Google Kubernetes Engine (GKE) includes native integration with Stackdriver Monitoring and Stackdriver Logging. When you create a GKE cluster, Stackdriver Kubernetes Engine Monitoring is enabled by default and provides a monitoring dashboard specifically tailored for Kubernetes.

With Stackdriver Kubernetes Engine Monitoring, you can control whether or not Stackdriver Logging collects application logs. You also have the option to disable the Stackdriver Monitoring and Stackdriver Logging integration altogether. For more information on the installation instructions, see <u>Installing Monitoring and Logging support for GKE</u> (/monitoring/kubernetes-engine/installing).

Stackdriver Kubernetes Engine Monitoring is designed to monitor GKE clusters. It manages Monitoring and Logging services together and features a Stackdriver Kubernetes Engine Monitoring interface that provides a dashboard customized for GKE clusters:

- In the summary pane, you can view a cluster's key metrics, such as CPU utilization, memory utilization, and the number of open incidents.
- You can view clusters by their infrastructure, workloads, or services.
- You can inspect namespaces, nodes, workloads, services, pods, and containers.
- For pods and containers, you can view metrics as a function of time and view log entries using the Logs Viewer.

You can use the default Stackdriver Kubernetes Engine Monitoring or opt-in to use Legacy Stackdriver. Both options are generally available as of GKE version 1.12.7. Here are some issues to consider:

- Stackdriver Kubernetes Engine Monitoring is the default option, starting with GKE version 1.14.
- Legacy Stackdriver is also a generally available option; however, it lacks features and improvements present in Stackdriver Kubernetes Engine Monitoring.
- Only Legacy Stackdriver lets you disable Stackdriver Logging while still using Stackdriver Monitoring.

n: Stackdriver Kubernetes Engine Monitoring and Legacy Stackdriver are incompatible because they have differe nodels. To move from Legacy Stackdriver to Stackdriver Kubernetes Engine Monitoring, you must manually change a er of your Stackdriver artifacts, including alerting policies, group filters, and log queries. See <u>Migrating to Stackdriver</u> <u>netes Engine Monitoring</u> (/monitoring/kubernetes-engine/migration) for detailed information.

If you are using Legacy Stackdriver, then you must switch to Stackdriver Kubernetes Engine Monitoring before support for Legacy Stackdriver is removed. Legacy Stackdriver will no longer be supported as of GKE 1.15. The table below details compatibility across GKE versions:

GKE version	Legacy Stackdriver	Stackdriver Kubernetes Engine Monitoring
1.10 - 1.12.5	Default	Opt-in (Beta)
1.12.7	Default	Optional
1.13	Default	Optional
1.14	Optional	Default
1.15	Not Available	Default

Stackdriver Kubernetes Engine Monitoring is priced based on the amount of logs and metrics collected. See the <u>Pricing</u> (/stackdriver/pricing) page for details.

- Installing Stackdriver Kubernetes Engine Monitoring (/monitoring/kubernetes-engine/installing): Describes how to enable Stackdriver Kubernetes Engine Monitoring in new and existing clusters.
- <u>Migrating to Stackdriver Kubernetes Engine Monitoring</u> (/monitoring/kubernetes-engine/migration): Describes the differences between Legacy Stackdriver and Stackdriver Kubernetes Engine Monitoring and what you must change in your Stackdriver configurations as part of updating your monitoring and logging integration.

- <u>Observing your system</u> (/monitoring/kubernetes-engine/observing): Describes the Stackdriver Kubernetes Engine Monitoring dashboard interface, how to organize cluster information, and how to view alerting details.
- <u>Enabling auditd logs</u> (/kubernetes-engine/docs/how-to/linux-auditd-logging): Describes how to enable verbose, OS-level audit logging on GKE cluster nodes and how to export logs to Stackdriver Logging.
- <u>Using Prometheus</u> (/monitoring/kubernetes-engine/prometheus): Optional. Describes how to configure Stackdriver Kubernetes Engine Monitoring for <u>Prometheus</u> (https://prometheus.io/).
- <u>Stackdriver Monitoring</u> (/monitoring/kubernetes-engine/legacy-stackdriver/monitoring): Describes how to set up Stackdriver Monitoring for your GKE clusters.
- <u>Stackdriver Logging</u> (/monitoring/kubernetes-engine/legacy-stackdriver/logging): Describes how to set up Stackdriver Logging for your GKE clusters.