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

Upgrading MySQL for an instance

MySQL | PostgreSQL | SQL Server

This page describes how to move your data to an instance running a later version of MySQL.

Introduction

The steps for moving your data from one version of MySQL to another involve *exporting* data from the current instance and *importing* that data into a new instance running the later version of MySQL. This process involves downtime; you put the current instance into read-only mode before starting the export.

Before you begin

Before moving your data to an instance running a newer version of MySQL, you should familiarize yourself with the differences between the MySQL versions:

- Changes affecting upgrades to MySQL 5.6
  (https://dev.mysql.com/doc/refman/5.6/en/upgrading-from-previous-series.html)

- Changes affecting upgrades to MySQL 5.7
  (https://dev.mysql.com/doc/refman/5.7/en/upgrading-from-previous-series.html)

Upgrading

To move your data to a Cloud SQL instance running a later version of MySQL:

1. Create the target instance, with the desired MySQL version.

   Make sure the target instance has:

- Sufficient storage to hold all of the current instance's data.

- The same authorized networks as the current instance. Learn more (https://cloud.google.com/sql/docs/mysql/configure-ip).

- For First Generation instances, the same authorized networks. Learn more (https://cloud.google.com/sql/docs/mysql/connect-app-engine#gaev1-csqlv1).

★ **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/upgrade-2nd-gen).

- The same user accounts, with the same MySQL privileges and passwords.

For help with creating an instance, see Creating an instance (https://cloud.google.com/sql/docs/mysql/create-instance).

2. Confirm that you can connect to the new instance with your local MySQL tools and update them if necessary.

3. Put your current Cloud SQL instance into read-only mode by setting the `read_only` database flag to `On`.

   For help, see Configuring Database Flags (https://cloud.google.com/sql/docs/mysql/flags).

4. Export the current instance's data to a SQL dump file, following the instructions in Exporting data for Import into Cloud SQL (https://cloud.google.com/sql/docs/mysql/import-export/creating-sqldump-csv#sqldump).

   Do *not* export the `mysql` system database.

5. Create a Cloud Storage bucket (https://cloud.google.com/storage/docs/creating-buckets) if needed, and upload your SQL dump file to the bucket.

6. Import the data to the target instance, following the instructions in Importing MySQL databases from Cloud Storage (https://cloud.google.com/sql/docs/mysql/import-export/importing#mysqldump).

7. Update your applications to connect to the new instance.

8. When you are confident that your new instance is operating successfully, delete the old instance.

★ **Note:** After deleting an instance, the instance name can't be reused for up to a week.

What's next

- Learn more about Changes affecting upgrades to MySQL 5.6 (https://dev.mysql.com/doc/refman/5.6/en/upgrading-from-previous-series.html).

- Learn more about Changes affecting upgrades to MySQL 5.7 (https://dev.mysql.com/doc/refman/5.7/en/upgrading-from-previous-series.html).

- Learn more about migrating to a new instance type (https://cloud.google.com/sql/docs/mysql/upgrade-2nd-gen).

- Learn about importing and exporting data (https://cloud.google.com/sql/docs/mysql/import-export/).

- Learn about options for connecting to an instance (https://cloud.google.com/sql/docs/mysql/external-connection-methods).

- Learn more about setting MySQL flags (https://cloud.google.com/sql/docs/mysql/flags).