, underscore, alphanumeric characters, and hyphen.

Enable Scheduled Tasks

Select **Yes** to carry over scheduled tasks from the source application to the target application. Select **No** to disable all tasks in the target application.

Database Properties

Enable Database Indexing rebuilds indexes during maintenance windows.



- Select Yes to enable.
- Select No to skip enabling.

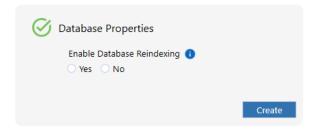
NOTE: Due to increased maintenance times, it is recommended to enable database indexing on only one business critical application.

Create or Replace Application

Depending on the selection made in the Target Application field, the button will display as **Create** or **Replace**.

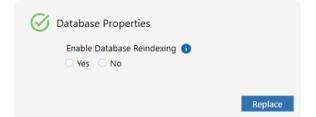
Create

If a new application is being created, a **Create** button displays.



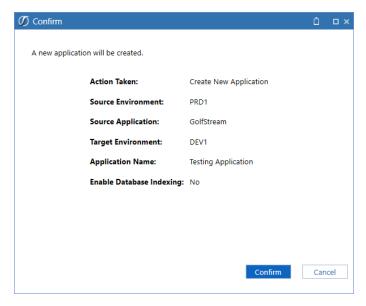
Replace

If an existing application was selected in the Target Application drop-down list, a **Replace** button displays.



Confirm Summary

The **Confirm** dialog box appears after the create or replace action runs. The **Confirm** dialog box displays the actions that must be confirmed. This confirmation also displays any warnings, such as if a production application is being created.



- 1. Review the confirmation summary.
- 2. Click the **Confirm** button to accept the actions.

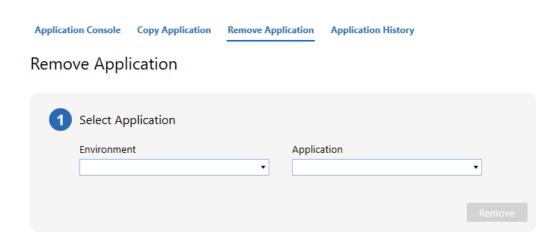
NOTE: If you choose to cancel or close the dialog box, you can make your corrections.

Once you confirm, the **Application History** page displays.

Remove Application

Administrators can remove applications using the **Remove Application** tab in Application Management.

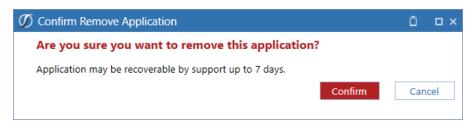
Application Management



- 1. Click Remove Application.
- 2. Select the Environment.
- 3. Select the **Application**.
- 4. Click the **Remove** button.

Confirmation Summary

The **Confirm Remove Application** dialog box displays after the remove action runs. Click the **Confirm** button to accept the actions.

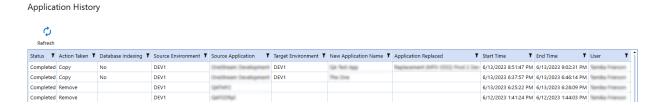


After you confirm, you will be taken to the **Application History** page.

NOTE: If you choose to cancel or close the dialog box, you can make corrections.

Application History

The **Application History** page displays detailed information on the operations completed through Application Management. Click **y** to filter data in the table.



 Status: Shows the progression and results of all applications being created, replaced, or removed after the process starts. Application statuses include: Running, Success, or Failed.

NOTE: If the result is **Running**, click **Refresh** to see if the process has completed its action.

NOTE: If the result is **Failed**, navigate to the **Task Activity** dialog box to view a description of the error.

- Action Taken: Shows the action performed by the user. Displays Copy or Remove for all applications.
- Enable Database Indexing: Indicates whether the application will have indexes
 rebuilt during maintenance windows. Displays Yes or No for all applications.
- Source Environment: Displays the environment from which the Source Application is chosen.
- Source Application: Displays the data used to create a new application or to replace data in another application.

Application Management

- Target Environment: Displays the environment where the new or replaced application was placed.
- New Application Name: Displays the name given to the created or replaced application.
- Application Replaced: Displays the name of the replaced application. If a new application was created, this field is blank.
- **Start Time**: Indicates the start time of the copy, replace, or remove process.
- End Time: Indicates the end time of the copy, replace, or remove process.
- User: Indicates the user who created, replaced, or removed the application.

Key Management

Key Management enables you to manage the OneStream Azure Key Vault and create keys, certificates, and secrets.

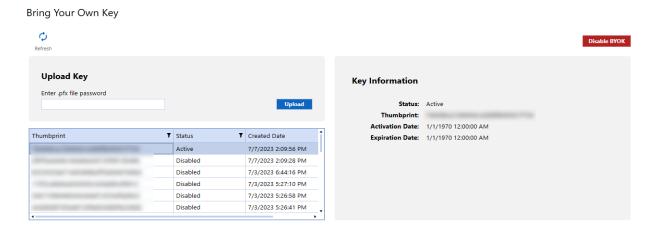
Bring Your Own Key

Our SaaS offering includes a robust key management service, ensuring the highest level of security for your data. Each client's key vault is uniquely deployed within our cloud infrastructure, enabling the Bring Your Own Key (BYOK) feature as part of our Cloud Administration Tools suite. This design guarantees that the lifecycle of your key vault is intrinsically linked to your specific instance, maintaining exclusivity and preventing access by other tenants.

You retain complete control over your keys through the Cloud Administration Tools interface, with keys securely stored in your private key vault, which is associated with a managed identity. Access to the key vault is stringently regulated; only the managed identity assigned to your OneStream instance's compute nodes and database server has the operational capability to manage keys, secrets, and certificates. This managed identity is granted specific roles—Certificates Officer, Crypto Officer, Service Encryption User, and Secrets Officer—to facilitate secure operations.

Network security measures are rigorously enforced to ensure that the key vault is accessible solely from your OneStream instance's network. Complementing these measures, we employ Azure policies and proactive alerting systems to safeguard against unauthorized changes to access policies. These policies are consistently reviewed in

alignment with our SOC controls, further reinforcing our commitment to your data's security.



Enable Key Management

To enable BYOK:

- 1. Click Upload.
- 2. Select a .pfx file.

NOTE: Users on Platform 8.0 or above can choose to upload .pem files.

- 3. Click Open.
- 4. Your key is uploaded directly to the Azure Key Vault and the uploaded file is automatically deleted.

Key Information

Select a key to view its:

- Name
- Status
- Azure thumbprint ID
- Activation Date
- Expiration Date

Disable Key Management

Disable key management by clicking the **Disable BYOK** button. BYOK will be disabled and your data will be managed by the service.

Refresh

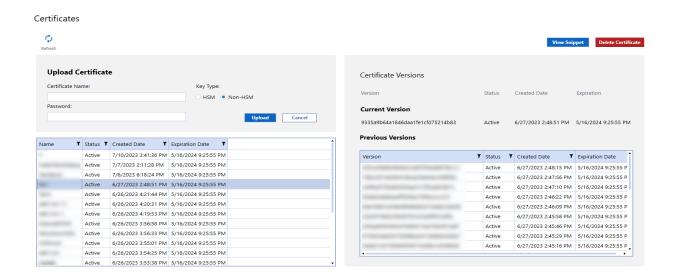


This refreshes information in the grid.

Certificates (Available Only with Platform 8.x)

Certificates and their corresponding keys can be used for more secure authentication to APIs, FTP servers, and other integrations. Each certificate contains a thumbprint ID that can be used in the Azure configuration tiles to identify which key is in use. The certificate interface enables system administrators to securely store these for later use in business rules.

Key Management



Upload Certificates

To create a new certificate:

- 1. Enter a certificate name.
 - **NOTE:** Certificate names should be 127 characters or less.
- 2. Under **Key Type**, select **HSM** or **Non-HSM**.

NOTE: HSM is a physical device providing extra protection for sensitive keys. Using an HSM will permanently prevent exporting the private key in the future.

- 3. Enter a password.
- 4. Click the **Upload** button.
- 5. Select a .pfx file.
- 6. Click Open.

Certificate Versions

Select a certificate to view its status, creation and expiration dates, current version number, and previous versions.

Refresh



This refreshes information in the grid.

View Snippet

Click the **View Snippet** button to retrieve a sample BRAPI code of the certificate, which can be copied and used in your business rules.

Certificate X509Certificate2

BRApi.Utilities.GetCertificate(SessionInfo si, string certificateName)

This BRApi is used to access a certificate or key from within a business rule to load it into memory. It cannot be used with HSM backed keys.

Certificate Signature String

BRApi.Utilities.Sign(SessionInfo si, string keyName, string algorithm, byte[] digest)

This BRApi is used to generate a signature using a key stored in the key vault without extracting the key. This can be used with both HSM and non-HSM backed keys.

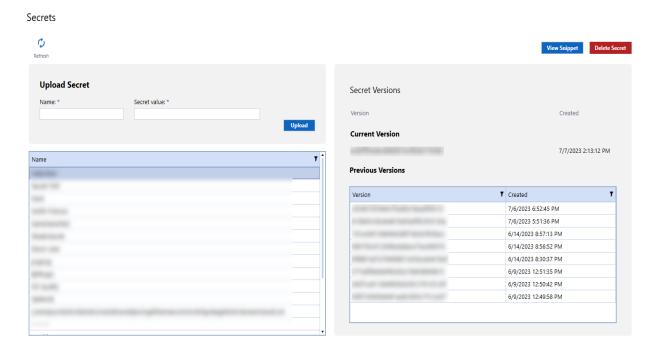
Remove Certificates

The **Delete Certificate** button enables you to delete a certificate.

NOTE: After you delete a certificate, you cannot reuse the same certificate name for 90 days.

Secrets (Available Only with Platform 8.0)

Secrets enable system administrators to securely store sensitive information like passwords, API keys, or connection strings for later use in business rules.



Upload Secrets

To create a new secret:

1. Enter a secret name.

NOTE: After you delete the name of a secret, you cannot reuse the same name for 90 days.

- 2. Enter a secret value.
- 3. Click the **Upload** button.

Secret Versions

Select a secret to view the current version number, previous version number, and creation dates.

Refresh



This refreshes information in the grid.

View Snippet

Click the **View Snippet** button to retrieve a sample BRAPI code of the secret, which can be copied and used in business rules.

Secret Value String

BRApi.Utilities.GetSecretValue(SessionInfo si, string secretName)

Remove Secrets

Click the **Delete Secret** button to delete a secret that is no longer in use.

Help and Miscellaneous Information



This page contains solution documentation.

Cloud Database Best Practices

Use the following best practices.

Cloud Database Space

When managing applications, if the Azure capacity is insufficient to copy an entire application, the copy process stops and an error message displays. OneStream Support may be able to increase your available storage at an additional cost or you may free up space by using **Remove Application** in **Application Management** to delete applications that are no longer needed.



Cloud Services Team Updates

OneStream may periodically release updates to Cloud Administration Tools to provide new functionality, address undesired behavior, or retire features that are no longer supported. These changes are displayed in Cloud Administration Tools. In addition, these changes are reflected in the Dashboard Maintenance report, which can be run from OneStream's Navigation Center solution.

Display Settings

OneStream and MarketPlace solutions frequently require the display of multiple data elements for proper data entry and analysis. Therefore, the recommended screen resolution is a minimum of 1920 x 1080 for optimal rendering of forms and reports.

Package Contents and Naming Conventions

The package file name contains multiple identifiers that correspond with the platform.

Renaming any of the elements contained in a package is discouraged in order to preserve the integrity of the naming conventions.

Example Package Name: CAT_PV8.0.0_SV100_PackageContents.zip

Identifier	Description
CAT	Solution ID
PV8.0.0	Minimum Platform version required to run solution
SV100	Solution version
PackageContents	File name

MarketPlace Solution Modification Considerations

A few cautions and considerations regarding the modification of OneStream Solutions:

- Major changes to business rules or custom tables within a OneStream Solution will
 not be supported through normal channels as the resulting solution is significantly
 different from the core solution.
- If changes are made to any dashboard object or business rule, consider renaming it
 or copying it to a new object first. This is important because if there is an upgrade to
 the OneStream Solution in the future and the customer applies the upgrade, this will
 overlay and wipe out the changes. This also applies when updating any of the
 standard reports and dashboards.
- If modifications are made to a OneStream solution, upgrading to later versions will be more complex depending on the degree of customization. Simple changes such as changing a logo or colors on a dashboard do not impact upgrades significantly.
 Making changes to the custom database tables and business rules, which should be avoided, will make an upgrade even more complicated.

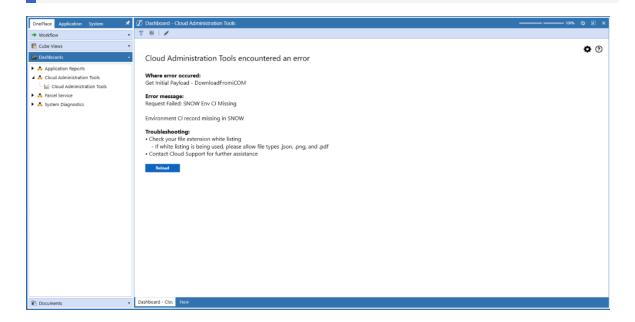
Troubleshooting

Dashboard Rendering Errors

When the Cloud Administration Tools encounters any dashboard rendering errors, a troubleshooting dashboard will be populated.

On this dashboard, users can see where the error occurred, a brief error message, and steps for troubleshooting the error.

NOTE: Errors will still be tracked in the error log.



Reload: Use this button to reload the dashboard, during which time the application will clear out unused discover dashboard .json files. If this resolves the issue, users will be redirected to the Cloud Administration Tools homepage, otherwise the troubleshooting dashboard will populate again. The reload button can be used to reassess the issue twice before the button is taken away and users are prompted to contact Cloud Support.