Try Cloud SQL free (https://console.cloud.google.com/freetrial)

Fully managed relational database service for MySQL, PostgreSQL, and SQL server

Cloud SQL is fully compatible with applications using MySQL, PostgreSQL, and SQL Server. You can connect with nearly any application, anywhere in the world. Cloud SQL automates backups, replication, and failover to ensure your database is reliable, highly available, and flexible to your performance needs.

- Easy-to-manage compatible relational databases in the cloud
- Connects with just about any application built for MySQL, PostgreSQL, or SQL Server, from anywhere in the world
- Automates database provisioning, storage capacity management, and other time-consuming tasks
- Ensures reliability and security with built-in automation for high availability, backups, and security updates, plus a 24/7 SRE team
- Easy integration with your workstation, as well as App Engine, Compute Engine, Kubernetes, and BigQuery

Automatic data encryption at rest and in transit. Private connectivity with Virtual Private Cloud (VPC) and user-controlled network access that includes firewall protection. Compliant with SSAE 16, ISO 27001, PCI DSS v3.0, and HIPAA.

Flexible scaling options eliminate the need to pre-provision or plan capacity before you get started. It takes a single API call to create your database, whether you start with simple testing or you need a highly available database in production right away.

Standard connection drivers and built-in migrational tools allow you to create and connect to your first database in just a few minutes.

FOR DEVOPS

Fully managed

Cloud SQL automatically ensures your databases are reliable, secure, and scalable so you can focus more time on your applications and less time on administration. Cloud SQL automates all your backups, replication, encryption patches, and capacity increases—while ensuring greater than 99.95% availability, anywhere in the world.

FOR DEVELOPERS

Integrated

Access Cloud SQL instances from just about any application. Easily connect from App Engine (/appengine/), Compute Engine (/compute/), Google Kubernetes Engine (/kubernetes-engine/), and your workstation. Open up analytics possibilities by using

BigQuery to directly query (/bigquery/docs/cloud-sql-federated-queries/) your Cloud SQL databases.

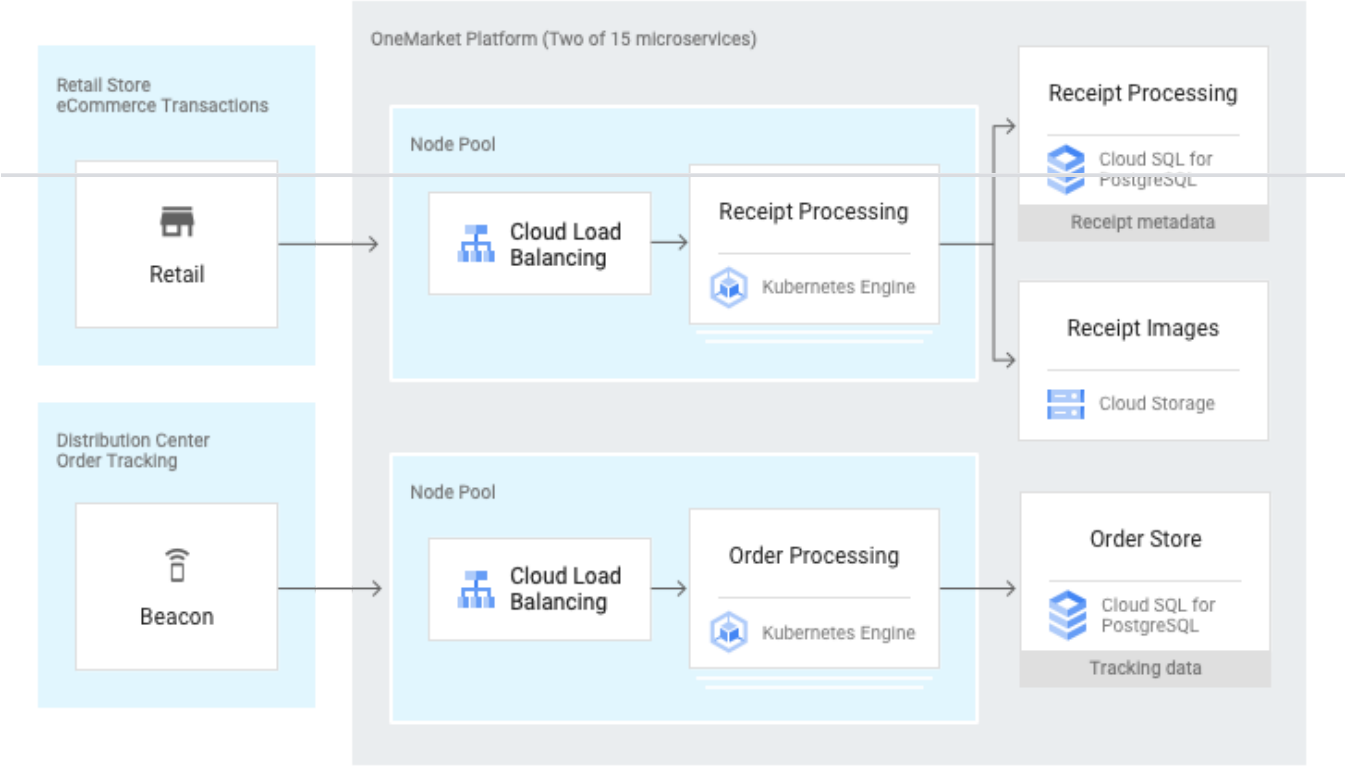
FOR BUSINESS USERS

Reliable

Easily configure replication and backups to protect your data. Go further by enabling automatic failover to make your database highly available. Your data is automatically encrypted, and Cloud SQL is SSAE 16, ISO 27001, and PCI DSS v3.0 compliant and supports HIPAA compliance.

View all features (#all-features)

Build an application with Kubernetes and Cloud SQL (PostgreSQL)
(#build-a-containerized-application-with-a-scalable-database)



(/blog/products/gcp/cloud-sql-for-postgresql-now-generally-available-and-ready-for-your-production-workloads/)

ead the tory (/blog/products/gcp/cloud-sql-for-postgresql-now-generally-available-and-ready-for-your-production-workloads/)

- Cloud SQL for PostgreSQL instances back many of the platform's 15 microservices, ensuring each is independently scalable
- OneMarket can now focus on data models rather than database management, delivering more value to its global customers

Retail

Descartes Labs relied on automatic storage increases to cover nearly 40X disk growth.

(/blog/products/gcp/cloud-sql-for-postgresql-managed-postgresql-for-your-mobile-and-geospatial-applications-in-google-cloud/)

Signify built a platform with Cloud SQL that runs at 10 times the scale of other similar projects with one-tenth the workforce.

(/customers/signify/)

Built-in high availability helped WideOrbit save on time and money while managing multiple workloads.

(/blog/products/databases/leave-no-database-behind-with-cloud-sql-for-sql-server/)

ee more customers (/customers/)

RELEASE NOTES

Keep up with the latest Cloud SQL features and updates.

(https://cloud.google.com/sql/docs/release-notes/)

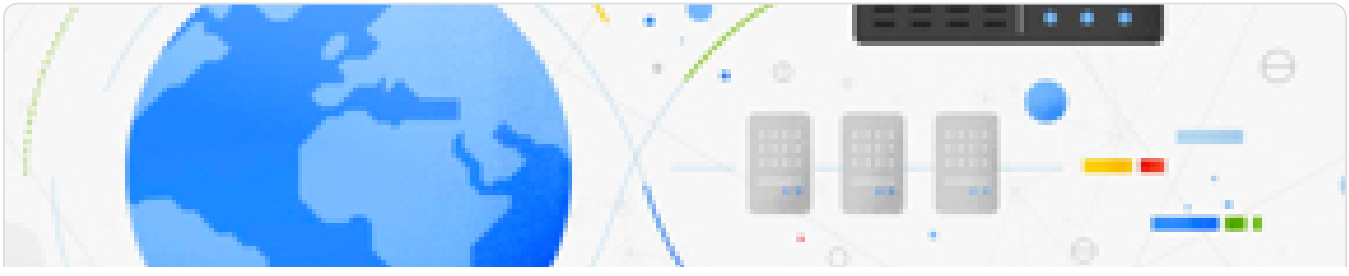
Read release notes (/sql/docs/release-notes/)

QWIKLABS

Join Qwiklabs for hands-on practice using Cloud SQL—from basic setup to advanced features

(https://www.qwiklabs.com/quests/52/)

Learn more (https://www.qwiklabs.com/quests/52/)



(https://cloud.google.com/blog/products/databases/leave-no-database-behind-with-cloud-sql-for-sql-server/)

Read blog post (/blog/products/databases/leave-no-database-behind-with-cloud-sql-for-sql-server/)

Gartner

(https://cloud.google.com/gartner-opdbms-mq/)

Read report (/gartner-opdbms-mq/)

FORRESTER

(https://cloud.google.com/forrester-dbaas/)

Get report (/forrester-dbaas/)

GOOGLE CLOUD BASICS

See pricing for each database service: MySQL, PostgreSQL, SQL Server.

See pricing (/sql/pricing/)

GOOGLE CLOUD BASICS

View a breakdown of features and capabilities across Cloud SQL database services.

Learn more (/sql/docs/features/)

TUTORIAL

Learn how to connect to Cloud SQL from applications running outside of Google Cloud.

Learn more (/sql/docs/mysql/connect-external-app/)

TUTORIAL

Connect a MySQL client to your Cloud SQL instance–whether it's running locally on your client machine or in Cloud Shell.

Read guide (/sql/docs/mysql/connect-admin-ip/)

GOOGLE CLOUD BASICS

Learn about the major features and capabilities of Cloud SQL for MySQL.

Learn more (/sql/docs/mysql/features/)

GOOGLE CLOUD BASICS

Get an overview of the high availability (HA) configuration for Cloud SQL instances.

Learn more (/sql/docs/mysql/high-availability)

TUTORIAL

Get a quick intro to using Cloud SQL.

MySQL (/sql/docs/mysql/quickstart/) PostgreSQL (/sql/docs/postgres/quickstart/)
SQL Server (/sql/docs/sqlserver/quickstart/)

TUTORIAL

Complete specific tasks in Cloud SQL.

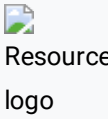
MySQL (/sql/docs/mysql/how-to) PostgreSQL (/sql/docs/postgres/how-to)
SQL Server (/sql/docs/sqlserver/how-to)

APIS & LIBRARIES

APIs and other tools for using Cloud SQL.

MySQL (/sql/docs/mysql/apis) PostgreSQL (/sql/docs/postgres/apis)
SQL Server (/sql/docs/sqlserver/apis)

All Cloud SQL documentation (/sql/docs/)



(/sql/docs/resources/)

RESOURCES

Pricing, release notes, quotas and limits

(/docs/tutorials#%22cloud%20sql%22)

SOLUTIONS

Explore what you can build on Google Cloud

Integrate Cloud SQL with Google Kubernetes Engine for rapid development and scalability.

Build and scale applications leveraging Google Kubernetes Engine and Cloud SQL for PostgreSQL. Google Kubernetes Engine enables rapid application development and iteration by making it easy to deploy, update, and manage your applications and services. Cloud SQL makes it easy to set up, manage, and administer your Postgres databases on Google Cloud.

This use case is a building block of a microservices architecture that is backed by an independent storage service. Cloud SQL instances can be used to back individual microservices, decentralizing data management and ensuring that each service is independently scalable. Try the lab (https://google.qwiklabs.com/focuses/936?locale=en&parent=catalog&qlcampaign=1n-gcplabs-782)

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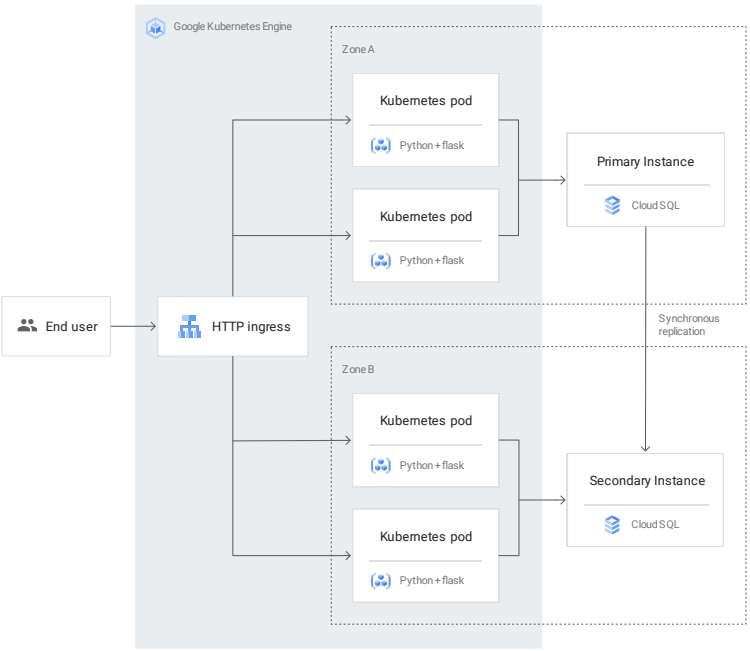

TUTORIAL

Import data from a CSV text file into Cloud SQL and then analyze it with basic queries.

(https://www.qwiklabs.com/focuses/1157?parent=catalog)

Learn more (https://www.qwiklabs.com/focuses/1157?parent=catalog)

TUTORIAL

Set up a WordPress site on App Engine Flexible Environment & Cloud SQL.

(https://www.qwiklabs.com/focuses/1138?parent=catalog)

Learn more (https://www.qwiklabs.com/focuses/1138?parent=catalog)

TUTORIAL

Create Cloud SQL instances with Terraform, then set up the Cloud SQL Proxy, testing the connection with both MySQL and PostgreSQL clients.

(https://www.qwiklabs.com/focuses/1215?parent=catalog)

Learn more (https://www.qwiklabs.com/focuses/1215?parent=catalog)

View all technical guides (/docs/tutorials#%22cloud%20sql%22)

Secure access and connectivity

Cloud SQL data is encrypted when on Google's internal networks and when stored in database tables, temporary files, and backups. Cloud SQL supports private connectivity with Virtual Private Cloud (VPC) (/vpc/), and every Cloud SQL instance includes a network firewall, allowing you to control public network access to your database instance.

Availability protection	Replicate your instance to another zone and rely on automatic failover to provide isolation from many types of infrastructure, hardware, and software failures.
Scalability	Easily scale up as your data grows—add up to 64 processor cores and more than 400 GB of RAM, and add read replicas to handle increasing read traffic.
Automatic storage increases	Cloud SQL can automatically scale up storage capacity when you are near your limit. This way you don't have to spend time estimating future storage needs or spend money on capacity until you need it.
High performance	Cloud SQL supports performance-intensive workloads with up to 60,000 IOPS and no extra cost for IO.
Easy integration	Access Cloud SQL instances from just about any application. Easily connect from App Engine (/appengine/), Compute Engine (/compute/), Google Kubernetes Engine (/kubernetes-engine/), and your workstation. Open up analytics possibilities by using BigQuery to directly query (/bigquery/docs/cloud-sql-federated-queries/) your Cloud SQL databases.
Automatic backups	Automate daily backups and binary logging (for replication or point-in-time recovery).
Point-in-time recovery	Restore your instance to its state at an earlier point in time.

External migration	Migrate on-premises MySQL databases (or MySQL-compatible databases) to Cloud SQL with low downtime.
Compatibility	Build and deploy for the cloud faster because Cloud SQL offers standard MySQL databases, ensuring application compatibility.
Secure access and connectivity	Cloud SQL data is encrypted when on Google's internal networks and when stored in database tables, temporary files, and backups. Cloud SQL supports private connectivity with Virtual Private Cloud (VPC) (/vpc/), and every Cloud SQL instance includes a network firewall, allowing you to control public network access to your database instance.
Built-in high availability	Rely on automatic failover to provide isolation from many types of infrastructure, hardware, and software failures.
Scalability	Easily scale up as your data grows–add up to 64 processor cores and more than 400 GB of RAM, and add read replicas to handle increasing read traffic.
Automatic storage increases	Cloud SQL can automatically scale up storage capacity when you are near your limit. This way you don't have to spend time estimating future storage needs or spend money on capacity until you need it.

	until you need it.
High performance	Cloud SQL for PostgreSQL can handle 60,000 IOs per second with no extra cost for IO.
Easy integration	Access Cloud SQL instances from just about any application. Easily connect from App Engine (/appengine/), Compute Engine (/compute/), Google Kubernetes Engine (/kubernetes-engine/), and your workstation. Open up analytics possibilities by using BigQuery to directly query (/bigquery/docs/cloud-sql-federated-queries) your Cloud SQL databases.
Automatic backups	Automate daily backups and binary logging (for replication or point-in-time recovery).
Point-in-time recovery	Restore your instance to its state at an earlier point in time.
Standard APIs	Build and deploy for the cloud faster because Cloud SQL offers standard PostgreSQL databases, ensuring application compatibility. Use standard connection drivers and built-in migration tools to get started quickly.
Built-in high availability	Live migration makes maintenance of our underlying infrastructure transparent (https://cloudplatform.googleblog.com/2015/03/Google-

	Compute-Engine-uses-Live-Migration-technology-to-service-infrastructure-without-application-downtime.html) . Cloud SQL for SQL Server has built-in HA (/sql/docs/sqlserver/high-availability/) that synchronously replicates data to each zone's regional persistent disk. Cloud SQL provides continuous health checking and automatically fails over with minimal downtime.
Secure access and connectivity	Cloud SQL data is encrypted when on Google's internal networks and when stored in database tables, temporary files, and backups. Cloud SQL supports private connectivity with Virtual Private Cloud (VPC) (/vpc/), and every Cloud SQL instance includes a network firewall, allowing you to control public network access to your database instance.
Compatibility	Cloud SQL for SQL Server offers multiple editions of current versions of SQL Server and works with clients such as Microsoft Visual Studio and SQL Server Management Studio.
Scalability	Choose between zonal and regional availability and customize your instance for your workloads (3.75 GB–416 GB memory and storage up to 30 TB).
Automatic storage increases	Cloud SQL can automatically scale storage capacity when you are near your limit. This way you don't have to spend time estimating future storage needs or spend money on capacity until you need it.
High performance	Cloud SQL for SQL Server can handle 20,000 IOs per second with no extra cost for IO.

Easy integration	Access Cloud SQL instances from just about any application. Easily connect from App Engine (/appengine/), Compute Engine (/compute/), Google Kubernetes Engine (/kubernetes-engine/), and your workstation. Open up analytics possibilities by using BigQuery to directly query (/bigquery/docs/cloud-sql-federated-queries) your Cloud SQL databases.

Cloud SQL offers sizes to fit any budget. Pricing varies with settings, including how much storage, memory, and CPU you provision. Cloud SQL offers per-second billing and database instances are easy to stop and start.

View pricing details (/sql/pricing/)

Expand all

Get $300 in free credits to learn and build on Google Cloud for up to 12 months.

Try Cloud SQL free (https://console.cloud.google.com/freetrial)