

Infoblox Integrations

Infoblox: Inventory Synchronization PowerPack Version 1.0.0

Infoblox: Workflow Configuration PowerPack Version 100

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Chapter

1

Introduction to the Infoblox: Inventory Synchronization PowerPack

Overview

This chapter describes how you can use the *Infoblox: Inventory* Synchronization PowerPack to automatically synchronize IP addresses and devices between your Infoblox and SL1 systems. The integration is bidirectional, from SL1 to Infoblox.

NOTE: After the 2.1.0 platform release, the *Integration Service* was rebranded as *SL1 PowerFlow*, and the Automation Builder was rebranded as *SL1 PowerFlow builder*.

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

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Prerequisites for this Synchronization PowerPack

This Synchronization PowerPack requires the following:

A subscription that includes CMDB/Inventory workflow automations

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	Infoblox API	Any	TCP 443	Infoblox API Access
PowerFlow	SL1 Database	Any	TCP 7706	SL1 Database Access

Contents of the Synchronization PowerPack

This section lists the contents of the Infoblox: Inventory Synchronization PowerPack.

PowerFlow Applications

- Get Device List From Infoblox and Add To SL1. This application queries Infoblox for existing IP addresses
 and if an IP address does not exist in SL1, a discovery session will be triggered and the device will be added
 to SL1.
- Get Device List From SL1 Add To Infoblox. This application queries SL1 via discovery session for recently added devices. If a device does not exist in Infoblox, the IP address will be added to Infoblox.
- Get Mismatched IP List. This application queries both Infoblox and SL1 for matching device names. If a device in SL1 and Infoblox has the same name but different IP addresses, an event will be generated in SL1.
- **Update Infoblox Id**. This application queries both Infoblox and SL1 for existing devices in SL1 and matching IP addresses in Infoblox. SL1 devices that match an IP address in Infoblox are assigned an Infoblox ID in a custom attribute in SL1.

For more information about how to configure these applications, see *Configuring Applications for the Infoblox: Inventory Synchronization PowerPack*.

Configuration Object

- Infoblox 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 SL1, including the host, username, and password
 - O Details for connecting to Infoblox, including the URL, username, and password
 - Details for adding SL1 devices to Infoblox, including zone name, time period, and custom attribute
 - Details for adding Infoblox IP addresses to SL1, including organization ID, credentials, device group, device template, ports, and time period

Steps

The following steps are included in this Synchronization PowerPack:

- Active Discovery Session
- Add Data To Custom Attribute
- Add new Device To Infoblox
- Checking Infoblox Record
- · Checking Infoblox Id
- Create Custom Attribute
- Create Discovery Session
- Create SL1 Alert
- Get SL1 Device List
- Get Custom Attribute
- Get Device Details
- Get Discovery Session Log
- Get Infoblox Device Reference Id
- Get Infoblox Host List
- Get Infoblox Host Records
- Get IP List From Infoblox
- Get SL1 All Devices List
- Get SL1 Device Details
- Get SL1 Device List

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.
- 2. Click the [Product Downloads] tab and select PowerPack.
- 3. In the **Search PowerPacks** field, search for the Synchronization PowerPack and select it from the search results. The **Release Version** page appears.

- 4. On the [PowerPack Versions] tab, click the name of the Synchronization PowerPack version that you want to install. The Release File Details page appears.
- 5. Click the [**Download File**] button or click the name of the .**zip** file containing the .**whl** file for this Synchronization PowerPack to start downloading the file.

NOTE: Synchronization PowerPacks do not require a specific license. After you download a Synchronization PowerPack, you can import it to your PowerFlow system 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 Synchronization PowerPack release notes 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 Import SyncPack 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 activate and 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.

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

Chapter

2

Configuring Applications for the Infoblox: Inventory Synchronization PowerPack

Overview

This chapter describes how to set up the PowerFlow applications for the *Infoblox: Inventory*Synchronization PowerPack.

This chapter covers the following topics:

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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 Synchronization PowerPack, 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.

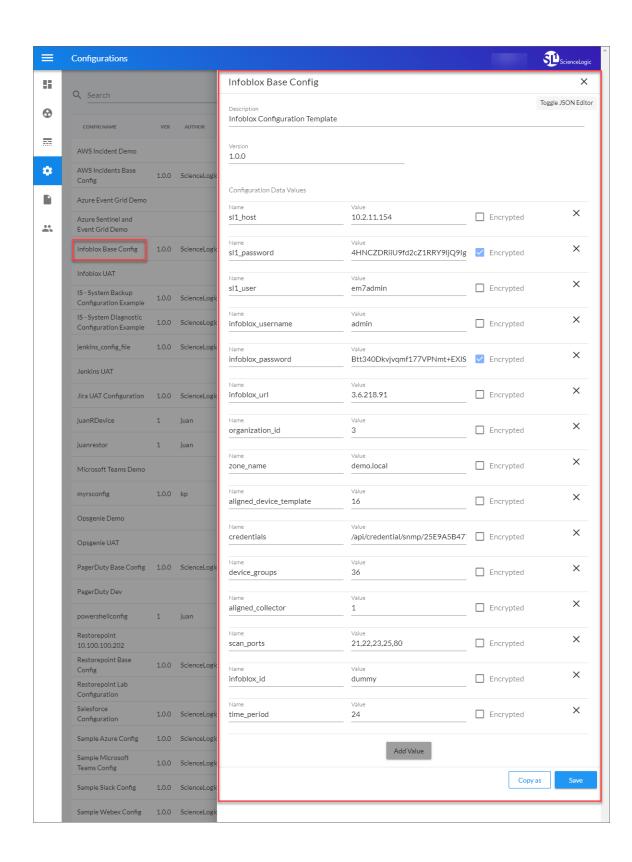
Creating a Configuration Object

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

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

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

- 1. In the PowerFlow user interface, go to the **Configurations** page (📚).
- 2. Click the [Actions] button () for the "Infoblox 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 the SL1 system the alerts will synchronize with.
 - sl1_user. Type the username for your SL1 system.
 - sl1 password. Type the password for your SL1 system.
 - infoblox username. Type the username for your Infoblox system.
 - infoblox password. Type the password for your Infoblox system.
 - infoblox url. Type the URL for your Infoblox system.
 - organization_id. Type the SL1 organization ID that you want recently discovered Inflobox IP addresses to be added to.
 - zone_name. Type the zone you want an SL1 device to be assigned when added to Infoblox.
 - aligned_device_template. Type the ID of the SL1 device template that you want recently discovered Infoblox IP addresses to use when added to SL1 using the following format, in which you replace [ID] with the device template ID:

```
/api/device tempalte/56
```

You can find your device template IDs on the Templates page (Devices > Templates).

• credentials. Type the credential type and list of SL1 credentials that you want to use using the following format, in which you replace [type] with the credential type and [ID] with the credential ID:

/api/credential/[type]/[ID]

The credentials field accepts the following credential type values:

- ° snmp
- o db
- ° soap
- o basic
- ° ssh
- o powershell

You can find your credential IDs on the Credential page (System > Manage > Credentials).

Examples: If the device has an SSH/Key credential with the ID 105, then you would type "/api/credential/ssh/105".

If the devices have a PowerShell and SOAP/XML credentials with the ID 100 and 120, then you would type "/api/credential/powershell/100,/api/credential/soap/120".

device_groups. Type the ID of the SL1 device group that you want recently discovered Inflobox IP
addresses to be added to in SL1 using the following format, in which you replace [ID] with the device
group ID:

/api/device group/[ID]

You can find your device group IDs on the Device Group page (Devices > Device Groups).

Example: If the device group you want to add Infoblox IP addresses to has the ID 10, then you would type "/api/device group/10".

- aligned_collector. Type the ID of the collector in SL1 that you want recently discovered Inflobox IP
 addresses to use when added to SL1.
- scan_ports. Type the list of ports that you want recently discovered Inflobox IP addresses to scan when added to SL1.
- *infoblox_id*. Type the name of the custom attribute you want to use when synchronizing SL1 devices and Infoblox IP addresses.
- *time_period*. Type the default time configuration in hours to synchronize your Infoblox IP addresses and SL1 devices.
- 9. Click [Save]. You can now align this configuration object with one or more applications.

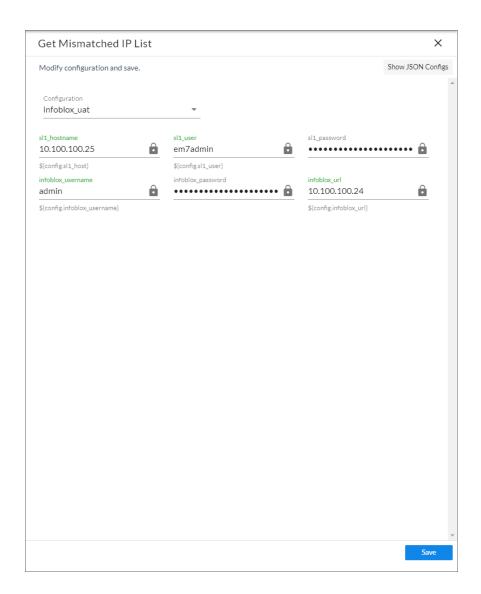
Aligning a Configuration Object and Configuring PowerFlow Applications

With this Synchronization PowerPack, any IP addresses discovered in Infoblox are added to SL1 and any devices discovered in SL1 are added to Infoblox. Any devices with the same name in SL1 and Infoblox that have different IP addresses will create an event in SL1. You will need to align the *Infoblox: Inventory Synchronization PowerPack* applications with the relevant configuration object in PowerFlow, and, if needed, update any other fields on the **Configuration** pane for the applications.

To run this Synchronization PowerPack, you must "align" the configuration object to run with the PowerFlow applications included in this Synchronization PowerPack.

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. Wait until you see the "App & Config modifications saved" pop-up message before proceeding.
- 5. Repeat this process for the other PowerFlow applications.

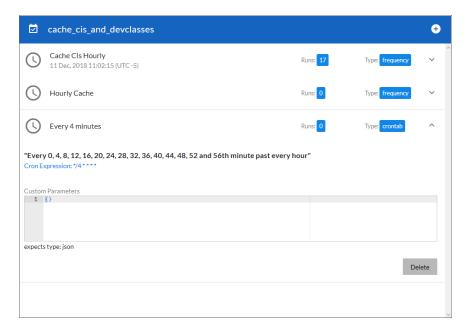
Scheduling PowerFlow Applications

To trigger the applications in the Synchronization PowerPack, you must schedule the applications included in the Synchronization PowerPack.

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.

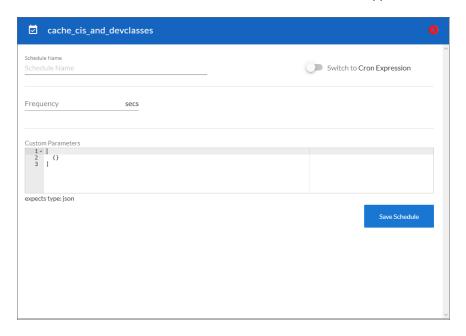
To schedule an application:

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:

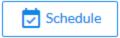


NOTE: If you set up a schedule using a cron expression, the details of that schedule display in a more readable format in this list. For example, if you set up a cron expression of */4 * * * *, the schedule on this window includes the cron expression along with an explanation of that expression: "Every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



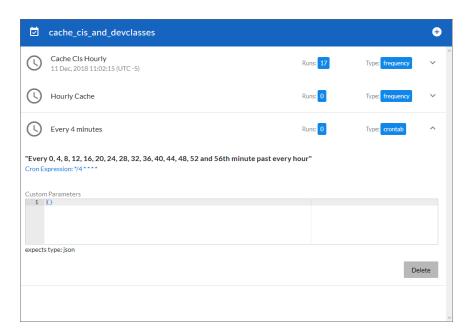
- 4. In the **Schedule** window, complete the following fields:
 - Schedule Name. Type a name for the schedule.
 - Switch to. Use this toggle to switch between a cron expression and setting the frequency in seconds.
 - Cron expression. Select this option to schedule the application using a cron expression. 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 * *
 - *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.

NOTE: When either multiple SL1 instances or multiple Infoblox instances are involved with PowerFlow, you should create an individual configuration object for each SL1 or Infoblox 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 Infoblox instance. Creating copies of a PowerFlow application from a Synchronization PowerPack for the purpose of distinguishing between domains is not supported, and will result in issues on upgrades.

Chapter

3

Introduction to the Infoblox: Workflow Configuration PowerPack

Overview

This chapter describes the event policy found in the Infoblox: Workflow Configuration PowerPack.

This Synchronization PowerPack requires a subscription that includes CMDB/Inventory workflow automations.

This chapter covers the following topics:

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What is the Infoblox: Workflow Configuration PowerPack?

The Infoblox: Workflow Configuration PowerPack includes one "Infoblox: Mismatched IP addresses" event policy. The "Infoblox: Mismatched IP addresses" event policy creates an event in SL1 when an SL1 and Infoblox device have the same name but different IP addresses.

For more information on enabling event policies, see the chapter on "Defining and Editing Event Policies" in the **Events** manual.

Installing the Infoblox: Workflow ConfigurationPowerPack

Before completing the steps in this manual, you must import and install the latest version of the *Infoblox:* Workflow Configuration PowerPack.

IMPORTANT: You must install and configure the Infoblox: Inventory Synchronization PowerPack version 1.0.0 before using the Infoblox: Workflow Configuration PowerPack.

NOTE: The *Infoblox*: Workflow Configuration PowerPack requires SL1 version 10.2.0 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.
- 2. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
- 3. In the **PowerPack Manager** page, click the **[Actions]** button, then select *Import PowerPack*.
- 4. The Import PowerPack dialog box appears:



- 5. Click the [Browse] button and navigate to the PowerPack file.
- 6. 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.

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