Kubernetes PowerPack Release Notes

Version 100

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Overview

Version 100 is the initial version of the *Kubernetes* PowerPack. Version 100 includes Dynamic Applications, Event Policies, Device Classes, Dashboards, sample Credentials, and Run Book Action/Automation policies that enable you to monitor Kubernetes resources.

- **Minimum Required Platform Version**: 8.7.1.2
- **Support Status**: Beta

This document describes:

- *Pre-install information*
- *The installation process for the PowerPack*
- *The features included in version 100*

Before You Install

Ensure that you are running version 8.7.1.2 or later of the ScienceLogic platform before installing the *Kubernetes* PowerPack version 100.

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

In addition, before installing the *Kubernetes* PowerPack version 100, you must first import and install the *Linux Base Pack* PowerPack version 101 or greater and the *Docker* PowerPack version 102 or greater. The *Kubernetes* PowerPack leverages both of these PowerPacks and will not work properly if they are not also installed.

Installation Process

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

1. If you have not done so already, upgrade your system to the 8.7.1.2 or later release.
2. If you have not done so already, install the *Linux Base Pack* PowerPack version 101 or greater and the *Docker* PowerPack version 102 or greater.
3. Download version 100 of the *Kubernetes* PowerPack from the Customer Portal to a local computer.
4. 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* PowerPack.
5. After importing the PowerPack, you will be prompted to install the PowerPack. Click the **[Install]** button to install the PowerPack.
6. See the manual ***Monitoring Kubernetes*** for instructions on using the new PowerPack.

Included Features

The following features are included in version 100 of the *Kubernetes* PowerPack:

- Dynamic Applications to discover and monitor Kubernetes devices:
    - Kubernetes: Cluster Creation
    - Kubernetes: Cluster Performance
    - Kubernetes: Component Count
    - Kubernetes: Component Status
    - Kubernetes: Controller Discovery
    - Kubernetes: Controller Performance
    - Kubernetes: Docker Aggregate Container Performance
    - Kubernetes: Label Topology Cache
    - Kubernetes: Label Topology Discovery
    - Kubernetes: Namespace Discovery
    - Kubernetes: Namespace Folder Discovery
    - Kubernetes: Node Configuration
    - Kubernetes: Node Discovery
    - Kubernetes: Pod Configuration
    - Kubernetes: Pod Performance (Node)

NOTE: The Dynamic Applications in the *Kubernetes* PowerPack also create device component map relationships between each controller device and its underlying Docker container.

- Device Classes for each of the Kubernetes devices the *Kubernetes* PowerPack can monitor:
    - Kubernetes App Tiers
    - Kubernetes Applications
    - Kubernetes Clusters
    - Kubernetes Cronjobs
    - Kubernetes Daemon Sets
    - Kubernetes Deployments
    - Kubernetes Deployment Environments
    - Kubernetes Docker Containers
    - Kubernetes Docker (Virtual) Containers
    - Kubernetes Environments

    - Kubernetes Jobs
    - Kubernetes Master Nodes
    - Kubernetes Namespaces
    - Kubernetes Namespace Folders
    - Kubernetes Nodes
    - Kubernetes Production Environments
    - Kubernetes Regions
    - Kubernetes Replication Controllers
    - Kubernetes Replication Sets
    - Kubernetes Stateful Sets
- Event Policies and corresponding alerts that are triggered when Kubernetes devices meet certain status criteria
- A Dashboard and Dashboard Widget that you must use to create Credentials for discovering Kubernetes devices
- An SSH/Key Credential that the Kubernetes Token Entry Dashboard uses as a template for creating additional SSH/Key Credentials for monitoring Kubernetes clusters

NOTE: You must use the Kubernetes Token Entry Dashboard that is included in the *Kubernetes*PowerPack to create a master SSH/Key Credential, a node SSH/Key Credential, and a SOAP/XML Credential that enables you to specify the Kubernetes device topology that you want to discover. For more information, see the ***Monitoring Kubernetes*** manual.

NOTE: You must not edit the SSH/Key Credential that is included in the *Kubernetes* PowerPack.

- Run Book Action and Automation policies that do the following:
    - Automatically create Kubernetes clusters whenever the ScienceLogic platform discovers a Kubernetes host
    - Align Dynamic Applications from the *Docker* and *Linux Base Pack* PowerPacks to Kubernetes nodes and report back to the ScienceLogic Data Collector or All-in-One Appliance if the Dynamic Applications were successfully aligned
    - Ensure that Namespaces (and their children) have a 1-hour vanishing timer, to properly reflect topology changes

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