

Migrate applications to the Microsoft Authentication Library (MSAL)

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Issue

(ADAL) Active Directory Authentication Library for SQL Server failures and related issues.

Investigation/Analysis

The newest version is 13.0.200.152, <https://www.microsoft.com/en-us/download/details.aspx?id=48742and> [🔗](#), we have provided the customer with a workaround found on GitHub - <https://github.com/bjh1977/AdalSQL>: [🔗](#) Active Directory Authentication Library For SQL Server, but this failed as well.

[Installing OLE DB Driver for SQL Server - OLE DB Driver for SQL Server](#) [🔗](#)

[Download ODBC Driver for SQL Server - ODBC Driver for SQL Server](#) [🔗](#)

Mitigation

Recommendation for customers who are currently on SSMS 18.X customers to stay on SSMS 18.11 and never upgrade if they depend on the functionality that depends on ADAL.

RCA Template (optional)

TBD

More Information (optional)


Currently active discussion is being on-track for release support or extension of support. If needed contact EEE for further assistance.

Public Doc Reference (optional)

[Migrate to the Microsoft Authentication Library \(MSAL\) - Microsoft identity platform](#) 

Internal Reference (optional)

There will never be an updated stand-alone ADAL release. They need to install either the ODBC driver, the OLE DB driver, or SSMS to get the latest version of that ADAL library.

The ADAL in question is an internal-only, native library referenced by System.Data.SqlClient in .NET Framework, the Microsoft ODBC Driver for SQL Server, and the Microsoft OLE DB Driver for SQL Server for AAD authentication. It is not publicly supported by the ADAL team and was never publicly released by them. It was only meant to ship bundled with other MS products. The [original ADALSQL release on the download site](#)  was a one-time compliance exception (that I'm sure the SQL org now regrets). I understand there will not be another exception. I don't know the original reason someone thought SQL had to release it, but I'm guessing it was due to the use in .NET Framework. It was also shipped and installed with SSMS since SSMS required it for AAD auth. At any rate, ODBC and OLE DB both took a dependency on it for AAD auth support. Eventually that version on the download site became quite outdated (I believe the DLL is actually ADAL v1.x). Since it was a one-time exception, ODBC and OLE DB eventually had to bundle it into their setups, too. The ODBC and OLE DB packages are the lightest packages you will find that will give you the latest ADAL. Since .NET Framework is now in maintenance mode, it's unlikely that System.Data.SqlClient will ever get updated to use something other than ADAL. The bar is very high for changing anything in .NET Framework. However, I suspect this could change if the pressure to move off ADAL rises to the level of "AAD auth is going to stop working if it's not updated."

Root Cause Classification

Azure SQL DB/ Migration to Azure/Known Issue

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