

Release Notes

Amazon Redshift ODBC Driver 1.4.20

Released November 2020

These release notes provide details of enhancements, features, known issues, and workflow changes in Amazon Redshift ODBC Driver 1.4.20, as well as the version history.

Enhancements & New Features

Return metadata from multiple data stores

The driver can now return metadata from multiple Redshift databases and clusters. To enable this, clear the Database Metadata Current Database Only check box (set the `DatabaseMetadataCurrentDbOnly` property to 0). For more information, see the *Installation and Configuration Guide*.

Updated root certificate file

The `root.crt` file has been updated to support Amazon Root CA 2, 3, and 4.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.20.

- In some cases, when multiple threads are creating and destroying the environment handle, the driver hangs or terminates unexpectedly.
- When `SQLPutData()` is called multiple times for the same parameter, the parameter value is incorrectly truncated.
- When `SQLProcedureColumns()` is called for a stored procedure with multiple OUT parameters, only one OUT parameter is returned.
- `SQL_DATA_TYPE` and `SQL_DATETIME_SUB` in `SQLProcedureColumns()` return incorrect values for date and time data types.

This issue has been resolved. The driver now returns `SQL_DATETIME` for all date and time types in `SQL_DATA_TYPE` for `SQLProcedureColumns()`. Additionally, the driver now returns `SQL_CODE_DATE`, `SQL_CODE_TIME`, or `SQL_CODE_TIMESTAMP`, depending on the type of date or time column, or null otherwise, in `SQL_DATETIME_SUB` for `SQLProcedureColumns()`.

- CHAR_OCTET_LENGTH in SQLProcedureColumns returns NULL for character types.

This issue has been resolved. The driver now returns the correct length.

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 1.4.18

Removing support for earlier versions of operating systems

Beginning with this release, the driver no longer supports the following operating systems:

- Windows 7 SP1
- Windows Server 2008 R2 SP1
- SUSE Linux Enterprise Server (SLES) 11
- Debian 7
- Ubuntu 14.04

For a list of supported operating systems, see the Installation and Configuration Guide.

Version 1.4.17

New default value for Bytea As LongVarBinary

The default value of the Bytea As LongVarBinary option (`ByteaAsLongVarBinary` connection property) is now Enabled (1). Previously, the default value was Disabled (0). For more information, see the *Installation and Configuration Guide*.

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 1.4.18

Released October 2020

Enhancements & New Features

Updated logging configurations

You can now configure logging for the current connection by setting the logging configuration properties in the DSN or in a connection string. For more information, see the *Installation and Configuration Guide*.

Updated third-party libraries

The driver has been updated to use the following libraries:

- OpenSSL 1.1.1g (previously 1.1.1d)
- ICU 58.3 (previously 58.2)

Additional operating system support

The driver now supports the following additional operating systems:

- Windows Server 2019
- Red Hat Enterprise Linux (RHEL) 8
- CentOS 8
- SUSE Linux Enterprise Server (SLES) 15
- Ubuntu 18.04

For a complete list of supported operating systems, see the Installation and Configuration Guide.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.18.

- If autocommit is disabled and the query fails after execution, the driver returns a "current transaction is aborted, commands ignored until end of transaction block" error.
- Inserting multiple rows using `SQLPutData()` results in duplicate rows.
- Before the connection, when `SQL_ATTR_ACCESS_MODE` is set to read-only, and logging is enabled, the driver terminates unexpectedly.
- When using `SQLSetDescRec ()` with `SQL_TYPE_DATE` and `SQL_TYPE_TIMESTAMP`, the driver returns an error.
- When the connection object's destructor calls `SQLDisconnect()`, the driver terminates unexpectedly.

This issue has been resolved. When using the driver with an object that has static storage duration (such as a global), you may run into destruction order issues during application termination. The driver now returns `SQL_SUCCESS` when `SQLDisconnect()` is called in this case.

- The `TIMESTAMPDIFF` function behaves differently than the `DATEDIFF` function.
- In some cases, when using `BrowserAzureAD` with multiple connections in PowerBI, the connection fails.

This issue has been resolved. Now, when using `BrowserAzureAD`, you can no longer set a value for `Listen_Port`.

- In some cases, when using authentication with browser plugins, Chrome opens two connections and the driver does not retrieve from the IdP.
- When using a column filter, `SQLProcedureColumns()` returns incorrect columns.

- The driver does not return an error message of missing required settings and escapes iodbctest when the key-value pair of a required setting is missing in `odbc.ini`.

Version 1.4.17

Released September 2020

Enhancements & New Features

Rename OMNI datatype to SUPER

Data of type OMNI is now known as SUPER. For more information, see the *Installation and Configuration Guide*.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.17.

- `SQL_DATA_TYPE` and `SQL_DATETIME_SUB` in `SQLColumns` return incorrect values for date and time data types.
This issue has been resolved. The driver now returns `SQL_DATETIME` for all date and time types in `SQL_DATA_TYPE` for `SQLColumns`. Additionally, the driver now returns `SQL_CODE_DATE`, `SQL_CODE_TIME`, or `SQL_CODE_TIMESTAMP`, depending on the type of date or time column, or null otherwise, in `SQL_DATETIME_SUB` for `SQLColumns`.
- When `SQLColumns` is called for `NUMERIC` and `DECIMAL` columns in late binding view, the driver returns an error.

Version 1.4.16

Released July 2020

Enhancements & New Features

Support for TIME data

The driver now supports data of types `TIME` and `TIMETZ`. For more information, see the *Installation and Configuration Guide*.

Support for OMNI data

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

Specify relying party trusts

You can now configure the driver to allow different relying party trusts for AD FS authentication. To do this, when the authentication type is AD FS, type the relying party in the `loginToRp` field (specify the relying party with the `loginToRp` connection property). For more information, see the *Installation and Configuration Guide*.

Support for read-only mode

You can now configure the driver to enable read-only mode. To do this, select the Enable Read Only check box (set the `ReadOnly` connection property to 1). For more information, see the *Installation and Configuration Guide*.

Additionally, you can change the read-only settings by setting `SQL_ATTR_ACCESS_MODE` to `SQL_MODE_READ_WRITE` or `SQL_MODE_READ_ONLY`.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.16.

- When you are missing required connection settings in `SQLBrowseConnect()`, the driver returns an error.
This issue has been resolved. The driver now returns the appropriate output connection string with required and optional keys.
- When selecting and inserting using `SQLParamData` and `SQLPutData`, the driver returns an error.
- When using PingFederate authentication, the driver incorrectly sends the password to the `passwordReset` field and the authentication fails.
- The `getColumns()` metadata for external tables returns inconsistent type names.
- When using `SQLPrimaryKeys` with a schema name, the driver returns incorrect results.
- When using Browser SAML authentication, the driver can not parse SAML responses containing newlines.
- When using numeric data in late binding views, the driver returns incorrect `DECIMAL_DIGITS` values in `SQLColumns`.

Version 1.4.14

Released May 2020

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.

Version 1.4.13

Released May 2020

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Driver 1.4.13.

- 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".

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>.