Operations

System metrics

9/7/2025

Contents

Find useful metrics provided by Kubernetes and other system resources to monitor the status and performance of the cluster and nodes.

Related documentation:

-
-

RSS:

- For private edition

Kubernetes and Node metrics

In addition to the service-defined metrics described in the service-level guides (see links here), standard Kubernetes and other system metrics are obviously important for monitoring the status and performance of your cluster(s), nodes, and services.

- Kubernetes metrics
- Node metrics

Kubernetes metrics

For full information about all the cluster metrics Kubernetes provides, see the Kubernetes documentation. Genesys recommends that you pay attention to the following cluster-related metrics in particular.

Metric	Prometheus formula	Indicator of
Pod Restarts	increase(kube_pod_container_status_restarts_total{namespace="$namespace", pod=~"$service.*"})[1m]	
The cgroup's total memory	sum(container_memory_usage_bytes{namespace="$namespace",pod=~"$service-.*", container!=""}) by (pod)	Memory
The cgroup's CPU usage	sum (rate (container_cpu_usage_seconds_total{namespace="$namespace",pod=~"$service-.*", container!="POD"}[1m])) by (pod) * 100	CPU utilization
Bytes transmitted over the network by the container	rate(container_network_transmit_bytes_total{namespace="$namespace",pod=~"$s.*", container!=""}[1m])	
Bytes received over the network by the container	rate(container_network_receive_bytes_total{namespace="$namespace",pod=~"$se.*", container!=""}[1m])	

Node metrics

Genesys recommends that you pay attention to the following node-related metrics in particular.

Metric	Prometheus formula	Indicator of
Process HEAP All	{SERVICE_NAME}_process_heap_bytes{pod=~"$pod",service="$service"}	Heap status
Process CPU All	sum(rate({SERVICE_NAME}_process_cpu_seconds_total{pod=~"$pod",service="$se * 100) by (pod)	CPU utilization
Process Memory All: resident memory	{SERVICE_NAME}_process_resident_memory_bytes{pod=~"$pod",service="$service	Memory
Process Memory All: virtual memory	{SERVICE_NAME}_process_virtual_memory_bytes{pod=~"$pod",service="$service"	Memory