

# SQL Server requirements

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## SQL Server editions

The system uses a standard Microsoft SQL Server database to store the system configuration parameters for each server and the conversation metadata (CDR) for each conversation.

We recommend to review this topic and select your SQL Server edition based on your requirements.

For more information on the differences of the SQL Server editions, see <https://docs.microsoft.com/en-us/sql/sql-server/editions-and-components-of-sql-server-2017>

Supported SQL Server versions:

- SQL Server 2012
- SQL Server 2014
- SQL Server 2016
- SQL Server 2017
- SQL Server 2019

## Scalability

Conversations stored in the system at any moment	Recommended SQL Server edition
less than 1.000.000 conversations and instant messages	Express Edition
more than 1.000.000 conversations and instant messages	Standard or Enterprise Edition  In very large deployments, partitioning has to be enabled, which is only available in Enterprise Editions or Standard Edition of SQL Server 2016 SP1 or later  For more information, see <a href="#">Database table partitioning</a>

If you have configured [Data management policies](#) in your system that automatically remove calls, you can plan for the maximum amount of calls that you store in the system at any moment, and not the total amount of conversations you have recorded.

## Resiliency

Different SQL Server editions, support different resiliency features. Choose the editions, which is most suitable for the resiliency requirements of the deployment. For highly available deployments, we recommend using Always On availability groups which are available in Enterprise and Standard (basic version) edition only.

Feature	Enterprise	Standard	Express
Database mirroring	Yes	Yes Full safety only	Witness only
Always On failover cluster instances	Yes Number of nodes is the operating system maximum	Yes Support for 2 nodes	No

Always On availability groups	Yes  Up to 8 secondary replicas, including 2 synchronous secondary replicas	Yes, basic only  Requires SQL Server 2016 or later	No
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## Database memory and storage requirements

You can download the Excel [Verba Storage Calculator Sheet](#) to estimate your storage and database sizing requirements.

If the database is running on a Verba server, then please make sure that it is not allocating too much memory for itself, decreasing the performance of other components on the machine.

It is strongly recommended that you leave at least half of the RAM free for use by other Verba components.

For instructions on how to do this, please refer to <https://msdn.microsoft.com/en-us/library/ms178067.aspx>

## SQL Server authentication and permissions

The system supports both SQL Server Authentication and Windows Authentication for SQL Server connections. Using Windows Authentication, the system relies on the Windows service logon credentials for authentication with the SQL Server. The Verba system requires the following SQL Server roles configured for the Windows service user account:

SQL Server role	Description
dbcreator	It is a database server level role and required only during the installation to create the <i>verba</i> database. If you would like to avoid granting this database server level role to the user, you can create the <i>verba</i> database first and then proceed with the installation.
db_owner	It is a <i>verba</i> database level role and required for the system for normal operation.
sysadmin	Either sysadmin or the permissions described in the Additional permissions for SQL Server Standard or Enterprise Edition section is required to install the SQL Server Agent Job

For more information on SQL Server server and database level roles, see <https://msdn.microsoft.com/en-us/library/ms188659.aspx> and <https://msdn.microsoft.com/en-us/library/ms189121.aspx>.

General information on SQL Server principals, see <https://msdn.microsoft.com/en-us/library/ms181127.aspx>

## Additional permissions for SQL Server Standard or Enterprise Edition

When SQL Server Standard or Enterprise Edition is being used (usually in the case of larger systems), the Verba installer also tries to install a SQL Server Agent job. For this, several additional user permissions are required.

First of all, in order to check if the SQL Server Agent service is running on the SQL server and for storing historical index usage for optimal maintenance, the user needs the **View Server State** permission for the SQL server.

To query the maintenance jobs, the **SELECT** permission on the **msdb.dbo.sysjobs** and **msdb.dbo.sysjobs\_view** has to be granted to the user.

For the job installation itself, the **EXECUTE** permission for the **msdb.dbo.sp\_add\_job**, **msdb.dbo.sp\_add\_jobstep**, **msdb.dbo.sp\_update\_job**, **msdb.dbo.sp\_add\_jobschedule**, and the **msdb.dbo.sp\_add\_jobserver** stored procedures has to be granted for the user.

The permissions for the SQL user can be granted with the following script. Please run the script as-is, only modify the two parameters (@login and @db\_name) at the top:

[SQL-Server-requirements-Additional-Permissions.sql](#)

## SQL Server services

For the Verba system, the following SQL Server services must be enabled and running (other services are not required):

- SQL Server
- SQL Server Browser if named instances are used
- SQL Server Agent to run the maintenance jobs (not available on Express Edition)

## Language, collation and case sensitivity

The user account, configured in Verba to access the database (SQL Server user or domain user) must have the **Default Language** configured to **English**. For more information on creating a login and configuring the default language, see <https://docs.microsoft.com/en-us/sql/relational-databases/security/authentication-access/create-a-login>

The system supports any collation with the following requirements:

- The system does not support Case Sensitive (CS) databases, nor servers, the collation has to be Case Insensitive (CI) and the Server has to be Case Insensitive (CI) too.
- Other collation configuration options can be specified according to the specific requirements

For more information on collation, see <https://docs.microsoft.com/en-us/sql/relational-databases/collations/collation-and-unicode-support>