



Infoblox: Inventory SyncPack

Version 1.0.0

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Chapter

1

Introduction to the Infoblox: Inventory SyncPack

Overview

This chapter describes how you can use the "Infoblox: Inventory" SyncPack to synchronize IP addresses and devices between Infoblox and SL1. The integration is bidirectional, from SL1 to Infoblox. The SyncPack can raise an event in SL1 if an IP address mismatch occurs between a device monitored in SL1 and Infoblox.

This SyncPack uses the "Infoblox: Workflow Configuration" PowerPack.

This chapter covers the following topics:

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What Can I Do with this SyncPack?

The "Infoblox: Inventory" SyncPack lets you synchronize IP addresses and devices between Infoblox and SL1. The integration is bidirectional, from SL1 to Infoblox. The SyncPack can also raise an event in SL1 if an IP address mismatch occurs between a device monitored in SL1 and Infoblox.

This SyncPack includes the following integrations between Infoblox and SL1:

- **Use SL1 to discover Infoblox devices.** 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.
- **Look for recently added SL1 devices.** 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.
- **Check for mismatched IP addresses for synced devices.** 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 device IDs.** 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 SyncPack](#).

Contents of this SyncPack

This section lists the contents of the "Infoblox: Inventory" SyncPack.

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 SyncPack](#).

Configuration Object

- **Infoblox Base Config.** 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 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 SyncPack:

- 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

Chapter

2

Introduction to the Infoblox: Workflow Configuration PowerPack

Overview

This chapter explains how to install the "Infoblox: Inventory" SyncPack and the "Infoblox: Workflow Configuration" PowerPack.

This chapter covers the following topics:

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Prerequisites for the SyncPack

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

Installing the SyncPack

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

Downloading the SyncPack

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

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.

Installing the Infoblox: Workflow Configuration PowerPack

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

NOTE: The "Infoblox: Workflow Configuration" PowerPack requires SL1 version 10.2.0 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 Applications for the Infoblox: Inventory SyncPack

Overview

This chapter describes how to set up the PowerFlow applications for the "Infoblox: Inventory" SyncPack, and how to configure the event policy from the "Infoblox: Workflow Configuration" PowerPack.

This chapter covers the following topics:

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Workflow for Configuring the SyncPack

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

Configuring SL1

1. [Enable the Infoblox event policy](#)

Configuring PowerFlow

1. [Create and align a PowerFlow configuration object](#)
2. [Align a configuration object and configure the Infoblox PowerFlow applications](#)
3. [Schedule the PowerFlow applications](#)

Configuring SL1

The following topic covers how to set up your SL1 instance to work with the "Infoblox: Inventory" SyncPack.

Enabling the Infoblox Event Policy


The "Infoblox: Workflow Configuration" PowerPack includes the "Infoblox: Mismatched IP address" event policy, which check to see if the IP address is mismatched between the device in SL1 and the Infoblox host record. If a mismatch exists, the policy triggers an event in SL1 with the relevant details.

To enable the event policy:

1. In SL1, go to the **Event Policies** page (Events > Event Policies).
2. Click the check box for the "Infoblox: Mismatched IP address" event policy. A row of buttons appear at the top of the list.
3. Click **[Enable]**. The Status for the policy is updated to "Enabled".

Configuring PowerFlow

Creating a Configuration Object



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.

For this SyncPack, 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" SyncPack.

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 Infoblox 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_template/[ID]`
- 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
- db
- soap
- basic
- ssh
- powershell

You can find your credential IDs on the **Credentials** page (Manage > Credentials). For example, 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 Infoblox 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). For 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 Infoblox IP addresses to use when added to SL1.
- **scan_ports**. Type the list of ports that you want recently discovered Infoblox 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.

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

Aligning a Configuration Object and Configuring PowerFlow Applications

You will need to align the "Infoblox: Inventory" SyncPack applications with the relevant configuration object in PowerFlow, and, if needed, update any other fields on the **Configuration** pane for the applications:

- "Get Device List From Infoblox and Add To SL1"
- "Get Device List From SL1 Add To Infoblox"
- "Get Mismatched IP List"
- "Update Infoblox Id"

To align the configuration object with the relevant PowerFlow applications:

1. On the **Applications** page of the PowerFlow user interface, open one of the Infoblox PowerFlow applications 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. Update any of the remaining fields on the **Configurations** pane as needed.
4. Click **[Save]** to align that configuration with the application.
5. Repeat steps 1-4 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 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:

The screenshot shows the 'Schedule Creator' window with a 'Switch to Frequency in Seconds' toggle turned on. An information box at the top says 'For more information about schedules, see [schedules documentation](#).' Below this, the 'Schedule Name' field contains 'Saturday Schedule'. A note indicates 'A unique name for the new schedule.' The 'Cron Expression key operators' section shows buttons for '*' (any value), ',' (list separator), '-' (range of values), and '/' (step values). The configuration fields are: Minutes (0,30), Hours (*), Day of Month (*), Month (*), and Day of Week (6). Below these fields, the 'Runs app:' section displays the generated cron expression: 'Every 0 and 30th minute past every hour on Sat' (UTC -4), with a note 'Derived from given values in fields above.' The 'Custom Parameters (Optional)' section is empty. At the bottom, there are 'Close' and 'Save Schedule' buttons.

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 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 SyncPack for the purpose of distinguishing between domains is not supported, and will result in issues on upgrades.

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