ScienceLogic

Ansible SyncPack

Version 1.0.0

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1

Introduction to the Ansible SyncPack

Overview

This chapter describes how you can use the "Ansible" SyncPack to sync SL1 events for Ansible Towers and Ansible CLI. The integration is unidirectional, from Ansible to SL1.

This SyncPack uses the "Ansible Automation" PowerPack.

This chapter covers the following topics:

What Can I Do with this SyncPack?

The "Ansible" SyncPack lets you sync playbook and event data from Ansible Tower and/or Ansible CLI to an SL1 event. You can automate Ansible orchestration and provisioning playbooks, and you can clear an SL1 event when an Ansible Tower or Ansible CLI is successfully provisioned.

This SyncPack includes workflow automations that trigger playbooks in Ansible Tower and/or Ansible CLI. Details of the playbook execution are synchronized back to the SL1 event for data accuracy and consistency across teams.

This SyncPack includes the following applications:

- **Ansible Tower Job Status Update**. This application updates an associated SL1 event with Ansible Tower job information.
- **Call Playbook from Ansible CLI**. This application triggers a request to Ansible CLI to provision for data and to access devices.

- *Call Playbook from Ansible Tower*. This application triggers a request to Ansible Tower to provision for data and to access devices.
- *Clear SL1 Events*. This application clears SL1 events when an Ansible Tower or Ansible CLI is successfully provisioned.

Contents of the SyncPack

This section lists the contents of the "Ansible" SyncPack.

PowerFlow Applications

- *Ansible Tower Job Status Update*. This application updates an associated SL1 event with Ansible Tower job information.
- *Call Playbook from Ansible CLI*. This application triggers a request to Ansible CLI to provision for data and to access devices.
- *Call Playbook from Ansible Tower*. This application triggers a request to Ansible Tower to provision for data and to access devices.
- *Clear SL1 Events*. This application clears SL1 events when an Ansible Tower or Ansible CLI is successfully provisioned.

For more information about how to configure these applications, see *Configuring Applications for the Ansible SyncPack*.

Configuration Object

- *Sample Ansible Configuration*. This configuration object can be used as a template after the SyncPack is installed on the PowerFlow system. The configuration object includes the following:

  - Details for connecting to SL1, including the host, username, and password.

  - Details for connecting to Ansible, including the username, password, URL, host name, and host name status.

  - Details for connecting to Ansible Tower, including the template ID, credential ID, and inventory ID.

  - Details for authentication, including SSH host name, username, password, RSA key, and PEM status.

  - Details for connecting to Ansible Playbook.

  - Details for populating SL1 events.

Steps

The following steps are included in this SyncPack:

- Ansible Tower Provision
- Update Ansible Job Status to SL1
- Clear SL1 Event

- Create External Ticket
- Create Ansible Host
- Call Ansible Playbook
- Get Ansible Job Status
- Get SL1 Events
- Post Updates to SL1
- Real Job ID
- Update Ansible Job Details to SL1

Chapter

2

Installing the Ansible SyncPack

Overview

This chapter describes how to install the "Ansible" SyncPack, and how to install the "Ansible Automation" PowerPack.

This chapter covers the following topics:

Prerequisites for the Ansible SyncPack

This SyncPack requires the following:

- The latest "Ansible Automation" PowerPack
- The latest "SL1 Notifications" SyncPack
- Administrator access to Ansible
- An Ansible playbook to communicate with Ansible

For the latest System Requirements, see the *SL1 PowerFlow SyncPack Release Notes*.

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

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

Downloading and Installing the Ansible SyncPack

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

> **NOTE:** If you are installing or upgrading to the latest version of this SyncPack in an offline deployment, see *Installing or Upgrading in an Offline Environment* to ensure you install any external dependencies.

To locate and download the SyncPack:

1. Go to the ScienceLogic Support Site at https://support.sciencelogic.com/s/.
2. Click the **[Product Downloads]** tab and select *PowerPacks & SyncPacks*.
3. In the *Search* field, search for the SyncPack and select it from the search results. The **Release Version** page appears.
4. On the **[Files]** tab, click the down arrow next to the SyncPack version that you want to install, and select *Show File Details*. The **Release File Details** page appears.
5. Click the **[Download File]** button to download the SyncPack.

After you download the SyncPack, you can import it to your PowerFlow system using the PowerFlow user interface.

Importing the SyncPack

To import a SyncPack 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 SyncPack you want to install. You can also drag and drop a **.whl** file to the **Import SyncPack** page.

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

4. You will need to activate and install the SyncPack in PowerFlow. For more information, see the following topic.

> **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.

Installing the SyncPack

To activate and install a SyncPack in the PowerFlow user interface:

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

> **NOTE:** If you try to activate and install a SyncPack that is already activated and installed, you can choose to "force" installation across all the nodes in the PowerFlow system.

> **TIP:** If you do not see the PowerPack that you want to install, click the Filter icon (⇁) on the **SyncPacks** page and select *Toggle Inactive SyncPacks* to see a list of the imported PowerPacks.

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" application appears, and you can view the Step Log for the steps. For a failed installation, the **Error Logs** window appears.

4. If you have other versions of the same SyncPack on your PowerFlow system, you can click the **[Actions]** button (⋮) for that SyncPack and select *Change active version* to activate a different version other than the version that is currently running.

Installing the Ansible Automation PowerPack

The "Ansible Automation" PowerPack includes automation policies and action policies that sync Towers and Commands from Ansible to SL1 events.

> **NOTE:** The "Ansible Automation" PowerPack requires SL1 version 11.1.0 or later. For details on upgrading SL1, see the *SL1 Platform 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 the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page (Product Downloads > PowerPacks & SyncPacks) at the ScienceLogic Support Site.

2. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks).

3. Click the **[Actions]** button and choose *Import PowerPack*. The **Import PowerPack** dialog box appears.

4. Click **[Browse]** and navigate to the PowerPack file from step 1.

5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal displays a list of the PowerPack contents.

6. Click **[Install]**. The PowerPack is added to the **PowerPacks** page.

> **NOTE:** If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPacks** 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

3

Configuring PowerFlow Applications for the Ansible SyncPack

Overview

This chapter describes how to set up the run book automations in SL1 and how to configure the PowerFlow applications in the "Ansible" SyncPack.

This chapter covers the following topics:

Workflow for Configuring the SyncPack

The following workflows describe how to configure SL1 and PowerFlow to work with the "Ansible" SyncPack.

Configuring SL1

1. *Enable the Ansible event policies*
2. *Create a SOAP/XML credential to access PowerFlow*
3. *Edit the Ansible run book actions*
4. *Enable the Ansible run book automations*

Configuring PowerFlow

1. *Create and align a PowerFlow configuration object*
2. *Configure the PowerFlow applications*
3. *Schedule the PowerFlow applications*

Configuring SL1

The following topics cover how to set up your SL1 instance to work with the "Ansible" SyncPack.

Enabling the Ansible Event Policies

The "Ansible Automation" PowerPack includes two standard API event policies that you can enable to trigger the events detected by the applications included in the "Ansible" SyncPack and its associated automation action policy.

To enable the event policies:

1. In SL1, go to the **Event Policies** page (Events > Event Policies).
2. Click the check boxes for the "Ansible-Command" and "Ansible-Tower" event policies. A row of buttons appear at the top of the list.
3. Click **[Enable]**. The Status for both policies is updated to "Enabled".

Creating a SOAP/XML Credential to Access PowerFlow

You will need to create a SOAP/XML credential so that the action policies included in the "Ansible Automation" PowerPack can access your PowerFlow system.

To create a SOAP/XML credential:

1. In SL1, go to the **Credentials** page (Manage > Credentials).

2. Click **[Create New]** and select *Create SOAP/XML Credential*. The **Create Credential** window appears.

3. Complete 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. Take note of the SL1-assigned 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 run book actions included in the PowerPack, below.

Editing the Ansible Run Book Actions

The "Ansible Automation" PowerPack includes two action policies:

- Ansible: Command (triggers the "Call Playbook from Ansible CLI" application in PowerFlow)

- Ansible: Tower (triggers the "Call Playbook from Ansible Tower" application in PowerFlow)

These action policies use the "Run Integration Service Application" action type to trigger the corresponding PowerFlow application that collects data from Ansible. 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. In SL1, go to the **Actions** page (Registry > Run Book > Actions).

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

3. 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 in the previous procedure. 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. Make sure the *Action State* is set to *Enabled*, and then click **[Save]**.

Enabling the Ansible Run Book Automations

The "Ansible Automation" PowerPack includes two standard run book automation policies that you will need to enable, depending on which Ansible application you are monitoring:

- "Ansible:Command"
- "Ansible:Tower"

These policies update the SL1 event with the state of the associated Ansible Command or Ansible Tower.

To enable the run book automations:

1. In SL1, go to the **Automation** page (Registry > Run Book > Automation).
2. Locate the "Ansible:Command " automation policy and click its wrench icon (🔧). The **Automation Policy Editor** page appears.
3. Update the following fields:
    - **Policy State**. Select *Enabled*.
    - **Policy Priority**. Select *High* to ensure that this PowerFlow automation policy is added to the top of the queue.
    - **Available Actions**. If it is not already selected, select "Run Integration Service Application: Ansible:Command" (or "Ansible:Tower" for the "Ansible:Tower" automation policy) and click the arrows to move it to **Aligned Actions**.

> **WARNING:** ScienceLogic highly recommends that you do not make changes to the **Policy Type**, **Repeat Time**, or **Align With** fields or the *And event is NOT acknowledged* setting.

4. Click **[Save]**.
5. Repeat steps 2-4 for the "Ansible:Tower" run book automation policy.

Configuring PowerFlow

The following topics cover how to set up your PowerFlow instance to work with the "Ansible" SyncPack.

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 should make a copy of the "Sample Ansible Configuration" configuration object, which is the sample configuration file that was installed with the *Ansible* SyncPack.

> **TIP:** The "Sample Ansible Configuration" configuration object contains all of the required variables. Simply update the variables from that object to match your SL1 and Ansible settings.

To create a configuration object based on the "Sample Ansible Configuration" configuration object:

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

2. Click the **[Actions]** button ( ) for the "Sample Ansible Configuration" 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 the SL1 system the alerts will synchronize with.

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

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

    ◦ *ansible_url*. Enter the URL for your Ansible system.

- ○ *ansible_username*. Type the username for your Ansible system.

- ○ *ansible_password*. Type the password for your Ansible system.

- ○ *template_id*. Type the Ansible Tower template ID. This field is only required if you are monitoring an Ansible Tower.

- ○ *host_name*. Type the host name for your Ansible system.

- ○ *playbook*. Type the name of your Ansible playbook.

- ○ *inventory_id*. Type the Ansible Tower inventory ID. This field is only required if you are monitoring an Ansible Tower.

- ○ *credential_id*. Type the Ansible Tower credential ID. This field is only required if you are monitoring an Ansible Tower.

- ○ *ssh_username*. Type your SSH username.

- ○ *ssh_password*. Type your SSH password.

- ○ *host_name_status*. Toggle on (blue) to enter the host name status from the event details.

- ○ *ssh_pem_status*. Toggle on (blue) to enter the SSH status from the event details.

- ○ *ssh_pem*. Enter the RSA key for SSH connection and type "\n" before and after your RSA key.

- ○ *ssh_host*. Type your SSH host name.

- ○ *add_template*. Toggle the JSON editor to define a message for the description field in the SL1 event.

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

NOTE: For more information about the Ansible terms and concepts in this section, see the [Ansible documentation](#).

Aligning a Configuration Object and Configuring PowerFlow Applications

In PowerFlow, you will need to align the "Ansible" SyncPack 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.

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

If you want to use the following PowerFlow applications, you must schedule them. ScienceLogic recommends that you schedule the following PowerFlow applications:

- "Ansible Tower Job Status Update": Every five minutes
- "Clear SL1 Events": Every 10 minutes

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 create a schedule:

1. On the **Applications** page (🖿), click the **[Schedule]** button for the application you want to schedule. The **Scheduler** window appears.
2. In the **Schedule List** pane, click the down arrow icon (⌄) next to an existing schedule to view the details for that schedule.
3. In the **Schedule Creator** pane, complete the following fields for the default **Frequency** setting:
    - **Schedule Name**. Type a name for the schedule.
    - **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.
4. To use a cron expression, click the **Switch to Cron Expression** toggle to turn it blue. 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 *Runs app: "Every 0 and 30th minute past every hour on Sat"*, based on 0,30 in the *Minutes* field and 6 in the *Day of Week* field.

5. Click **[Save Schedule]**. The schedule is added to the **Schedule List** pane. Also, on the **Applications** page, the **[Schedule]** button now displays with a dark blue background:
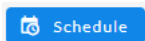
NOTE: After you create a schedule, it continues to run until you delete it. Also, you cannot edit an existing schedule, but you can delete it and create a similar schedule if needed.

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 **Scheduler** window appears.

2. Click the down arrow icon (∨) to view the details of an existing schedule.

3. To delete the selected schedule, click the Actions icon (⋮) and select**[Delete]**.

TIP: On the **Scheduler** window for a PowerFlow application, you can click the **[Copy as]** button from the **Schedule List** pane to make a copy of an existing schedule.

NOTE: When either multiple SL1 instances or multiple Ansible instances are involved with PowerFlow, you should create an individual configuration object for each SL1 or Ansible 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 Ansible 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.

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