

[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/>)

[SQL Server](https://cloud.google.com/sql/docs/sqlserver/) (<https://cloud.google.com/sql/docs/sqlserver/>) [Guides](#)

Cloud SQL for SQL Server features

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

This page describes the major features and capabilities of the Cloud SQL for SQL Server beta. Cloud SQL is also available for [MySQL](https://cloud.google.com/sql/docs/mysql/features) (<https://cloud.google.com/sql/docs/mysql/features>) and [PostgreSQL](https://cloud.google.com/sql/docs/postgres/features) (<https://cloud.google.com/sql/docs/postgres/features>).

Cloud SQL for SQL Server

Features

- Fully managed SQL Server databases in the cloud.
- Custom machine types with up to 416 GB of RAM and 64 CPUs.
- Up to 30 TB of storage available, with the ability to automatically increase storage size as needed.
- Create and manage instances in the [Google Cloud Console](https://console.cloud.google.com/) (<https://console.cloud.google.com/>).
- Instances available in US, EU, Asia or Australia.
- Customer data encrypted on Google's internal networks and in database tables, temporary files, and backups.
- Support for secure external connections with the Cloud SQL Proxy or with the SSL/TLS protocol.
- Import databases using native BAK and SQL files.
- Export databases using native BAK files.
- Automated and on-demand backups.
- Integration with Stackdriver logging and monitoring.

SQL Server features unavailable for Cloud SQL

General features unavailable for Cloud SQL

- SQL Server Reporting Services (SSRS), but you can use Compute Engine or a self-managed environment (from which you connect to Cloud SQL)
- SQL Server Analysis Services (SSAS), but you can use Compute Engine or a self-managed environment (from which you connect to Cloud SQL)
- SQL Server Integration Services (SSIS), but you can use Compute Engine or a self-managed environment (from which you connect to Cloud SQL)
- AD Authentication
- SP_Configure settings (but see [Configuring database flags](https://cloud.google.com/sql/docs/sqlserver/flags) (<https://cloud.google.com/sql/docs/sqlserver/flags>))
- Stretch database
- Backing up to Microsoft Azure Blob Storage
- Buffer pool extension
- BULK INSERT and OPENROWSET(BULK...) features
- Data Quality Services
- Database Log Shipping
- Always On Availability Groups
- Database Mail
- Distribution Transaction Coordinator (MSDTC)
- File tables
- FILESTREAM support
- Maintenance Plans
- Performance Data Collector
- Policy-Based Management
- PolyBase
- Machine Learning and R Services (requires OS access to install it)
- Replication
- Resource Governor

- SQL Server Audit
- Server-level triggers
- Service Broker endpoints
- T-SQL endpoints (all operations using `CREATE ENDPOINT` are unavailable)
- WCF Data Services

Other operations unavailable for Cloud SQL

- ADMINISTER BULK OPERATIONS
- ALTER ANY CREDENTIAL
- ALTER ANY EVENT NOTIFICATION
- ALTER ANY EVENT SESSION
- ALTER ANY SERVER AUDIT
- ALTER RESOURCES
- ALTER SETTINGS
- AUTHENTICATE SERVER
- CONTROL_SERVER
- CREATE DDL EVENT NOTIFICATION
- CREATE ENDPOINT
- CREATE TRACE EVENT NOTIFICATION
- EXTERNAL ACCESS ASSEMBLY
- RESTORE
- SHUTDOWN
- CLR ASSEMBLIES

Supported syntax

Cloud SQL for SQL Server supports the [Transact-SQL syntax](https://docs.microsoft.com/en-us/sql/t-sql/language-elements/transact-sql-syntax-conventions-transact-sql?view=sql-server-2017)

(<https://docs.microsoft.com/en-us/sql/t-sql/language-elements/transact-sql-syntax-conventions-transact-sql?view=sql-server-2017>)

Supported languages

You can use Cloud SQL for SQL Server with App Engine applications running in the flexible environment that are written in Java, Python, PHP, Node.js, Go, and Ruby.

How you can connect to Cloud SQL for SQL Server instances

You can connect to a Cloud SQL instance for SQL Server from:

- [SQL Server Management Studio \(SSMS\)](https://docs.microsoft.com/en-us/sql/ssms/sql-server-management-studio-ssms?view=sql-server-2017)
(<https://docs.microsoft.com/en-us/sql/ssms/sql-server-management-studio-ssms?view=sql-server-2017>)
- A client. [Learn more](https://cloud.google.com/sql/docs/sqlserver/connect-admin-ip) (<https://cloud.google.com/sql/docs/sqlserver/connect-admin-ip>).
- [The sqlcmd utility](https://docs.microsoft.com/en-us/sql/ssms/scripting/sqlcmd-use-the-utility?view=sql-server-2017)
(<https://docs.microsoft.com/en-us/sql/ssms/scripting/sqlcmd-use-the-utility?view=sql-server-2017>).

Connecting to Cloud SQL by using Private Google access is not supported.

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