

Guide to migrating ADSelfService Plus database from PostgreSQL to MS SQL



Table of Contents

Document summary	1
Step 1: Configuration steps for the MS SQL Server	1
• Check the status of the MS SQL browser service	1
• Check for a service account or a user account	2
• Provide the required privileges	2
• Copy the required files in ADSelfService Plus	3
• Ensure network connectivity	4
Step 2: Take a backup of the ADSelfService Plus database	4
Step 3: Configuration steps for ADSelfService Plus	5

Document summary

This document guides you through the process of migrating ADSelfService Plus from its default database to MS SQL.

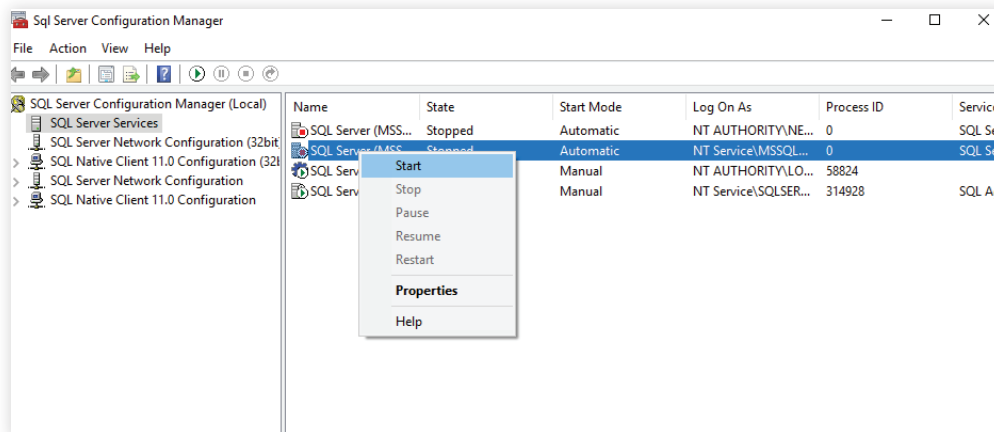
Step 1: Configuration steps for MS SQL Server

Before you start migrating the ADSelfService Plus database to MS SQL, you'll need to complete the following steps:

1. [Check the status of the MS SQL browser service](#)
2. [Check for a service account or a user account](#)
3. [Provide the required privileges](#)
4. [Copy the required files in ADSelfService Plus](#)
5. [Ensure network connectivity](#)

Check the status of the MS SQL browser service

- Open SQL Server Configuration Manager. In the left pane, click on **SQL Server Services** and make sure SQL Server Browser is running. If the server is not running, right-click the **SQL Server Browser** and select **Start**.



- Go to **SQL Server Network Configuration** → **Protocols for SQLEXPRESS** (the given instance while configuring the MS SQL) → **Enable TCP/IP**.
- Set the following configuration for the SQL Server Configuration Manager:
 1. **SQL Server Network Configuration** → **Protocols for <instances>** → **Enable everything**.
 2. **SQL Native Client Configuration** → **Client Protocols** → **Enable all**.

Check for a service account or a user account

To complete the migration process, you require a database admin account for MS SQL connection. If ADSelfService Plus is already running as a Windows service, you can use its service account as the MS SQL database admin account. Also, check if the account has the required privileges from the [provide the required privileges](#) section. If there is no such account in MS SQL, follow the steps given below and create a new user account.

- Go to **SQL Server Management Studio**.
- Expand the following <MACHINE_NAME>\SQLEXPRESS → Security → Logins.
- Check if the user provided in ADSelfService Plus Service is already in the list. If not, right click **Logins**, **New Login** and provide a corresponding username.
The new user must have the sysadmin server level role and database level role.

Provide the required privileges

The configured account needs **any one of these three sets of privileges** to complete the migration process successfully.

	Required database role	Required permissions
Set 1	db_owner	Not required
Set 2	db_datareader, db_datawriter, db_ddladmin, db_backupoperator.	Not required
Set 3	db_ddladmin	ALTER ANY TABLE, ALTER ANY AGGREGATE, ALTER ANY DEFAULT, ALTER ANY FUNCTION, ALTER ANY PROCEDURE, ALTER ANY QUEUE, ALTER ANY RULE, ALTER ANY SYNONYM, ALTER ANY TYPE, ALTER ANY VIEW, ALTER ANY XML SCHEMA COLLECTION, ALTER ANY REFERENCES, CONTROL ON CERTIFICATE:: [ZOHO_CERT] TO [user], CONTROL ON SYMMETRIC KEY::[##MS_DatabaseMasterKey##] TO [user], CONTROL ON SYMMETRIC KEY::[ZOHO_SYMM_KEY] TO [user]

Important:

Please note that you must have the db_owner permission while migrating PostgreSQL to MS SQL for the first time. After a successful migration, you can revoke the db_owner permission for the account, and provide the set 2 or set 3 permissions.

Copy the required files in ADSelfService Plus

If the MS SQL Server is deployed in the local computer:

Copy and paste the following files under the <ADSelfService Plus install_dir> \bin folder:

- bcp.exe (Default location: <MSSQL Installation Dir>\Tools\Binn)
- bcp.rll (Default location: <MSSQL Installation Dir>\Tools\Binn\Resources\1033)

If the MS SQL Server is deployed in the remote computer

Install the corresponding SQL Command Line Utilities or native client in ADSelfService Plus' server as per the MS SQL Server version and CPU type of machine in which ADSelfService Plus is installed.

SQLServer Version	Command line Utilities	Native Client
2008 R2	Download	Download
2012	Download	Download
2014	Download	Download
2016	Download	Download

After installing the Command Line Utilities, copy and paste the following files under the <ADSelfService Plus install_dir> \bin folder:

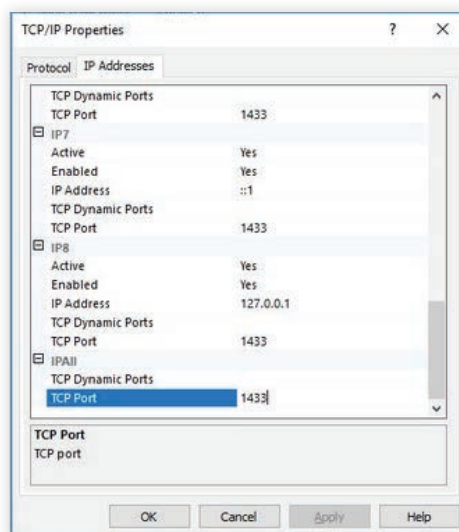
- bcp.exe (Default location: <MSSQL Installation Dir>\Tools\Binn)
- bcp.rll (Default location: <MSSQL Installation Dir>\Tools\Binn\Resources\1033)

Ensure network connectivity

If the Firewall is enabled in the machine running SQL Server, the TCP and UDP ports need to be opened. The UDP port is normally 1434.

Where can I edit the TCP port settings?

- Go to SQL Server Network Configuration > Protocols for <instances>, right-click the TCP/IP, and click Properties > IP Addresses tab.



- Find the TCP Dynamic Ports field. You can either edit the value or leave it as is.

Step 2: Take a backup of the ADSelfService Plus database

If you're installing ADSelfService Plus for the first time and don't have any data to back up, skip this step and proceed to the [next](#). Otherwise, if you want to migrate a database with backed up data to MS SQL, follow the steps given below:

- Execute the `stopDB.bat` file under <ADSelfService Plus>\bin directory.
- Invoke the <ADSelfService Plus installation>\bin\backupDB.bat in the command prompt to back up the data available in the PostgreSQL database. By default, the backup file will be stored under <ADSelfService Plus Installation>\Backup directory.

Step 3: Configuration steps for ADSelfService Plus

- a. Navigate to <ADSelfService Plus install_dir>\bin >.
- b. If you don't have any backed up data to migrate, execute the **changeDB.bat** file with admin privileges.
- c. If you have backed up data that you want to migrate, execute the **changeDB.bat true** file with admin privileges.
- d. The **DB Configuration wizard** will open. Select **MS SQL Server** as the Server Type, and enter the **Host Name** of the MS SQL server.
- e. The values for **Port** number and **Available MS SQL Server Instances** will be automatically loaded. From the displayed list of instances, select the one you desire to use. Enter the **Database Name**.
- f. If you want to authenticate your identity using Windows credentials, select the **Windows Authentication** radio button. When you select this option, you have to enter the credential of the user account with the required privilege.
- g. If you want to authenticate your identity using MS SQL credentials, select the **SQL Server Authentication** radio button.

For authentication based on Windows credentials.

For authentication based on MS SQL credentials.

ADSelfService Pl... Database Setup Wizard

Server Type: MSSQL Server

Host Name: localhost

Port: 1433

Available MSSQL Server Instances: ;MSSQLSERVER;1433

Database Name:

Connect Using:
 Windows Authentication SQL Server Authentication

User Name:

Password:

Save Cancel Test

- h. Click **Test** to check whether the entered credentials are correct. If the connection fails, the entered credentials are wrong. Try entering the correct credentials.
- i. Click **Save**.