Cloud SQL (https://cloud.google.com/sql/)
Documentation (https://cloud.google.com/sql/docs/)
MySQL (https://cloud.google.com/sql/docs/mysql/) Guides

Migrating data between Cloud SQL and external servers

MySQL | PostgreSQL | SQL Server

This page describes how you can move the location of
your master instance between an external, self-managed server and Cloud SQL with a minimum
of downtime.

Migrating data to Cloud SQL

To migrate the master copy of your data to Cloud SQL with the least downtime, you create a
replica managed by Cloud SQL, then promote the replica to a stand-alone instance.

This procedure requires you to complete the following high-level steps:

1. Configure your source database server according to the requirements for replicating it to
   Cloud SQL
    (https://cloud.google.com/sql/docs/mysql/replication/replication-from-external#server-
   requirements)
   .

2. Create a Cloud SQL replica for your source database server, following the steps in
   Replicating from an External Server to Cloud SQL
    (https://cloud.google.com/sql/docs/mysql/replication/replication-from-external).

3. When the replica is fully synchronized with the source database server, take your
   applications offline, and update the applications to point to the replica.

4. Follow the instructions provided in Promoting a replica
    (https://cloud.google.com/sql/docs/mysql/replication/manage-replicas#promote-replica) to
   promote the replica to a stand-alone instance.

5. Restart your applications, configured to point to the Cloud SQL instance.

Migrating data to an external server

To migrate the primary copy of your data from Cloud SQL to an external server with the least downtime, you set up your external server as an external replica, then demote the Cloud SQL instance to become the replica of the external server.

This procedure requires you to complete the following high-level steps:

1. Create an external replica for your Cloud SQL instance, following the steps in Configuring External Replicas (https://cloud.google.com/sql/docs/mysql/replication/configure-external-replica) .

2. When the replica is fully synchronized with the Cloud SQL master, take your applications offline, and update the applications to point to the external server.

3. Follow the instructions provided in Demoting the master of an external replica (https://cloud.google.com/sql/docs/replication/configure-external-replica#demote) to demote the Cloud SQL master. Demoting the master also promotes the external server, making it the new master instance.

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