

Kubernetes: SL1 Dashboards PowerPack Release Notes

Version 100

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Overview

Version 100 is the initial version of the *Kubernetes: SL1 Dashboards* PowerPack. Version 100 includes Dashboards that present graphical representations of the configuration data and performance metrics that are collected for Kubernetes devices by the *Kubernetes* PowerPack.

NOTE: These dashboards are intended for use only in the new SL1 user interface and will not load in the classic ScienceLogic platform user interface.

• Minimum Required SL1 Version: 8.8.0

• Minimum Required AP2 Version: 5.114.6

Minimum Required Widget Components Version: 2.168.10

• Minimum Required Kubernetes PowerPack Version: 100

• Support Status: Beta

This document describes:

- Pre-install information
- The installation process for the PowerPack
- The features included in version 100
- The known issues in Version 100

Before You Install

Before installing the *Kubernetes*: *SL1 Dashboards* PowerPack version 100, you must first ensure that you are running version 8.8.0 or later of SL1, AP2 version 5.114.6 or later, and Widget Components version 2.168.10 or later.

NOTE: For details on upgrading SL1, see the appropriate SL1 Release Notes.

You must also import and install the *Kubernetes* PowerPack version 100 or later before installing the *Kubernetes*: *SL1 Dashboards* PowerPack version 100.

Installation Process

To install version 100 of the Kubernetes: SL1 Dashboards PowerPack, perform the following steps:

- 1. Familiarize yourself with the *Known Issues* for this release.
- 2. If you have not done so already, upgrade your SL1 system to the 8.8.0 or later release.
- 3. If you have not done so already, install the Kubernetes PowerPack version 100 or greater.
- 4. Download version 100 of the *Kubernetes: SL1 Dashboards* PowerPack from the Customer Portal to a local computer.
- Go to the PowerPack Manager page (System > Manage > PowerPacks). Click the [Actions] menu and choose Import PowerPack. When prompted, import version 100 of the Kubernetes: SL1 Dashboards PowerPack.
- 6. After importing the PowerPack, you will be prompted to install the PowerPack. Click the **[Install]** button to install the PowerPack.

Included Features

The following dashboards are included in version 100 of the Kubernetes: SL1 Dashboards PowerPack:

- A "Kubernetes: Cluster" dashboard, which includes the following widgets that display overview data about your Kubernetes clusters:
 - Kubernetes Clusters
 - Number of CPUs
 - Number of Controllers
 - Total Number of Nodes
 - Number of Pods
 - Number of SL1 Devices
 - o Total Ready Nodes
 - o Pod Lifetime
 - Top 10 Host Nodes by CPU Utilization
 - Selected Node CPU Utilization
 - Host Nodes by Running Containers
 - Selected Node Running/Stopped Containers
 - Container Nodes by TCP Segments
 - Selected TCP Segments Transmitting/Receiving
 - Selected Container Transmitting/Receiving Dropped

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- A "Kubernetes: Namespace" dashboard, which includes the following widgets that display data about your Kubernetes namespaces:
 - Kubernetes Namespace Folders
 - Selected Folder Namespace List
 - Selected CPU Utilization Analysis
 - Selected Memory Utilization Analysis
 - o Top 10 Page Faults
 - Selected Page Faults
 - o Top 10 Major Page Faults
 - o Selected Major Page Faults
 - o Top 10 Memory Utilization
 - Selected Memory Utilization
- A "Kubernetes: Namespaces Folder" dashboard, which includes the following widgets that display data about your Kubernetes namespace folders:
 - Namespace Folder List
 - Selected Namespace List
 - Selected Namespace CPU
 - Selected Namespace Memory
 - o Top 10 Selected Controller CPU
 - o Top 10 Selected Controller Memory
 - Selected Namespace Page Faults
 - Selected Namespace Major Page Faults

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- A "Kubernetes: Node" dashboard, which includes the following widgets that display data about your Kubernetes nodes:
 - Kubernetes Cloud
 - Kubernetes Nodes
 - Number of Pods
 - o Average Containers per Pod
 - o CPU Utilization
 - Memory Utilization
 - Number of Containers
 - Top 10 Interfaces by Inbound Packets
 - Selected Interfaces Packets In/Out
 - Top 10 Node Images by CPU Utilization
 - Selected CPU Utilization
 - o Top 10 File Systems by Utilization
 - Selected File Systems by Utilization

Known Issues

The following known issue affects Kubernetes: SL1 Dashboards PowerPack version 100:

- Dashboard widgets might be slow to load or display red bells. If this occurs, you can do the following to address the issue:
 - 1. Start an SSH session into your SL1 appliance.
 - 2. At the shell prompt, enter the following to open the em7 limits.conf file for editing:

```
cd /etc/nginx/conf.d
sudo cp em7_limits.conf em7_limits.conf.backup
sudo vi em7 limits.conf
```

3. Locate the line that begins with "limit req zone=addr req" and update it to the following:

```
limit_req zone=addr_req burst=5000 nodelay;
```

4. Locate the lines that begin with "limit conn" and update them to the following:

```
limit_conn perip 10000;
limit conn perserver 10000;
```

5. Restart nginx. To do this, enter the following at the shell prompt:

```
sudo systemctl restart nginx
```

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- Dashboards might not appear immediately in the SL1 user interface after you import the *Kubernetes: SL1 Dashboards* PowerPack using the PowerPack Importer. If this occurs, you can do the following to address the issue:
 - 1. Type the following URL into your web browser:

```
https://<hostname or ip>/gql?query=mutation%20%7B%20importContentObjectsFromPowerPackQueue%20%7D%0 A
```

- 2. When prompted, enter your user credentials.
- 3. Click the GraphQL "play" button. If successful, a "true" message appears in the right-hand panel.
- 4. Verify that the dashboards now appear by returning to the **Dashboards** page and refreshing your web browser.

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