

[Cloud SQL](https://cloud.google.com/sql/) (<https://cloud.google.com/sql/>)

[Documentation](https://cloud.google.com/sql/docs/) (<https://cloud.google.com/sql/docs/>)

[MySQL](https://cloud.google.com/sql/docs/mysql/) (<https://cloud.google.com/sql/docs/mysql/>) [Guides](#)

Replication options

MySQL | [PostgreSQL](https://cloud.google.com/sql/docs/postgres/replication/) (<https://cloud.google.com/sql/docs/postgres/replication/>) | [SQL Server](#)

This

page describes the replication options offered by Cloud SQL.

Introduction

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.

To reduce load on the master instance, send queries to the read replica instance instead.

[Connect](https://cloud.google.com/sql/docs/mysql/connect-admin-ip) (<https://cloud.google.com/sql/docs/mysql/connect-admin-ip>) to the replica directly using its connection name and IP address.

Note: Read replicas do not provide failover capability. To provide failover capability for a Second Generation instance, see [Configuring an Instance for High Availability](https://cloud.google.com/sql/docs/mysql/configure-ha) (<https://cloud.google.com/sql/docs/mysql/configure-ha>).

Cloud SQL supports the following read replication scenarios:

Name	Master	Replica	Benefits and use cases	More information
Read replica	Cloud SQL instance	Cloud SQL instance	<ul style="list-style-type: none"> Additional read capacity Analytics target 	<ul style="list-style-type: none"> Creating Read R (https://cloud.g) Tips (https://cloud.g)
External read replica	Cloud SQL instance	MySQL instance external to Cloud SQL	<ul style="list-style-type: none"> Reduced latency for 	<ul style="list-style-type: none"> Configuring Ext (https://cloud.g)

		<ul style="list-style-type: none"> external connections Analytics target Migration path to other platforms
<p>Replication from an external server (external master for 2nd Generation)</p> <p>MySQL instance external to Cloud SQL</p> <p>Cloud SQL Second Generation instance</p>		<ul style="list-style-type: none"> Migration path to Cloud SQL Second Generation Data replication to Google Cloud Platform Analytics target <ul style="list-style-type: none"> Replicating from external (https://cloud.google.com/sql/docs/mysql/replicating-from-external) About Replication server (https://cloud.google.com/sql/docs/mysql/about-replication-server)
<p>External master instance external to Cloud SQL</p> <p>MySQL instance</p> <p>Cloud SQL First Generation instance</p>	<p>Note: Second Generation is replacing First Generation; support for First Generation instances ends January 30, 2020. To upgrade a First Generation instance to Second Generation, see Upgrading a First Generation Instance to Second Generation (https://cloud.google.com/sql/docs/mysql/upgrading-a-first-generation-instance-to-second-generation)</p>	<ul style="list-style-type: none"> Data replication to Google Cloud Platform Analytics target <ul style="list-style-type: none"> Configuring External master (https://cloud.google.com/sql/docs/mysql/configuring-external-master) Tips (https://cloud.google.com/sql/docs/mysql/tips)

What's next

- Learn how to [create a read replica](https://cloud.google.com/sql/docs/mysql/replication/create-replica) (https://cloud.google.com/sql/docs/mysql/replication/create-replica).
- Learn how to [configure an external replica configuration](https://cloud.google.com/sql/docs/mysql/replication/configure-external-replica) (https://cloud.google.com/sql/docs/mysql/replication/configure-external-replica).

- Learn how to replicate your data from an external server (<https://cloud.google.com/sql/docs/mysql/replication/replication-from-external>).
- Learn how to configure an external master configuration (<https://cloud.google.com/sql/docs/mysql/replication/configure-external-master>).
- Learn about requirements and best practices for replication (<https://cloud.google.com/sql/docs/mysql/replication/tips>).
- Learn about replication in MySQL (<https://dev.mysql.com/doc/refman/5.7/en/replication.html>).
- Learn how to configure an instance for high availability (<https://cloud.google.com/sql/docs/mysql/configure-ha>).

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