Integration Service: Restorepoint Synchronization PowerPack

Version 1.0.0

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Chapter 1

Introduction to the Restorepoint Synchronization PowerPack

Overview

This chapter describes the *Integration Service*: *Restorepoint* Synchronization PowerPack, which you can configure to automatically add SL1 devices to Restorepoint when those devices are discovered in SL1. The integration is uni-directional, from SL1 to Restorepoint.

NOTE: After the 2.1.0 release of the Integration Service platform, the *Integration Service* will be rebranded as the SL1 *PowerFlow service*, which will be available in SL1 Standard solutions. Also, the *Automation Builder* will be rebranded as the SL1 *PowerFlow builder*, which will be available in SL1 Premium solutions.

NOTE: The label "SyncPack" is used in place of "Synchronization PowerPack" in the Integration Service user interface.

This chapter covers the following topics:

Prerequisites for this Synchronization PowerPack

The following table lists the port access required by the Integration Service and this Synchronization PowerPack:

Source IP	Integration Service Destination	Integration Service Source Port	Destination Port	Requirement
Integration Service	SL1 API	Any	TCP 443	SL1 API Access
Integration Service	Restorepoint API	Any	TCP 443	Restorepoint API Access
Integration Service	SL1 Database	Any	TCP 7706	SL1 Database Access

Integration Applications Included in the Synchronization PowerPack

This section lists the contents of the *Restorepoint* Synchronization PowerPack.

Integration Applications

- ***Restorepoint: Credential Check/Create***. This application ensures that the SL1 credential associated with a device exists in Restorepoint. If the credential does not exist, this integration application creates the credential.
- ***Restorepoint: Onboard Device***. This application gets details about an SL1 device using a mapping between SL1 Device Class GUIDs and Restorepoint device types from the aligned configuration object. The application then adds each device to Restorepoint individually.
- ***Restorepoint: Organization Check/Create***. This application ensures that the SL1 organization associated with a device exists as a domain in Restorepoint. If the organization does not exist in Restorepoint as a domain, this integration application creates a new domain for the organization.
- ***Restorepoint: Sync Devices***. This application gets the list of SL1 devices to add to Restorepoint. For each device the application collects, the application calls the "Onboard Device" integration application in the Integration Service. You should schedule the "Device Sync" integration application to run on a regular basis to ensure that new SL1 devices are added to Restorepoint automatically.

For more information about how to configure these integration applications, see *Configuring the Restorepoint Integration Applications*.

Configuration Object

- ***Restorepoint Base Config***. This configuration object can be used as a template after the Synchronization PowerPack is installed on the Integration Service system. The configuration object includes the following:
    - Details for connecting to the SL1 API, including the URL, username, and password
    - Details for connecting to the Restorepoint API, including the URL, username, and password

- Details for connecting to the SL1 database, including the URL, username, and password
- A mapping between SL1 Device Class GUIDs and Restorepoint device types
- A default value for Restorepoint device types
- A mapping between SL1 collector appliance IDs and Restorepoint agents

Steps

The following steps are included in this Synchronization PowerPack:

- Create Restorepoint Credential
- Restorepoint: Create Device
- Create Restorepoint Device
- Get Device from SL1
- Select Devices from SL1
- Transfer Data

Installing the Synchronization PowerPack

A Synchronization PowerPack file has the **.whl** file extension type. You can download the Synchronization PowerPack file from the ScienceLogic Support site.

Downloading the Synchronization PowerPack

To locate and download the Synchronization PowerPack:

1. Go to the ScienceLogic Support site at https://support.sciencelogic.com/s/.
2. Click the **Product Downloads** tab, select *PowerPacks*, and then click the "Synchronization" link. The **Synchronization PowerPack Downloads** page appears.
3. Click the name of the Synchronization PowerPack you want to install. The **PowerPack** page appears.
4. In the **Files** list, locate the Synchronization PowerPack **.whl** file, click the down arrow button, and select *Download*.

NOTE: Synchronization PowerPacks do not require a specific license. After you download a Synchronization PowerPack, you can import it to your Integration Service using the Integration Service user interface.

NOTE: If you are installing or upgrading to the latest version of this Synchronization PowerPack in an offline deployment, see "Installing or Upgrading in an Offline Environment" in the release notes for this Synchronization PowerPack to ensure you install any external dependencies.

Importing the Synchronization PowerPack

To import a Synchronization PowerPack in the Integration Service user interface:

1. On the **SyncPacks** page of the Integration Service user interface, click **[Import SyncPack]**. The **Import SyncPack** page appears.
2. Click **[Browse]** and select the **.whl** file for the Synchronization PowerPack 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 Synchronization PowerPack. The Synchronization PowerPack is added to the **SyncPacks** page.

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

Installing the Synchronization PowerPack

To install a Synchronization PowerPack in the Integration Service user interface:

1. On the **SyncPacks** page of the Integration Service user interface, click the **[Actions]** button (⋮) for the Synchronization PowerPack you want to install and select *Activate & Install*. The **Activate & Install SyncPack** modal appears.

> **TIP:** By default, the **SyncPacks** page displays only activated and installed PowerPacks. If you do not see the PowerPack 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 PowerPacks.

2. Click **[Yes]** to confirm the activation and installation. When the Synchronization PowerPack is activated, the **SyncPacks** page displays a green check mark icon (✔) for that Synchronization PowerPack. If the activation or installation failed, then a red exclamation mark icon (❗) appears.

> **TIP:** While the Synchronization PowerPack is installing, you cannot click any of the options that appear when you click the **[Actions]** button (⋮).

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 Synchronization PowerPack. 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.

Installing and Configuring the Restorepoint PowerPack

The following topics describe how to install and configure the *Integration Service: Restorepoint* PowerPack and the *Integration Service: Restorepoint*Synchronization PowerPack.

Installing the PowerPack

The *Integration Service: Restorepoint* PowerPack includes the following tools, which you will use with the *Integration Service: Restorepoint* Synchronization PowerPack:

- The "Restorepoint Connectivity" Dynamic Application, which tests SSH connectivity and indicates devices to be onboarded in Restorepoint.
- Event Policies for Restorepoint.
- A Device Class for Restorepoint devices.
- A Device Group called "Restorepoint Devices", which includes a dynamic rule that matches devices with aligned Dynamic Applications, including the "Restorepoint Connectivity" Dynamic Application.
- The Restorepoint MIB is embedded in the **Documentation** section of the PowerPack, and the MIB must be loaded before you can use the PowerPack. For more information, see *Downloading and Compiling the MIBs from the PowerPack*.

To install the *Integration Service: Restorepoint* PowerPack:

1. Download the latest version of the PowerPack from the Customer Portal to a local computer.
2. In SL1, log in and go to the **PowerPack Manager** page (System > Manage > PowerPacks).
3. Click **[Actions]** and select *Import PowerPack*.
4. Click **[Browse]** and navigate to the PowerPack file from step 1.
5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal page displays a list of the PowerPack contents.
6. Click **[Install]**. After the installation is complete, the PowerPack appears on the **PowerPack Manager** page.

Downloading and Compiling the MIBs from the PowerPack

After installing the *Integration Service: Restorepoint* PowerPack, you will need to download and compile the following MIB files in SL1:

- **RESTOREPOINT-APPLIANCE-MIB.txt**
- **RESTOREPOINT-MIB.txt**

You can access the Restorepoint MIB files from the **Documentation** section of the *Integration Service: Restorepoint* PowerPack.

To download and compile the Restorepoint MIB files:

1. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks) and search for "Restorepoint".
2. Click the wrench icon ( ) for the Restorepoint PowerPack and select the **Documentation** section from the **Editing** window.
3. Click the download icon ( ) for both MIB files and download them to your local drive.
4. Go to the **MIB Compiler** page (System > Tools > MIB Compiler) and click the **[Import]** button.
5. In the **MIB Import** modal page, navigate to the location of the MIB file on your local computer and click the **[Import]** button. The new MIB file appears in the list of MIB files in the **MIB Compiler** page.
6. Repeat steps 4-5 to upload the second MIB file.
7. You must compile both MIB files before SL1 can use it. To compile a MIB, click its lightning bolt icon ( ).
8. To enable Restorepoint to send trap events to SL1, go to **Administration > System Settings > Logs/Alerts** in the Restorepoint user interface and change the following:
    - ***SNMP Traps***: Check this checkbox.
    - ***SNMP Server***: Enter the IP address of the SL1 All-In-One or Data Collector.

Chapter 2

Configuring Integrations for the Restorepoint Synchronization PowerPack

Overview

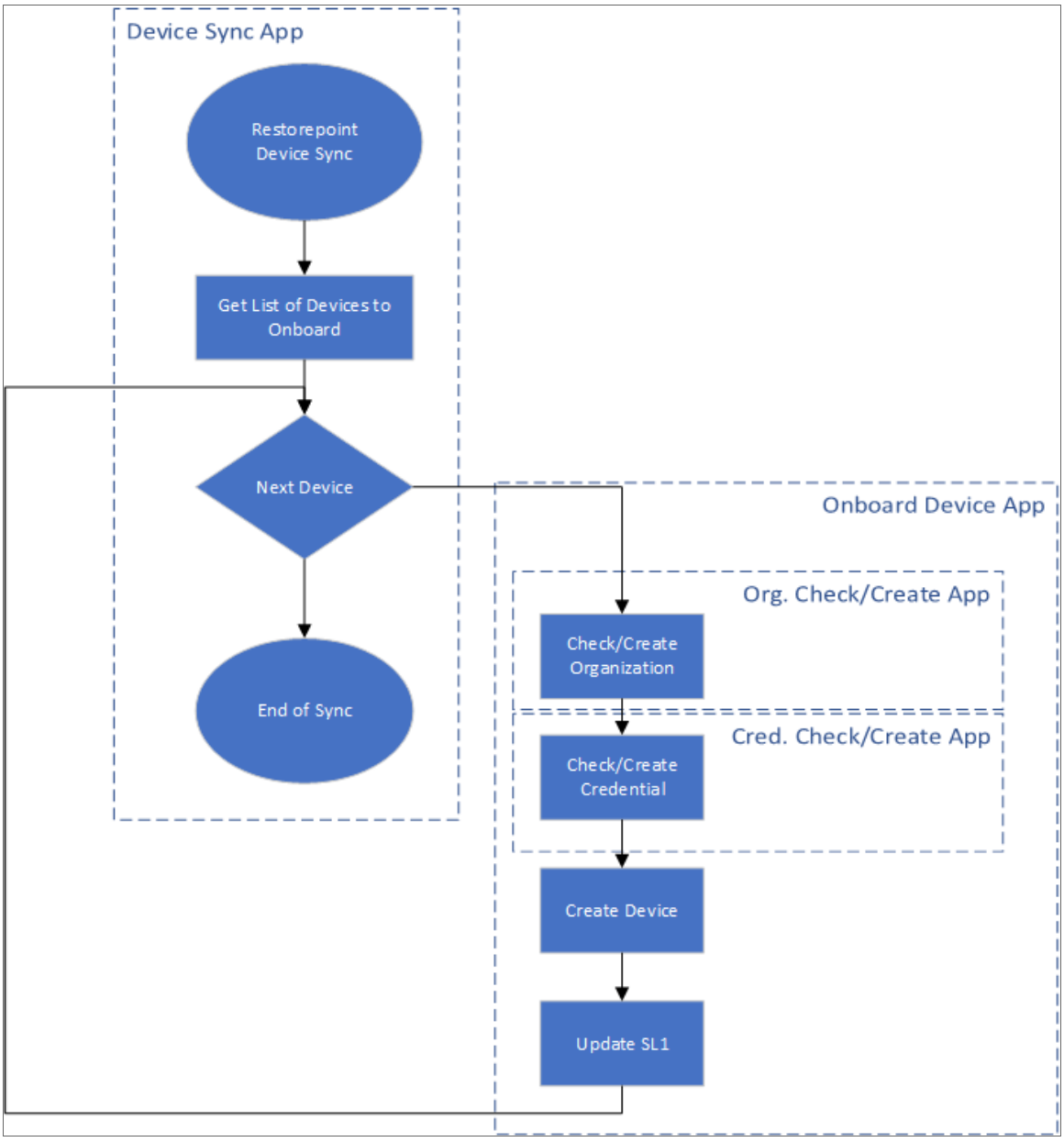
This chapter describes how to set up the integration applications for the *Restorepoint* Synchronization PowerPack.

This chapter covers the following topics:

Overview of Onboarding SL1 Devices to Restorepoint

You can configure the *Integration Service: Restorepoint* Synchronization PowerPack to automatically add SL1 devices to Restorepoint when those devices are discovered in SL1. The integration is uni-directional, from SL1 to Restorepoint.

The following workflow describes the process for adding SL1 devices to Restorepoint:



See the following topics for detailed steps that cover how to configure settings in SL1 and the Integration Service before you can enable these integration applications.

Creating an SSH Credential in SL1 for Devices

In SL1, create an SSH credential for the devices that you want to discover and add to Restorepoint. SL1 uses this credential to automatically align the "Restorepoint Connectivity" Dynamic Application, which is used when you discover a device and add it to Restorepoint.

> **NOTE:** If needed, create a new organization in SL1 for the device you want to discover. For more information, see the *Creating and Editing Organizations* chapter in the ***Organizations and Users*** manual.

To create an SSH/Key credential:

1. Go to the **Credentials** page (Manage > Credentials or System > Manage > Credentials in the classic user interface).
2. Click the **[Create New]** button and then select *Create SSH/Key Credential*. The **Edit Credential** modal page appears.
3. Supply values in the following fields:
    - ***Name***. Name of the credential. Can be any combination of alphanumeric characters.
    - ***All Organizations***. Toggle on (blue) to align the credential to all organizations, or toggle off (gray) and then select one or more specific organizations from the ***What organization manages this service?*** drop-down field to align the credential with those specific organizations.
    - ***Timeout (ms)***. Time, in milliseconds, after which SL1 will stop trying to communicate with the device from which you want to retrieve data. The default is 1500.
    - ***Hostname/IP***. Hostname or IP address of the device you want to discover.
        - You can include the variable **%D** in this field. SL1 will replace the variable with the IP address of the current device (device that is currently using the credential).
        - You can include the variable **%N** in this field. SL1 will replace the variable with hostname of the current device (device that is currently using the credential). If SL1 cannot determine the hostname, SL1 will replace the variable with the primary, management IP address for the current device.
    - ***Port***. Port number associated with the data you want to retrieve. The default TCP port for SSH servers is 22.
    - ***Username***. Username for an SSH or user account on the device to be monitored.
    - ***Password***. Password for an SSH user account on the device to be monitored.
    - ***Private Key (PEM Format)***. Enter the SSH private key that you want SL1 to use, in PEM format.
4. Click **[Save]**.

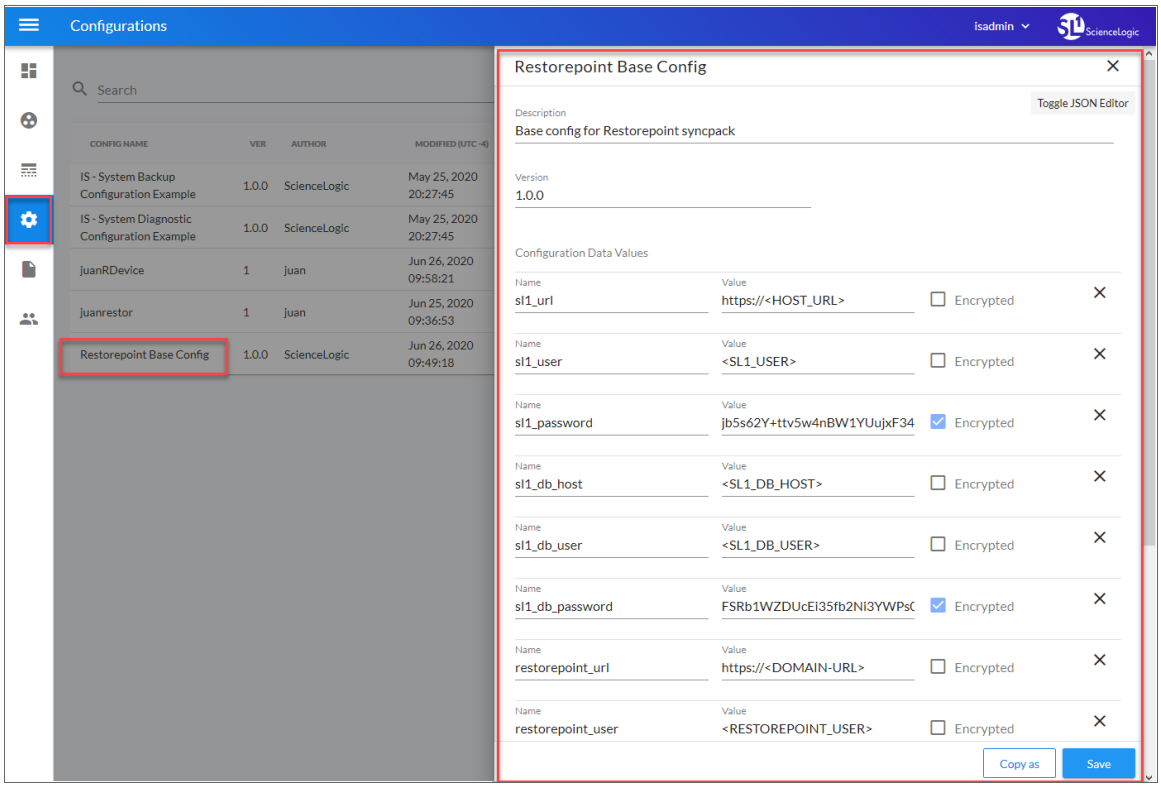
Creating a Configuration Object in the Integration Service

For this Synchronization PowerPack, you can make a copy of the "Restorepoint Base Config" configuration object, which is the sample configuration file that was installed with the *Integration Service: Restorepoint Synchronization PowerPack*.

TIP: The "Base Config" configuration object contains all of the required variables. Simply update the variables from that object to match your SL1 and Restorepoint settings.

To create a configuration object based on the "Base Config" configuration object:

1. In the Integration Service user interface, go to the **Configurations** page (⚙).
2. Click the **[Actions]** button (⋮) for the "ServiceNow SyncPack" configuration object and select *Edit*.
   The **Configuration** pane appears:



3. Click **[Copy as]**. The **Create Configuration** pane appears.
4. Complete the following fields:
   - ***Friendly Name***. Name of the configuration object that will display on the **Configurations** page.
   - ***Description***. A brief description of the configuration object.

- ***Author***. User or organization that created the configuration object.
- ***Version***. Version of the configuration object.

5. In the ***Configuration Data*** field, update the default variable definitions to match your Integration Service configuration.
6. Click **[Toggle JSON Editor]** to show the JSON code.
7. In the ***Configuration Data*** field, be sure to include the required block of code to ensure that the integration applications aligned to this configuration object do not fail:

```
{
  "encrypted": false,
  "name": "sl1_db_host",
  "value": "${config.sl1_host}"
}
```

For example:

```
{
  "encrypted": false,
  "name": "sl1_db_host",
  "value": "10.2.11.42"
}
```

NOTE: If you are using SL1 with an External Database (SL1 Extended architecture or a cloud-based architecture), update the `"value"` of that block of code to be the host of your database. This field accepts IP addresses. For example: `"value": "db.sciencelogic.com"`. If you are *not* using the SL1 Extended architecture or a cloud-based architecture, you do not need to make any changes to the block of code other than pasting the code into the configuration object.

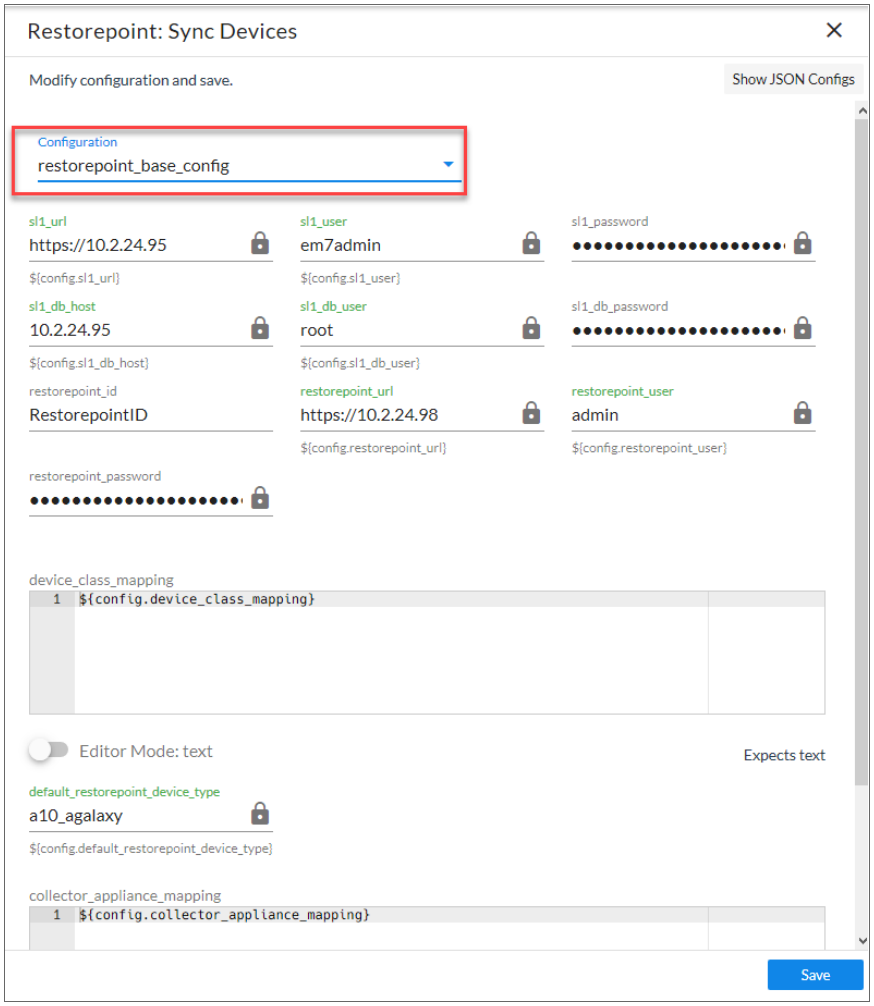
8. To create a configuration variable, define the following keys:
   - ***encrypted***. Specifies whether the value will appear in plain text or encrypted in this JSON file. If you set this to "true", when the value is uploaded, the Integration Service encrypts the value of the variable. The plain text value cannot be retrieved again by an end user. The encryption key is unique to each Integration Service system. The value is followed by a comma.
   - ***name***. Specifies the name of the configuration file, without the JSON suffix. This value appears in the user interface. The value is surrounded by double-quotes and followed by a comma.
   - ***value***. Specifies the value to assign to the variable. The value is surrounded by double-quotes and followed by a comma.
9. Click **[Save]**. You can now align this configuration object with one or more integration applications.

Configuring the Restorepoint Integration Applications in the Integration Service

You can use this Synchronization PowerPack to automatically add an SL1 device, along with associated credential and organization details, to Restorepoint. You will need to align the four integration applications with the relevant configuration object in the Integration Service, and, if needed, update any other fields on the **Configuration** pane for the applications.

To configure the integration applications in the Integration Service user interface:

1. In the Integration Service user interface, go to the **Integrations** page and select the "Restorepoint: Sync Devices" integration application. This application gets the list of SL1 devices to add to Restorepoint.
2. Click the **[Configuration]** button ( ). The **Configuration** pane appears:



3. In the ***Configuration*** drop-down, select *the configuration object you created earlier*. The fields with a padlock icon ( ) are updated with values from the configuration object.

4. Update any of the other fields that do not have a padlock icon, and then click **[Save]**.

> **TIP:** You should schedule the "Device Sync" integration application to run on a regular basis to ensure that new SL1 devices are added to Restorepoint automatically. For more information, see *Scheduling Integration Applications*.

5. Select the following integration applications and align the same configuration object from step 3 to each of them:

   - Restorepoint: Credential Check/Create
   - Restorepoint: Onboard Device
   - Restorepoint: Organization Check/Create

   The next time you discover a device in SL1 and run the "Restorepoint: Sync Devices" integration application, any devices you discovered in SL1 that map to a Restorepoint device get added to Restorepoint. For more information, see *Discovering a Device in SL1 and Running the Sync Devices Application*.

Discovering a Device in SL1 and Running the Sync Devices Application

After you have configured the integration applications in the Integration Service, any time you discover a new device in SL1, the "Restorepoint Connectivity" Dynamic Application is automatically aligned to that device using the SSH credential you created earlier. Based on the Dynamic Application alignment, the device is also automatically included in a Restorepoint Device Group. For more information about discovering a device in SL1, see the ***Discovery and Credentials*** manual.

The next time you discover a device in SL1 and run the "Restorepoint: Sync Devices" integration application, any devices you discovered in SL1 that map to a Restorepoint device get added to Restorepoint.

To run the "Restorepoint: Sync Devices" integration application:

1. Go to the **Integrations** page and select the "Restorepoint: Sync Devices" integration application.
2. Click the **[Run]** button (). The following actions occur:

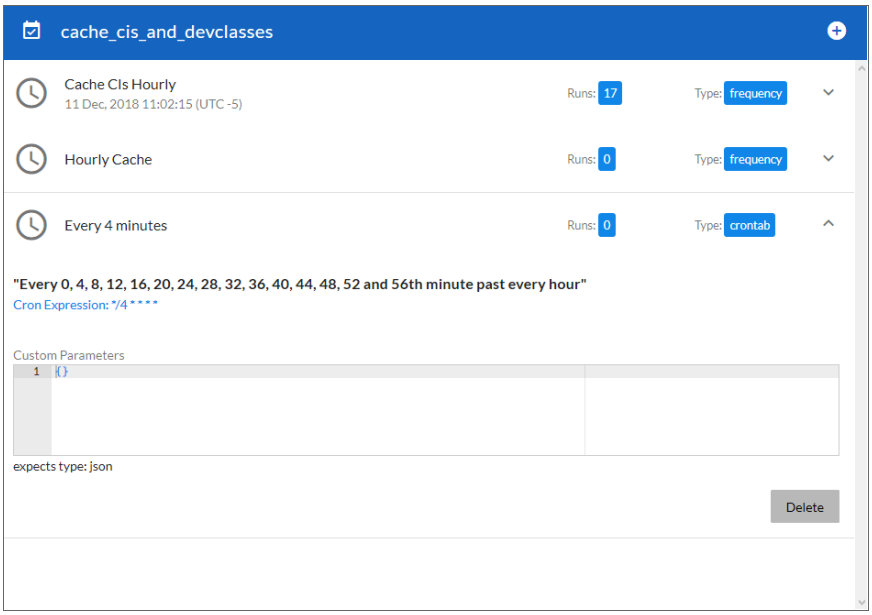
   - If the SL1 organization exists as a domain in Restorepoint, the device is added to that domain. Otherwise a new domain is created in Restorepoint that maps to the SL1 organization.
   - If needed, a new credential is created in Restorepoint that maps to the new SL1 credential.
   - A new device is added in Restorepoint that maps to the new device in SL1:
     - The device is associated with the appropriate domain and credential.
     - The device is associated with an agent that maps to the SL1 Data Collector monitoring that device, using a pre-defined mapping from the "Restorepoint Base Config" configuration object.
     - The device is configured with a plugin that maps to the SL1 Device Class for that device, using a pre-defined mapping from the "Restorepoint Base Config" configuration object.

Scheduling the Devices Sync Application

You can create one or more schedules for a single integration application in the Integration Service user interface. When creating each schedule, you can specify the queue and the configuration file for that integration application.

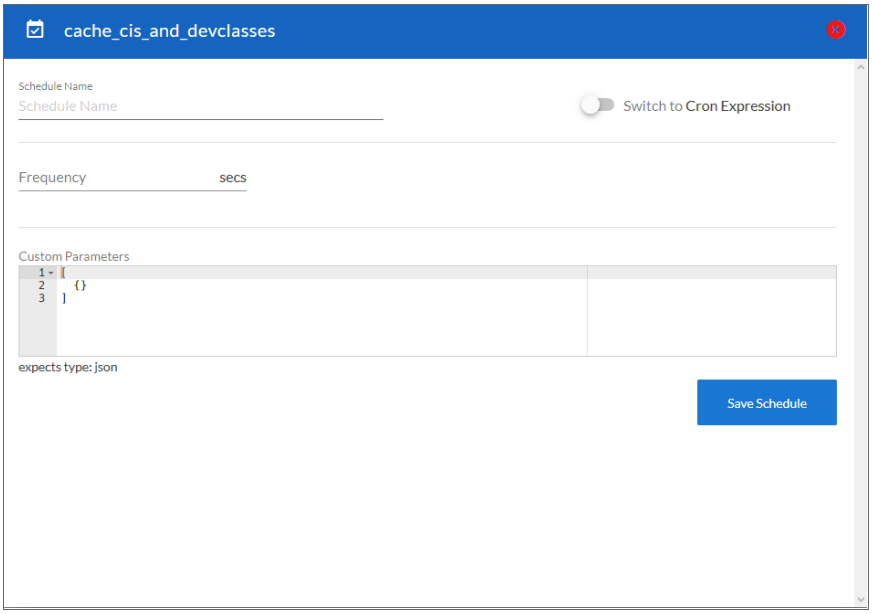
To schedule an integration application:

1. On the **Integrations** page ( ), click **[Schedule]** for the integration application you want to schedule. The **Schedule** window appears, displaying any existing schedules for that application:



NOTE: If you set up a schedule using a cron expression, the details of that schedule display in a more readable format in this list. For example, if you set up a cron expression of ***/4 * * * ***, the schedule on this window includes the cron expression along with an explanation of that expression: "*Every 0, 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, and 56th minute past every hour*".

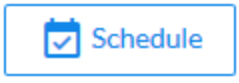
2. Select a schedule from the list to view the details for that schedule.
3. Click the + icon to create a schedule. A blank **Schedule** window appears:



4. In the **Schedule** window, complete the following fields:

   - ***Schedule Name***. Type a name for the schedule.
   - ***Switch to***. Use this toggle to switch between a cron expression and setting the frequency in seconds.
     - ***Cron expression***. Select this option to schedule the integration using a cron expression. If you select this option, you can create complicated schedules based on minutes, hours, the day of the month, the month, and the day of the week. As you update the cron expression, the **Schedule** window displays the results of the expression in more readable language, such as *Expression: "Every 0 and 30th minute past every hour on the 1 and 31st of every month"*, based on ***/30 * * /30 * ***.
     - ***Frequency in seconds***. Type the number of seconds per interval that you want to run the integration.
   - ***Custom Parameters***. Type any JSON parameters you want to use for this schedule, such as information about a configuration file or mappings.

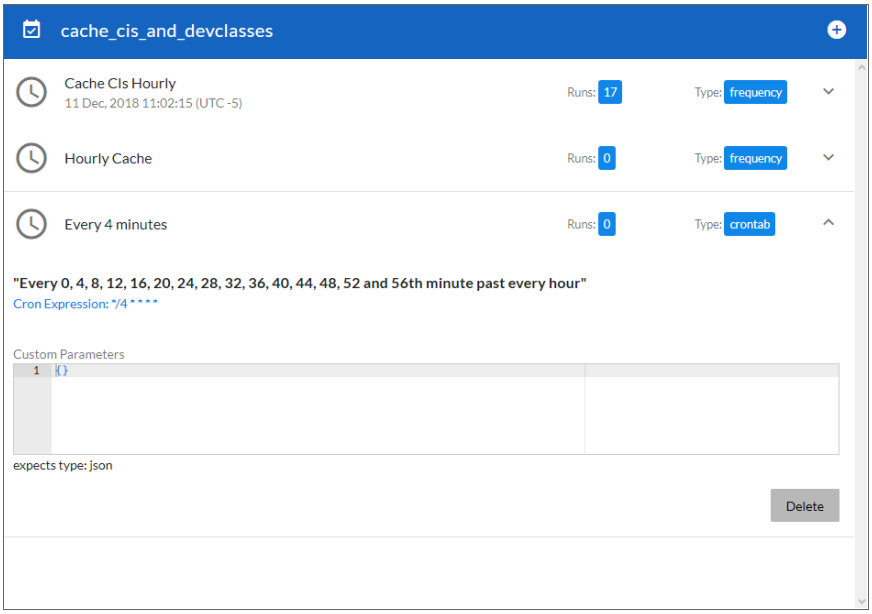
5. Click **[Save Schedule]**. The schedule is added to the list of schedules on the initial **Schedule** window. Also, on the **Integrations** page, the word "Scheduled" appears in the **Scheduled** column for this integration application, and the **[Schedule]** button contains a check mark:



NOTE: After you create a schedule, it continues to run until you delete it. Also, you cannot edit an existing schedule, but you can delete it and create a similar schedule if needed.

To view or delete an existing schedule:

1. On the **Integrations** page , click **[Schedule]** for the integration application that contains a schedule you want to delete. The **Schedule** window appears.
2. Click the down arrow icon ( ) to view the details of an existing schedule:



3. To delete the selected schedule, click **[Delete]**. The schedule is removed.

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