Cloud Logging

Fully managed, real-time log management with storage, search, analysis and alerting at exabyte scale.

New customers get $300 in free credits to spend on Cloud Logging.

- Use Logs Explorer quickstart to view your logs in the Google Cloud Console
- Learn how Cloud Logging helps customers improve their troubleshooting and reliability practices
- Stay up-to-date with the latest blogs, videos and other logging resources
- Get deep operational and business insights with Log Analytics (in Preview), powered by BigQuery

Cloud Logging is a fully managed service that allows you to store, search, analyze, monitor, and alert on logging data and events from Google Cloud and Amazon Web Services. You can collect logging data from over 150 common application components, on-premises systems, and hybrid cloud systems.

Logging includes storage for logs through log buckets, a user interface called the Logs Explorer, and an API to manage logs programmatically. Logging lets you read and write log entries, query your logs, and control how you route and use your logs.

BENEFITS

Get started immediately

Platform logs are ingested from Google Cloud services and securely stored with no setup required. GKE workload logs are captured automatically and the Ops Agent captures workload logs from VMs.

Quickly resolve issues

Cloud Logging is integrated with Cloud Monitoring, Error Reporting, and Cloud Trace so you can troubleshoot issues across your services. Configure alerts for logs so you stay up to date on important events.

Real-time insights

Quickly spot anomalies with real-time ingestion, and use log-based metrics to build Cloud Monitoring dashboards. Log Analytics brings the power of BigQuery to Cloud Logging for deeper insights.

Key features

Logs Explorer

Logs Explorer enables you to search, sort, and analyze logs through flexible query statements, along with rich histogram visualizations, a simple field explorer, and ability to save the queries. Set alerts to notify you whenever a specific message appears in your included logs, or use Cloud Monitoring to alert on logs-based metrics you define.

Regional log buckets

Use log buckets as part of your local or industry-specific compliance strategy. Log buckets store and process your workload's logs data only in the region you specify. These buckets feature customizable access control and retention.

Error Reporting

Error Reporting automatically analyzes your logs for exceptions and intelligently aggregates them into meaningful error groups. See your top or new errors at a glance and set up notifications to automatically alert you when a new error group is identified.

Cloud Audit Logs

Cloud Audit Logs helps security teams maintain audit trails in Google Cloud. Achieve the same level of transparency over administrative activities and access to data in Google Cloud as in on-premises environments. Every administrative activity is recorded on a hardened, always-on audit trail, which cannot be disabled by any rogue actor.

Logs Router

Cloud Logging receives log entries through the Cloud Logging API where they pass through the Logs Router. The Logs Router checks each log entry against existing inclusion filters and exclusion filters to determine which log entries to discard, which to ingest, and which to include in exports.

All features

Logs Explorer	Search, sort, and query logs through flexible query statements, along with rich histogram visualizations, simple field explorers, and ability to save the queries.
Custom logs / Ingestion API	Write any custom log, from on-premises or another cloud, using our public write APIs.
Logs alerting	Alert on specific messages in your logs or alert on logs-based metrics with Cloud Monitoring.

Log Analytics (in Preview)	Platform and workload logging data ingested into Cloud Logging is made available in Log Analytics, which is powered by BigQuery. Perform advanced analytics using SQL to query your logs. The log data is also made available directly in BigQuery so you can correlate your logs with other business data.
Logs retention	Configure different retention periods for logs in different log buckets, and criteria for different logs using the Logs Router.
Logs-based metrics	Create metrics from log data which appears seamlessly in Cloud Monitoring, where you can visualize these metrics and create dashboards.
Audit logging	Access audit logs that capture all the admin and data access events within Google Cloud, with 400 days of data retention at no additional cost.
Third-party integrations	Integrate with external systems using Pub/Sub and configuring Logs Router to export the logs.
Logs archival	Store logs for a longer duration at lower cost by easily exporting into Cloud Storage.
Error Reporting	Error Reporting lets you see problems through the noise by automatically analyzing your logs for exceptions and intelligently aggregating them into meaningful error groups.
Log buckets and views	Log buckets provide a first-class logs storage solution that lets you centralize or subdivide your logs based on your needs. From there, use log views to specify which logs a user should have access to, all through standard IAM controls.