ScienceLogic

Google Cloud Platform Integrations

Google Cloud Platform SyncPack Version 1.0.0

Google Cloud Automation PowerPack Version 100

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Chapter

3

Configuring Applications for the Google Cloud Platform SyncPack

Overview

This chapter describes how to set up the PowerFlow applications for the *Google Cloud Platform* SyncPack.

This chapter covers the following topics:

Configuring the Google Cloud Platform

To configure the Google Cloud Platform to work with PowerFlow, you must do the following:

1. *Create a Project in Google Cloud*. Give the project a name and location, and take note of the Project ID.
2. *Create a Service Account and Credentials*. Give the service account a name and ID, and select *Owner* for the Role. In the newly-created service account, go to the **Keys** section and create a key with type *JSON*.
3. *Configure a Google Cloud Pubsub Topic and Subscription*. In the **Pubsub** page, create a new topic with *Add a default description* selected.
4. *Enable the Cloud Tasks API*. In the **Cloud Tasks** page, click the **[Enable]** button.
5. *Create a Cloud Tasks Push Queue*. In the **Cloud Tasks** page, click *Create Push Queue*. Give the queue a name, select a region from the drop-down menu, and then click **[Create]**.
6. *Enable the Error Reporting API*. In the **Error Reporting** page, click *Set Up Error Reporting* to be directed to the **Guides** page. In the **Guides** page, in the *Setup Guide* section click *Error Reporting REST API*. In the Reference page, click **[Enable the API]**.

Creating and Aligning a Configuration Object in PowerFlow

A *configuration object* supplies the login credentials and other required information needed to execute the steps for a PowerFlow application. The **Configurations** page ( ) of the PowerFlow user interface lists all available configuration objects for that system.

You can create as many configuration objects as you need. A PowerFlow application can only use one configuration object at a time, but you can use (or "align") the same configuration object with multiple applications.

To use this SyncPack, you will need to use an existing configuration object in the PowerFlow user interface or create a new configuration object. Next, you need to align that configuration object to the relevant applications.

Creating a Configuration Object

For this SyncPack, you can make a copy of the "GCP Base Config" configuration object, which is the sample configuration file that was installed with the *Google Cloud Platform* SyncPack.

> **TIP:** The "GCP Base Config" configuration object contains all of the required variables. Simply update the variables from that object to match your SL1 and Google Cloud Platform settings.

> **NOTE:** For more information about the Google Cloud Platform terms and concepts in this section, see the Google Cloud Platform documentation.

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

1. In the PowerFlow user interface, go to the **Configurations** page (⚙).

2. Click the **[Actions]** button (⋮) for the "GCP Base Config" 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*. Type a name for the configuration object that will display on the **Configurations** page.

   - *Description*. Type a brief description of the configuration object.

   - *Author*. Type the user or organization that created the configuration object.

   - *Version*. Type a version of the configuration object.

5. In the **Configuration Data** field, update the default variable definitions to match your PowerFlow configuration:

   - *sl1_host*. Type the hostname or IP address of your SL1 system.

   - *sl1_user*. Type the username for your SL1 system.

   - *sl1_password*. Type the password for your SL1 system.

   - *populate_external_url*. Type 'enabled' or 'disabled' to add a Google Cloud Platform URL to the corresponding SL1 event. The default value is 'enabled'.

   - *gcp_project_id*. The unique ID associated with a Google Cloud Platform project. This value is filled in using the "project_id" parameter in the JSON credentials file.

   - *gcp_private_key_id*. The unique key ID required for authenticating with Google Cloud. This value is filled in using the "private_key_id" parameter in the JSON credentials file.

   - *gcp_private_key*. The unique key required for authenticating with Google Cloud. This value is filled in using the "private_key" parameter in the JSON credentials file.

   - *gcp_client_email*. The generated email associated with the client in the Google Cloud Platform. This value is filled in using the "client_email" parameter in the JSON credentials file.

   - *gcp_client_id*. The ID associated with the client in the Google Cloud Platform. This value is filled in using the "client_id" parameter in the JSON credential file.

   - *gcp_client_x509_cert_url*. The client certificate URL associated with the client in the Google Cloud Platform. This value is filled in using the "client_x509_cert_url" parameter in the JSON credential file.

   - *gcp_pubsub_subscriber_audience*. Type subscriber client URL for your Pub/Sub account.

   - *gcp_pubsub_publisher_audience*. Type publisher client URL for your Pub/Sub account.

   - *gcp_pubsub_topic_id*. Type the topic ID for Pub/Sub messages.

   - *gcp_pubsub_subscription_id*. Type the subscription ID for your Pub/Sub account.

   - *gcp_pubsub_timeout*. Type the number of seconds between retrying to communicate with Pub/Sub.

   - *gcp_pubsub_deadline*. Type the number of seconds to retry Pub/Sub after execution. After the defined number of seconds, the SyncPack will stop attempting to communicate with Pub/Sub.

   - *gcp_pubsub_num_messages*. Type the number of messages to pull from Pub/Sub.

   - *gcp_task_queue*. Type the name of the queue for the Google Cloud Platform tasks.

   - *gcp_task_location*. Type the default location for the Google Cloud Platform task.

- *gcp_task_url*. Type the URL for your Cloud Tasks account.

- *gcp_task_seconds_from_now*. Type the scheduled time in seconds to create a task in Google Cloud Platform.

- *gcp_build_steps*. Type the Google Cloud Platform build steps to execute when the build is successful in Cloud Build.

- *add_template*. Toggle the JSON editor to define the template to translate SL1 event information to a Google Cloud Platform task, error, or message.

9. Click **[Save]**. You can now align this configuration object with one or more applications.

Aligning a Configuration Object and Configuring PowerFlow Applications

With this SyncPack, any status changes made to an SL1 event is sent to the Google Cloud Platform to update the corresponding task, error, or message. Any status changes to the Google Cloud Platform task or error are synchronized back to the corresponding SL1 event. You will need to align the Google Cloud Platform applications with the relevant configuration object in PowerFlow, and, if needed, update any other fields on the **Configuration** pane for the applications.

To align the configuration object with the relevant PowerFlow applications:

1. On the **Applications** page of the PowerFlow user interface, open one of the PowerFlow applications listed above and click **[Configure]** (). The **Configurations** pane for that application appears:

Resolve GCP Event From SL1   ×

Modify configuration and save.   Show JSON Configs

Configuration
gcp-nam   ▼

gcp_project_id   gcp_private_key_id   gcp_private_key
●●●●●●●●●●●●●●●● 🔒   ●●●●●●●●●●●●●●●● 🔒   ●●●●●●●●●●●●●●●● 🔒

gcp_client_email   gcp_client_id   gcp_client_x509_cert_url
●●●●●●●●●●●●●●●● 🔒   ●●●●●●●●●●●●●●●● 🔒   ●●●●●●●●●●●●●●●● 🔒

gcp_pubsub_subscriber_audience   gcp_pubsub_subscription_id   gcp_pubsub_deadline
https://pubsub.googleapis.co 🔒   test-packers-sub   🔒   600   🔒
${config.gcp_pubsub_subscriber_audience} ${config.gcp_pubsub_subscription_id} ${config.gcp_pubsub_deadline}

gcp_pubsub_num_messages
100   🔒
${config.gcp_pubsub_num_messages}

event_details
| 1 | null |

expects type: json

Save

2. From the **Configurations** drop-down, select the configuration object you want to use.

> NOTE: The values for **sl1_hostname** and the other parameters that appear in the **Configuration** pane with a padlock icon (🔒) are populated by the configuration object you aligned with the application. Do not modify these values. If you encounter an error, make sure your configuration object is configured properly.

3. Click **[Save]** to align that configuration with the application.
4. Repeat this process for the other PowerFlow applications.

Scheduling PowerFlow Applications

To trigger the applications in the SyncPack, you must schedule the applications included in the SyncPack.

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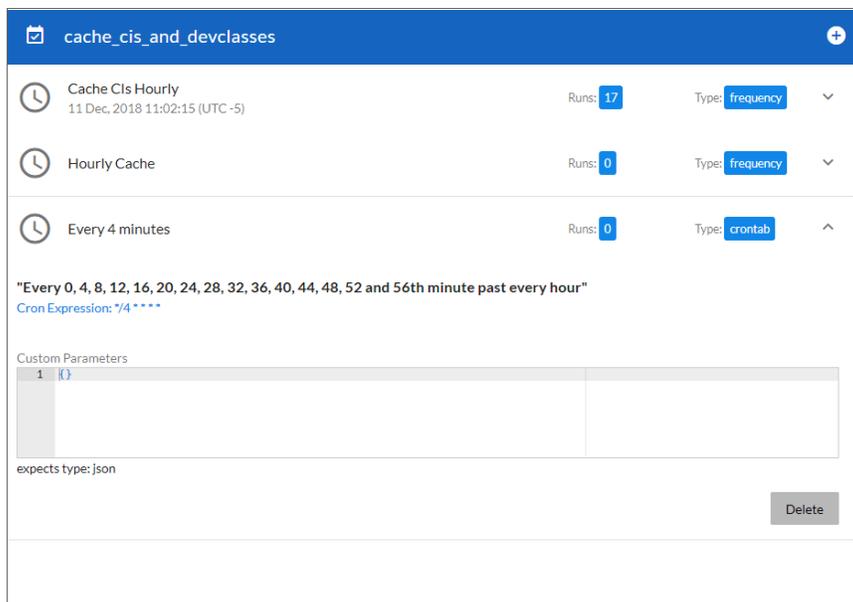
> **NOTE:** If you set up a schedule using a cron expression, the details of that schedule display in a more readable format in this list. For example, if you set up a cron expression of ***/4 * * * ***, the schedule on this window includes the cron expression along with an explanation of that expression: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

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.

Scheduling PowerFlow Applications

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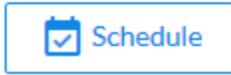
> **NOTE:** After you create a schedule, it continues to run until you delete it. Also, you cannot edit an existing schedule, but you can delete it and create a similar schedule if needed.

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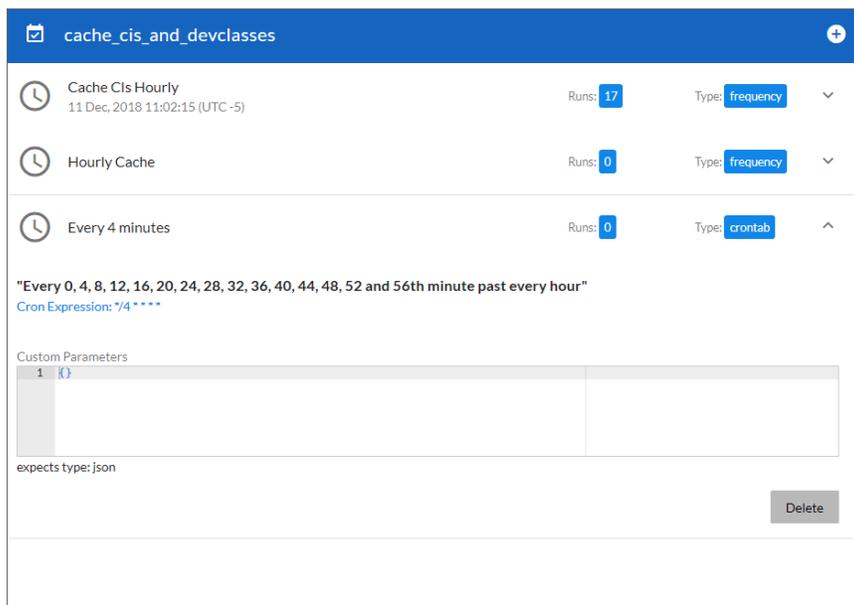
3. To delete the selected schedule, click **[Delete]**. The schedule is removed.

> **NOTE:** When either multiple SL1 instances or multiple Google Cloud Platform instances are involved with PowerFlow, you should create an individual configuration object for each SL1 or Google Cloud Platform instance. Next, create an individual schedule for each configuration object. Each schedule should use a configuration object that is specific to that single SL1 or Google Cloud instance. Creating copies of a PowerFlow application from a SyncPack for the purpose of distinguishing between domains is not supported, and will result in issues on upgrades.

Chapter

4

Introduction to the Google Cloud Automation PowerPack

Overview

This chapter describes how to install the *Google Cloud Automation* PowerPack.

This chapter covers the following topics:

What is the Google Cloud Automation PowerPack?

The *Google Cloud Automation* PowerPack contains Run Book automation and action policies that you can use to integrate with the *Google Cloud Platform* SyncPack.

Installing the Google Cloud Automation PowerPack

Before completing the steps in this manual, you must import and install the latest version of the *Google Cloud Automation* PowerPack.

NOTE: The *Google Cloud Automation* PowerPack requires SL1 version 11.1.0 or later. For details on upgrading SL1, see the appropriate SL1 Release Notes.

TIP: By default, installing a new version of a PowerPack overwrites all content from a previous version of that PowerPack that has already been installed on the target system. You can use the *Enable Selective PowerPack Field Protection* setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. (For more information, see the *System Administration* manual.)

To download and install a PowerPack:

1. Download the PowerPack from the ScienceLogic Support Site at https://support.sciencelogic.com/s/powerpacks.

2. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).

3. In the **PowerPack Manager** page, click the **[Actions]** button, then select *Import PowerPack*. The **Import PowerPack** dialog box appears.

4. Click the **[Browse]** button and navigate to the PowerPack file.

5. When the **PowerPack Installer** modal appears, click the **[Install]** button to install the PowerPack.

NOTE: If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPack Manager** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

Chapter

5

Configuring Automation Action Credentials

Overview

This chapter describes how to configure the credential required by the automation actions in the *Google Cloud Automation* PowerPack.

This chapter covers the following topics:

Creating a SOAP/XML Credential for Google Cloud Platform

To configure SL1 to monitor a Google Cloud Platform instance, you must create a SOAP/XML credential to enable the Dynamic Applications in the PowerPack to communicate with the Google Cloud Platform and PowerFlow. The *Google Cloud Automation* PowerPack includes a template for a SOAP/XML credential that you can edit for use with your PowerFlow system.

To create a SOAP/XML credential:

1. Go to the **Credentials** page (Manage > Credentials).
2. Locate the "PowerFlow Google Cloud" sample credential, click its **[Actions]** icon (•••), and then select *Duplicate*. A copy of the credential, called **PowerFlow Google Cloud copy** appears.

3. Supply values in the following fields:

   - *Name*. Type a new name for the credential.

   - *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.

   - *URL*. Type the URL for your PowerFlow system.

   - *HTTP Auth User*. Type the username for your PowerFlow system.

   - *HTTP Auth Password*. Type the password for your PowerFlow system.

4. Click **[Save & Close]**.
5. SL1 assigns the credential an ID number. Take note of the ID number for the new credential on the **Credentials** page, in the **ID** column. You will need the ID number when editing the input parameters of the automation actions included in the *Google Cloud Automation* PowerPack.

Creating a SOAP/XML Credential to Access SL1 PowerFlow in the Classic User Interface

To define a SOAP/XML credential using the example credential:

2. Go to the **Credential Management** page (System > Manage > Credentials).

3. Click the wrench icon ( ) for the **PowerFlow Google Cloud** credential. The **Credential Editor** modal window appears:

4. Supply values in the following fields:

   - *Profile Name*. Type a new name for the credential.

   - *URL*. Type the URL for your SL1 PowerFlow system.

   - *HTTP Auth User*. Type the username for your SL1 PowerFlow user account.

   - *HTTP Auth Password*. Type the password for your SL1 PowerFlow user account.

5. Click the **[Save As]** button to save the new SOAP/XML credential.

6. SL1 assigns the credential an ID number. Take note of the ID number that appears in the **Credential Editor** heading, as you will need this when editing the input parameters of the automation actions included in the *Google Cloud Automation* PowerPack.

Chapter

6

Configuring the Google Cloud Automation Run Book Action Policies

Overview

This chapter describes how to edit the Run Book Action policies included in the *Google Cloud Automation* PowerPack so that the action policies can communicate with your SL1 PowerFlow system.

This chapter covers the following topics:

Editing the Google Cloud Automation Action Policies

The *Google Cloud Automation* PowerPack includes six action policies that use the "Run Integration Service Application" action type to trigger the PowerFlow application that sends and receives data to the Google Cloud Platform. You can specify the credential ID in a JSON structure that you enter in the ***Input Parameters*** field in the **Action Policy Editor** modal.

To edit the action policies included in the PowerPack:

1. Go to the **Action Policy Manager** page (Registry > Run Book > Actions).

2. Locate the action policy that you want to use, and then click its wrench icon (🔧). The **Editing Action** page appears:

3. Select *Enabled* from the **Action State** field if it is not already selected.

4. In the ***Input Parameters*** field, change the values of the following parameters:

    - ***credential_id***. Change the value to the credential ID that you noted earlier when *creating a credential for your PowerFlow system*. This parameter is required.

- *include_event*. Leave the value as "true".
- *application_name*. Leave the default application value.
- *params*. Leave the default parameter value.

4. Click **[Save]**.

Chapter

7

Google Cloud Automation Run Book Automation Policies

Overview

This chapter describes the Run Book Automation policies found in the *Google Cloud Automation* PowerPack.

This chapter covers the following topics:

Standard Automation Policies

The *Google Cloud Automation* PowerPack includes six standard automation policies that you can enable, shown in the following figure.
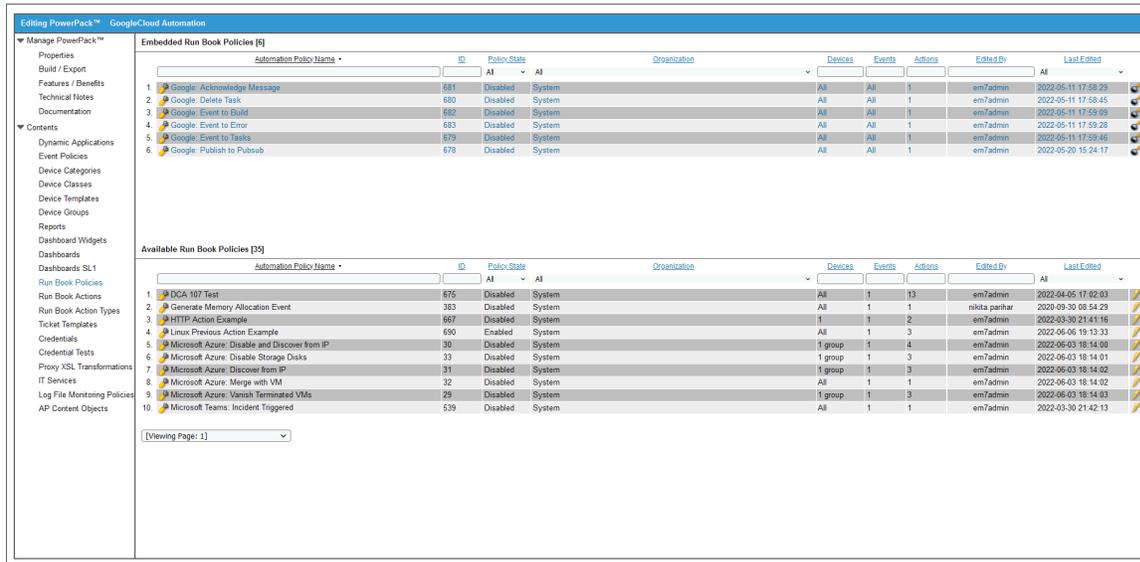
These policies synchronize events that occur in SL1 and automate creating tasks, deleting tasks, starting builds, reporting errors, and publishing Pub/Sub API messages with Google Cloud Platform.

When an event is detected in SL1, a task, build, or error is triggered in the Google Cloud Platform. When a message is detected in SL1, the associated message is acknowledged in the Google Cloud Platform and published to Pub/Sub.

The following table shows the automation policy, its default aligned events, and the automation action that runs in response to the events.

Automation Policy Name	Aligned Events	Automation Action
Google: Acknowledge Message	All events	Google: Acknowledge Message
Google: Delete Task	All events	Google: Delete Task
Google: Event to Build	All events	Google: Event to Build
Google: Event to Error	All events	Google: Event to Error
Google: Event to Task	All events	Google: Event to Task
Google: Publish to Pubsub	All events	Google: Publish to Pubsub

If a policy is not already enabled, you can enable it by doing the following:

1. In SL1, go to the **Automation Policy Manager** page (Registry > Run Book > Automation).

2. Locate the automation policy you want to enable and click its wrench icon (🔧). The **Automation Policy Editor** page appears.

3. Update the following fields:

   - *Policy State*. Select *Enabled*.

   - *Policy Priority*. Select *Default* to ensure that this PowerFlow automation policy is added to the top of the queue.

   - *Available Actions*. If it is not already selected, select the corresponding Google Cloud Run Book action.

By default, the "GCP: Publish to Pubsub" automation policy will create Google Cloud Platform Events for all devices. You can limit the devices affected by making changes to the *Organization*, *Severity*, *Match Logic*, *Aligned Devices*, and/or *Aligned Events* fields.

NOTE: ScienceLogic does not recommend making changes to the *Policy Type*, *Repeat Time*, or *Align With* fields or changing the *Criteria Logic* to *and event is NOT acknowledged*.

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4. Click **[Save]**.

5. Repeat steps for any other Run Book Automation policies that need to be enabled.

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Other

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