Kubernetes: SL1 Dashboards

Kubernetes: SL1 Dashboards PowerPack version 100

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Chapter 1

Introduction

Overview

This manual describes the dashboards and widgets that are included in the *Kubernetes: SL1 Dashboards* PowerPack.

The following sections provide an overview of the *Kubernetes: SL1 Dashboards* PowerPack:

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Kubernetes: SL1 Dashboards PowerPack Contents

The *Kubernetes: SL1 Dashboards* PowerPack includes Dashboards that present summary information about Kubernetes devices that are monitored in SL1 with 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.

NOTE: The *Kubernetes: SL1 Dashboards* PowerPack requires a minimum AP2 version of 5.114.6 and minimum widget components version of 2.168.10.

Installing the Required PowerPacks

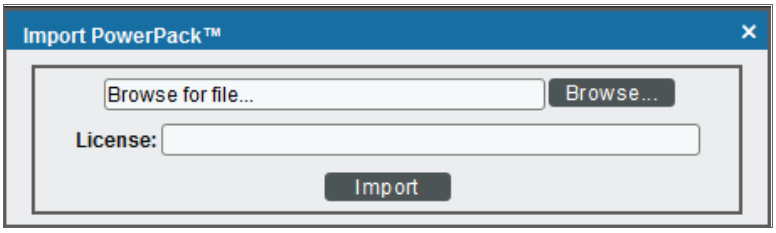
The *Kubernetes: SL1 Dashboards* PowerPack includes dashboards that present Kubernetes device data that is collected by the *Kubernetes* PowerPack. Therefore, before completing the steps in this manual, you must import and install the following PowerPacks:

- *Kubernetes* PowerPack version 100 or greater
- *Kubernetes: SL1 Dashboards* PowerPack version 100

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 a PowerPack:

1. Download the PowerPack from the ScienceLogic Customer Portal.
2. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
3. In the **PowerPack Manager** page, click the **[Actions]** button, then select *Import PowerPack*.
4. The **Import PowerPack** dialog box appears:



5. Click the **[Browse]** button and navigate to the PowerPack file.
6. When the **PowerPack Installer** modal page appears, click the **[Install]** button to install the PowerPack.

NOTE: If you exit the **PowerPack Installer** modal page without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPack Manager** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal page. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

Chapter 2

Viewing the Kubernetes SL1 Dashboards

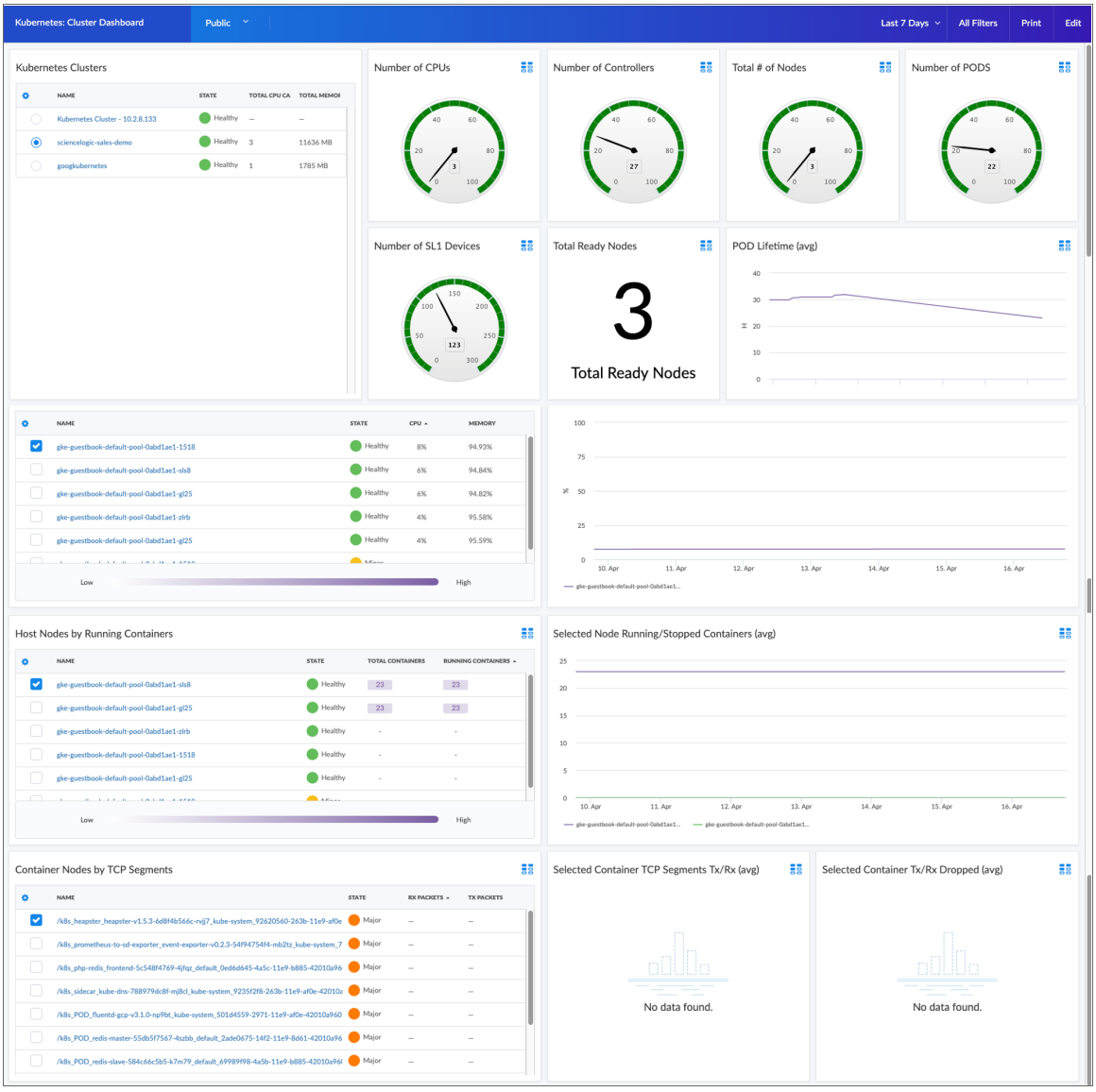
Overview

The following sections describe the dashboards and widgets that are included in the *Kubernetes: SL1 Dashboards* PowerPack:

Kubernetes: Cluster Dashboard 6
Kubernetes: Controller Folder Dashboard 7
Kubernetes: Namespace Dashboard 8
Kubernetes: Namespaces Folder Dashboard 10
Kubernetes: Node Dashboard 11

Kubernetes: Cluster Dashboard

The "Kubernetes: Cluster" dashboard provides overview data about your Kubernetes clusters. It includes the following widgets:

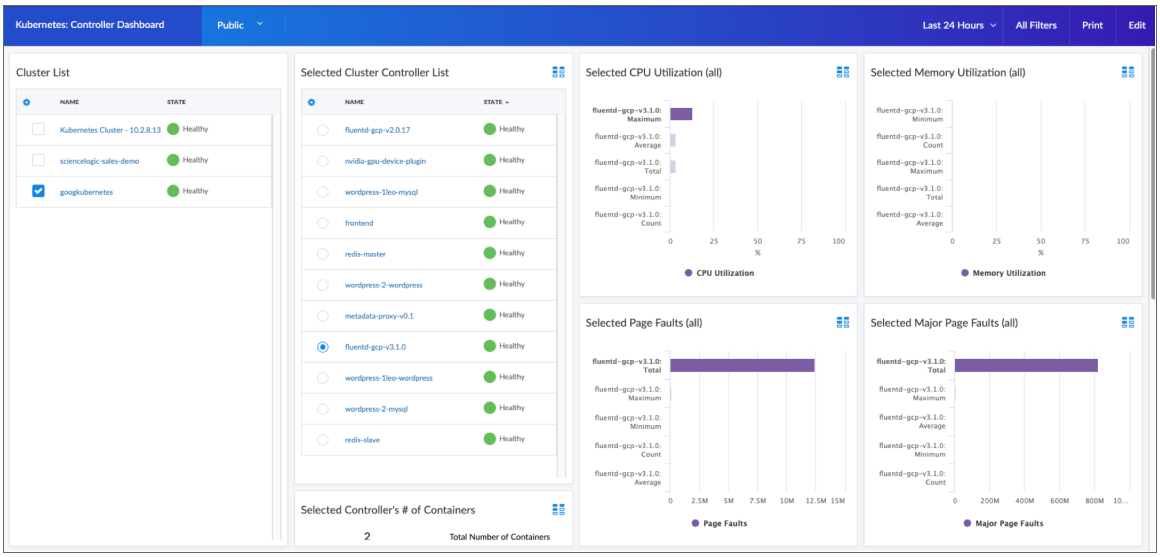


- ***Kubernetes Clusters.*** A list of available Kubernetes clusters that displays the device ID and current health state for each cluster. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a cluster, select its checkbox. You can select more than one cluster at a time.
- ***Number of CPUs.*** A gauge displaying the number of CPUs for the selected cluster during the selected time period.

- ***Number of Controllers.*** A gauge displaying the number of controllers for the selected cluster during the selected time period.
- ***Total Number of Nodes.*** A gauge displaying the total number of nodes for the selected cluster during the selected time period.
- ***Number of Pods.*** A gauge displaying the number of pods for the selected cluster during the selected time period.
- ***Number of SL1 Devices.*** A gauge displaying the number of SL1 devices for the selected cluster during the selected time period.
- ***Total Ready Nodes.*** A number displaying the total ready nodes for the selected cluster during the selected time period.
- ***Pod Lifetime.*** A graph displaying the average pod lifetime in hours (H) for the selected cluster during the selected time period.
- ***Top 10 - Host Nodes by CPU Utilization.*** A list of the top 10 host nodes based on CPU utilization. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a host node, select its checkbox. You can select more than one host node at a time.
- ***Selected Node CPU Utilization.*** A graph displaying the percentage of CPU utilization for the selected host node during the selected time period.
- ***Host Nodes by Running Containers.*** A list of available host nodes based on running containers. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a host node, select its checkbox. You can select more than one host node at a time.
- ***Selected Node Running/Stopped Containers.*** A graph displaying the average number of running and stopped containers for the selected host node during the selected time period.
- ***Container Nodes by TCP Segments.*** A list of available container nodes based on TCP segments. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a container node, select its checkbox. You can select more than one container node at a time.
- ***Selected TCP Segments Transmitting/Receiving.*** A graph displaying the average number of TCP segments transmitting and receiving for the selected container node during the selected time period.
- ***Selected Container Transmitting/Receiving Dropped.*** A graph displaying the average number of TCP segments transmitting and receiving dropped for the selected container node during the selected time period.

Kubernetes: Controller Folder Dashboard

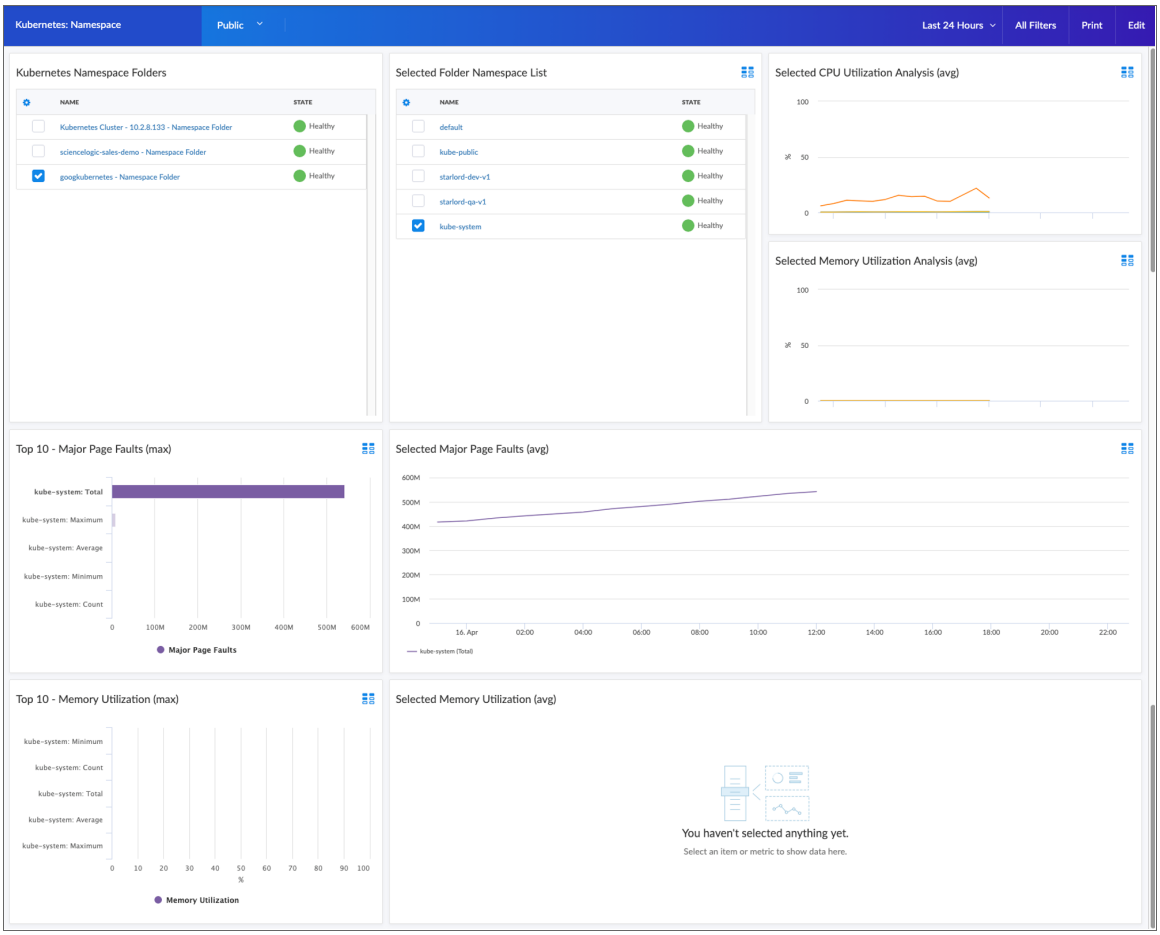
The "Kubernetes: Controller Folder" dashboard provides data about the health of your Kubernetes controllers. It includes the following widgets:



- ***Cluster List.*** A list of available clusters that displays the device ID and current health state for each cluster. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a cluster, select its checkbox. You can select more than one cluster at a time.
- ***Selected Cluster Controller List.*** A list of controllers based on the selected cluster. This "leaderboard" widget controls what data appears in the other widgets. To view additional statistics for a controller, click its name.
- ***Selected Controller's Number of Containers.*** A number displaying the total number of containers for the selected controller during the selected time period.
- ***Selected CPU Utilization.*** A list and graph displaying the percentage of CPU utilization for the selected cluster controller during the selected time period.
- ***Selected Memory Utilization.*** A list and graph displaying the percentage of memory utilization for the selected cluster controller during the selected time period.
- ***Selected Page Faults.*** A list and graph displaying the number of page faults for the selected cluster controller during the selected time period.
- ***Selected Major Page Faults.*** A list and graph displaying the major page faults for the selected cluster controller during the selected time period.

Kubernetes: Namespace Dashboard

The "Kubernetes: Namespace" dashboard provides data about the Kubernetes namespaces. It includes the following widgets:

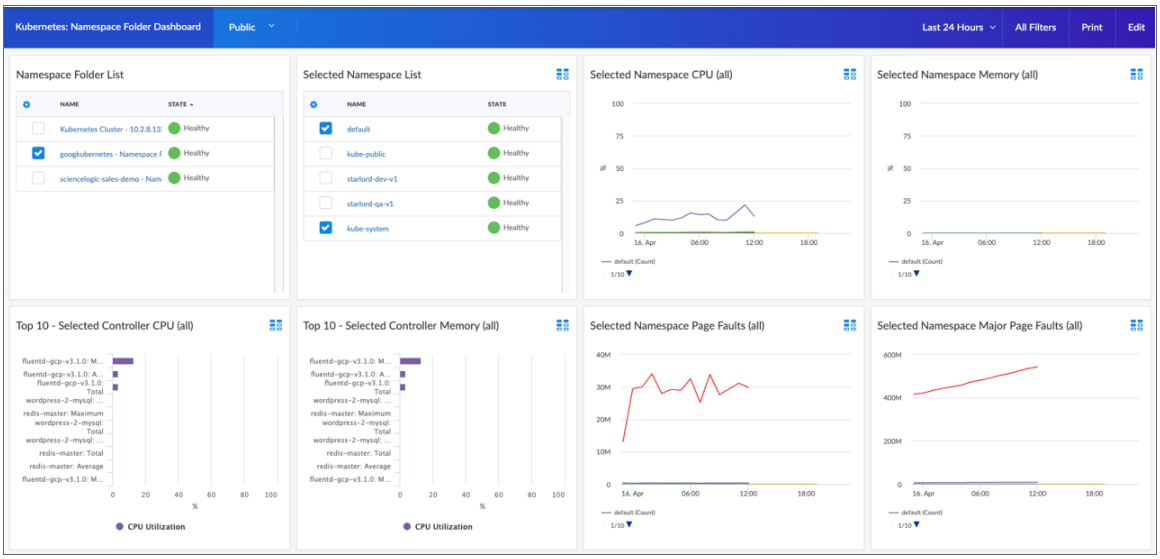


- ***Kubernetes Namespace Folders.*** A list of available Kubernetes namespace folders that displays the device ID and current health state for each folder. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a folder, select its checkbox. You can select more than one folder at a time.
- ***Selected Folder Namespace List.*** A list of namespaces based on the selected folder. This "leaderboard" widget controls what data appears in other widgets. To view dashboard data for a namespace, select its checkbox. You can select more than one namespace at a time.
- ***Selected CPU Utilization Analysis.*** A graph displaying the average percentage of CPU utilization for the selected namespace during the selected time period.
- ***Selected Memory Utilization Analysis.*** A graph displaying the average percentage of memory utilization for the selected namespace during the selected time period.
- ***Top 10 - Page Faults.*** A list of the top 10 namespaces based on maximum page faults. This "leaderboard" widget controls what data appears in the other widgets. To view additional page fault statistics for a namespace, click its name.
- ***Selected Page Faults.*** A graph displaying the average number of page faults for the selected namespace during the selected time period.

- ***Top 10 - Major Page Faults.*** A list of the top 10 namespaces based on maximum major page faults. This "leaderboard" widget controls what data appears in the other widgets. To view additional page fault statistics for a namespace, click its name.
- ***Selected Major Page Faults.*** A graph displaying the average number of major page faults for the selected namespace during the selected time period.
- ***Top 10 - Memory Utilization.*** A list of the top 10 namespaces based on maximum memory utilization. This "leaderboard" widget controls what data appears in the other widgets. To view additional memory utilization statistics for a namespace, click its name.
- ***Selected Memory Utilization.*** A graph displaying the average percentage of memory utilization for the selected namespace during the selected time period.

Kubernetes: Namespaces Folder Dashboard

The "Kubernetes: Namespaces Folder" dashboard provides data about your Kubernetes namespace folders. It includes the following widgets:

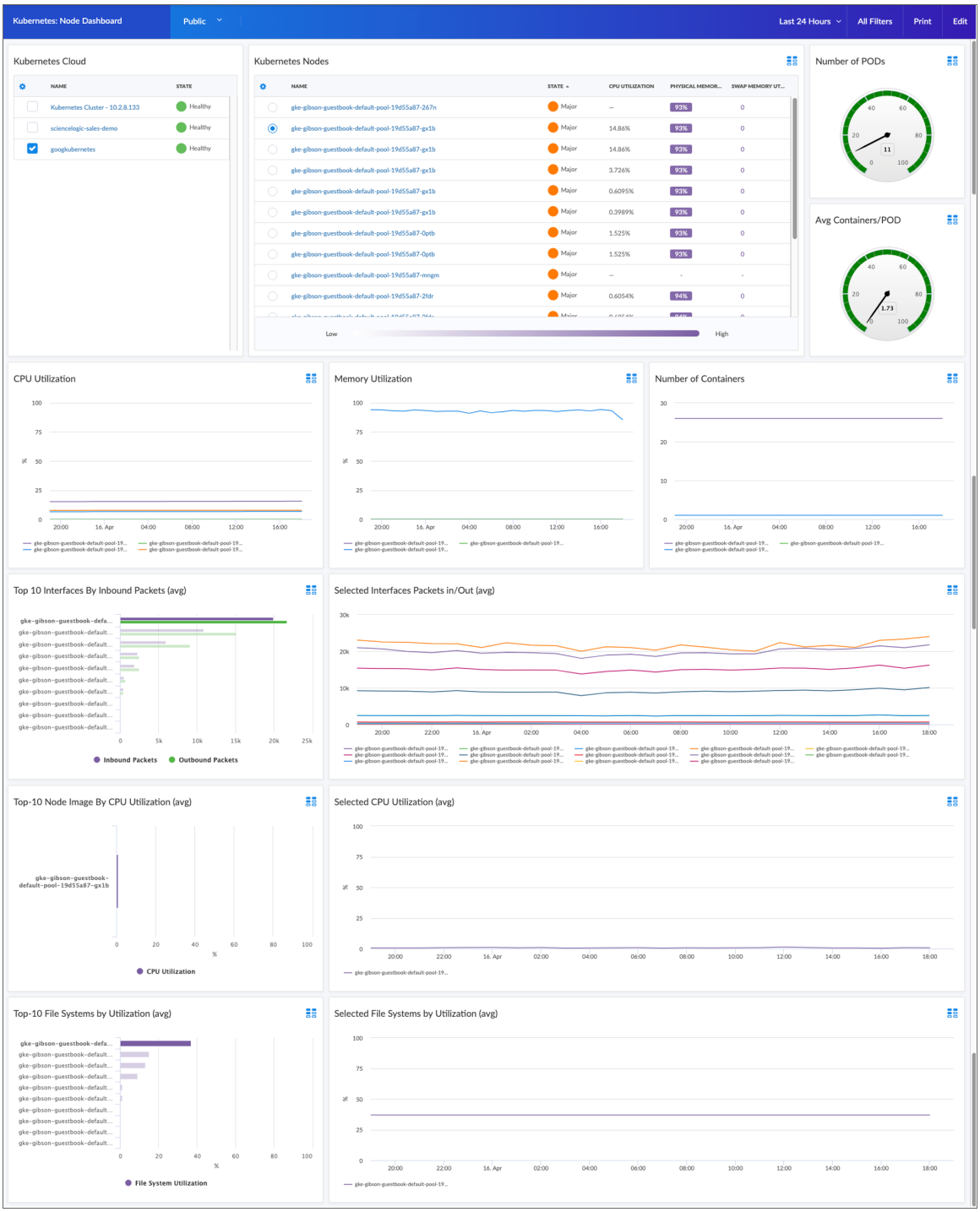


- ***Namespace Folder List.*** A list of available namespace folders that displays the device ID and health state for each namespace folder. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a namespace folder, select its checkbox. You can select more than one namespace folder at a time.
- ***Selected Namespace List.*** A list of available namespaces based on the selected namespace folder. This "leaderboard" widget controls what data appears the other widgets. To view dashboard data for a namespace, select its checkbox. You can select more than one namespace at a time.
- ***Selected Namespace CPU.*** A graph displaying the percentage of CPU for the selected namespace during the selected time period.

- ***Selected Namespace Memory.*** A graph displaying the percentage of memory for the selected namespace during the selected time period.
- ***Top 10 - Selected Controller CPU.*** A list of the top 10 controllers based on the percentage of CPU utilization during the selected time period.
- ***Top 10 - Selected Controller Memory.*** A list of the top 10 controllers based on the percentage of memory utilization during the selected time period.
- ***Selected Namespace Page Faults.*** A graph displaying the number of page faults for the selected namespace during the selected time period.
- ***Selected Namespace Major Page Faults.*** A graph displaying the number of major page faults for the selected namespace during the selected time period.

Kubernetes: Node Dashboard

The "Kuberentes: Node" dashboard provides data about your Kubernetes nodes. It includes the following widgets:



- ***Kubernetes Cloud.*** A list of available Kubernetes clouds displaying the device ID and cloud health state. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a cloud, select its checkbox. You can select more than one checkbox at a time.

- ***Kubernetes Nodes.*** A list of available Kubernetes nodes based on the selected cloud. This "leaderboard" widget controls what data appears in the other widgets. To view dashboard data for a node, select its radio button.
- ***Number of Pods.*** A gauge displaying the number of pods for the selected node during the selected time period.
- ***Average Containers per Pod.*** A gauge displaying the average containers per pod for the selected node during the selected time period.
- ***CPU Utilization.*** A graph displaying the percentage of CPU utilization for the selected node during the selected time period.
- ***Memory Utilization.*** A graph displaying the percentage of memory utilization for the selected node during the selected time period.
- ***Number of Containers.*** A graph displaying the number of containers for the selected node during the selected time period.
- ***Top 10 Interfaces by Inbound Packets.*** A list of the top 10 interfaces based on average inbound packets and outbound packets. This "leaderboard" widget controls what data appears in the other widgets. To view additional packet statistics for an interface, click its name.
- ***Selected Interfaces Packets In/Out.*** A graph displaying the average number of inbound packets and outbound packets for the selected interface during the selected time period.
- ***Top 10 Node Images by Utilization.*** A list of the top 10 node images based on average CPU utilization. This "leaderboard" widget controls what data appears in the other widgets. To view additional utilization statistics for a node image, click its name.
- ***Selected CPU Utilization.*** A graph displaying the average percentage of CPU utilization for the selected node image during the selected time period.
- ***Top 10 File Systems by Utilization.*** A list of the top 10 file systems based on average file system utilization. This "leaderboard" widget controls what data appears in the other widgets. To view additional utilization statistics for a file system, click its name.
- ***Selected File Systems by Utilization.*** A graph displaying the average percentage of file system utilization for the selected file system during the selected time period.

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