**Google Cloud's operations suite (formerly Stackdriver)**

Integrated monitoring, logging, and trace managed services for applications and systems running on Google Cloud and beyond.

New customers get $300 in free credits to spend on operations suite. All customers get monthly allotments for logging and monitoring free, not charged against your credits.

* Start using the operations suite with [Monitoring](https://cloud.google.com/monitoring/docs/monitoring-overview) and [Logging](https://cloud.google.com/logging/docs/write-query-log-entries-gcloud) quickstart guides
* [Research shows](https://cloud.google.com/devops/state-of-devops) successful reliability is 4.1 times more likely to incorporate observability
* Learn how Google Cloud’s operations suite helps [customers](https://cloud.google.com/products/operations#section-2) improve cloud observability
* Stay up-to-date with the [latest blogs](https://cloud.google.com/blog/products/devops-sre) and our [o11y in-depth](https://www.youtube.com/playlist?list=PLBgogxgQVM9uB-hc8aFYedHrXGf688N9O) video series
* Download the overview one-pager: [Observability in Google Cloud](https://services.google.com/fh/files/misc/observability_in_google_cloud_one_pager.pdf)

## **Key features**

### **Real-time log management and analysis**

[Cloud Logging](https://cloud.google.com/logging) is a fully managed service that performs at scale and can ingest application and platform log data, as well as custom log data from GKE environments, VMs, and other services inside and outside of Google Cloud. Get advanced performance, troubleshooting, security, and business insights with [Log Analytics](https://cloud.google.com/logging/docs/log-analytics), integrating the power of BigQuery into Cloud Logging.

### **Built-in metrics observability at scale**

[Cloud Monitoring](https://cloud.google.com/monitoring) provides visibility into the performance, uptime, and overall health of cloud-powered applications. Collect metrics, events, and metadata from Google Cloud services, hosted uptime probes, application instrumentation, and a variety of common application components. Visualize this data on charts and dashboards and create alerts so you are notified when metrics are outside of expected ranges.

### **Stand-alone managed service for running and scaling Prometheus**

[Managed Service for Prometheus](https://cloud.google.com/managed-prometheus) is a fully managed Prometheus-compatible monitoring solution, built on top of the same globally scalable data store as Cloud Monitoring. Keep your existing visualization, analysis, and alerting services, as this data can be queried with PromQL or Cloud Monitoring.

### **Monitor and improve your application's performance**

Application Performance Management (APM) combines the monitoring and troubleshooting capabilities of Cloud Logging and Cloud Monitoring with [Cloud Trace](https://cloud.google.com/trace) and [Cloud Profiler](https://cloud.google.com/profiler/docs) to help you reduce latency and cost so you can run more efficient applications.

### **All features**

|  |  |
| --- | --- |
| Log management | [Log Router](https://cloud.google.com/logging/docs/routing/overview) allows customers to control where logs are sent. All logs, including audit logs, platform logs, and user logs, are sent to the Cloud Logging API where they pass through the log router. The log router checks each log entry against existing rules to determine which log entries to discard, which to ingest, and which to include in exports. |
| Proactive monitoring | [Cloud Monitoring](https://cloud.google.com/monitoring/alerts) allows you to create alerting policies to notify you when metrics, health check results, and uptime check results meet specified criteria. Integrated with a wide variety of notification channels, including Slack and PagerDuty. |
| Prometheus as a managed service | Offload the scaling and management of Prometheus infrastructure, updates, storage, and more with [Managed Service for Prometheus](https://cloud.google.com/managed-prometheus). Avoid vendor lock-in and keep all of the open source tools you use today for visualization, alerting, and analysis of Prometheus metrics. |
| Custom visualization | Cloud Monitoring provides default out-of-the-box [dashboards](https://cloud.google.com/monitoring/dashboards) and allows you to define custom dashboards with powerful visualization tools to suit your needs. |
| Health check monitoring | Cloud Monitoring provides [uptime checks](https://cloud.google.com/monitoring/uptime-checks) to web applications and other internet-accessible services running on your cloud environment. You can configure uptime checks associated with URLs, groups, or resources, such as instances and load balancers. |
| Service monitoring | [Service Monitoring](https://cloud.google.com/stackdriver/docs/solutions/slo-monitoring) provides out-of-the-box telemetry and dashboards that allow troubleshooting in context through topology and context graphs, plus automation of health monitoring through SLOs and error budget management. |
| Latency management | [Cloud Trace](https://cloud.google.com/trace) provides latency sampling and reporting for App Engine, including per-URL statistics and latency distributions. |
| Performance and cost management | [Cloud Profiler](https://cloud.google.com/profiler/docs) provides continuous profiling of resource consumption in your production applications, helping you identify and eliminate potential performance issues. |
| Security management | [Cloud Audit Logs](https://cloud.google.com/audit-logs) provides near real-time user activity visibility across Google Cloud. |