Kubernetes Data Collector

Cloud Insights

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Kubernetes Data Collector

Cloud Insights uses this data collector to gather Kubernetes Pod, Node, and Container metrics.

Installation

For Kubernetes Installation instructions, please see the Agent Installation page.

Information about **kube-state-metrics** has been moved to the Agent Installation page.

Objects and Counters

The following objects and their counters are collected:

Object:	Identifiers:	Attributes:	Datapoints:
Kubernetes Container	Namespace Pod Container Cluster	Kubernetes Node Node Name Node OS Node UUID Node IP	CPU Nanoseconds CPU Usage Nanocores Memory Major Page Faults Memory Resident Set Size (RSS) Memory Working Set Memory Page Faults Memory Usage Root Filesystem Available Root Filesystem Capacity Root Filesystem Used

Object:	Identifiers:	Attributes:	Datapoints:
Kubernetes Node	Kubernetes Node Cluster	Node Name Node OS Node UUID Node IP	CPU Usage Nanocores CPU Usage Nanoseconds Filesystem Available Filesystem Total Filesystem Used Memory Available Memory Usage Memory Major Page Faults Memory Page Faults Memory Resident Set Size (RSS) Memory Working Set Network RX Errors (per sec) Network RX Bytes (per sec) Network TX Errors (per sec) Network TX Bytes (per sec) Runtime Image Filesystem Available Runtime Image Filesystem Used Runtime Image Filesystem Capacity
Kubernetes Pod	Namespace Pod Cluster	Kubernetes Node Node Name Node IP Node OS Node UUID	Network TX Bytes (per sec) Network TX Errors (per sec) Network RX Bytes (per sec) Network RX Errors (per sec)
Kubernetes Pod Volume	Volume Pod Cluster Namespace	Kubernetes Node Node Name Node UUID Node IP Node OS	Available Capacity Used

Object:	Identifiers:	Attributes:	Datapoints:
Kubernetes System Container	System Container Kubernetes Node Cluster	Node Name Node IP Node OS Node UUID	CPU Usage Nanocores CPU Usage Core Nanoseconds Memory Major Page Faults Memory Page Faults Memory Resident Set Size (RSS) Memory Usage Memory Working Set Root Filesystem Available Root Filesystem Capacity Logs Filesystem Available Logs Filesystem Capacity

Troubleshooting

Problem:	Try this:
I ran the Kubernetes agent installer command, but I do not see a Telegraf agent pod running via: sudo kubectl --namespace ci-monitoring get pods	Check if there were any errors deploying the DaemonSet: sudo kubectl --namespace ci-monitoring describe ds telegraf-ds If there are errors related to SecurityContextConstraints, do the following: 1. Generate the Telegraf DaemonSet YAML sudo kubectl --namespace ci-monitoring get ds telegraf-ds -o yaml > /tmp/telegraf-ds.yaml 2. Stop the Telegraf service sudo kubectl --namespace ci-monitoring delete ds telegraf-ds 3. Create the necessary SecurityContextConstraint (see "Configuring Agent to Collect Data" section) 4. Re-create the Telegraf DaemonSet
I configured Telegraf to obtain information about my Kubernetes cluster, but I don’t see any information in Cloud Insights. I see "invalid header field value" errors in the Telegraf log file pertaining to the kubernetes input plugin I configured.	Ensure the referenced bearer_token file does not have a trailing newline. To verify, run the following command, and confirm that it returns 0: tail -c1 <bearer_token_file>

Additional information may be found from the Support page.