Getting Started

For an overview of SL1 PowerFlow, see the ***SL1 PowerFlow Platform*** manual:

- *PDF version*
- *Web version*

Installation

Important Installation Information

The PowerFlow platform does not have a specific minimum required version for SL1 or AP2. However, certain SyncPacks for PowerFlow have minimum version dependencies, which are listed on the *Dependencies for SL1 PowerFlow SyncPacks* page.

Ports

The following table lists the PowerFlow ingress requirements:

Source	Port	Purpose
SL1 host	443	SL1 run book actions and connections to PowerFlow
User client	3141	Devpi access
User client	443	PowerFlow API
User client	5556	Dex Server: enable authentication for PowerFlow
User client	8091	Couchbase Dashboard
User client	15672	RabbitMQ Dashboard
User client	22	SSH access

The following table lists the PowerFlow egress requirements:

Destination	Port	Purpose
SL1 host	7706	Connecting PowerFlow to SL1Database Server
SL1 host	443	Connecting PowerFlow to SL1 API

Additional Considerations

Review the following list of considerations and settings before installing PowerFlow:

- ScienceLogic highly recommends that you disable all firewall session-limiting policies. Firewalls will drop HTTPS requests, which results in data loss.

- Starting with PowerFlow version 3.0.0, the minimum storage size for the initial partitions is 75 GB. Anything less will cause the automated installation to stop and wait for user input. You can use the tmux application to navigate to the other panes and view the logs. In addition, at 100 GB and above, **PowerFlow** will no longer allocate all of the storage space, so you will need to allocate the rest of the space based on your specific needs.
- PowerFlow clusters do not support vMotion or snapshots while the cluster is running. Performing a vMotion or snapshot on a running PowerFlow cluster will cause network interrupts between nodes, and will render clusters inoperable.
- The site administrator is responsible for configuring the host, hardware, and virtualization configuration for the PowerFlow server or cluster. If you are running a cluster in a VMware environment, be sure to install open-vm-tools and disable vMotion.
- You can configure one or more SL1 systems to use PowerFlow to sync with a *single* instance of a third-party application like ServiceNow or Cherwell. You cannot configure one SL1 system to use PowerFlow to sync with *multiple* instances of a third-party application like ServiceNow or Cherwell. The relationship between SL1 and the third-party application can be either one-to-one or many-to-one, but not one-to-many.
- The default internal network used by PowerFlow services is **172.21.0.1/16**. Please ensure that this range does not conflict with any other IP addresses on your network. If needed, you can change this subnet in the **docker-compose.yml** file.

For more information about system requirements for your PowerFlow environment, see the System Requirements page at the ScienceLogic Support site at https://support.sciencelogic.com/s/system-requirements.

IMPORTANT: You should always upgrade to the most recent release of PowerFlow.

What's New

SL1 PowerFlow Platform version 3.1.0 addresses several issues and adds multiple user interface improvements for PowerFlow, including indicators for the number of schedules for an application, a persistent footer at the bottom of PowerFlow with system information, and an "Export to CSV" option for SyncPacks.

For full details, see the release notes for SL1 PowerFlow Platform 3.1.0.

Documentation "Known Issues"

This release contains the following known issues:

- The journald volatile storage takes part of the memory based on the environment memory size, which might cause undesired behavior in environments where the memory is highly used by PowerFlow services. PowerFlow uses journald volatile storage, which means that all logs are kept only in memory. (Case: 00347339)
    - To check the size of journal logs on a single PowerFlow node, run the following command:

```
du -sh /run/log/journal
```

You can clear logs with the following command (this is automatically done when you run the **healthcheck** action):

```
journalctl --vacuum-time=7d
```

You can also configure journald logs settings by using the following command to enforce small size and time limits:

```
sudo sed -i -e '/RuntimeMaxUse=/s/.*/RuntimeMaxUse=800M/' -e
'/MaxRetentionSec/s/.*/MaxRetentionSec=2week/'
/etc/systemd/journald.conf && sudo systemctl restart systemd-
journald
```

NOTE: PowerFlow updates journald volatile limits to the following values, which can be changed if you want retain fewer or more logs:

`RuntimeMaxUse=800M`

`MaxRetentionSec=2week`

- When upgrading to Couchbase version 6.6.0 (PowerFlow later than 2.6.0) from PowerFlow versions earlier than 2.6.0, the number of documents in the logs bucket could make the upgrade take longer, as a namespace upgrade is needed. ScienceLogic recommends that you flush the logs bucket if there are more than 300,000 documents that are taking up close to 2 GB of space in every node. Flushing the logs bucket will speed up the upgrade process. Otherwise, migrating a logs bucket of that size would take two to three minutes per node.

  Run the following command to flush the logs bucket after the PowerFlow RPM is installed, but before redeploying the PowerFlow Stack:

  ```
  pfctl --host <hostname><username>:<password> node-action --action
  flush_logs_bucket
  ```

  Alternately, you can flush the logs bucket manually using the Couchbase user interface.

- If you get the "Error: No such option: --version Did you mean --json?" error message when running the `pfctl --version command`, you might have an older version of pfctl that was installed as a different user. To resolve this, be sure to install the powerflowcontrol (pfctl) utility version 3.0.7 or later as root with sudo, and remove any other versions installed by other users (isadmin or ec2-user): (Case: 00360512)

  ```
  su isadmin
  ```

  ```
  pip3 uninstall -y iservicecontrol
  ```

- To avoid authentication issues, do not use the dollar sign ($) character in any part of passwords related to PowerFlow.
- The **Workflow Health and Interconnectivity** widget on the **PowerFlow Control Tower** page displays diagrams for PowerFlow applications and SyncPacks that have been deleted. To work around this issue, run

the "PowerFlow Control Tower HealthCheck" application or wait for the next scheduled run of the application.

- If your PowerFlow system uses self-signed certificates, you will need to manually accept the certificate before you can upload SyncPacks. Go to **https://*<IP address of PowerFlow>*:3141/isadmin**, accept the certificate, and then log into PowerFlow. After you log in, you will be able to upload SyncPacks.
- The `latest` tag does not exist after the initial ISO installation. This situation only affects users with custom services that point to the `latest` tag. To work around this issue, run the tag latest script manually after running the `./pull_start_iservices.sh` command:

```
python /opt/iservices/scripts/system_updates/tag_latest.py
/opt/iservices/scripts/docker-compose.yml
```