

[MySQL](#) (/sql/docs/mysql/external-connection-methods) | **PostgreSQL** | [SQL Server](#)

This page describes

the options for connecting from an application running outside of the Google Cloud, including a psql client, to your Cloud SQL instance.

If you are connecting from within the Google Cloud, use the instructions for your Google Cloud service:

[Connecting from App Engine](#) (/sql/docs/postgres/connect-app-engine)

[Connecting from Compute Engine](#) (/sql/docs/postgres/connect-compute-engine)

[Connecting from Google Kubernetes Engine](#) (/sql/docs/postgres/connect-kubernetes-engine)

[Connecting from Cloud Functions](#) (/sql/docs/postgres/connect-functions)

[Connecting from Cloud Run](#) (/sql/docs/postgres/connect-run)

The following table compares the options for connecting from an external application:

Connection option	Secure, encrypted?	More information	Notes
Public IP address with SSL	Yes	<ul style="list-style-type: none"> Configuring SSL for Instances (/sql/docs/postgres/configure-ssl-instance) Configuring access for IP connections (/sql/docs/postgres/connect-external-app#appaccessIP) Connect psql client using SSL (/sql/docs/postgres/connect-admin-ip#connect-ssl) 	SSL certificate management required
Public IP address without SSL	No	<ul style="list-style-type: none"> Configuring access for IP connections (/sql/docs/postgres/connect-external-app#appaccessIP) 	Not recommended for production instances.
Cloud SQL Proxy	Yes	<ul style="list-style-type: none"> Connecting from an external application using the Cloud SQL Proxy (/sql/docs/postgres/connect-external-app#proxy) Connecting psql Client Using the Cloud SQL Proxy (/sql/docs/postgres/connect-admin-proxy) 	

		<ul style="list-style-type: none"> • About the Cloud SQL Proxy (/sql/docs/postgres/sql-proxy) 	
Cloud SQL Proxy Docker image	Yes	<ul style="list-style-type: none"> • Connecting psql Client Using the Cloud SQL Proxy Docker Image (/sql/docs/postgres/connect-docker) • About the Cloud SQL Proxy (/sql/docs/postgres/sql-proxy) 	
JDBC Socket Library	Yes	<ul style="list-style-type: none"> • External connections with Java (/sql/docs/postgres/connect-external-app#java) • JDBC socket factory GitHub page (https://github.com/GoogleCloudPlatform/cloud-sql-jdbc-socket-factory) 	Java programming language only.
Go Proxy Library	Yes	<ul style="list-style-type: none"> • External connections with Go (/sql/docs/postgres/connect-external-app#go) • Cloud SQL Proxy GitHub page (https://github.com/GoogleCloudPlatform/cloudsql-proxy#to-use-inside-a-go-program) 	Go programming language only.
Cloud Shell	No	<ul style="list-style-type: none"> • Using the psql client in the Cloud Shell (/sql/docs/postgres/connect-admin-ip#cloud-shell) 	Uses the Cloud SQL Proxy (/sql/docs/postgres/sql-proxy) to easily connect from the Google Cloud Console. Best for quick administration tasks requiring the <code>psql</code> command-line tool.