



Integration Service: Cherwell SyncPack

Version 1.0.0

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Chapter

1

Introduction to the Cherwell SyncPack

Overview

This manual provides an overview of the *Integration Service: Cherwell SyncPack*, which you can use to manage the Federated CMDB integration between Cherwell Service Management (CSM) and ScienceLogic (SL1).

NOTE: This manual assumes that you have already installed CSM, SL1, and the Integration Service, and that you have a basic level of CSM knowledge and can create and publish CSM Blueprints.

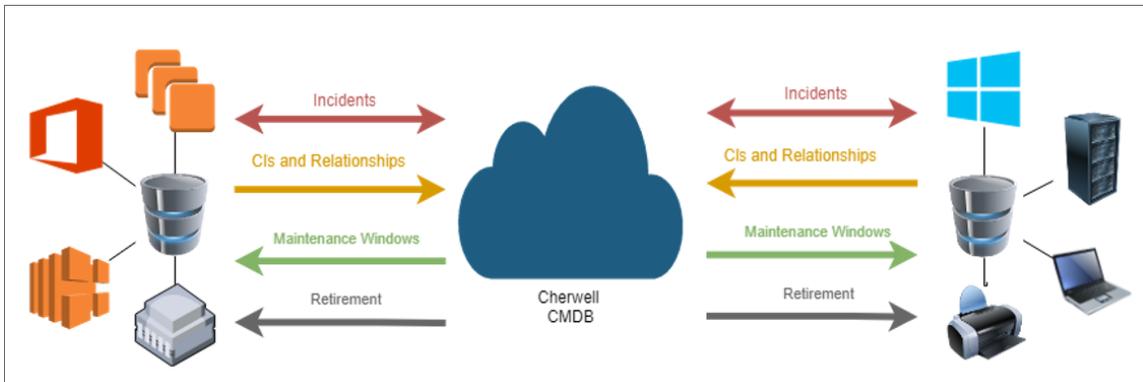
This chapter covers the following topics:

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Overview of the Cherwell SyncPack

Cherwell Service Management (CSM) is a low-code, no-code tool where you can manage the CMDB, track the life cycle of assets, manage changes, and manage incidents and requests. You can use the *Integration Service: Cherwell SyncPack* to manage the Federated CMDB integration between CSM and SL1.

The following graphic provides an overview of the various workflows available in the *Integration Service: Cherwell SyncPack*:



Using the Integration Service, you can perform the following integrations between CSM and SL1:

- Incident Creation and Update Sync
- Configuration Item (CI) Creation and Update Sync
- CI Relationship Sync
- Maintenance Window Sync
- Retirement of CIs from SL1 and CSM

Known Issue

The following known issue was found in this version of the *Cherwell SyncPack*:

- Because CSM version 9.7.0 runs automated processes in multiple threads, if Incident Creation is set up to use the Organization Name as the Customer for the Incident, but the Organization does not already exist as a Customer in Cherwell, and multiple Events were created at the same time for that SL1 Organization, multiple records might be created for the same SL1 Organization. As a result, Incidents will not be created. For more information, see [Troubleshooting CSM and the Cherwell SyncPack](#).

Terminology

The following table lists the names and definitions of the various elements in SL1 and Cherwell:

Name	Definition
Blueprint	An XML file that contains configuration information; these files can be shared between different CSM instances
Business object	Provides a view for the user for objects like CIs, federated relationships, federated field mappings, and federated CI mappings
CI	Configuration Item in CSM, also known as a "Device" in SL1
CR	Change Request
CSM	Cherwell Service Management
CSM Administrator client	The CSM administration application, typically depicted by a round orange icon
CSM User client	The CSM application for CSM users, typically depicted by a round blue icon
Discovery Session (SL1)	Service Catalog Request (CSM)
IS	ScienceLogic Integration Service
mApp	CSM Mergeable Application; a combination of Blueprints that contain configuration information
One-Step	A low-code/no-code tool in CSM that allows users to chain a series of actions into a simple or complex workflow
SL1	ScienceLogic SL1 monitoring platform
Topology (SL1)	Dependency (CSM)

Importing and Installing the Cherwell SyncPack

To import a SyncPack in the Integration Service user interface:

1. On the **SyncPacks** page, click **[Import SyncPack]**. The **Import SyncPack** page appears.
2. Click **[Browse]** and select the **.whl** file for the SyncPack you want to install.

TIP: You can also drag and drop a **.whl** file to the **SyncPacks** page.

3. Click **[Import]**. The Integration Service registers and uploads the SyncPack. The SyncPack is added to the **SyncPacks** page.

NOTE: You cannot edit the content package in a SyncPack published by ScienceLogic. You must make a copy of a ScienceLogic SyncPack and save your changes to the new SyncPack to prevent overwriting any information in the original SyncPack when upgrading.

To install a SyncPack in the Integration Service user interface:

1. On the **SyncPacks** page, click the **[Actions]** button () for the SyncPack you want to install and select *Activate & Install*. The **Activate & Install SyncPack** modal appears.

TIP: By default, the **SyncPacks** page only displays activated and installed SyncPacks. If you do not see the SyncPack that you want to install, click the toggle icon () on the **SyncPacks** page and select *Show All SyncPacks* to see a list of the uninstalled SyncPacks.

2. Click **[Yes]** to confirm the activation and installation. When the SyncPack is activated, the **SyncPacks** page displays a green check mark icon () for that SyncPack. If the activation or installation failed, then a red exclamation mark icon () appears.
3. For more information about the activation and installation process, click the check mark icon () or the exclamation mark icon () in the **Activated** column for that SyncPack. For a successful installation, the "Activate & Install SyncPack" integration application appears, and you can view the Step Log for the steps. For a failed installation, the **Error Logs** window appears.

The *Cherwell SyncPack* requires you to install and configure the "Federated CMDB" mApp and the "IS Content" mApp, and perform additional configuration after that before running the SyncPack. For more information, see [Installing and Configuring Cherwell mApps](#) and [Configuring Credentials and the Federated Registration Record](#).

Chapter

2

Installing and Configuring Cherwell mApps

Overview

In Cherwell Service Management (CSM), an **mApp** is a set of XML files containing configuration information that can be installed and configured on multiple instances of CSM. You need to install and configure the following mApps to before you can use the *Integration Service: Cherwell SyncPack*:

- The "Federated CMDB" mApp
- The "IS Content" mApp

This chapter describes how to install and configure these mApps onto an existing CSM instance, and how to configure the **Federation Registration** record in CSM to use the automation processes and One-Steps in the mApps.

This chapter covers the following topics:

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<i>Installing the IS Content mApp</i>	13
<i>Creating the Federation Registration Record</i>	15
<i>Configuring CSM Access for Scheduled Tasks and the API</i>	18
<i>Configuring CSM Scheduled Tasks</i>	30

Installing the Federated CMDB mApp

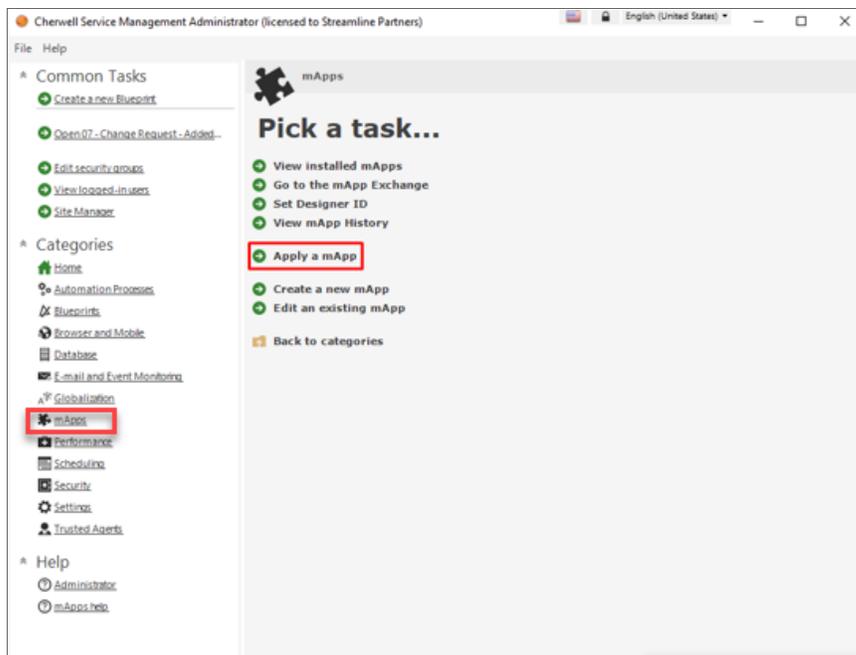
The "Federated CMDB" mApp provides a Federated CMDB solution where you can add and map Federated CMDB sources for Cherwell Configuration Items (CIs).

WARNING: Applying this mApp might overwrite some of your system definitions. Performing a system backup is highly recommended.

NOTE: You will need to have a local version of the mApp to complete this process; see your Cherwell or ScienceLogic contact for the latest mApp. Also, the name of the mApp might be different from the name used in these steps.

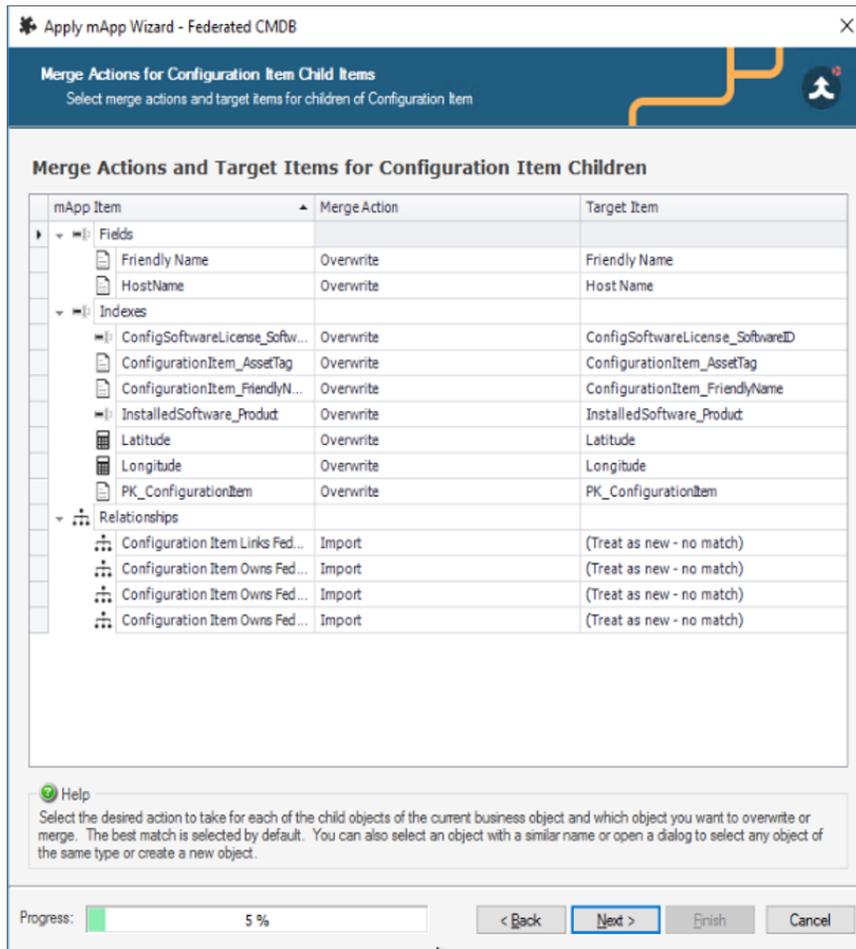
To install the "Federated CMDB" mApp:

1. Open the CSM Administrator client and select **mApps** from the **Categories** sub-menu.



2. From the **Pick a task** section, select **Apply a mApp**. An **Open** dialog appears.
3. Navigate to the mApp on your local drive, select the mApp, and click **[Open]**. The **Apply mApp Wizard** page appears.
4. Click **[Next]**. The **License Information** page appears.
5. Select **Yes, I accept the terms** and click **[Next]**. The **Localization** page appears.
6. Click **[Next]**. The **Amount of User Interaction** page appears.

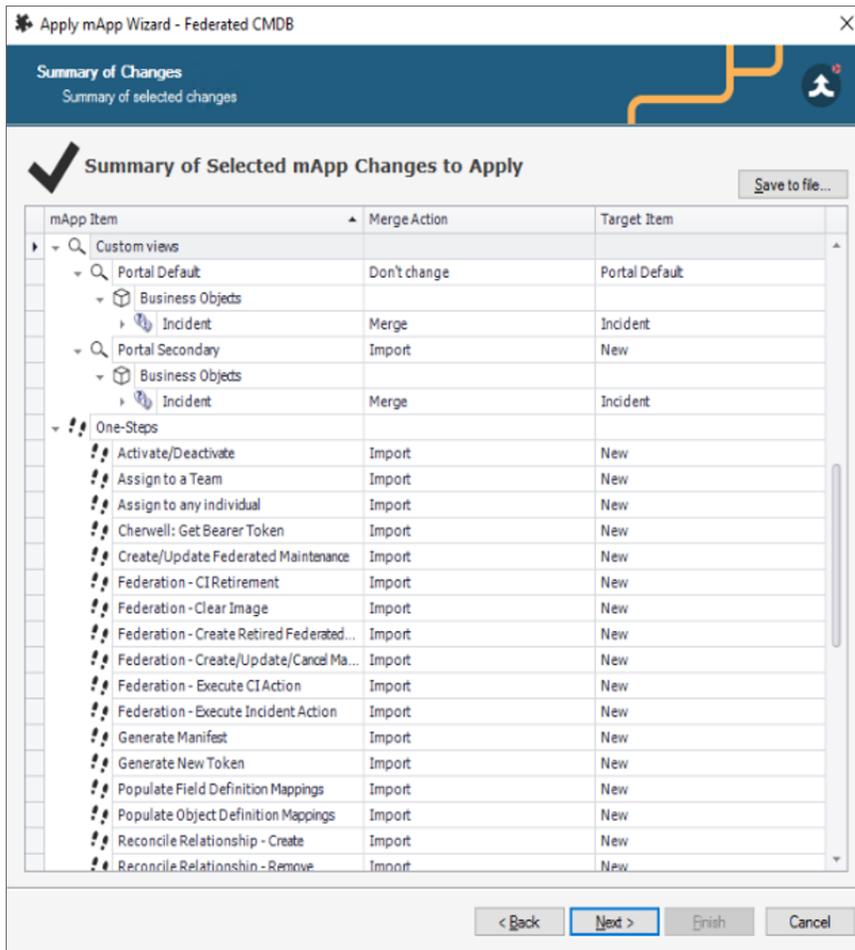
7. Select **Make reasonable decisions, but ask me if unsure** and click **[Next]**. The **Merge Actions for Configuration Item Child Items** page appears:



NOTE: The contents of the windows in this portion of the wizard might vary depending on the system to which you are installing.

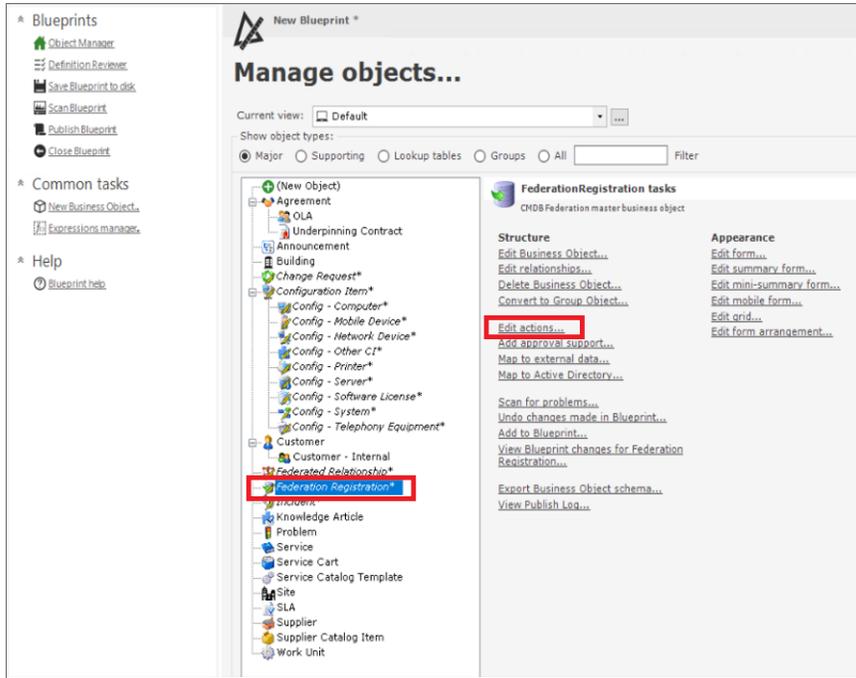
8. Click **[Next]**. The **Merge Actions for Change Request Child Items** page appears.
9. Click **[Next]**. The **Merge Actions for Event Child Items** page appears.
10. Click **[Next]**. The **Merge Actions for Incident Child Items** page appears.
11. Click **[Next]**. A second **Merge Actions for Incident Child Items** page appears.
12. Click **[Next]**. A third **Merge Actions for Incident Child Items** page appears.

13. Click [Next]. The **Summary of Changes** page appears:

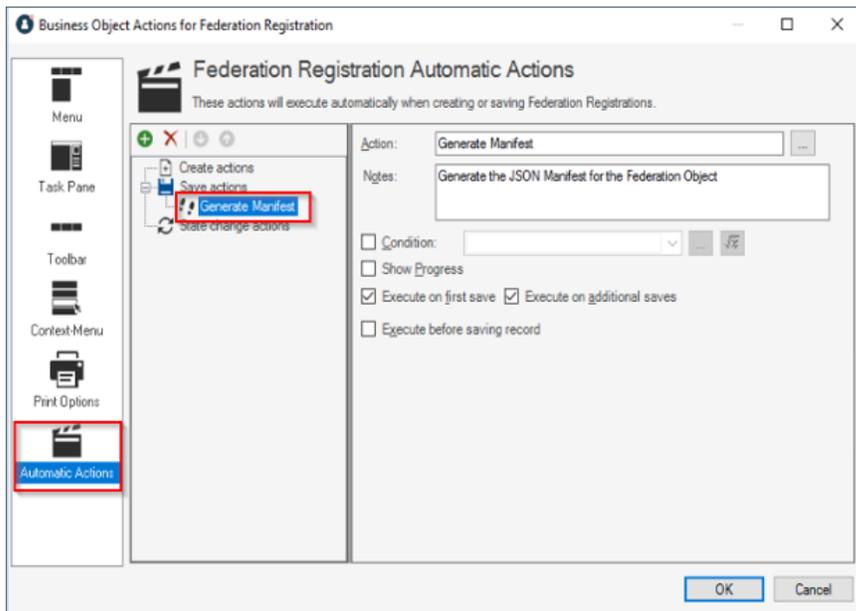


14. Review your list of selected mApp changes and click [Next]. The **Final Options** page appears.

- Select **Open a Blueprint so that I can preview the changes** and click **[Finish]**. CSM will create a *Blueprint*, which is an XML definition of changes being made to the underlying system. When the Blueprint is created, the **Manage objects** page appears:

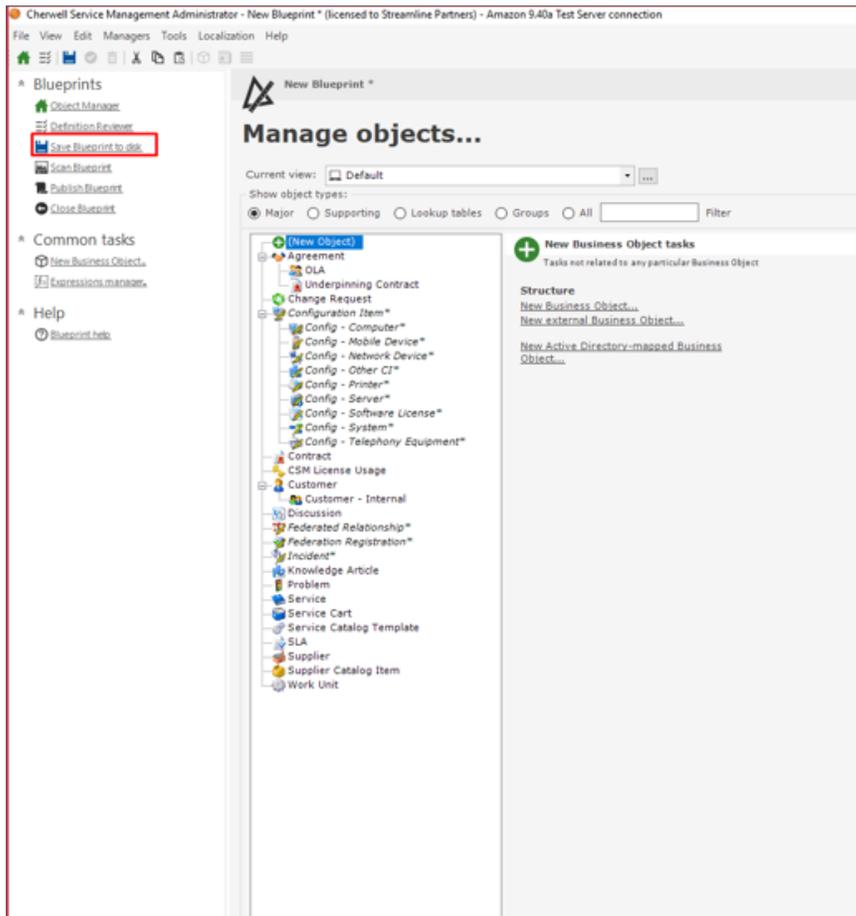


- From the list of objects, select the "Federation Registration" object and then click **Edit Actions**. The **Business Object Actions for Federation Registration** window appears:



- Click the **[Automatic Actions]** tab on the left and verify that "Generate Manifest" is listed under "Save actions". If "Generate Manifest" is not listed under "Save actions", go to the next step. If "Generate Manifest" is listed, go to step 19.

18. To add "Generate Manifest":
 - a. Right-click **Save Actions** and select *Add One-Step action*. The **One-Step Action Manager** page appears.
 - b. Under the **Blueprint** folder, select the **Federation** folder.
 - c. In the **Association** field, select *Federation Registration*.
 - d. In the right-hand pane, double-click **Generate Manifest**.
 - e. Click **[OK]**.
19. On the **Business Object Actions for Federation Registration** window, click **[OK]**. The **Manage objects** page appears:



20. From the **Blueprints** sub-menu, select **Save Blueprint to disk** and provide a name and location for the Blueprint when prompted.
21. From the **Blueprints** sub-menu, select **Publish Blueprint** to apply the Blueprint changes to the current CSM system. A **Publish Options** page appears.
22. Leave the options set to the defaults and click **[Publish]**. The Blueprint is scanned for changes against the current CSM system. When the scan completes, a **Scan successful** dialog appears.

- Click **[OK]**. The publishing process for the Blueprint begins. When the Blueprint is published, a **Blueprint has been published** dialog appears.

NOTE: During the publishing process, a rollback Blueprint is created. This rollback Blueprint is in the same file system location as the saved Blueprint, but it has **_rollback** added to the name. You can use this Blueprint to roll back the published changes if needed.

- Click **[Close]**. The "Federated CMDB" mApp is now published.

Installing the IS Content mApp

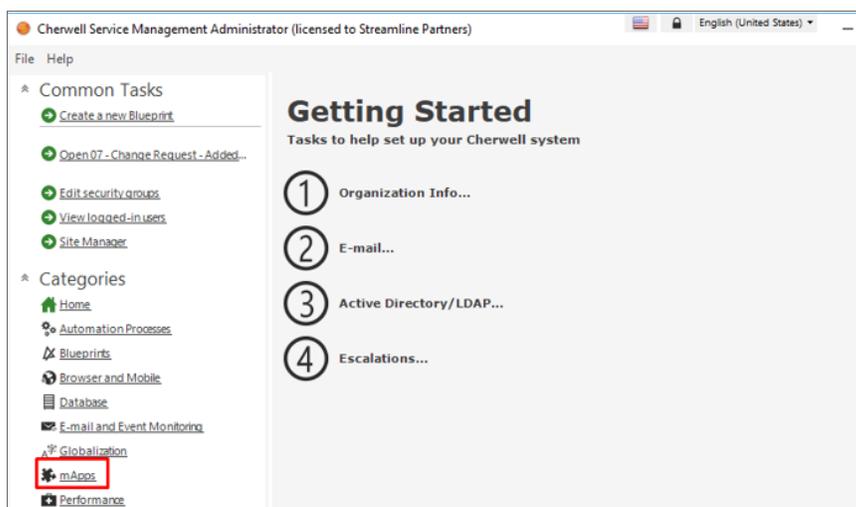
Integration with a Federated source such as the Integration Service is typically accomplished using automation processes and One-Steps that have been specifically configured for this purpose. These features are known as *Content*, and they are contained in the "IS Content" mApp.

WARNING: Applying this mApp might overwrite some of your system definitions. Performing a system backup is highly recommended.

NOTE: You will need to have a local version of the mApp to complete this process; see your Cherwell or ScienceLogic contact for the latest mApp. Also, the name of the mApp might be different from the name used in these steps.

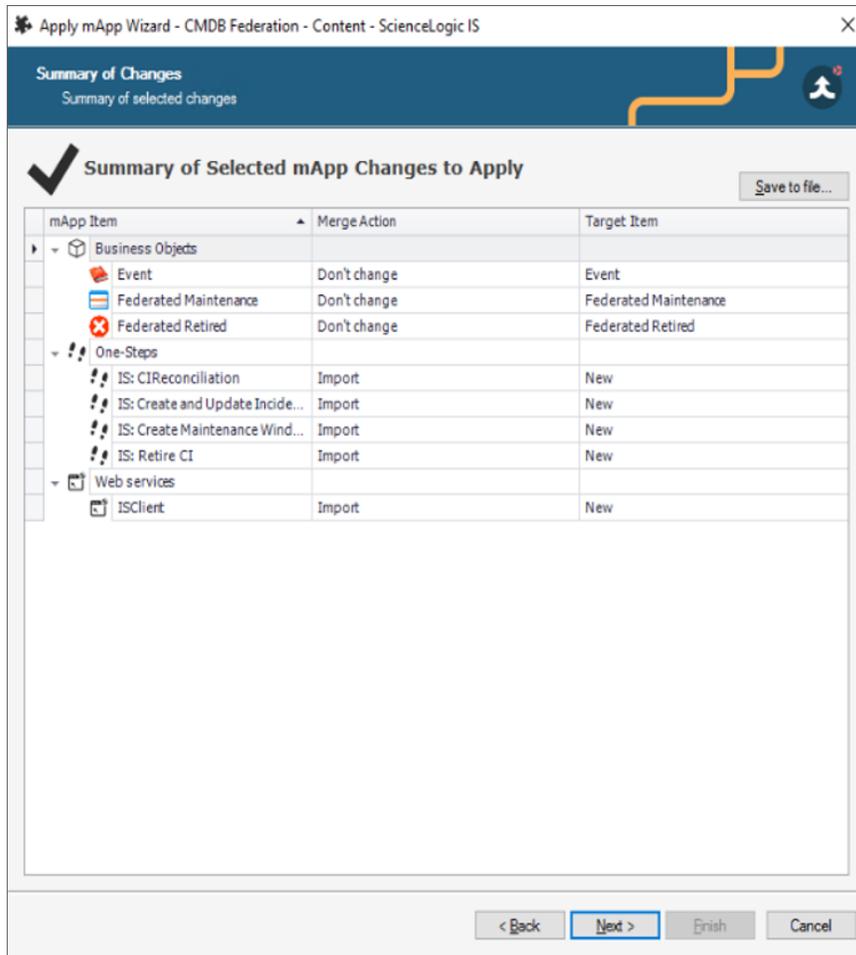
To install the "IS Content" mApp:

- Open the CSM Administrator client and select **mApps** from the **Categories** sub-menu:



- From the **Pick a task** section, select **Apply a mApp**. An **Open** dialog appears.

- Navigate to the mApp on your local drive, select the mApp, and click **[Open]**. The **Apply mApp Wizard** page appears.
- Click **[Next]**. The **License Information** page appears.
- Select **Yes, I accept the terms** and click **[Next]**. The **Localization** page appears.
- Click **[Next]**. The **Amount of User Interaction** page appears.
- Select **Make reasonable decisions, but ask me if unsure** and click **[Next]**. The **Summary of Changes** page appears:



- Review your list of selected mApp changes and click **[Next]**. The **Final Options** page appears.
- Select **Open a Blueprint so that I can preview the changes** and click **[Finish]**. When the Blueprint is created, the **Manage objects** page appears.
- On the **Business Object Actions for Federation Registration** window, click **[OK]**. The **Manage objects** page appears.
- From the **Blueprints** sub-menu on the left, select **Save Blueprint to disk** and provide a name and location for the Blueprint when prompted.
- From the **Blueprints** sub-menu, select **Publish Blueprint** to apply the Blueprint changes to the current CSM system. A **Publish Options** page appears.

13. Leave the options set to the defaults and click **[Publish]**. The Blueprint is scanned for changes against the current CSM system. When the scan completes, a **Scan successful** dialog appears.
14. Click **[OK]**. The publishing process for the Blueprint begins. When the Blueprint is published, a **Blueprint has been published** dialog appears.

NOTE: During the publishing process, a rollback Blueprint is created. This rollback Blueprint is in the same file system location as the saved Blueprint, but it has **_rollback** added to the name. You can use this Blueprint to roll back the published changes if needed.

15. Click **[Close]**. The "IS Content" mApp is now published.

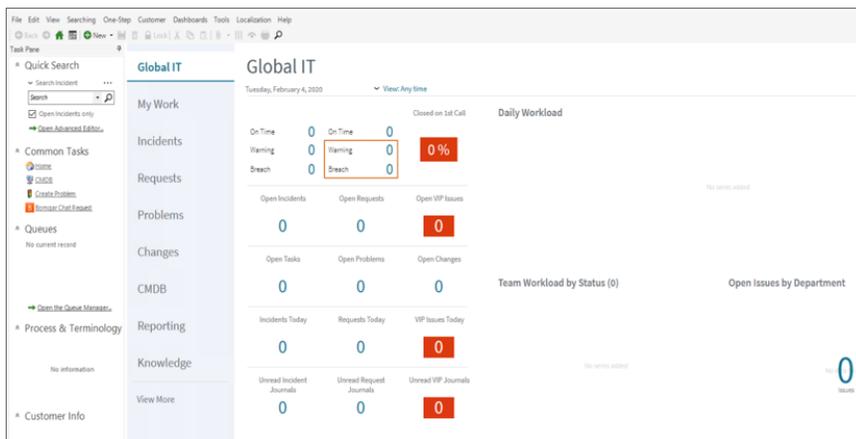
Creating the Federation Registration Record

The main component of the Federated CMDB system is the **Federation Registration record**. Before any further configuration can occur, you must create at least one Federation Registration record.

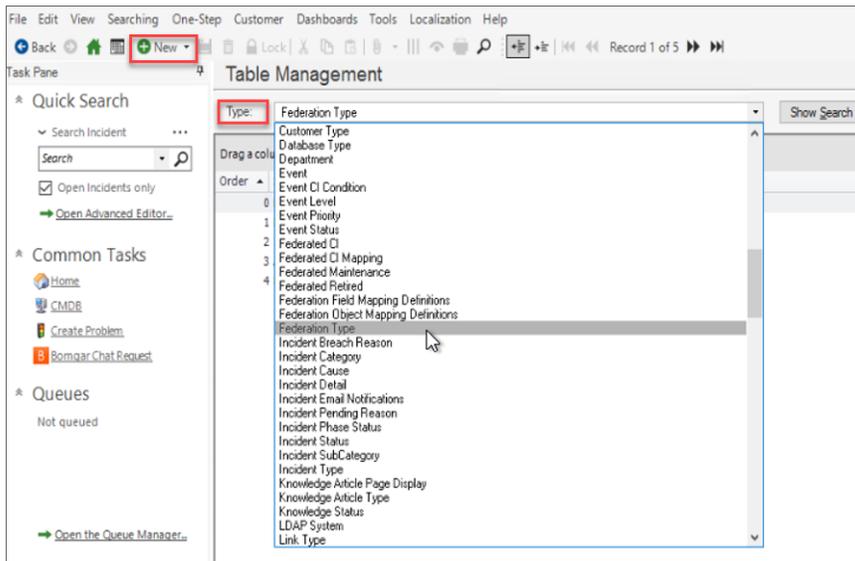
After you create the Federation Registration record, you can configure that record to use the various automation processes and One-Steps in the two mApps you just installed.

To create a new Federation Registration record:

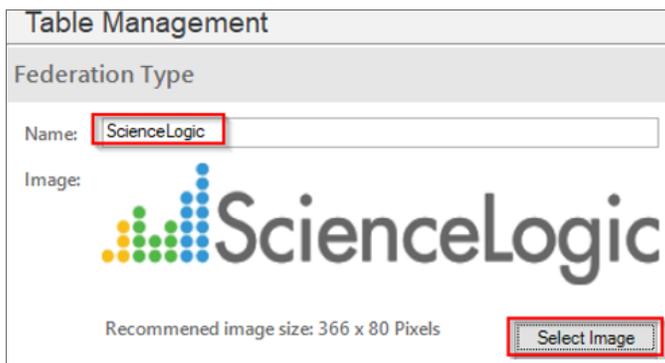
1. Open the CSM User client (not the Administrator client) and log in to CSM using your credentials, preferably with administrator rights:



2. Open the **Tools** menu and select *Table Management*. The **Table Management** page appears:



3. In the **Type** dropdown, select *Federation Type*.
4. Click **[New]** to create a new Federation Type. A new **Federation Type** record appears:

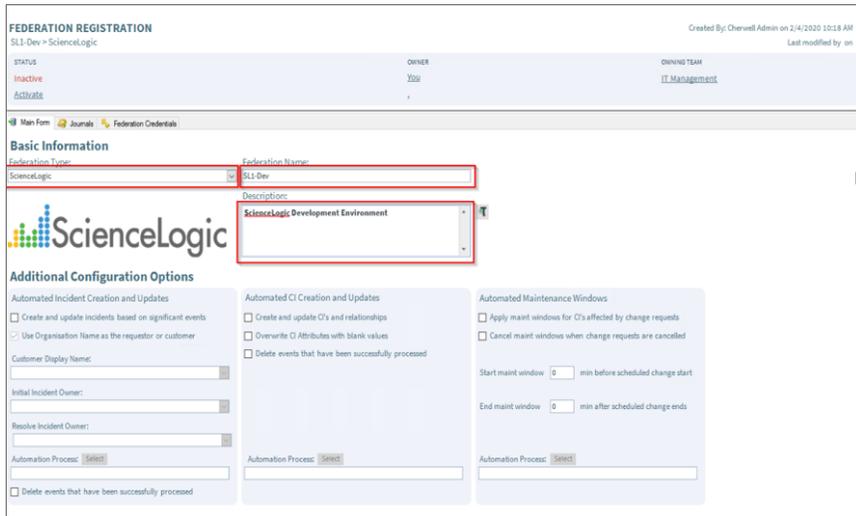


5. Type a name in the **Federation Type** field, such as "ScienceLogic", and click **[Select Image]** to select an appropriate image for this type.

NOTE: You select images from the Cherwell Image Manager. If the image you need is not available, you can import it by right-clicking in the Explorer view of the Image Manager screen and selecting *New*.

6. Click the **[Save]** button ().

7. Click the **[New]** button () and select *New Federation Registration* from the menu. A new **Federation Registration** record appears:



FEDERATION REGISTRATION
SL1-Dev - ScienceLogic
Created By: Chenwell Admin on 2/4/2020 10:18 AM
Last modified by: on

STATUS: **Inactive** | OWNER: You | OWNING TEAM: IT Management
[Activate](#)

Man Form | Journals | Federation Credentials

Basic Information

Federation Type: ScienceLogic | Federation Name: SL1-Dev | Description: ScienceLogic Development Environment

Additional Configuration Options

Automated Incident Creation and Updates

Create and update incidents based on significant events
 Use Organisation Name as the requestor or customer
Customer Display Name:
Initial Incident Owner:
Resolve Incident Owner:
Automation Process:
 Delete events that have been successfully processed

Automated CI Creation and Updates

Create and update CI's and relationships
 Overwrite CI Attributes with blank values
 Delete events that have been successfully processed
Automation Process:

Automated Maintenance Windows

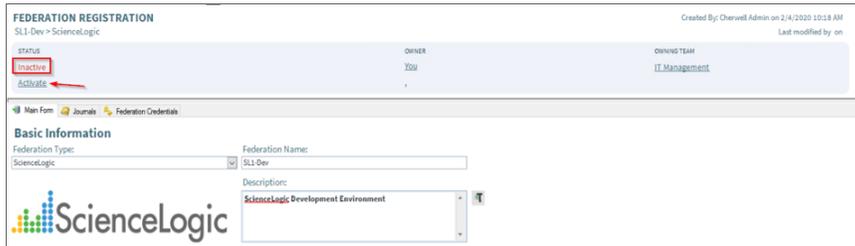
Apply maint windows for CI's affected by change requests
 Cancel maint windows when change requests are cancelled
Start maint window: min before scheduled change start
End maint window: min after scheduled change ends
Automation Process:

8. From the **Federation Type** dropdown, select the Federation Type that you created in steps 3-6.
9. Type a name for the **Federation Name** field, such as "SL1 -Dev", and add a description to the **Description** field for the new record.

NOTE: **Federation Name** is a system-unique value and cannot be duplicated. You will use this value when Integration Service applications interact with the Federated CMDB. The Integration Service applications need to be configured to pass this unique name in all interactions.

10. Click **[Save]**.

11. Click **Activate** if you wish to progress this record to the "Active" state. The **Federation Registration** record is initially created in an "Inactive" state:



The screenshot shows a web interface for a Federation Registration record. At the top, it says 'FEDERATION REGISTRATION' and 'SL1-Dev - ScienceLogic'. Below this, there is a table with columns for 'status', 'OWNER', and 'OWNING TEAM'. The 'status' column shows 'Inactive' and 'Activate' buttons. A red box highlights the 'Activate' button. The 'OWNER' column shows 'JDB' and the 'OWNING TEAM' column shows 'IT Management'. Below the table, there is a 'Basic Information' section with fields for 'Federation Name' (SL1-Dev) and 'Description' (ScienceLogic Development Environment). The ScienceLogic logo is visible in the bottom left corner.

NOTE: Integration Service integration applications and any custom integration applications should check for this state before passing integration data to CSM. Only "Active" records should be allowed to process data. This allows the CSM administrator to turn off poorly behaving integration applications.

12. The **Federation Registration** record is now "Active", but it is not properly configured to support integrations. Go to the following topic to continue the configuration process.

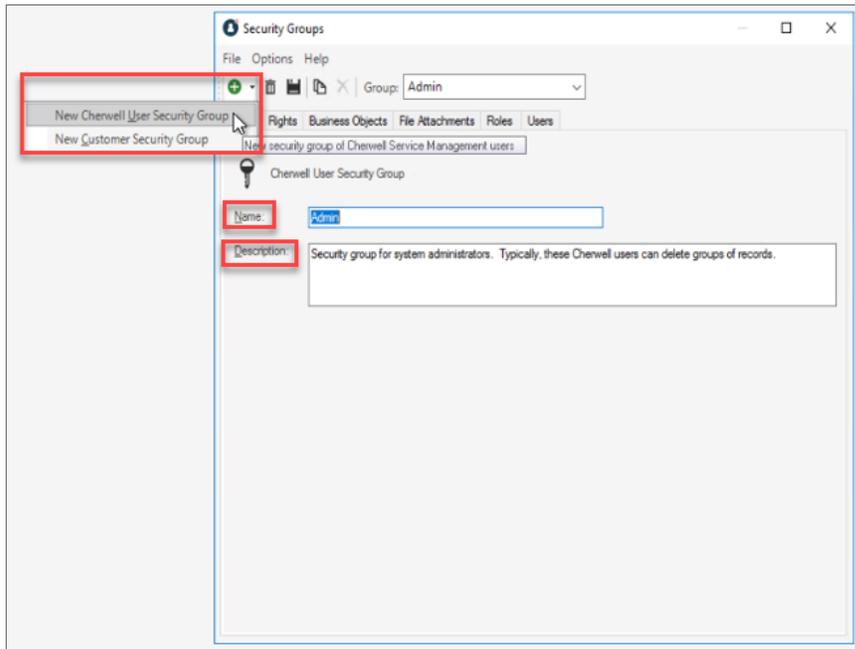
Configuring CSM Access for Scheduled Tasks and the API

The Federation Registration One-Steps use the CSM REST API to create and update CI records. You need to create a new CSM Security Group and a CSM user account that has Create, Read, and Write access to all Federation business objects and all Configuration Item business objects. This account must be able to access the CSM REST API remotely.

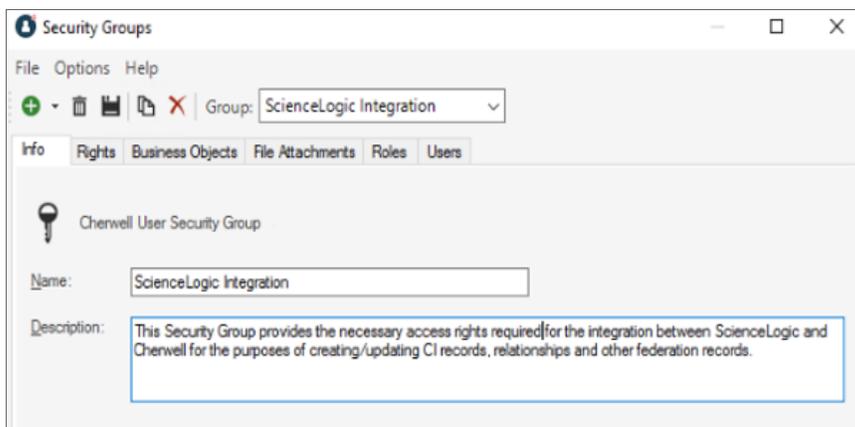
Creating a New Security Group

To create a new Security Group with CSM access:

1. Open the CSM Administrator client and select **Security** from the **Categories** sub-menu on the left.
2. From the **Pick a task** section, select **Edit security groups**. A **Security Groups** window appears:



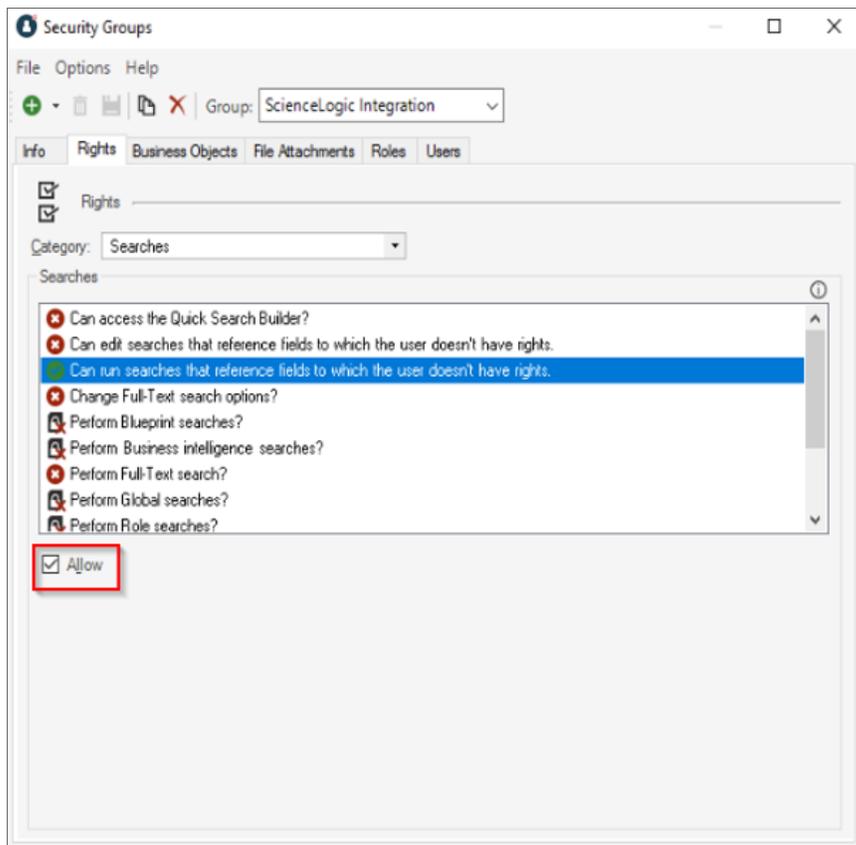
3. Click **[New]** and select *New Cherwell User Security Group*. A new **Security Groups** dialog appears.



- In the **Name** field, type a name for the new Security Group, and type a description of the group in the **Description** field.

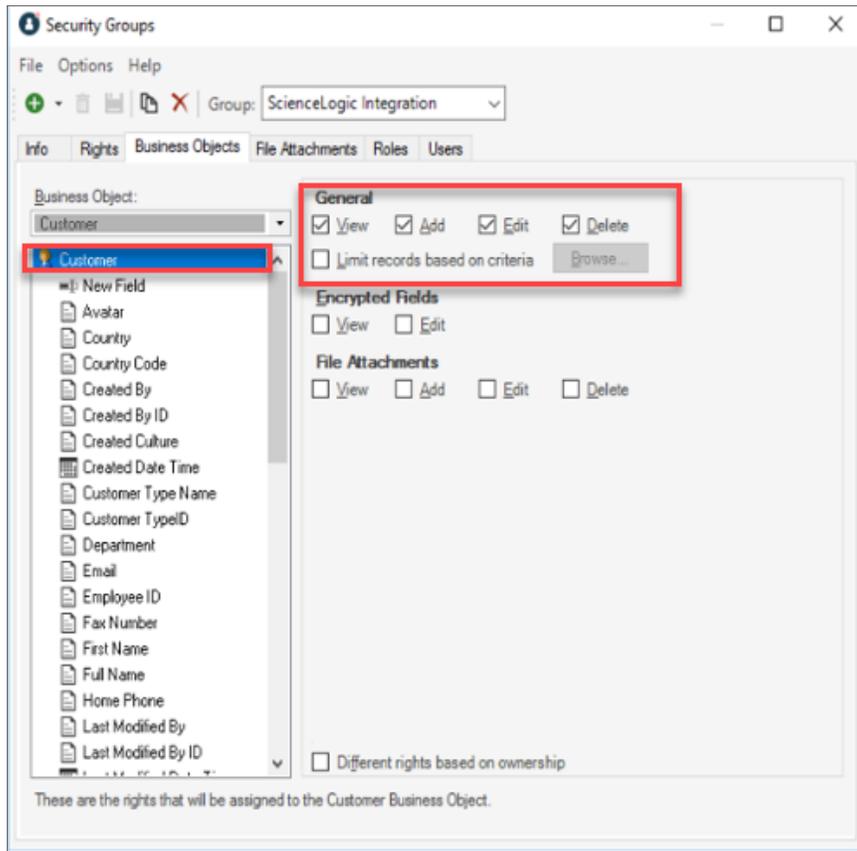
NOTE: The name you create for the group is not important, as the CSM This Security Group user will later be linked to this Security Group. The name can abide by other naming standards if needed.

- Click the **[Rights]** tab and make sure that the *Can run searches that reference fields to which the user doesn't have rights* option is configured for "Allow":

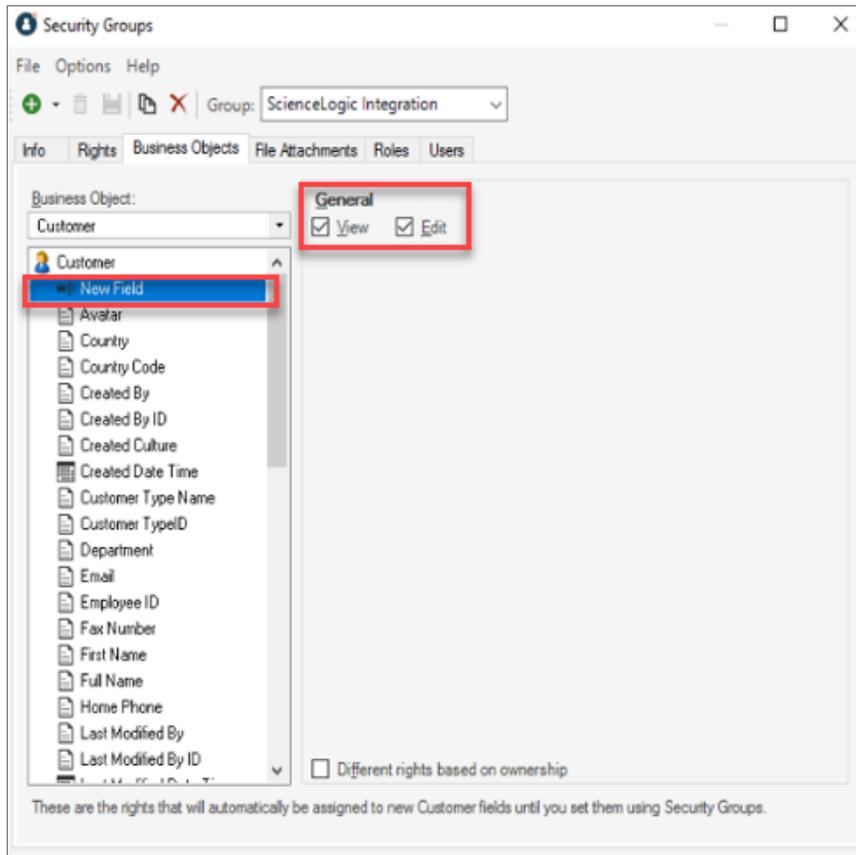


- Click the **[Business Objects]** tab.

7. Select the *Customer* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View*, *Add*, *Edit*, and *Delete*:



8. Select *New Field* under the *Customer* business object and make sure that the following rights are selected in the **General** section for that business object: *View* and *Edit*:

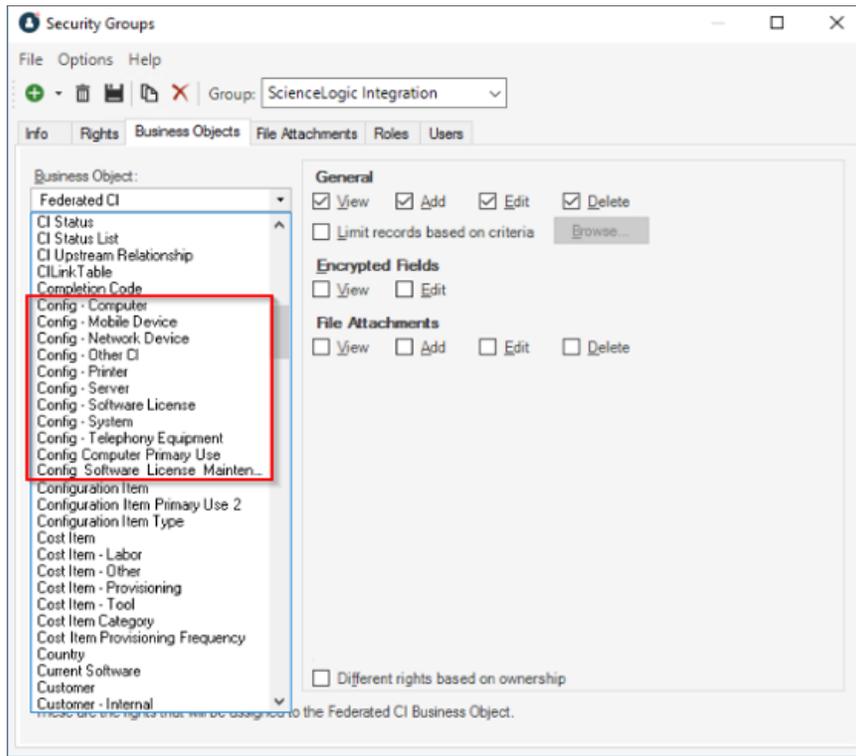


9. Select the *Customer - Internal* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View*, *Add*, *Edit*, and *Delete*. No other options should be selected.
10. Select *New Field* under the *Customer - Internal* business object and make sure that the following rights are selected in the **General** section for that business object: *View* and *Edit*.
11. Select the *Event* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View*, *Add*, *Edit*, and *Delete*. No other options should be selected.
12. Select *New Field* under the *Event* business object and make sure that the following rights are selected in the **General** section for that business object: *View* and *Edit*.
13. Select the *Federated CI* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View*, *Add*, *Edit*, and *Delete*. No other options should be selected.
14. Select *New Field* under the *Federated CI* business object and make sure that the following rights are selected in the **General** section for that business object: *View* and *Edit*.

15. Select the *Federated CI Mapping* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
16. Select *New Field* under the *Federated CI Mapping* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
17. Select the *Federated Field Mapping* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
18. Select *New Field* under the *Federated Field Mapping* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
19. Select the *Federated Maintenance* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
20. Select *New Field* under the *Federated Maintenance* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
21. Select the *Federated Relationship* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
22. Select *New Field* under the *Federated Relationship* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
23. Select the *Federated Retired* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
24. Select *New Field* under the *Federated Retired* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
25. Select the *Federated Credential* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
26. Select *New Field* under the *Federated Credential* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
27. Select the *Federated Field Mapping Definitions* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
28. Select *New Field* under the *Federated Field Mapping Definitions* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
29. Select the *Federated Object Mapping Definitions* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
30. Select *New Field* under the *Federated Object Mapping Definitions* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.

31. Select the *Federated Registration* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
32. Select *New Field* under the *Federated Registration* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
33. Select the *Federated Type* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
34. Select *New Field* under the *Federated Type* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
35. Select the *Federation_joins_CI* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
36. Select *New Field* under the *Federation_joins_CI* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.
37. Select the *Configuration Item* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View, Add, Edit, and Delete*. No other options should be selected.
38. Select *New Field* under the *Configuration Item* business object and make sure that the following rights are selected in the **General** section for that business object: *View and Edit*.

39. Make sure that the following rights are selected in the **General** section for all *Configuration Item* types remaining in the dropdown: *View*, *Add*, *Edit*, and *Delete* (or just *View* and *Edit* where relevant):



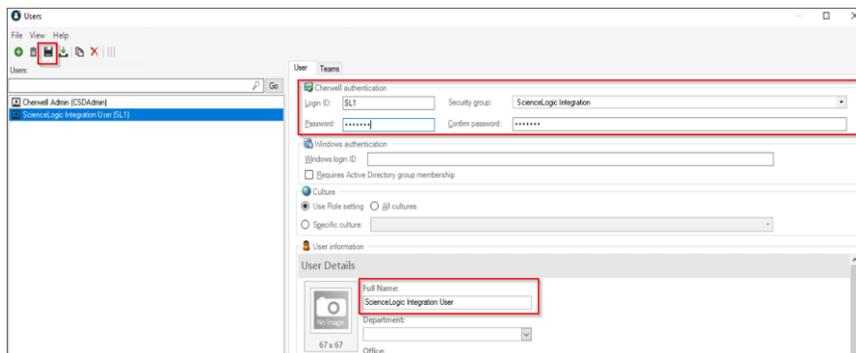
TIP: The *Configuration Item* types all have "Config" at the start of their names.

40. Select the *CLink Table* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View*, *Add*, *Edit*, and *Delete*. No other options should be selected.
41. Select *New Field* under the *CLink Table* business object and make sure that the following rights are selected in the **General** section for that business object: *View* and *Edit*.
42. Select the *Manufacturer* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View*, *Add*, *Edit*, and *Delete*. No other options should be selected.
43. Select *New Field* under the *Manufacturer* business object and make sure that the following rights are selected in the **General** section for that business object: *View* and *Edit*.
44. Select the *CI Upstream Relationship* business object from the **Business Object** dropdown and make sure that the following rights are selected in the **General** section for that business object: *View*, *Add*, *Edit*, and *Delete*. No other options should be selected.
45. Select *New Field* under the *CI Upstream Relationship* business object and make sure that the following rights are selected in the **General** section for that business object: *View* and *Edit*.
46. Click the **[Save]** button () to save the new Security Group, and then close the **Security Groups** window.

Creating a New User

To create a user for the new Security Group:

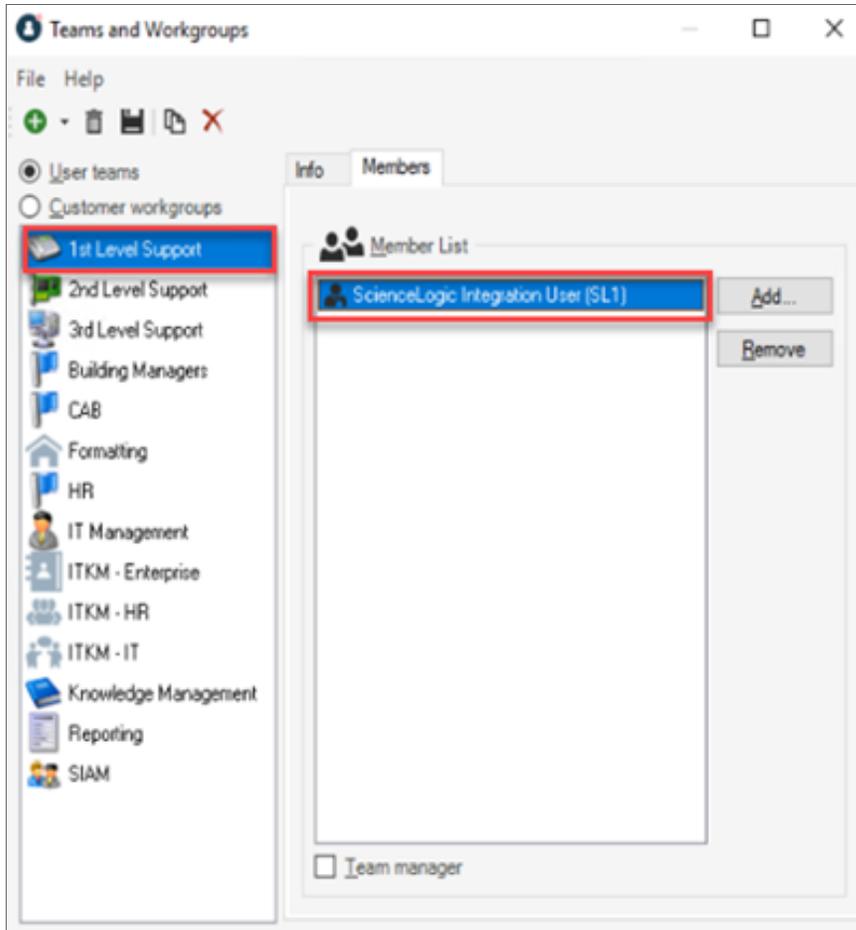
1. From the **Pick a task** section of the CSM Administrator client, select **Edit users**. The **Users** window appears:



2. Click the **[New]** button ().
3. On the **[User]** tab, complete the following fields:
 - **Login ID**. Type a unique login for the user, such as "SL1".
 - **Security Group**. Select the Security Group that you created in the previous procedure.
 - **Password**. Type a password for the user, and confirm the password in the corresponding field.
 - **Full Name**. Type a unique name for the user, such as "ScienceLogic Integration User".

NOTE: Make a note of the **Login ID** and **Password** values, as you will use these in additional configuration steps.

4. Click the [Save] button (📁).
5. From the **Pick a task** section, select **Edit teams and workgroups**. The **Teams and Workgroups** dialog appears:



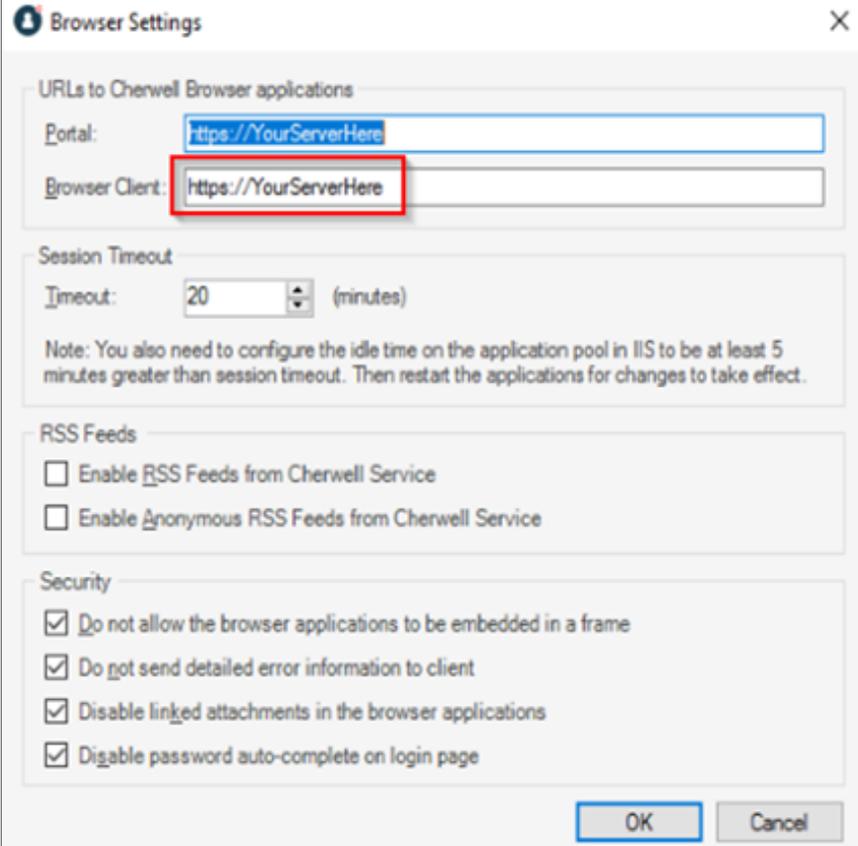
6. In the **User teams** section, select **1st Level Support**.
7. Click the [**Members**] tab and make sure that the new user is listed as a member of this team.

Verifying the URL for API Access

By default, the URL used by the Federated CMDB integration is the same URL used by the web-based client. This section describes how to find this URL and how to make sure that the API is functioning using this URL.

To verify the URL for API access:

1. From the **Categories** sub-menu of the CSM Administrator client, select **Browser and Mobile**:
2. From the **Pick a task** section, select **Browser Application Settings**. A **Browser Settings** window appears:



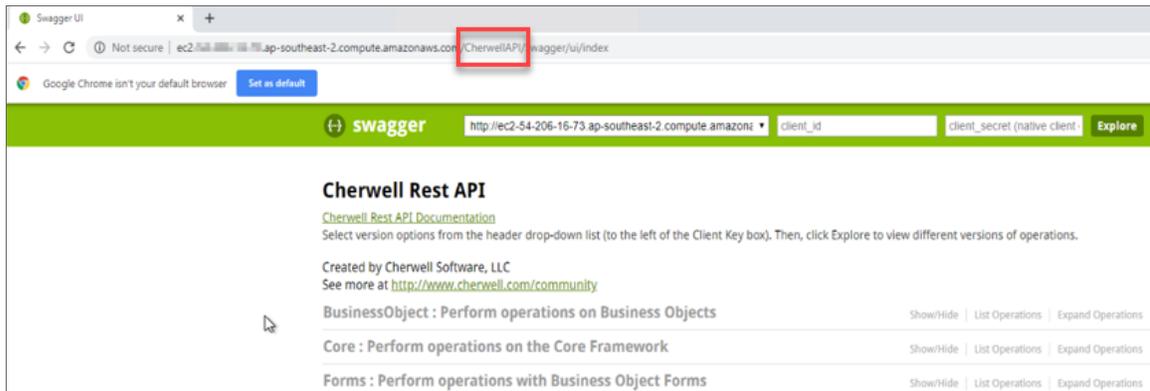
The screenshot shows a 'Browser Settings' dialog box with the following sections:

- URLs to Cherwell Browser applications:**
 - Portal:
 - Browser Client:
- Session Timeout:**
 - Timeout: (minutes)
 - Note: You also need to configure the idle time on the application pool in IIS to be at least 5 minutes greater than session timeout. Then restart the applications for changes to take effect.
- RSS Feeds:**
 - Enable RSS Feeds from Cherwell Service
 - Enable Anonymous RSS Feeds from Cherwell Service
- Security:**
 - Do not allow the browser applications to be embedded in a frame
 - Do not send detailed error information to client
 - Disable linked attachments in the browser applications
 - Disable password auto-complete on login page

Buttons: OK, Cancel

3. Review the URL in the **Browser Client** field. If the field displays **https://YourServerHere**, then this value has not been set yet.
4. If the value has not been set, specify the URL in the **Browser Client** field and then click **[OK]**.

5. If you add a suffix of **/CherwellAPI** to that URL in a web browser, the browser opens a Swagger window similar to the following:



6. Make a note of that URL for later configuration steps.

NOTE: If a DNS name is used in the URL, then that DNS name must be able to be resolved on the server itself, as that is where all API calls are made.

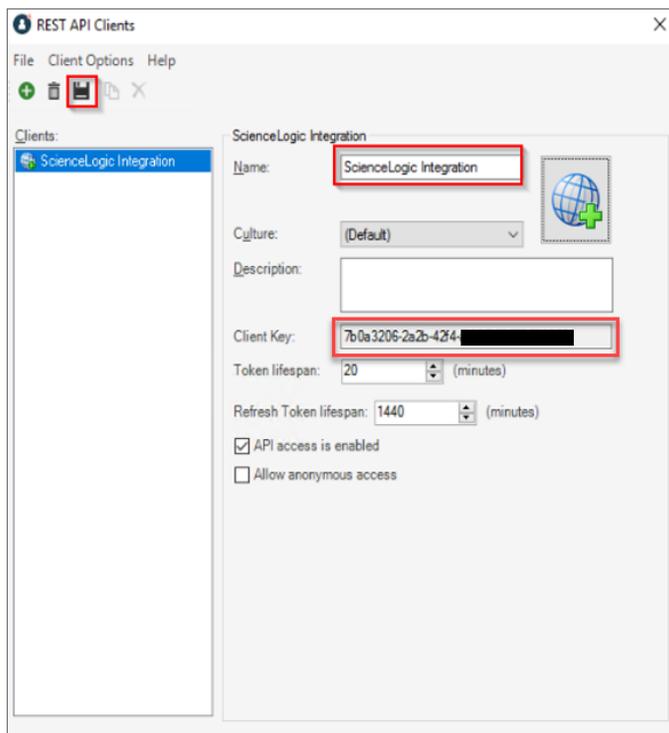
Obtaining a Client Key

Access to the CSM REST API is controlled with the username and password as well as what is known as a Client Key.

To create the Client Key:

1. Open the CSM Administrator client and select **Security** from the **Categories** sub-menu on the left.
2. From the **Pick a task** section, select **Edit REST API Client settings**. A **REST API Clients** window appears.

3. Click the **[New]** button () to create a new Client Key. A new record appears:



4. In the **Name** field, type a name for the Client Key, such as "ScienceLogic Integration".
5. Copy the value in the **Client Key** field for later configuration steps.
6. Click the **[Save]** button ().

Configuring CSM Scheduled Tasks

Various back-end configuration processes, including scheduled tasks, are needed to cache configuration data for the Federation to occur in an automated fashion. This back-end configuration uses web services, and you will use the CSM user account that you just created for these configurations.

Configuring the Back-end Credentials and Endpoints

To configure the back-end credentials and endpoints:

1. Log in to the CSM Administrator client as an administrator and select **Create a new Blueprint** in the **Common Tasks** sub-menu on the left.
2. From the **[Managers]** menu, select *Stored Values*. The **Stored Values Manager** window appears.
3. Select the Blueprint scope so you can edit the stored values.

4. Right-click the **Cherwell REST API Key** and select *Edit*. The **Stored Value** dialog appears:

The screenshot shows a 'Stored Value' dialog box with the following fields and options:

- Name:** Cherwell REST API Key
- Description:** (empty)
- Type:** Text
- Value:** 7b0a624a13905 (highlighted with a red box)
- Value is user-specific
- Remember the user specific values between sessions
- Buttons: Options..., OK, Cancel

5. In the **Value** field, add the REST API Client Key that you configured in [Obtaining a Client Key](#) and click **[OK]**. This value authenticates against the CSM REST API.
6. Right-click the **Cherwell REST API Username** and select *Edit*. The **Stored Value** dialog appears.
7. In the **Value** field, type the unique login, such as "SL1", for the user you created in [Creating a New User](#) and click **[OK]**.
8. Right-click the **Cherwell REST API Password** and select *Edit*. The **Stored Value** dialog appears.
9. In the **Value** field, type the password for the user you created in [Creating a New User](#) and click **[OK]**.
10. Close the **Stored Value Manager** window and then click **Save Blueprint to disk** from the **Blueprints** sub-menu.
11. Click **Publish Blueprint**. The Publish Options dialog appears.
12. Accept all defaults and click **[Publish]**.
13. After the changes have been published, go to the following section to add the scheduled tasks.

Adding the Scheduled Tasks

The following scheduled tasks perform the caching of business objects used by the Federation system:

- [Populate Field Definition Mappings](#)
- [Populate Object Definition Mappings](#)

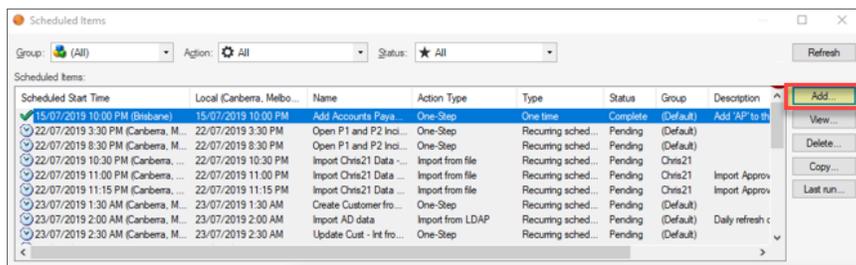
NOTE: These tasks must be successfully executed at least once to ensure that integration can occur. Ideally, you should schedule these tasks on a recurring basis, at least weekly.

Creating and Testing the Populate Field Definition Mappings

The Federated CMDB integration uses the CSM REST API to do inserts and updates, and these API calls use IDs instead of Names for CSM business object and fields. This scheduled task caches the IDs for all Configuration Item objects and their respective fields to avoid continuous lookup of these values with the CSM API.

To create and test the "Populate Field Definition Mappings" task:

1. Log in to the CSM Administrator client as an administrator and select **Scheduling** in the **Categories** sub-menu on the left.
2. From the **Pick a task** section, select **Edit Schedule**. The **Scheduled Items** window appears:



3. Click **[Add]**. The **Schedule Item** dialog appears.
4. In the **Name** field on the **[General]** tab, type a name for the task, such as "Cache Configuration Item Field Mappings".
5. In the **Description** field, type a short description of the task.

6. Click the [Schedule] tab and select **Recurring**:

The screenshot shows the 'Schedule Item' dialog box. The left sidebar has three tabs: 'General' (star icon), 'Schedule' (calendar icon), and 'Error Handling' (warning icon). The 'Schedule' tab is active. The main area is titled 'Schedule Item' and contains the following settings:

- One Time** or **Recurring**: The **Recurring** radio button is selected.
- Scheduled time**:
 - Start time: 1:24 PM
 - Time zone: (UTC+10:00) Brisbane
 - local time is 2/4/2020 1:25 PM
- Recurrence**:
 - Hours**, **Daily**, **Weekly**, **Monthly**, or **Yearly**: The **Daily** radio button is selected.
 - Interval: Every 1 Day
 - Every weekday**: This option is also present but not selected.
- Range of recurrence**:
 - Start date: 2/4/2020
 - No end date**, **End after**, or **End by**: The **No end date** radio button is selected.
- Maximum time to block other schedules**: Minutes: 20

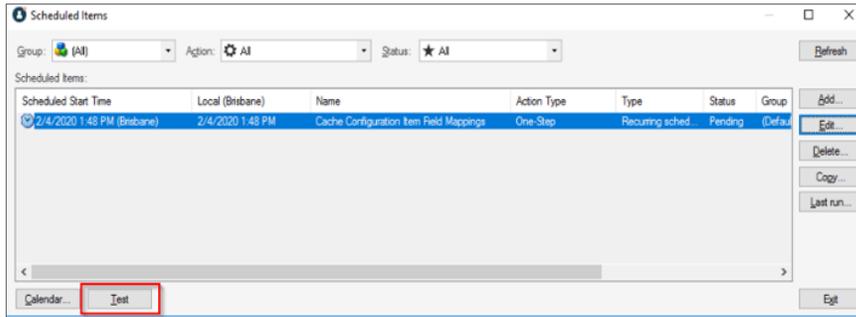
7. Complete the remaining fields based on how often you want the task to run on its schedule.

TIP: As a best practice, even though the task does not take long to run, you should schedule this task to run during off-peak periods. You can set the recurrence interval to daily or weekly.

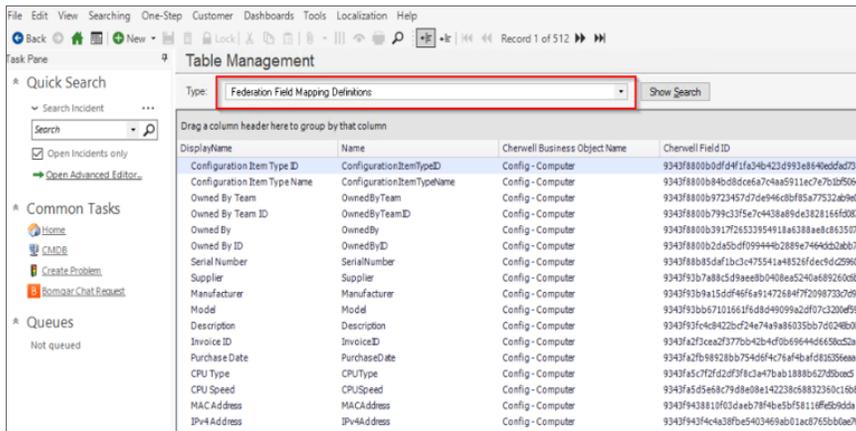
8. Click the [Action] tab and select *One-Step* from the **Action** dropdown. The **One-Step Action Manager** dialog appears:

The screenshot shows the 'One-Step Action Manager' dialog box. The title bar includes 'English (United States)'. The menu bar has 'File', 'Edit', 'View', and 'Help'. The toolbar includes a search box and a 'Go' button. The 'Association' dropdown is set to '(None)'. The left sidebar shows a tree view of 'One-Step Actions' with the following items: Pinboard, Blueprint, Federation, User (CSDAdmin), Team, Global, and Business Intelligence. The 'Populate Field Definition Mappings' button is highlighted in the main area.

9. Under the **Blueprint** folder, select the **Federation** folder.
10. In the **Association** dropdown, select *Federation Registration*.
11. In the right-hand pane, double-click **Populate Field Definition Mappings**. The **[Actions]** tab for the **Schedule Item** dialog appears.
12. Click **[OK]** to save the schedule. The **Scheduled Items** window appears:



13. Make sure that the new schedule has been added to the window, and then click **[Test]** for that schedule. The test should display as Complete.
14. To verify that the scheduled task has actually collected the necessary object data, log in to the Cherwell Service Management client, open the **[Tools]** menu, and select **Table Management**:



If data rows appear under **Federation Field Mapping Definitions** in the **Type** dropdown, then the scheduled task executed successfully.

Creating and Testing the Populate Object Definition Mappings

To create and test the "Populate Object Definition Mappings" task:

1. Log in to the CSM Administrator client as an administrator and select **Scheduling** in the **Categories** sub-menu on the left.
2. From the **Pick a task** section, select **Edit Schedule**. The **Scheduled Items** window appears.
3. Click **[Add]**. The **Schedule Item** dialog appears.

4. In the **Name** field on the **[General]** tab, type a name for the task, such as "Cache Object Mapping Definitions".
5. In the **Description** field, type a short description of the task.
6. Click the **[Schedule]** tab and select **Recurring**.
7. Complete the remaining fields based on how often you want the task to run on its schedule.

TIP: As a best practice, even though the task does not take long to run, you should schedule this task to run during off-peak periods. You can set the recurrence interval to daily or weekly.

8. Click the **[Action]** tab and select *One-Step* from the **Action** dropdown. The **One-Step Action Manager** dialog appears.
9. Under the **Blueprint** folder, select the **Federation** folder.
10. In the **Association** dropdown, select *None*.
11. In the right-hand pane, double-click **Populate Object Definition Mappings**. The **[Actions]** tab for the **Schedule Item** dialog appears.
12. Click **[OK]** to save the schedule. The **Scheduled Items** window appears.
13. Make sure that the new schedule has been added to the window, and then click **[Test]** for that schedule. The test should display as Complete.
14. To verify that the scheduled task has actually collected the necessary object data, log in to the Cherwell Service Management client, open the **[Tools]** menu, and select *Table Management*. If data rows appear under **Federation Object Mapping Definitions** in the **Type** dropdown, then the scheduled task executed successfully.

Chapter

3

Configuring Credentials and the Federated Registration Record

Overview

Before you can enable and use the *Cherwell SyncPack*, you must create credentials to enable communication between the Integrations Service, CSM, and SL1. You also need to configure a number of settings on the **Federated Registration** record to enable integrations between CSM and SL1.

NOTE: You should perform these configurations with the Cherwell Service Management (CSM) User client, not the CSM Administrator client.

This chapter covers the following topics:

<i>Creating the Cherwell API Credential</i>	37
<i>Creating the Integration Service Federation Source Credential</i>	39
<i>Configuring the API Credentials</i>	40
<i>Enabling the Federation Registration Record</i>	40
<i>Configuring Incident Creation and Updates</i>	41
<i>Configuring CI Creation and Updates</i>	43
<i>Configuring Automated Maintenance Windows</i>	46
<i>Configuring Automated CI Retirements</i>	48

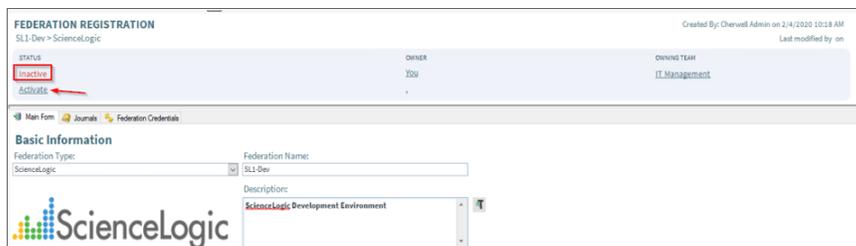
Creating the Cherwell API Credential

Federation Registration records use the Cherwell API to create, update, and search for CIs, and these processes require a Cherwell API credential. Each **Federation Registration** record can use a different credential that tracks which Federation source changed an attribute.

You can use the same CSM username, password, and REST Client Key credentials that you created in [Configuring the Back-end Credentials and Endpoints](#).

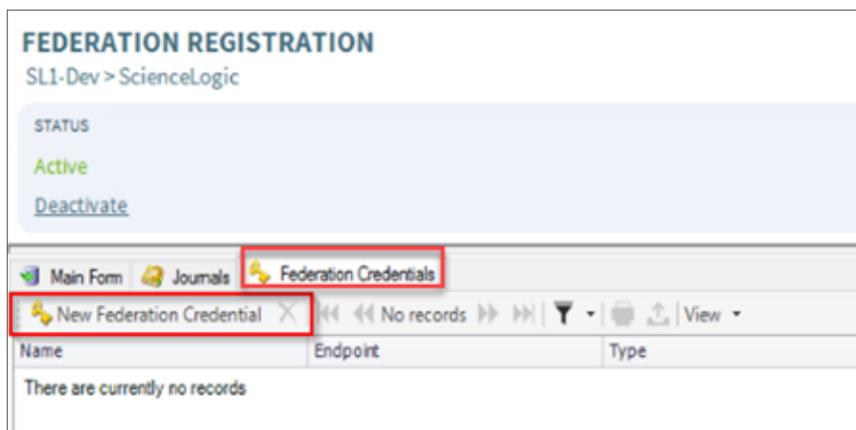
To create the Cherwell API credential:

1. Log in to the CSM User client and go to the **Federation Registration** record you created in [Creating the Federation Registration Record](#):



TIP: To quickly find this record, go to **Searching > Search Manager** and use the search queries provided. For example, select the **Global** folder under the **Team** folder in the **Search** folder on the left, select **Federation Registration** from the **Association** dropdown, and search through the different sources in the bottom pane. The sample Federation Name for this record was "SL1-Dev".

2. On the **Federation Registration** record, go to the **[Federation Credentials]** tab:



3. Click **[New Federation Credential]**. A new **Federation Credential** pane appears:

The screenshot shows the 'FEDERATION REGISTRATION' interface for 'SL1-Dev > ScienceLogic'. The main area displays a table with one record: 'Cherwell API' with endpoint 'http://13.211.143.155' and type 'Cherwell'. A 'Federation Credential' form is open on the right, highlighted with a red border. The form fields are: Type (dropdown set to 'Cherwell'), Name (text field 'Cherwell API'), Description (text area 'API Credential for the Cherwell API'), API EndPoint (text field 'http://13.211.143.155'), UserName (text field 'SL1'), Password (password field with 10 dots), API Client Key (password field with 20 dots), and Automation Process - Token Generation (dropdown set to 'Select').

4. Update the following fields:
 - **Type**. Select *Cherwell*.
 - **Name**. Type a unique name, such as "Cherwell API Credential".
 - **Description**. Type a short explanation of the credential.
 - **API Endpoint**. Type the URL for the Cherwell API.
 - **User Name**. Type the username for the user you created in [Creating a New User](#).
 - **Password**. Type the password for the user you created in [Creating a New User](#).
 - **API Client Key**. Add the REST API Client Key you configured in [Obtaining a Client Key](#).
5. Click the **[Select]** button to avoid repeated CSM REST API authentication requests by enabling this credential and associated One-Steps to cache the Cherwell Bearer token for re-use. A **Choose Action** dialog appears.
6. On the **[One-Steps]** tab, select **Blueprint > Federation > Cherwell** in the **Action** section.
7. In the **Association** dropdown, select *Federation Credential*.
8. In the right-hand pane, double-click **Cherwell: Get Bearer Token**.
9. Click **[OK]**. On the **Federation Registration** record, click the **[Save]** button () to save the new credential.

Creating the Integration Service Federation Source Credential

You need an API credential for **Federation Registration** records that update a Federation source, such as the Integration Service, with incident reference numbers, maintenance windows, and CI retirement information. You can use this API credential to authenticate with the Integration Service API and provide updates with that API.

To create the Integration Service Federation source credential:

1. Log in to the CSM User client and go to the **Federation Registration** record you created in [Creating the Federation Registration Record](#).
2. On the **Federation Registration** record, go to the **[Federation Credentials]** tab.
3. Click **[New Federation Credential]**. A new **Federation Credential** pane appears.
4. Update the following fields:
 - **Type**. Select *Other*.
 - **Name**. Type a unique name, such as "IS API Credential".
 - **Description**. Type a short explanation of the credential.
 - **API Endpoint**. Type the URL for the Integration Service API.
 - **User Name**. Type the username for the Integration Service, such as "isadmin".
 - **Password**. Type the admin password for the Integration Service.
 - **API Client Key**. Add the API Client Key for the Integration Service.

NOTE: Unless a One-Step author requests you to add a Token Generation process, you do not need to click **[Select]** to add a token. See steps 5-8 in the previous procedure if you do need to add a token.

5. Click **[OK]**. On the **Federation Registration** record, click the **[Save]** button () to save the new credential.

Configuring the API Credentials

After you have created the Cherwell API credential and the Integration Service (Federation source) credential, align the credentials on the **[Main Form]** tab of the **Federation Registration** record:

The screenshot shows the 'Additional Configuration Options' section of the Federation Registration record. It is divided into several panels:

- Automated Incident Creation and Updates:** Includes checkboxes for 'Create and update incidents based on significant events' (unchecked) and 'Use Organisation Name as the requestor or customer' (checked). It also has input fields for 'Customer Display Name', 'Initial Incident Owner', and 'Resolve Incident Owner', and a dropdown for 'Automation Process'.
- Automated CI Creation and Updates:** Includes checkboxes for 'Create and update CIs and relationships', 'Overwrite CI Attributes with blank values', and 'Delete events that have been successfully processed'. It has an 'Automation Process' dropdown.
- Automated Maintenance Windows:** Includes checkboxes for 'Apply maint windows for CIs affected by change requests' and 'Cancel maint windows when change requests are cancelled'. It has input fields for 'Start maint window' and 'End maint window', both set to 0 minutes.
- Automated Retirement:** Includes a checkbox for 'Retire CIs when placed into the following state:' and a dropdown menu. It also has checkboxes for 'Close Incidents', 'Close Problems', 'Close Events', and 'Close Changes', and an 'Automation Process' dropdown.
- Automation Credentials:** This panel contains two dropdown menus, both highlighted with red boxes:
 - Federated Source - API Credential:** Set to 'IS API Credential'. Below it is a description: 'Allows for direct API interaction back to the federation source for interactions such as transferring the incident reference number of a newly created incident'.
 - Cherwell - API Credential:** Set to 'Cherwell API'. Below it is a description: 'Allows for direct API integration with Cherwell itself for CI Creation and updates as well as other operations'.

Enabling the Federation Registration Record

To enable processing, the **Federation Registration** record must be active and integration must be enabled. If necessary, click **Activate** to activate the record:

The screenshot shows the top part of the Federation Registration record. At the top, the 'STATUS' is 'Inactive' and the 'OWNER' is 'You'. A red box highlights the 'Activate' button. Below this is the 'Basic Information' section, which includes:

- Federation Type:** ScienceLogic
- Federation Name:** SLI-Dev
- Description:** ScienceLogic Development Environment

Configuring Incident Creation and Updates

The following settings on the **[Main Form]** tab of the **Federation Registration** record affect how Incident creation and updates work:

- **Create and update Incidents based on significant events.** Select this option to enable Incident creation and updates .
- **Use Organization Name as the requester or customer.** All Federated sources are required to send an Organization name as part of the Incident payload. This setting allows the Organization name to be used as the "Customer" name on a newly created Incident record. If the Organization name does not exist as a Customer, it will be created.
- **Customer Display Name.** If the **Use Organization Name as the requester or customer** checkbox is not selected, you can use this dropdown to select a customer record that will be populated as the "Customer" name on each newly created Incident record.
- **Initial Incident Owner.** Each Incident record requires an "Owner", and this setting allows for the default "Owner" to be selected for newly created Incident records. An "Owner" can be regarded as the "Assignee", the primary person scheduled to work on an Incident.
- **Resolve Incident Owner.** Use this dropdown to transfer Incident ownership to a new person when an Incident is automatically resolved through this Federation Registration integration. To keep the same person as initially set, select the same person.
- **Automation Process.** Regarded as Content, use the **[Select]** button to select the automation process or One-Step that will be executed when a new Incident is needed. You can create different automation processes or One-Steps for different Federation sources, and they can be one-way or (like the Integration Service integration) two-way where the automations pass back the newly created Incident reference number to the Integration Service through its REST API.
- **Delete events that have been successfully processed.** This setting helps reduce the storage space used by incoming Incident events by deleting event records that have been successfully processed into Incident records. You can create different automation processes or One-Steps for different Federation sources.

Configure these settings as needed. The following image shows an example configuration:

Automated Incident Creation and Updates

- Create and update incidents based on significant events
- Use Organisation Name as the requestor or customer

Customer Display Name:

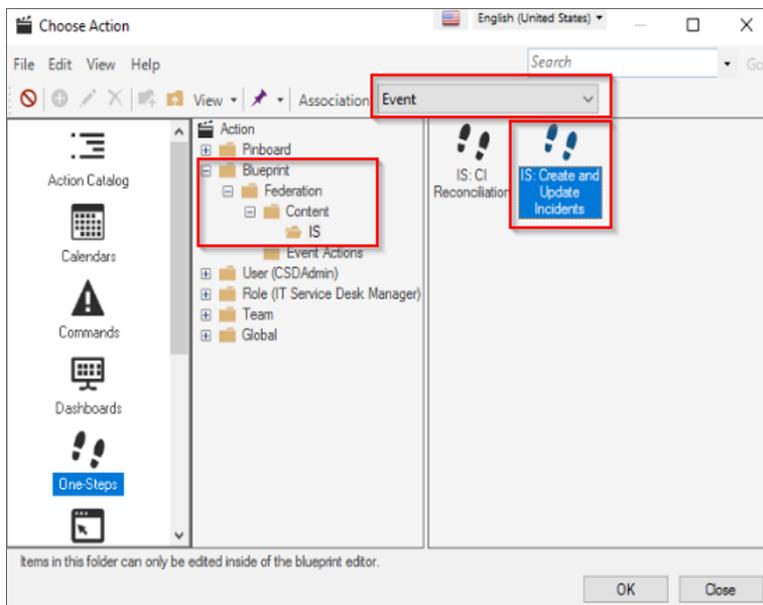
Initial Incident Owner:

Resolve Incident Owner:

Automation Process:

Delete events that have been successfully processed

You can find custom automation processes and One-Steps for Content in the following location after you click the **[Select]** button next to the **Automation Process** field:

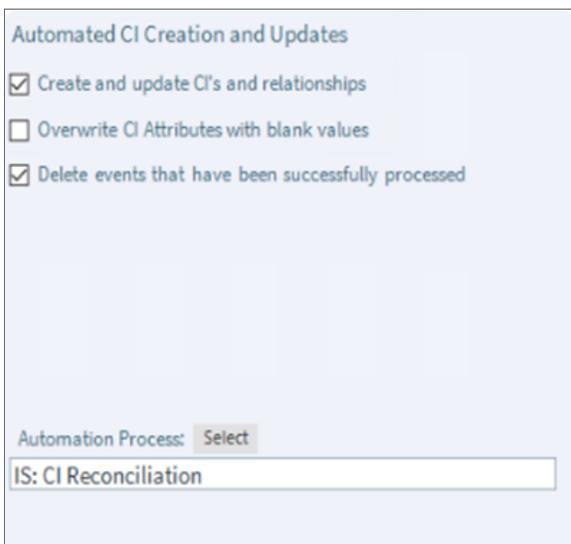


Configuring CI Creation and Updates

The following settings on the [Main Form] tab of the **Federation Registration** record affect how incident creation and updates work:

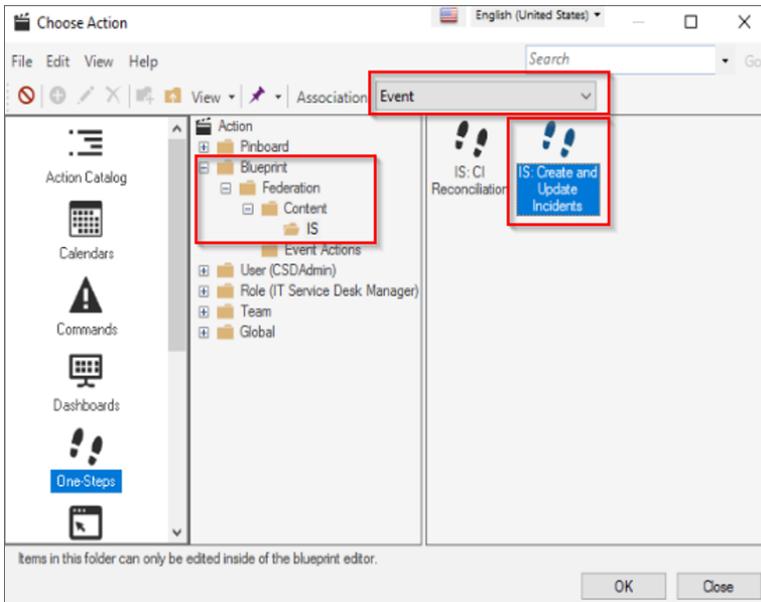
- **Create and update CIs and relationships.** Select this option to enable CI creation and updates.
- **Overwrite CI attributes with blank values.** This setting determines whether CSM CI fields will be overwritten with blank values from a Federation source, even if that CSM CI attribute has data. If you check this option, a CSM CI field that has valid data will be overwritten with blank data from a Federated source if that CSM Field is mapped.
- **Delete events that have been successfully processed.** This setting helps reduce the storage space used by incoming CI events by deleting event records that have been successfully processed into CI records. These event records are not recoverable except from a backup if this option is selected.
- **Automation Process.** Regarded as Content, use the [Select] button to select the automation process or One-Step that will be executed when a new CI event is received. You can create different automation processes or One-Steps for different Federation sources.

Configure the settings as needed. The following image shows an example configuration:



The image shows a configuration panel titled "Automated CI Creation and Updates". It contains three checked checkboxes: "Create and update CIs and relationships", "Overwrite CI Attributes with blank values", and "Delete events that have been successfully processed". Below these is a label "Automation Process:" followed by a "Select" button. A dropdown menu is open, showing "IS: CI Reconciliation" as the selected option.

You can find custom automation processes and One-Steps for Content in the following location after you click the **[Select]** button next to the **Automation Process** field:



Configuring the Mappings between Source CI Types and CSM CI Types

To map incoming CI or Device Types from Federated sources like the Integration Service, you must configure the mapping between source CI Types and CSM CI Types.

To map source CI Types and CSM CI Types:

1. While on **Federation Registration** record, select the **[Federated CI Type Mapping]** tab.
2. Click the **[New Federated CI Mapping]** button. A new Federated CI Mapping record appears.
3. Complete the following fields:
 - **Federated CI Type**. Type the name that identifies the device or CI in the Federated source.
 - **Target CI Type Name**. Select the name that identifies what CSM CI Type will be created when a new CI is required and the "Federated CI Type" for that new CI matches the value in the **Federated CI Type** field.

NOTE: If this dropdown is blank, refer to [Creating and Testing the Populate Field Definition Mappings](#), as this process must be working for this dropdown to work.

- **Target CI Type**. Select the target CSM CI Type, which is related to the CSM CI Type Name. This value can be regarded as a further CI Type classification, and in most CSM instances this is not a

required field.

4. Click the **[Save]** button () to save the mapping. Repeat this process for any other CI Type mappings.

NOTE: This process can sometimes involve a large number of configurations, but the process can be automated to create a large number of these configurations automatically.

Configuring the Mappings between Source CI Attributes and CSM Fields

To map incoming Device attributes from a Federated source to CI attributes, you must configure the mapping between Federated source CI attributes and CSM fields.

To map Federated source CI attributes and CSM fields:

1. While on **Federation Registration** record, select the **[Federated Field Mappings]** tab.
2. Click the **[New Federated Field Mapping]** button. A new record appears.
3. Complete the following fields:
 - **Federated Field Name Type.** Type the name of the CI attribute or field name that will be passed in from the Federated source.
 - **Cherwell Business Object Name** dropdown, select the CSM CI Type Name to which the CI attribute will be mapped. Different CSM CI Types have different fields, and this dropdown drives the values in the **Cherwell Field Name** dropdown.

NOTE: If this dropdown is blank, refer to [Creating and Testing the Populate Field Definition Mappings](#), as this process must be working for this dropdown to work. Additionally, if you need to map the same Federated source CI attribute or field name to multiple CSM CI Types, you must create multiple records for each CSM CI Type.

- **Cherwell Field Name.** Select the CI field name to which the Federated source attribute or field will be mapped.
 - **This field is used for reconciliation...** Select this option if this attribute or field name is to be used for CI reconciliation, such as finding an existing CI to update rather than creating a new one. As a best practice, you should select at least one or more CI Field mappings for CI reconciliation for each CI Type. Otherwise, new CIs will be created for every sync to the Federated source.
4. Click the **[Save]** button () to save the mapping. Repeat this process for subsequent CI Type mappings.

NOTE: If more than one CI attribute or field is selected for CI reconciliation per CSM CI Type Name, an AND operation is performed to find a CI. For example, if you used "FriendlyName" and "IPAddress" for reconciliation, then a match must be found on "FriendlyName" AND "IPAddress" to find a CI. If not, a new CI is created.

Updating the Integration Manifest

After you configure the CI Field Mappings, you need to update the *Integration Manifest*. This manifest is a JSON record on the **Federation Registration** record that caches the field mappings for easy reuse during the CI Create or Update process.

To update the manifest, go to the **[Main Form]** tab of the **Federation Registration** record and click **[Update Manifest]**:

The screenshot shows the 'FEDERATION REGISTRATION' record for 'SL1-Dev > ScienceLogic'. The status is 'Active', owned by 'You', and managed by 'IT Management'. The 'Basic Information' section includes a dropdown for 'Federation Type' (ScienceLogic), a text field for 'Federation Name' (SL1-Dev), and a text area for 'Description' (ScienceLogic Development Environment2). A red box highlights the 'Update Manifest' button. A tooltip next to the button reads: 'Click the "Update Manifest" button to ensure CIs will be created/updated using the latest mapping information.'

Configuring Automated Maintenance Windows

The following settings on the **[Main Form]** tab of the **Federation Registration** record affect how Automated Maintenance Windows work:

- **Apply maintenance windows for CIs affected by change requests.** Select this option to enable automated Maintenance Windows.
- **Cancel maintenance windows when change requests are canceled.** Select this option to cancel Maintenance Windows when a corresponding CSM Change Request record is canceled.
- **Start maintenance window N minutes before scheduled change starts.** If it is required that the Maintenance Window on the Federated source is started *before* the CSM Change Window starts, specify the number of minutes that should be subtracted from the start time of the CSM Change Window. For example, specifying a value of 60 in this field ensures that the Maintenance Window on a Federated device will start one hour before the CSM Change Window.

- **Start maintenance window N minutes before scheduled change starts.** If it is required that the Maintenance Window on the Federated source device is completed *after* the CSM change window ends, specify the number of minutes that should be added after the scheduled CSM Change Window ends. For example, specifying a value of 60 in this field ensures that the Maintenance Window on a Federated device ends one hour after the CSM Change Window.
- **Automation Process.** Regarded as Content, use the **[Select]** button to select the automation process or One-Step that will be executed for new or updated Maintenance Windows. You can create different automation processes or One-Steps for different Federation sources.

Configure the settings as needed. The following image shows an example configuration:

Automated Maintenance Windows

Apply maint windows for CI's affected by change requests

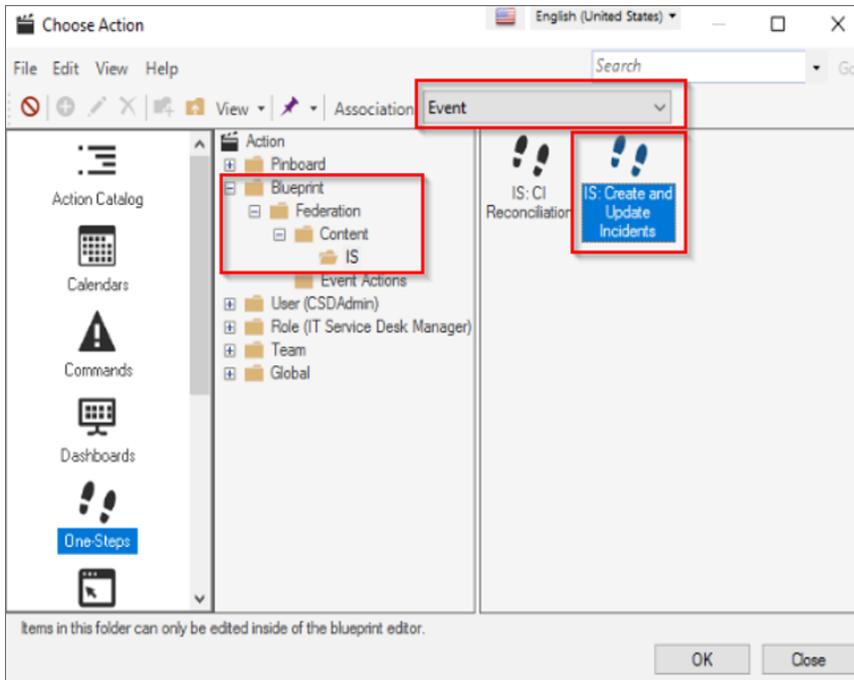
Cancel maint windows when change requests are cancelled

Start maint window min before scheduled change start

End maint window min after scheduled change ends

Automation Process: Select

You can find custom automation processes and One-Steps for Content in the following location after you click the **[Select]** button next to the **Automation Process** field:



Configuring Automated CI Retirements

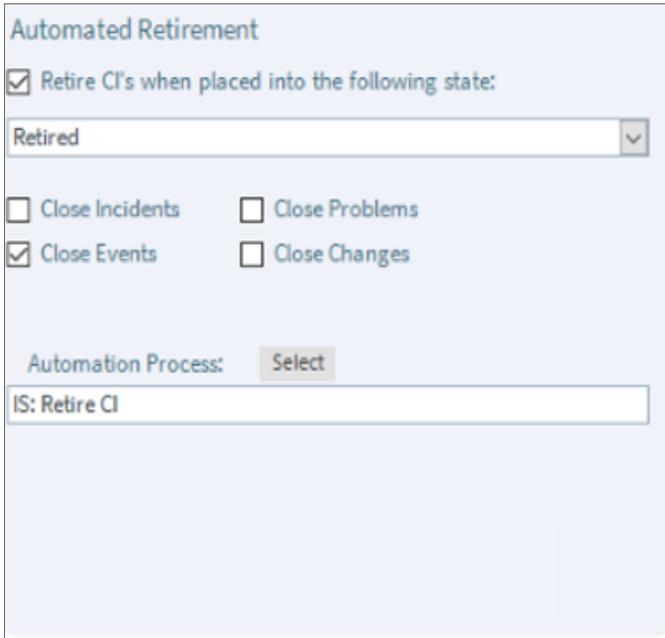
The following settings on the **[Main Form]** tab of the **Federation Registration** record affect how Automated CI retirement works:

1. **Retire CIs when placed into the following state:** Select this option to enable automated CI retirement. Use the dropdown to select what CI status will trigger the retirement workflow. Different implementations of CSM – could have different statuses. When a CI is placed into this status, the retirement process will be triggered.
2. **Close Incidents/Problems/Events/Changes.** Select the relevant checkboxes to control whether CSM records and associated monitoring events in the Federated source will be closed as a result of CI retirement.

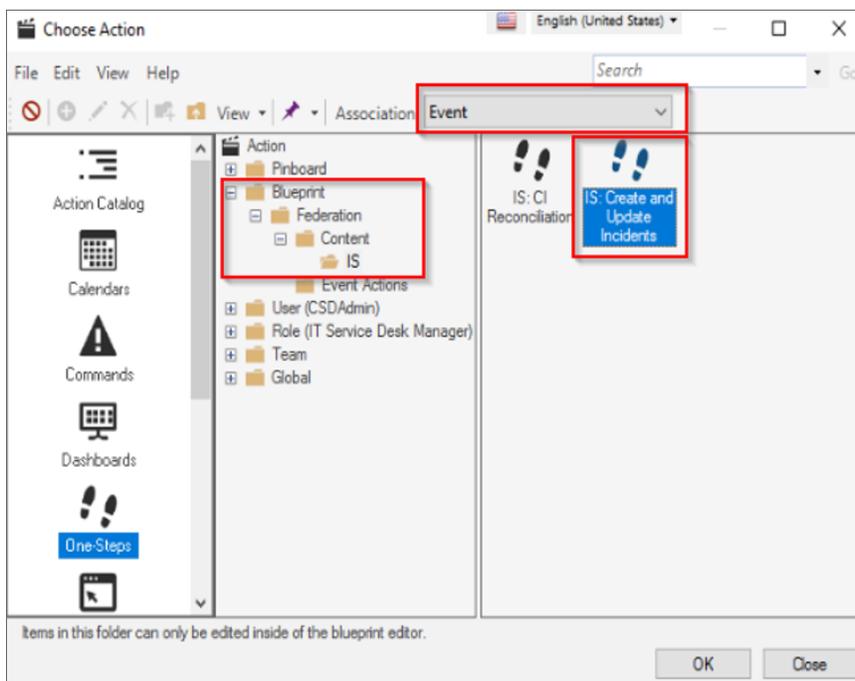
NOTE: Because of varying closure procedures and ITIL processes, the automation process or One-Step will need to be tuned for each customer environment. For example, some CSM implementations have required fields on closure.

3. **Automation Process.** Regarded as Content, use the **[Select]** button to select the automation process or One-Step that will be executed when retiring CIs. You can create different automation processes or One-Steps for different Federation sources.

Configure the settings as needed. The following image shows an example configuration:



You can find custom automation processes and One-Steps for Content in the following location after you click the **[Select]** button next to the **Automation Process** field:



Chapter

4

Configuring the Integration Service for the Cherwell SyncPack

Overview

This chapter describes how to configure the integration applications in the *Cherwell SyncPack* to properly authenticate the Integration Service with CSM and SL1 .

Follow the procedures in this chapter only after you have configured the settings in CSM from the previous chapters.

This chapter covers the following topics:

<i>What is a Configuration Object?</i>	51
<i>Aligning a Configuration Object with Integration Application</i>	52

What is a Configuration Object?

A **configuration object** is a stand-alone JSON file that lives on the Integration Service system. A configuration object supplies the login credentials and other global variables that can be used by all steps and integration applications. Configuration objects allow the same integration application to be deployed in multiple Integration Service instances, with different configurations.

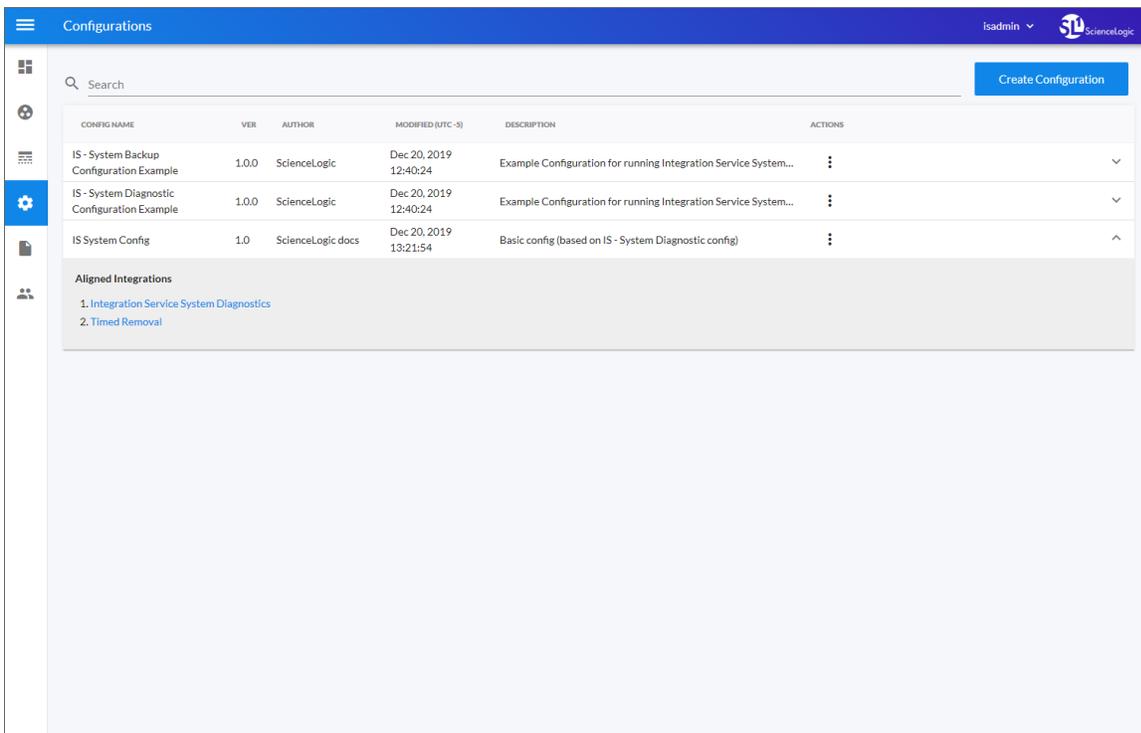
Configuration objects can map variables from SL1 to a third-party platform. For instance, SL1 has device classes and various third-party platforms have CI classes; the configuration object would map these two variables.

You can create and edit configuration objects on the **Configurations** page of the Integration Service user interface. After you create the configuration object, it appears in the **Configuration** dropdown on the **Configuration** pane of the **Integrations** page. Before you can run an integration application, you must select a configuration object and "align" that configuration object with the integration application.

TIP: You can select *none* from the **Configuration** dropdown to clear or "un-align" the selected configuration object from an integration application. Also, if you did not select a configuration object when editing fields on the **Configuration** pane, the previously set configuration object will remain aligned (if there was a previously set configuration object).

You can include the **config.** prefix with a variable to tell the Integration Service to use a configuration file to resolve the variable. If you want to re-use the same settings between applications, such as hostname and credentials, define configuration variables.

The **Configurations** page () displays a list of available configurations. From this page you can create and edit configuration objects:



You can search for a specific configuration object by typing the name of that configuration in the **Search** field at the top of the **Configurations** page. The user interface filters the list as you type. Click the **[Actions]** button () for a configuration object to edit or delete that object.

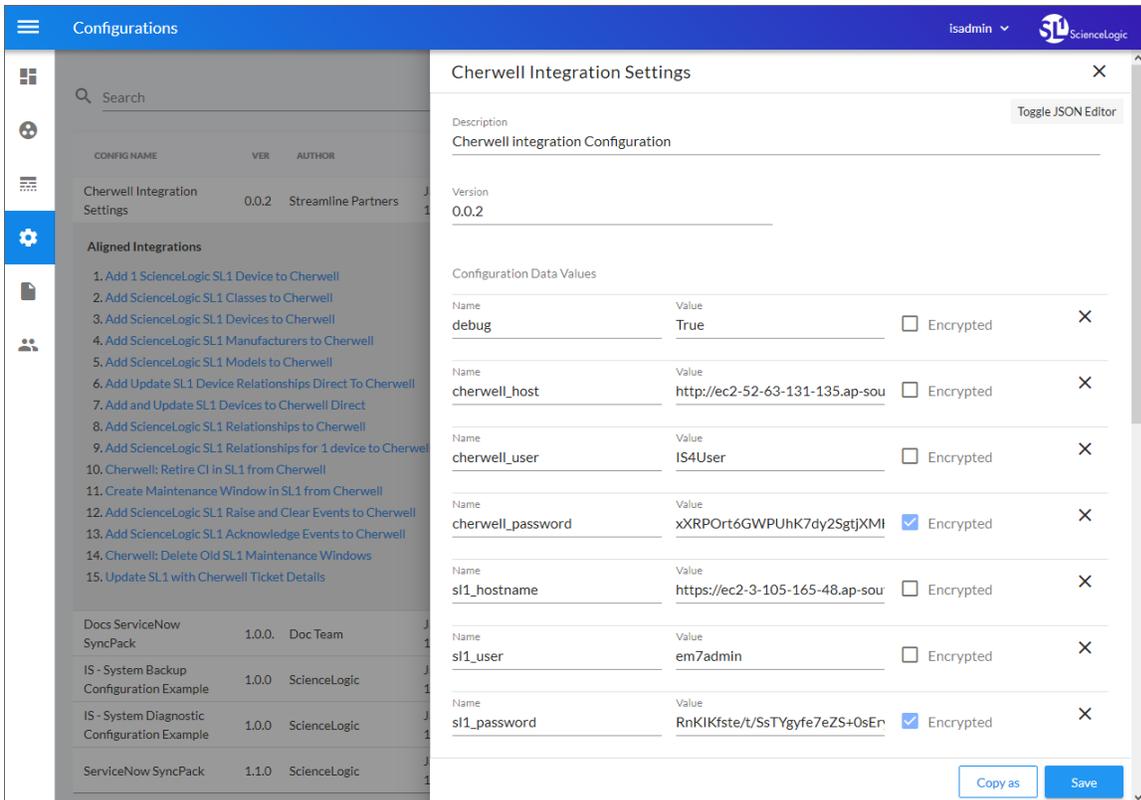
TIP: Click the down arrow icon () for a configuration object to see which integration applications are currently "aligned" with that configuration object.

Aligning a Configuration Object with Integration Application

The *Cherwell SyncPack* includes the "Cherwell Integration Settings" (cherwell_config) configuration object.

This configuration file contains default name-value pairs for the CSM and SL1 hosts, the CSM and SL1 users and passwords, the Integration Service host, user, and password, and other keys and values. You can use this configuration file as a template for the configuration objects you need to create and align with the relevant Cherwell integration applications.

To view the contents of the "Cherwell Integration Settings" (cherwell_config) configuration object, go to the **Configurations** page of the Integration Service user interface and click the **[Actions]** button () next to the "Cherwell Integration Settings" configuration. The **Configuration** pane appears:



Adding and Editing Credentials in a Configuration Object

From the **Configurations** page of the Integration Service user interface, you can edit an existing configuration object or create a new configuration object.

For example, you can edit the variables in the "Cherwell Integration Settings" configuration object that came with the SyncPack and then align that configuration object with one or more CSM-related integration applications. You can also use the **[Copy As]** button to make a copy of that configuration object so you can align it with other integration applications.

The following configuration object variables are required for the *Cherwell SyncPack*:

- **cherwell_host**. Type the URL you use to access the Cherwell host. This is the same URL that you used in [Creating the Cherwell API Credential](#).
- **cherwell_user**. Type the CSM Login ID that will be used to authenticate to the CSM API. This is the same username that you created in [Creating a New User](#).
- **cherwell_password**. Type the CSM password for the Cherwell User that will be used to authenticate to the CSM API. This is the same password that you created in [Creating a New User](#).

- **cherwell_api_key**. Add the REST API Client Key that you configured in [Obtaining a Client Key](#).
- **federation_source**. Type the Federation Name that you used in [Creating the Federation Registration Record](#):

The screenshot shows the 'FEDERATION REGISTRATION' page for 'SL1-Dev > ScienceLogic'. At the top, the status is 'Active' and the owner is 'You'. Below this is a navigation bar with options like 'Main Form', 'Federated CI Type Mapping', 'Federated CIs', 'Federated Field Mappings', 'Linked Configuration Items', and 'Federated Relationships'. The 'Basic Information' section contains a 'Federation Type' dropdown set to 'ScienceLogic', a 'Federation Name' text box containing 'SL1-Dev' (highlighted with a red box), and a 'Description' text area containing 'ScienceLogic Development Environment'. The ScienceLogic logo is visible at the bottom left.

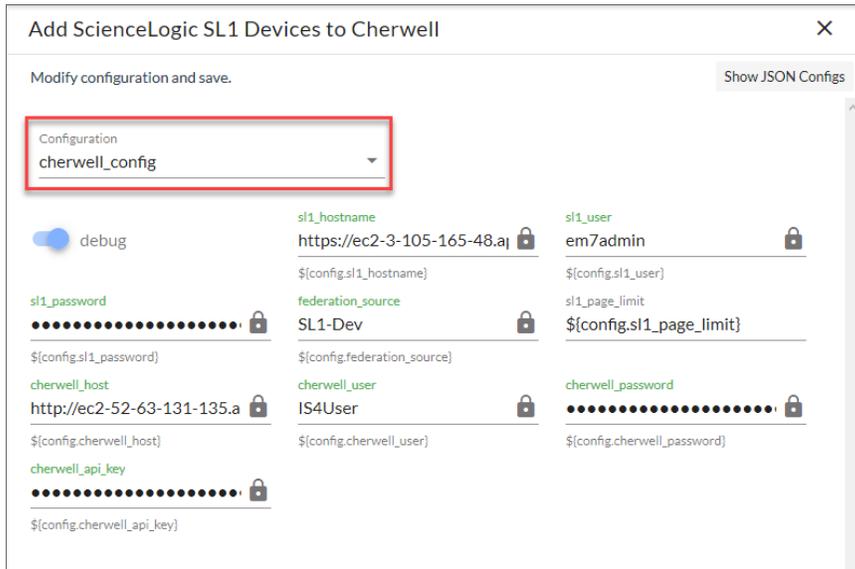
Aligning a Configuration Object with an Integration Application

For every integration application in the Integration Service, you will need to "align" a configuration object to that application to ensure that the application can properly authenticate to CSM. You can align the same configuration object with multiple integration applications.

To align a configuration object with an integration application:

1. In the Integration Service user interface, go to the **Integrations** page ().
2. Select the integration application that you want to align with the configuration object, such as "Add ScienceLogic SL1 Devices to Cherwell". The **Integration Application** page for that integration application appears.

- Click **[Configure]** (). The **Configuration** pane opens on the right side of the **Integration Application** page:



TIP: To view a pop-up description of a field on the **Configuration** pane for an integration application, hover over the label name for that field.

- Select a configuration from the **Configuration** dropdown to "align" to this integration application. This step is required for all integration applications.

TIP: Click **[Show JSON Configs]** to view the JSON configuration data for the configuration object. Click **[Hide JSON Editor]** again to view the fields instead.

- As needed, edit the other configuration values for the application. Press **[Enter]** after editing an item to make sure your changes are saved.

NOTE: To prevent potential issues with security and configuration, any fields that are encrypted and any configuration-specific fields containing a padlock icon () on the **Configuration** pane cannot be edited.

- When you are finished, click **[Save]** at the bottom of the **Configuration** pane.

Chapter

5

Troubleshooting the Cherwell SyncPack

Overview

This chapter describes how to troubleshoot certain aspects of the SL1 and CSM integration for the *Cherwell SyncPack*.

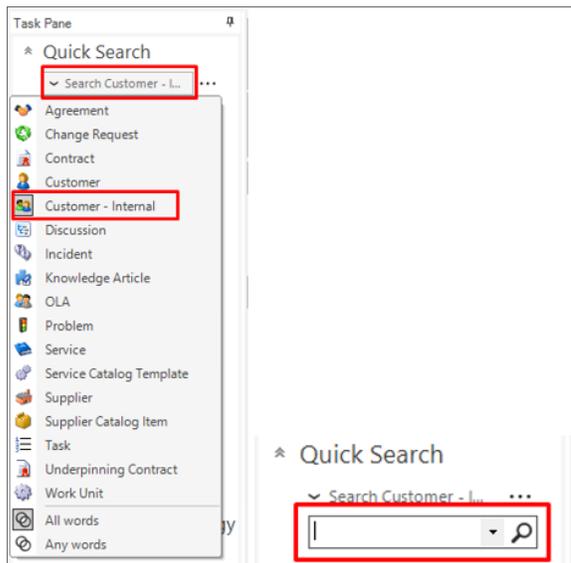
This chapter covers the following topics:

<i>Incidents are not being created</i>	57
<i>CIs are not being created</i>	57
<i>Viewing Events Sent from the Integration Service</i>	61
<i>Checking the Automation Process Status</i>	62

Incidents are not being created

If Incident Creation is set up to use the SL1 Organization as a Customer for the Incident, and Incidents are not being created, check to see if a record for the SL1 Organization has not been created multiple times:

1. In the CSM User client, search all “Customer – Internals” Records by going to the following menu:



2. Click in the empty **Search** field and press **[Enter]** to search all records.
3. If you find a duplicate record for the SL1 Organization, select the duplicate, and go to **File > Delete**.
4. After you delete all duplicates, when events come in for that Organization in SL1, the tickets should be created without any issues.

TIP: Another option for fixing this issue is to manually create all SL1 Organizations in CSM before enabling Automated Incident Creation.

CI's are not being created

During the CI creation process, various issues might occur. You can find more information about these issues on the **[Journal]** tab of the **Federation Registration** record.

Some examples and possible solutions to those issues are listed below.

No mappings configured for Device Type

The following Journal entry indicates that a Device Type of "Microsoft | Windows Server 2012 R2" was sent from the Integration Service (Federation source), but CSM does not know what type of CI to create or update for this device type:

Journal - Note
Created by Cherwell Admin on 2/7/2020 at 1:31 PM

Mark as Unread
 Visible in Customer Portal

Quick Entry

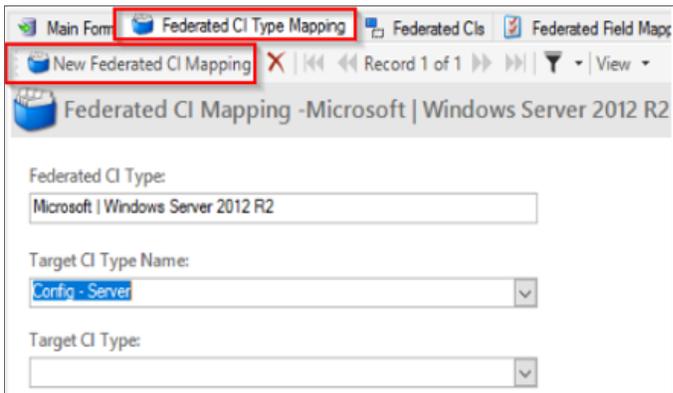
Priority
Normal

Details

Error reconciling CI from event: 330
.....
There is no Federated CI Type Mapping configured for Federated CI Type of: 'Microsoft | Windows Server 2012 R2'

[A](#)

To address this issue, create a Federated CI Type Mapping for this device type:



The screenshot shows a web-based configuration interface. At the top, there are several tabs: 'Main Form', 'Federated CI Type Mapping' (which is active and highlighted with a red box), 'Federated Cls', and 'Federated Field Map'. Below the tabs, there is a navigation bar with a 'New Federated CI Mapping' button (also highlighted with a red box), a close button (X), and navigation controls for 'Record 1 of 1'. The main content area is titled 'Federated CI Mapping -Microsoft | Windows Server 2012 R2'. It contains three input fields: 'Federated CI Type' with the value 'Microsoft | Windows Server 2012 R2', 'Target CI Type Name' with a dropdown menu showing 'Config - Server', and 'Target CI Type' with an empty dropdown menu.

For more information, see [Configuring the Mappings between Source CI Types and CSM CI Types](#).

No field mappings defined

The following Journal entry indicates that a Device Type of "Microsoft | Windows Server 2012 R2" was sent from the Integration Service (Federation source), and CSM knows that this Device Type is mapped to a CSM CI Type of "Config – Server". However, there are no fields that have been mapped from the source data to CSM CI Attributes in the "Config – Server" CI type:

Journal - Note
Created by Cherwell Admin on 2/7/2020 at 1:55 PM

Mark as Unread

Visible in Customer Portal

Quick Entry

Priority

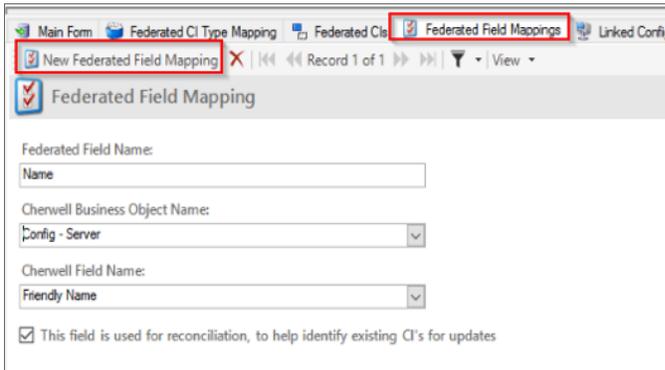
Details

Error reconciling CI from event: 331

.....

There are no CI Field Mapping configured for Federated CI Type of: 'Microsoft | Windows Server 2012 R2' and Target CI Type of: 'Config - Server'

To address this issue, create a Federated CI Field Mapping for this CSM CI Type:



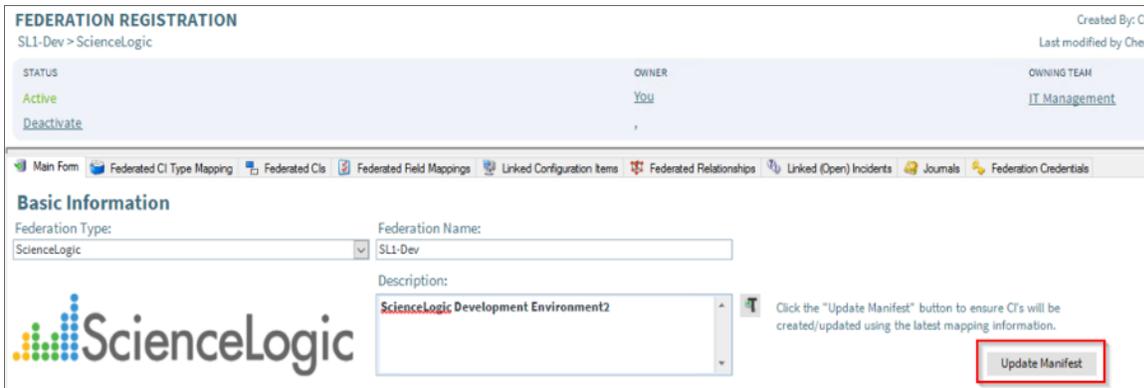
The screenshot shows a web application interface for configuring a Federated Field Mapping. The breadcrumb trail includes 'Main Form', 'Federated CI Type Mapping', 'Federated CIs', and 'Federated Field Mappings'. A 'New Federated Field Mapping' button is highlighted with a red box. The form contains the following fields:

- Federated Field Name:** A text input field with the value 'Name'.
- Cherwell Business Object Name:** A dropdown menu with the value 'Config - Server'.
- Cherwell Field Name:** A dropdown menu with the value 'Friendly Name'.
- This field is used for reconciliation, to help identify existing CI's for updates.

For more information, see [Configuring the Mappings between Source CI Attributes and CSM Fields](#).

After you configure the CI Field Mappings, you need to update the **Integration Manifest**. This manifest is a JSON record on the **Federation Registration** record that caches the field mappings for easy reuse during the CI Create or Update process.

To update the manifest, go to the **[Main Form]** tab of the **Federation Registration** record and click **[Update Manifest]**:



The screenshot shows the 'FEDERATION REGISTRATION' record for 'SL1-Dev > ScienceLogic'. The record is 'Active' and owned by 'You'. The 'Basic Information' tab is selected, showing the following details:

- Federation Type:** ScienceLogic
- Federation Name:** SL1-Dev
- Description:** ScienceLogic Development Environment2

A red box highlights the 'Update Manifest' button. A tooltip next to it reads: 'Click the "Update Manifest" button to ensure CI's will be created/updated using the latest mapping information.'

Viewing Events Sent from the Integration Service

Viewing the data from the Integration Service (Federated source) might help you with troubleshooting issues with the *Cherwell SyncPack*.

To view data from the Integration Service

1. Log in to the CSM User client and go to **Searching > Search Manager**. The **Search Manager** dialog appears.
2. From the **Association** dropdown, select *Event*.

3. Double-click All Events to run the search. A list of current events appears. The events sent from the Integration Service are typically tagged with an **Action** attribute in the **Message** field that signifies a CI Creation or Update:

Event 331

Status: Recorded Priority: 3

CI Condition: Active

Message: ["Action": "CI Update", "Type": "Microsoft | Windows Server 2012 R2", "OrgId": "1", "OrgName": "Streamline Partners", "Attributes": [{"Rack": ""}],]

Source: SL1-Dev Event ID:

Level: Information User: SL1

The following Action attributes are currently configured :

- **CIUpdate**. This attribute is sent or received when a CI needs to be created or updated.
- **Event Raised**. A new Event in the Integration Service (Federation source) has been registered, which usually results in a new Incident.
- **Event Cleared**. An existing Event in the Integration Service (Federation source) has been cleared and sent through, which usually results in an existing Incident in CSM being resolved.
- **Event Acknowledged**. An existing Event in the Integration Service (Federation source) has been acknowledged and sent through, which usually results in an existing CSM incident being acknowledged and notes attached.

Checking the Automation Process Status

Federation processing such as creation of Incidents, CI, Relationships, Maintenance windows etc relies on a lot of CSM backend processes which is typically accomplished with what's called CSM "Automation Processes". These processes should always be enabled and can be confirmed using the following process.

1. Open the CSM Administrator client and select **Automation Processes** from the **Categories** sub-menu.
2. From the **Pick a task** section, select **Individual Automation Process Status**. A list of automation processes appears. The processes used by the Federation system are highlighted below, and all processes should have a **Status** of *Enabled*:

Automation Process	Business Object	Type	Status
Change - Escalate 4 hours after End Date	Change Request	TimeBased	Disabled
Change - Notify Problem Owner	Change Request	SimpleActionOn...	Disabled
Change Approval Notifications	Change Request	SimpleActionOn...	Disabled
Federation - Cancel Maintenance Windows	Change Request	SimpleActionOn...	Enabled
Federation - CI Retirement	Federated Retired	SimpleActionOn...	Enabled
Federation - CI Update	Event	SimpleActionOn...	Enabled
Federation - Create Federated Retired CI	Configuration Item	SimpleActionOn...	Enabled
Federation - Create Maintenance Windows	Change Request	SimpleActionOn...	Enabled
Federation - Create/Resync Relationships	Federated Relationship	SimpleActionOn...	Enabled
Federation - Create/Update Incidents	Event	SimpleActionOn...	Enabled
Federation - Create/Update/Delete Maintenance Windows	Federated Maintenance	SimpleActionOn...	Enabled
Federation - Remove Relationships	Federated Relationship	SimpleActionOn...	Enabled
Inactivity Escalation	Problem	TimeBased	Disabled
Incident - Not Touched in 3 Days	Incident	TimeBased	Disabled
Incident - Confirmation Email on Create	Incident	SimpleActionOn...	Disabled
Last Logon 90 Days Ago - Customer Internal	Customer - Internal	TimeBased	Disabled
Notify Change Owner of Assignment	Change Request	SimpleActionOn...	Disabled
Notify Change Team of Assignment	Change Request	SimpleActionOn...	Disabled
Notify Incident Owner of a new Journal - Note	Incident	SimpleActionOn...	Enabled
Notify Incident Owner of Assignment	Incident	SimpleActionOn...	Disabled

3. Additionally, you can right-click an automation process and select *Statistics* to view more information about runs that succeeded, failed, or were in progress:

Automation Process	Business Object
Change - Escalate 4 hours after End Date	Change Request
Change - Notify Problem Owner	Change Request
Change Approval Notifications	Change Request
Federation - Cancel Maintenance Windows	Change Request
Federation - CI Retirement	Federated Retired
Federation - CI Update	Event
Federation - Create Federated Retired CI	Configuration Item
Federation - Create Maintenance Windows	Change Request
Federation - Create/Resync Relationships	Federated Relationship
Federation - Create/Update Incidents	Event
Federation - Create/Update/Delete Maintenance Windows	Federated Maintenance
Federation - Remove Relationships	Federated Relationship
Inactivity Escalation	Problem
Incident - Not Touched in 3 Days	Incident

Automation Process Statistics			
Federation - CI Update			
Last modified at 2/7/2020 by CSDAdmin			
Statistics			
Completed runs:	2	In-progress:	0
Succeeded:	2	Scheduled activities:	0
Failed:	0		

Buttons: Clear process..., OK

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