

Release Notes

Amazon Redshift ODBC Driver 1.4.14

Released May 2020

These release notes provide details of enhancements, features, known issues, and workflow changes in Amazon Redshift ODBC Driver 1.4.14, as well as the version history.

Enhancements & New Features

Support for GEOMETRY data type

The driver now supports data of type GEOMETRY. For more information, see the *Installation and Configuration Guide*.

Lowercase DbGroups

You can now configure the driver to lowercase all DbGroups that are received from the identity provider. To do this, select the Force Lowercase check box (set the `ForceLowercase` connection property to True). For more information, see the *Installation and Configuration Guide*.

Filter DbGroups

You can now configure the driver to filter all DbGroups that are received from the SAML response in the Azure, Browser Azure, and Browser SAML authentication types. To do this, type the regular expression in the DbGroups Filter field (specify the filter with the `dbgroups_filter` connection property). For more information, see the *Installation and Configuration Guide*.

Preferred role

You can now configure the driver to use preferred role in the Azure, Browser Azure, and Browser SAML authentication types. To do this, type the role in the Preferred Role field (specify the role with the `Preferred_Role` connection property). For more information, see the *Installation and Configuration Guide*.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.14.

- When the date, time, or timestamp escape sequences are applied, the `SQLBindParameter` function returns an error.

- When the driver uses SSO authentication, it sends duplicate parameters and the authentication request fails.
- When the ColumnName filter is applied, the SQLProcedureColumns function returns the incorrect column.
- In some cases, the driver returns an error when arrays of parameters are bound.

Known Issues

The following are known issues that you may encounter due to limitations in the data source, the driver, or an application.

- Limited support for stored procedures.

The driver does not support parameterized procedure call queries if there is more than one procedure of different argument types that share the same name in the server.

- Timestamps do not accept negative values.

The driver does not support the use of negative values in timestamps.

Workflow Changes

The following changes may disrupt established workflows for the driver.

Version 1.4.11

Removed support for the Visual C++ Redistributable for Visual Studio 2013

Beginning with this release, the driver now requires the 2015 version of this dependency instead of the 2013 version.

To download the installation packages for the Visual C++ Redistributable for Visual Studio 2015, go to <https://www.microsoft.com/en-ca/download/details.aspx?id=48145>.

Version History

Version 1.4.13

Released May 2020

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.14.

- Fix issue with Import/Link table in Microsoft Access.

The driver can now query tables and views in Microsoft Access.

Version 1.4.11

Released February 2020

Enhancements & New Features

IAM authentication with browser plugin

You can now use a browser plugin to authenticate your connection through your identity provider's website. For more information, see the *Installation and Configuration Guide*.

Improved Azure AD error messages

The driver now provides more comprehensive error messages for the Azure AD plugin.

Support for notarization

The driver now supports notarization on macOS systems, enabling it to be run on macOS versions 10.14.6 and 10.15.

Updated Expat library

The driver has been updated to use Expat 2.2.9. Previously, the driver used Expat 2.2.0.

Version 1.4.10

Released November 2019

Enhancements & New Features

Azure AD authentication

The driver now supports authentication through Azure AD. For more information, see the *Installation and Configuration Guide*.

Updated libcurl library

The driver has been updated to use libcurl 7.66.0.

Updated OpenSSL library

The driver has been updated to use version 1.1.1d of the OpenSSL library.

Updated driver version information in Linux binary

You can now check the Linux driver's version from the driver binary file. To do this, open the `.so` file in a text editor, and search for the text `$driver_version_sb$:`. The driver's version number is listed after this text.

Improved driver security

The driver's implementation of `SQLTables` and `SQLColumns` has been updated to provide stronger protection against SQL injections.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.10:

- The driver terminates unexpectedly when both of the following occur:
 - Multiple database drivers are loaded to the same process.
 - One driver unloads and calls ICU's `u_cleanup()` function, while another driver continues to run and tries to access the memory space that has been cleaned up.
- In some cases, when `SQLForeignKeys` is called, the returned data is not correctly filtered.
- When you use the driver in Power BI to connect through DirectQuery mode, the driver fails to load late-binding views that contain Char, Varchar, or Numeric columns.

This issue has been resolved. As part of this update, when `SQLColumns` is called, the driver no longer includes column sizes when returning `TYPE_NAME` values for late-binding views.

Version 1.4.8

Released September 2019

Enhancements & New Features

Updated third-party library linking for Linux

The Linux driver now statically links to the OpenSSL and ICU libraries by default.

Oracle Linux support

The driver now supports Oracle Linux 7.5.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.8.

- When an input parameter value is indicated as `SQL_NULL_DATA` during the `SQLBindParameter` call, the driver incorrectly binds the parameter using the SQL data type of the parameter specified in `SQLBindParameter`.

This issue is resolved. The driver now binds the parameter value based on the data type of the column.

- The `MaxLongVarChar` connection property has a maximum length of 8190.

Version 1.4.7

Released June 2019

Enhancements & New Features

Improved driver performance

Enhancements have been made to improve insertion performance when arrays of parameters are bound.

Updated OpenSSL

The driver has been updated to use OpenSSL version 1.1.0j. Previously the driver was using version 1.1.0i.

Resolved Issues

The following issues were resolved in Amazon Redshift ODBC Driver 1.4.7.

- Some registry entries are hard-coded to point to `C:\Program Files`.

- In some cases, when the `UseUnicode` option is enabled and the `CONVERT` function is called, errors occur when converting between character types.
- Variables set in `.ini` files on Windows are not read correctly.

Version 1.4.6

Released April 2019

Enhancements & New Features

Support for REFCURSOR

The driver can now return REFCURSOR type data when using stored procedures to return result sets.

Support for alternative server connections

You can now specify a list of endpoint servers, and the driver will attempt to connect to each of them sequentially until a valid server is found. For more information, see the Server configuration option in the Installation and Configuration Guide.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.6.

- If a function uses the HOUR, MINUTE, or SECOND data types, the function returns an error.
- `SQLGetTypeInfo` returns duplicate rows for BPCHAR and NVARCHAR data types.
- The driver is missing BIGINT data type in `SQLGetInfo(SQL_CONVERT_BIT)`.
- The following data types return no available conversions:
 - `SQLGetInfo(SQL_CONVERT_WCHAR)`
 - `SQLGetInfo(SQL_CONVERT_WVARCHAR)`
 - `SQLGetInfo(SQL_CONVERT_WLONGVARCHAR)`

This issue has been resolved. Be aware that supported conversions will only be returned if the "Use Unicode" option is turned on.

- Catalog functions do not bind parameters correctly, causing errors like "bind supplies X parameters, but prepared statement requires Y".

Version 1.4.5

Released February 2019

Enhancements & New Features

Stored procedures

You can now use the driver to execute stored procedures.

Updated ICU library

The driver has been updated to use version 58.2 of the ICU library. Previously the driver was using version 53.1.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.5.

- If an error is reported while the driver is loading the certificate file or service file, the error message incorrectly displays the internal path of the file.
- If a function uses the HOUR, MINUTE, or SECOND data types, the function returns an error.
- If the driver connects to Redshift using ADFS SSO and automatically creates a user, the user cannot be automatically assigned to more than one DB Group.
- SQLGetTypeInfo does not return information about the FLOAT data type.
- SQLGetTypeInfo returns duplicate rows for BPCHAR and NVARCHAR data types.

Version 1.4.4

Released December 2018

Enhancements & New Features

Dynamically linked third-party libraries

The Linux driver has been updated to use dynamically linked libraries for ICU and OpenSSL. The installation directory now includes a `ThirdParty` directory which contains all required runtime libraries for the driver.

Updated macOS support

The driver now officially supports macOS 10.14. However, support for macOS 10.11 has been deprecated.

Improved SQLColumns support

The catalog function SQLColumns now also returns the column list for use with late-binding views.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.4.

- In some cases, when authenticating the connection using IAM authentication, the driver returns the following error message: `SAML assertion not found`.
- In some cases, calling `SQLProcedureColumns` causes driver behavior that is inconsistent with when `SQLColumns` is called.
- In some cases, the macOS version of the driver fails to properly update the `odbcinst.ini` file when upgrading the driver.

This issue has been resolved. The `odbcinst.ini` file is be created or updated in `/Library/ODBC/odbcinst.ini`. If that attempt fails, the driver attempts to install in `~/Library/ODBC/odbcinst.ini` instead.

- When the driver is installed on a machine that uses Turkish locale settings, if you try to connect using a connection string where one or more of the property names contains a lower-case "i" character, the driver does not connect to the server.

Version 1.4.3

Released September 2018

Enhancements & New Features

Proxy support for IAM authentication processes

You can now configure the driver to pass IAM authentication processes through a proxy server. For more information, see the *Installation and Configuration Guide*.

Upgraded OpenSSL library

The driver now uses OpenSSL 1.1.0i.

Standardized log file names

When logging is enabled, the driver now produces the following log files:

- An `amazonredshiftodbcdriver.log` file that logs driver activity that is not specific to a connection.
- An `amazonredshiftodbcdriver_connection_[Number].log` for each connection made to the database, where `[Number]` is a number that identifies each log file. This file logs driver activity that is specific to the connection.

More informative SSL error messages

The driver now provides more detailed error messages for TLS/SSL errors.

Resolved Issues

The following issue has been resolved in Amazon Redshift ODBC Driver 1.4.3.

- When the driver is configured to connect to Redshift through a proxy server, if the Server property is set to an IP address instead of a host name, the driver does not recognize the IP address and fails to connect to Redshift.

Version 1.4.2

Released June 2018

Enhancements & New Features

Extended support for credentials provider services on Windows

The Windows driver now supports credentials services aside from AD FS, PingFederate, and Okta. The service must be available as a SAML-based credential provider plugin. For more information, see the *Installation and Configuration Guide*.

Authentication support added for proxy connections

You can now provide credentials to authenticate proxy connections. To do this, set the Proxy Username (or `ProxyUid`) option to your user name for accessing the proxy server, and set the Proxy Password (or `ProxyPwd`) option to the corresponding password. For more information, see the *Installation and Configuration Guide*.

Improved parsing for endpoints that use a domain other than ".com"

The driver can now automatically identify the cluster ID when connecting to an endpoint that uses a domain other than ".com", such as endpoints that use ".cn" or other regional domains.

Updated third-party dependencies

The driver now uses the following versions of these third-party libraries:

- OpenSSL 1.1.0h (previously OpenSSL 1.1.0g)
- libcurl 7.60.0 (previously 7.52.1)
- zlib 1.2.11 (previously 1.2.8)

As a result, several security features in the driver have been improved.

Resolved Issues

The following issues were resolved in Amazon Redshift ODBC Driver 1.4.2.

- In some cases, when calling APIs, the driver does not escape filter parameters correctly.
- When configuring the driver using the ODBC Administrator on Windows, if you configure proxy connection settings and then click the **Test** button, the ODBC Administrator terminates unexpectedly.
- If the server name contains hexadecimal characters only, the driver terminates unexpectedly when attempting to connect to the server.
- When configuring the driver using the ODBC Administrator on Windows, if you enter a DSN name that contains special characters and then click the **Test** button, the ODBC Administrator terminates unexpectedly.

This issue has been resolved. The driver now returns an error message instead of causing the ODBC Administrator to terminate unexpectedly.

- When retrieving a DOUBLE value that is larger than the maximum value supported by the DOUBLE data type, the driver returns INFINITY (or Null in some applications) instead of the maximum DOUBLE value.
- In some cases, when using PingFederate authentication, the driver fails to connect during the first attempt but succeeds during subsequent connection attempts.

Contact Us

For support, check the Amazon Redshift Forum at <https://forums.aws.amazon.com/forum.jspa?forumID=155> or open a support case using the AWS Support Center at <https://aws.amazon.com/support>.