



Restorepoint Synchronization PowerPack

Version 1.0.0 (Beta)

Table of Contents

Introduction to the Restorepoint Synchronization PowerPack	3
Prerequisites for this Synchronization PowerPack	4
PowerFlow Applications Included in the Synchronization PowerPack	4
PowerFlow Applications	4
Configuration Object	4
Steps	5
Installing the Synchronization PowerPack	5
Downloading the Synchronization PowerPack	5
Importing the Synchronization PowerPack	5
Installing the Synchronization PowerPack	6
Installing and Configuring the Restorepoint PowerPack	7
Installing the PowerPack	7
Downloading and Compiling the MIBs from the PowerPack	7
Configuring Integrations for the Restorepoint Synchronization PowerPack	9
Overview of Onboarding SL1 Devices to Restorepoint	10
Creating an SSH Credential in SL1 for Devices	11
Creating a Configuration Object in PowerFlow	12
Configuring the Restorepoint Applications in PowerFlow	13
Discovering a Device in SL1 and Running the Sync Devices Application	15
Scheduling the Devices Sync Application	15

Chapter

1

Introduction to the Restorepoint Synchronization PowerPack

Overview

This chapter describes how you can use the *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.

NOTE: This Beta version of the Synchronization PowerPack has been tested to sync up to 25 new devices at a time.

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

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

This chapter covers the following topics:

<i>Prerequisites for this Synchronization PowerPack</i>	4
<i>PowerFlow Applications Included in the Synchronization PowerPack</i>	4
<i>Installing the Synchronization PowerPack</i>	5
<i>Installing and Configuring the Restorepoint PowerPack</i>	7

Prerequisites for this Synchronization PowerPack

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

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

PowerFlow Applications Included in the Synchronization PowerPack

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

PowerFlow 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 application creates the credential.
- **Restorepoint: Onboard Device.** This application adds new devices and the associate elements to Restorepoint, including the domain and credential. The application gets details about how the device will be configured in Restorepoint, including the assigned agent and device type, from a mapping in the aligned configuration object.

For more information about how to configure these applications, see [Configuring the Restorepoint Applications](#).

Configuration Object

- **Restorepoint Base Config.** This configuration object can be used as a template after the Synchronization PowerPack is installed on the PowerFlow 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 PowerFlow using the PowerFlow 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 PowerFlow user interface:

1. On the **SyncPacks** page of the PowerFlow 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]**. PowerFlow 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 PowerFlow user interface:

1. On the **SyncPacks** page of the PowerFlow 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 Filter 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" 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 *Restorepoint* PowerPack and the *RestorepointSynchronization* PowerPack.

Installing the PowerPack

The *Restorepoint* PowerPack includes the following tools, which you will use with the *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 *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 *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 *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.

Configuring Integrations for the Restorepoint Synchronization PowerPack

Overview

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

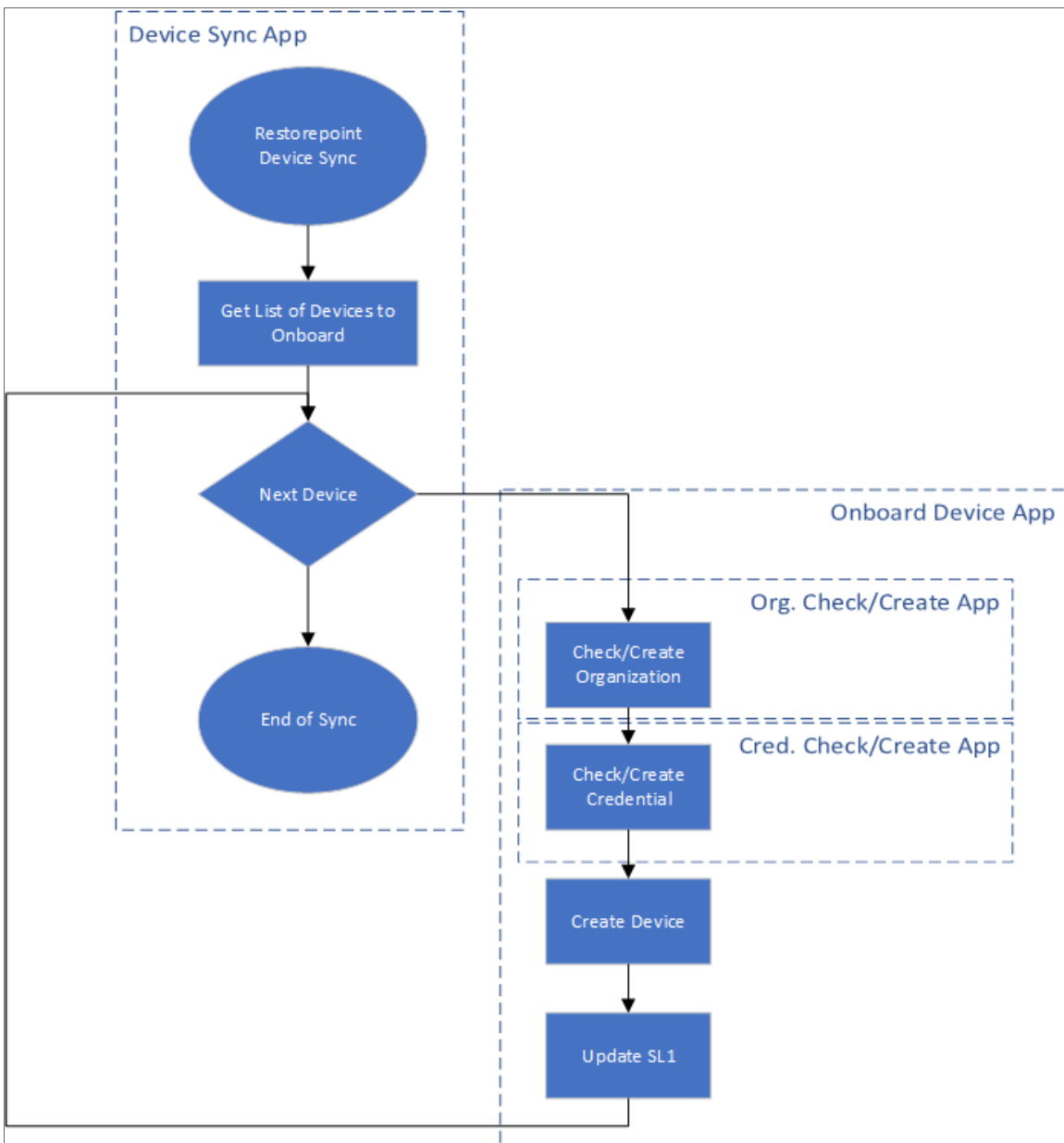
This chapter covers the following topics:

<i>Overview of Onboarding SL1 Devices to Restorepoint</i>	10
<i>Creating an SSH Credential in SL1 for Devices</i>	11
<i>Creating a Configuration Object in PowerFlow</i>	12
<i>Configuring the Restorepoint Applications in PowerFlow</i>	13
<i>Discovering a Device in SL1 and Running the Sync Devices Application</i>	15
<i>Scheduling the Devices Sync Application</i>	15

Overview of Onboarding SL1 Devices to Restorepoint

You can configure the *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 PowerFlow before you can enable these 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]**.

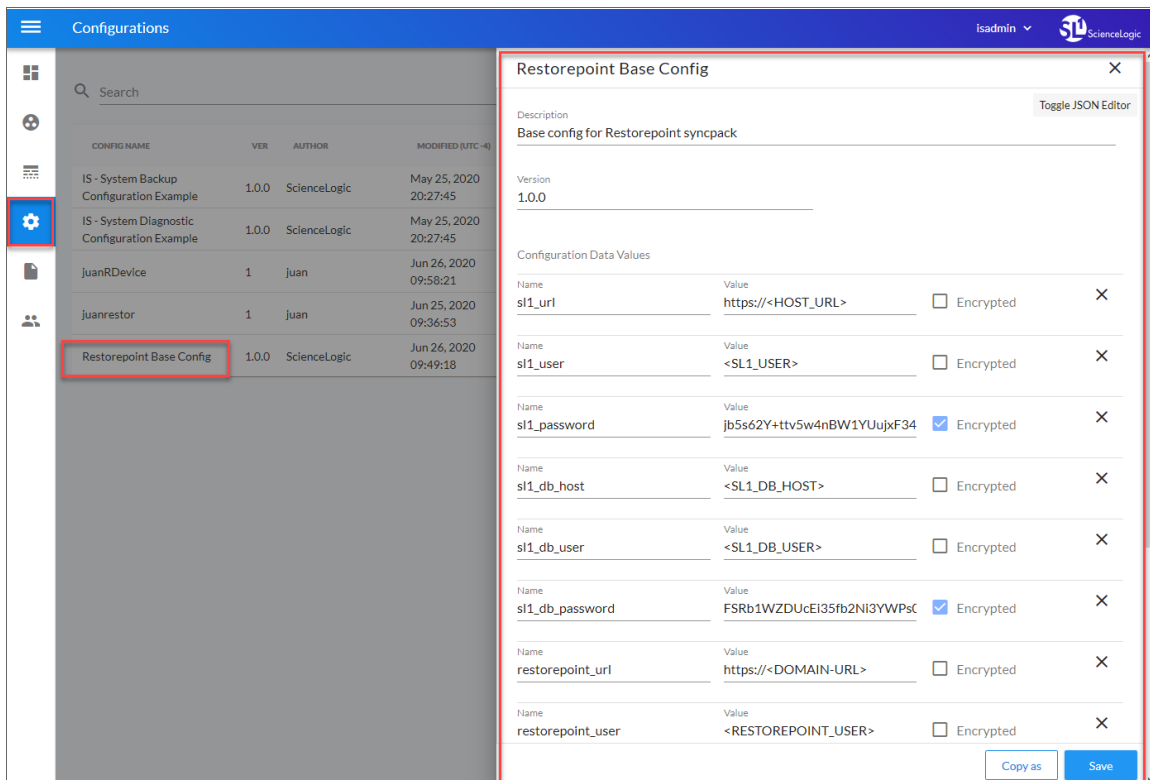
Creating a Configuration Object in PowerFlow

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 *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 PowerFlow 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 PowerFlow 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 applications aligned to this configuration object do not fail:

```
{
  "encrypted": false,
  "name": "sll_db_host",
  "value": "${config.sll_host}"
}
```

For example:

```
{
  "encrypted": false,
  "name": "sll_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, PowerFlow 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 PowerFlow 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 applications.

Configuring the Restorepoint Applications inPowerFlow

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 Restorepoint applications with the relevant configuration object in PowerFlow, and, if needed, update any other fields on the **Configuration** pane for the applications.

To configure the applications in the PowerFlow user interface:

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

Restorepoint: Sync Devices

Modify configuration and save. Show JSON Configs

Configuration
restorepoint_base_config

sl1_url: https://10.2.24.95 (locked)
\$(config.sl1_url)

sl1_user: em7admin (locked)
\$(config.sl1_user)

sl1_password: [masked] (locked)
\$(config.sl1_password)

sl1_db_host: 10.2.24.95 (locked)
\$(config.sl1_db_host)

sl1_db_user: root (locked)
\$(config.sl1_db_user)

sl1_db_password: [masked] (locked)
\$(config.sl1_db_password)

restorepoint_id: RestorepointID
\$(config.restorepoint_id)

restorepoint_url: https://10.2.24.98 (locked)
\$(config.restorepoint_url)

restorepoint_user: admin (locked)
\$(config.restorepoint_user)

restorepoint_password: [masked] (locked)
\$(config.restorepoint_password)

device_class_mapping

1	\$(config.device_class_mapping)
---	---------------------------------

Editor Mode: text Expects text

default_restorepoint_device_type: a10_agalaxy (locked)
\$(config.default_restorepoint_device_type)

collector_appliance_mapping

1	\$(config.collector_appliance_mapping)
---	--

Save

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" application to run on a regular basis to ensure that new SL1 devices are added to Restorepoint automatically. For more information, see [Scheduling Applications](#).

5. Go to the **Applications** page and select the "Restorepoint: Credential Check/Create" application.
6. In the **Configuration** drop-down, select the same configuration object from step 3 and click **[Save]**.


The next time you discover a device in SL1 and run the "Restorepoint: Sync Devices" application, any devices you discovered in SL1 that are aligned with the "Restorepoint Connectivity" Dynamic Application get added to Restorepoint. Those devices are also part of the Restorepoint Device Group. 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 applications in PowerFlow, 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" application, any devices you discovered in SL1 that are aligned with the "Restorepoint Connectivity" Dynamic Application get added to Restorepoint. Those devices are also part of the Restorepoint Device Group.

To run the "Restorepoint: Sync Devices" application:

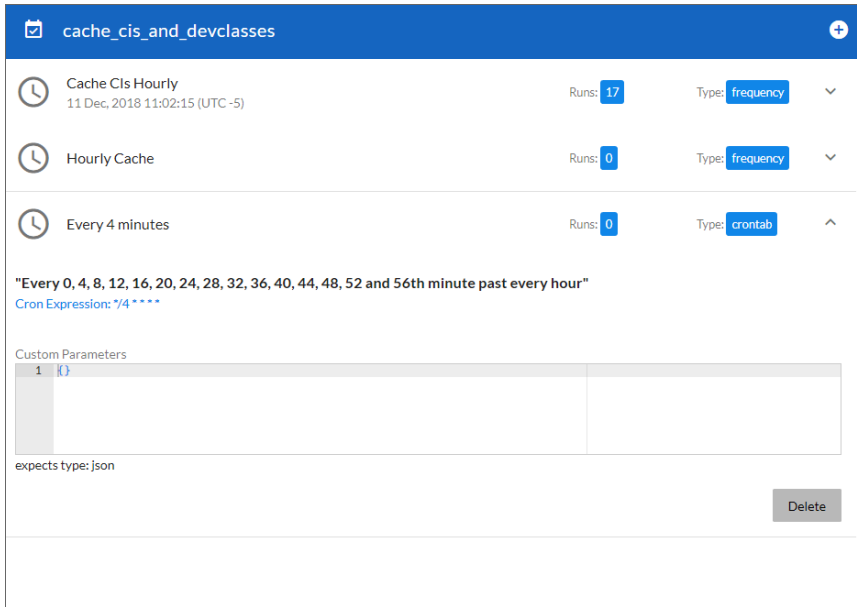
1. Go to the **Applications** page and select the "Restorepoint: Sync Devices" application.
2. Click the **[Run]** button (). The following actions occur:
 - If the SL1 organization exists as a domain in Restorepoint, the device is added to that domain. Otherwise a new domain is created in Restorepoint 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 application in the PowerFlow user interface. When creating each schedule, you can specify the queue and the configuration file for that application.

To schedule an application:

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

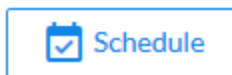


NOTE: If you set up a schedule using a cron expression, the details of that schedule display in a more readable format in this list. For example, if you set up a cron expression of `*/4 * * * *`, the schedule on this window includes the cron expression along with an explanation of that expression: "Every 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:


The screenshot shows a web application window titled "cache_cis_and_devclasses". Inside, there is a "Schedule" form. At the top, there is a "Schedule Name" input field and a "Switch to Cron Expression" toggle. Below that is a "Frequency" input field with a "secs" unit. Underneath is a "Custom Parameters" table with three rows. The first row has a plus sign in the first column and an empty second column. The second row has "2" in the first column and "{}" in the second. The third row has "3" in the first column and "}" in the second. Below the table, it says "expects type: json". At the bottom right, there is a blue "Save Schedule" button.

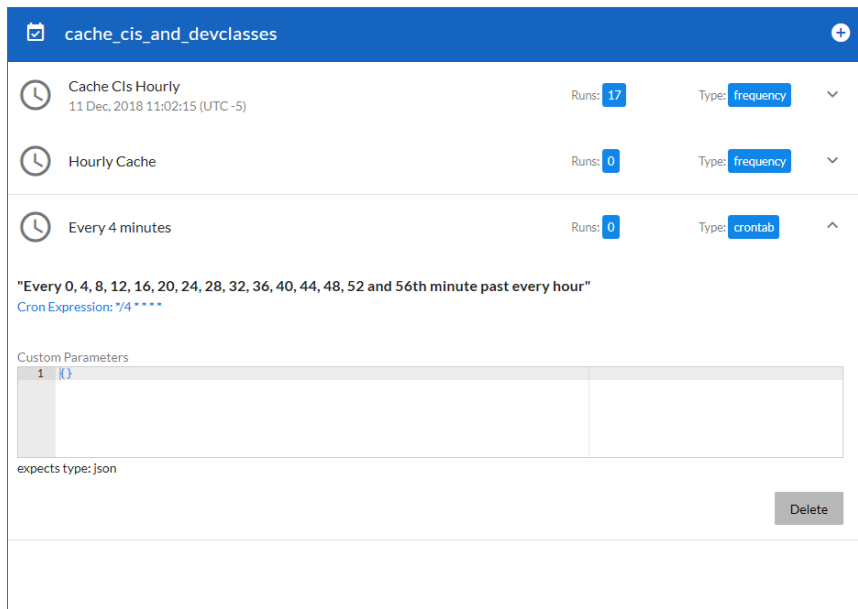
4. In the **Schedule** window, complete the following fields:
 - **Schedule Name.** Type a name for the schedule.
 - **Switch to.** Use this toggle to switch between a cron expression and setting the frequency in seconds.
 - **Cron expression.** Select this option to schedule the application using a 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 application.
 - **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 **Applications** page, the word "Scheduled" appears in the **Scheduled** column for this 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 **Applications** page, click the **[Schedule]** button for the 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.

© 2003 - 2020, ScienceLogic, Inc.

All rights reserved.

LIMITATION OF LIABILITY AND GENERAL DISCLAIMER

ALL INFORMATION AVAILABLE IN THIS GUIDE IS PROVIDED "AS IS," WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED. SCIENCELOGIC™ AND ITS SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT.

Although ScienceLogic™ has attempted to provide accurate information on this Site, information on this Site may contain inadvertent technical inaccuracies or typographical errors, and ScienceLogic™ assumes no responsibility for the accuracy of the information. Information may be changed or updated without notice. ScienceLogic™ may also make improvements and / or changes in the products or services described in this Site at any time without notice.

Copyrights and Trademarks

ScienceLogic, the ScienceLogic logo, and EM7 are trademarks of ScienceLogic, Inc. in the United States, other countries, or both.

Below is a list of trademarks and service marks that should be credited to ScienceLogic, Inc. The ® and ™ symbols reflect the trademark registration status in the U.S. Patent and Trademark Office and may not be appropriate for materials to be distributed outside the United States.

- ScienceLogic™
- EM7™ and em7™
- Simplify IT™
- Dynamic Application™
- Relational Infrastructure Management™

The absence of a product or service name, slogan or logo from this list does not constitute a waiver of ScienceLogic's trademark or other intellectual property rights concerning that name, slogan, or logo.

Please note that laws concerning use of trademarks or product names vary by country. Always consult a local attorney for additional guidance.

Other

If any provision of this agreement shall be unlawful, void, or for any reason unenforceable, then that provision shall be deemed severable from this agreement and shall not affect the validity and enforceability of any remaining provisions. This is the entire agreement between the parties relating to the matters contained herein.

In the U.S. and other jurisdictions, trademark owners have a duty to police the use of their marks. Therefore, if you become aware of any improper use of ScienceLogic Trademarks, including infringement or counterfeiting by third parties, report them to Science Logic's legal department immediately. Report as much detail as possible about the misuse, including the name of the party, contact information, and copies or photographs of the potential misuse to: legal@sciencelogic.com



800-SCI-LOGIC (1-800-724-5644)

International: +1-703-354-1010