## **CloudSQL-- Cloud SQL can store up to 30 TB.**

Cannot scale huge data

I remember just two questions about CloudSQL. I recommend knowing how to export data from CloudSQL to BigQuery, on-premises databases to CloudSQL, Cloud SQL HA, and read replicas.

Cloud SQL is a **fully-managed** database service that makes it easy to set up, maintain, manage, and administer your relational PostgreSQL, MySQL, and SQL Server databases in the cloud.

The **failover replica** in Cloud SQL is configured with the same database flags, users (including root) and passwords, authorized applications and networks, and databases as the primary instance. If a High-availability-configured instance becomes unresponsive, Cloud SQL automatically switches to serving data from the failover replica. This is called a failover.

**read replica** will increase the availability of the service and can be located closer to the users in the new geographies.

Cloud SQL provides the **ability to replicate a master instance to one or more read replicas**. A read replica is a copy of the master that reflects changes to the master instance in almost real time.

high availability is for **failover** and not for performance.

“Stackdriver is a tool from Google to monitor and manage services, containers, applications, and infrastructure. Stackdriver aggregates metrics, logs, and events from infrastructure, giving developers and operators a rich set of observable signals that speed root-cause analysis and reduce mean time to resolution (MTTR). Stackdriver doesn’t require extensive integration and it does not lock developers into using a particular cloud provider.  
Stackdriver has a plugin to monitor on-premise and manually installed MySQL databases. After installing the plugin, it will detect the database by:  
Searching instance names for “mysql”  
Checking for ports opened to 3306 via firewall rules  
For MySQL collection, you must add a user with a password to MySQL that can run the “SHOW STATUS” command. This user and password are referred to as STATS\_USER and STATS\_PASS in the config file installed.

Stackdriver will receive performance and availability stats from Compute Engine virtual machine. However, Stackdriver will not receive any, from MySQL database installed on the virtual machine.

<https://cloud.google.com/monitoring/agent/plugins/mysql>

*Cloud SQL options are regional and have less scalability compared to Cloud Spanner.*