Quickstart for using the proxy for local testing

MySQL (https://cloud.google.com/sql/docs/mysql/quickstart-proxy-test) | PostgreSQL (https://cloud.google.com/sql/docs/postgres/quickstart-proxy-test) | **SQL Server**

Beta

This feature is in a pre-release state and might change or have limited support. For more information, see the product launch stages (https://cloud.google.com/products/#product-launch-stages).

This page shows you how to connect to Cloud SQL from a local test environment using the Cloud SQL Proxy. Connecting through the proxy enables you to test an App Engine application in your local environment, or establish a secure connection for database administration.

Do not use these instructions to set up the proxy for a production environment.

Before you begin

Before performing the steps in this quickstart, you should complete the following tasks:

- Create a Google Cloud project and a SQL Server instance (https://cloud.google.com/sql/docs/sqlserver/create-instance).
- If you are using a pre-existing project, ensure that your Google Cloud user is an owner of your project, or has a Cloud SQL role other than `Cloud SQL Viewer`. Otherwise, you should set up the proxy using the instructions outlined in Connecting using the Cloud SQL Proxy (https://cloud.google.com/sql/docs/sqlserver/connect-admin-proxy).
- Optionally, install a sqlcmd client.

  The client could be SQL Server Management Studio (SSMS) (https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-2017)
  , Azure Data Studio

(https://docs.microsoft.com/en-us/sql/azure-data-studio/download?view=sql-server-2017), or another client.

Enable the Cloud SQL API

Enable the Cloud SQL Admin API.

ENABLE THE API (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/FLOWS/ENABLEAPI?APIID=SQLADMIN&REDIR

Install and authenticate the gcloud command-line tool

1. If you haven't already, install the **`gcloud`** command-line tool.

   See the **`gcloud`** installation instructions
   (https://cloud.google.com/sdk/docs/#install_the_latest_cloud_sdk_version).

2. Initialize the **`gcloud`** tool:

   ```
   gcloud init
   ```

3. Authenticate the **`gcloud`** tool:

   ```
   gcloud auth login
   ```

Install the Cloud SQL Proxy client on your local machine

For installation, see Installing the Cloud SQL Proxy
(https://cloud.google.com/sql/docs/sqlserver/sql-proxy#install).

Get the instance connection name

1. Go to the Cloud SQL Instances page in the Google Cloud Console.

   GO TO THE CLOUD SQL INSTANCES PAGE (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/SQL/INSTANCE

2. Click the instance name to open its **Instance details** page.
3. Under **Connect to this instance**, note the **Instance connection name**.

   You will use this value in the next step.

Start the proxy in its own terminal so you can monitor its output. Replace `<INSTANCE_CONNECTION_NAME>` with the instance connection name you copied in the previous step.

For Linux environments, use this command to launch the proxy:

```
./cloud_sql_proxy -instances=<INSTANCE_CONNECTION_NAME>=tcp:1433
```

In PowerShell on Windows, use this command to launch the proxy:

```
.\cloud_sql_proxy.exe -instances=<INSTANCE_CONNECTION_NAME>=tcp:1433
```

You should see a message similar to:

```
Listening on 127.0.0.1:1433 for myproject:myregion:myinstance".
Ready for new connections
```

Connect to your database using the sqlcmd client

This section is optional, but is recommended for testing your connection.

If you installed and configured a sqlcmd client, you can connect to your Cloud SQL instance at the IP address `127.0.0.1`, which is routed through the proxy's secure connection to Cloud SQL.

When you connect to the Cloud SQL instance through the SQL Server client, a message similar to the following should appear in the proxy terminal:

```
New connection for "myproject:us-central1:myinstance"
```

Then you can run queries and perform other operations.

What's next

- See troubleshooting information for the proxy (https://cloud.google.com/sql/docs/sqlserver/sql-proxy#troubleshooting).
- Learn more about the proxy (https://cloud.google.com/sql/docs/sqlserver/sql-proxy).

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