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. However, certain PowerFlow SyncPacks have minimum version dependencies, which are listed on the *Dependencies for SL1 PowerFlow SyncPacks* page.

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 SL1 Database Server
SL1 host	443	Connecting PowerFlow to SL1 API

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

Additional Information

CAUTION: 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.

CAUTION: 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.

IMPORTANT: You can configure one or more SL1 systems to use PowerFlow to sync with a *single* instance of a third-party application like ServiceNow, Restorepoint, 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.

NOTE: 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.

NOTE: The PowerFlow operating system is an Oracle Linux distribution, and all patches are provided within the standard Oracle Linux repositories. The patches are not provided by ScienceLogic.

TIP: 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 3.0.0 includes updates and enhancements to certify the platform as compliant for Military Unique Deployment (MUD). This release also enables you to migrate the operating system to Oracle Linux 8 (OL8).

For full details, see the release notes for SL1 PowerFlow Platform 3.0.0.

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)

Total Memory	Maximum memory used by journald
16 GB	About 800 MB
24 GB	About 1.2 GB
32 GB	About 1.6 GB
64 GB	About 3.2 GB

To check the size of journal logs on any PowerFlow version 2.2.x or later single node, run the following command:

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

For PowerFlow version 2.2.x, you can control those settings by updating the **/etc/docker/daemon/json** file and setting the `log-opts` max size in the `json-file` logging driver. For more information, see https://docs.docker.com/config/containers/logging/json-file/.

For PowerFlow version 2.3 or later nodes, 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, 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 version 2.6.0 RPM was 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 2.7.7 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
```

- For upgrades from PowerFlow version 2.2.x systems that have the **localpkg_gpgcheck=1** option enabled in **/etc/yum.conf**, the SL RPM Public Key is required. Please contact your ScienceLogic Customer Success Manager (CSM) or create a new Service Request case at https://support.sciencelogic.com/s in the "PowerFlow" category to request access to that key.

- To avoid authentication issues, do not use the dollar sign ($) character as the first character in any of the passwords related to PowerFlow. You can use the $ character elsewhere in the password if needed.
- In PowerFlow version 2.4.0 and later, if you enabled the latest authentication updates for the backend services, the RabbitMQ API is no longer available externally from the cluster. As a result, remote API requests directly to RabbitMQ might not work (the RabbitMQ user interface is still completely operational). As a workaround, if you require remote access to the RabbitMQ API, you can return to legacy behavior by setting the following **gui** environment variable: `force_auth_validation: true`. Alternatively, you may perform any api requests to rabbit directly from within the container. Remote RabbitMQ API access for internal authentication users will be enabled in a future release of 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
```

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