

Release Notes

Amazon Redshift ODBC Data Connector 1.5.9

Released November 2023

These release notes provide details of enhancements, features, known issues, and workflow changes in Amazon Redshift ODBC Connector 1.5.9, as well as the version history.

Enhancements & New Features

JWT IAM Auth authentication support

You can now authenticate your connection with a JSON Web Token IAM authentication (JWT IAM Auth). To do this, select JWT IAM Auth Plugin authentication from the Auth Type drop-down list (set the `Auth Type` to `JWT IAM Auth` authentication). For more information, see the *Installation and Configuration Guide*.

Updated third-party libraries

The connector has been updated to use the following libraries:

- AWS SDK 1.11.6 (previously 1.9.362)
- libcurl 8.4.0 (previously 8.1.2)
- OpenSSL 3.0.11 (previously 3.0.9)

First Adapter support

When using PingFederate authentication, the connector now supports First Adapter Identifier.

Internal security related improvements

The connector has been updated with security related improvements.

Resolved Issues

The following issue has been resolved in Amazon Redshift ODBC Connector 1.5.9.

- In some cases, custom SQLState overrides to SQLState S1000 for errors and 01000 for warnings.
- The connector computes the value returned for SQL_DESC_OCTET_LENGTH from the IRD (and thus also SQLColAttribute) for character types by using the maximum size of a codepoint, instead of the size of a code unit. For both wide and non-wide types, the column size was previously used directly for non-wide types as the code unit size was assumed to be 1.

Known Issues

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

- Limited support for stored procedures.

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

Workflow Changes

The following changes may disrupt established workflows for the connector.

Version 1.5.7

Removed support for Windows 8.1

Beginning with this release, the connector no longer supports Windows 8.1. For a list of supported Windows versions, see the *Installation and Configuration Guide*.

Version 1.4.62

Removed support for macOS 10.13

Beginning with this release, the macOS connector no longer supports version 10.13. For more information, see the *Installation and Configuration Guide*.

Version 1.4.52

Removed configuration properties

The configuration properties `ByteaAsLongVarBinary` and `MaxBytea` have been removed. Redshift does not support the BYTEA data type.

Version 1.4.45

Updated JWT configuration properties

The configuration properties required for JWT authentication has been updated as the web identity token is now directly handled by the Redshift cluster instead of the STS. The new Provider Name option (`provider_name` connection property) is used instead of Role ARN, Duration, and Role Session Name. For more information, see the *Installation and Configuration Guide*.

Removing support for macOS 32-bit

Beginning with this release, the macOS connector no longer supports 32-bit client applications. For more information, see the *Installation and Configuration Guide*.

Version 1.4.40

Updated IAM authentication behavior

The connector's behavior when using IAM authentication has been updated. Now, the cached IAM credentials are disabled and the connector authenticates the user's identity with the identify provider.

Version 1.4.27

Updated EnforceSingleStatement and UseMultipleStatements description

The description of the `EnforceSingleStatement` and `UseMultipleStatements` options have been changed to reflect the actual behaviour. For more information, see the *Installation and Configuration Guide*.

Updated query processing modes behavior

The driver's behavior for the query processing modes have been updated. For more information, see the *Installation and Configuration Guide*.

Removed support for CentOS 6 and RHEL 6

Beginning with this release, support for CentOS 6 and RHEL 6 have been removed. For a list of supported Linux versions, see the *Installation and Configuration Guide*.

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 1.5.7

Released September 2023

Enhancements & New Features

Updated endpoint support

You can now override the Amazon Redshift endpoint when using IAM authentication. To do this, in the VPC Endpoint URL field specify the endpoint URL (set the `VpcEndpointUrl` property). For more information, see the *Installation and Configuration Guide*.

Updated third-party libraries

The connector has been updated to use the following libraries:

- AWS SDK 1.9.362 (previously 1.9.136)
- Expat 2.5.0 (previously 2.4.6)
- ICU 71.1.x (previously 58.3.x)
- libcurl 8.1.2 (previously 7.78.0)
- OpenSSL 3.0.9 (previously 1.1.1q)
- Zlib 1.2.13 (previously 1.2.11)

For OpenSSL, the certificates used for identity providers might need to be regenerated since some encryption algorithms have been deprecated in OpenSSL 3.

Updated platform support

The connector now supports the following versions:

- Debian 10 and 11
- Ubuntu 22.04
- Windows 11
- Windows Server 2022

For more information, see the *Installation and Configuration Guide*.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Connector 1.5.7.

- In some cases, when calling SQLColumns, the connector returns a "invalid input syntax for integer: "" " error message.
- When calling SQLColumns for datasharing external tables, the connector returns incorrect values for the NULLABLE and IS_NULLABLE columns.
- When calling SQLColumns, the connector returns different metadata between local and external tables.

Version 1.4.62

Released December 2022

Enhancements & New Features

Apple M1 support

The connector now supports M1. For more information, see the *Installation and Configuration Guide*.

Resolved Issues

The following issue has been resolved in Amazon Redshift ODBC Connector 1.4.62.

In some cases, when an array of parameters is passed into an INSERT INTO statement with parameter markers, the connector returns an "a statement is already in progress" error message.

Version 1.4.59

Released October 2022

Enhancements & New Features

Azure AD OAuth2 authentication support

You can now use Azure AD OAuth2 to authenticate your connections. For more information, see the *Installation and Configuration Guide*.

Updated third-party libraries

The connector has been updated to use the following libraries:

- libcurl 7.78.0 (previously 7.84.0)
- OpenSSL 1.1.1q (previously 1.1.1n)

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Connector 1.4.59.

- When `SingleRowMode` is enabled and two queries are executed in a row, the connector returns a "Query cancelled on user's request" error for the latter query.
- When authenticating with AWS Profile and the equal sign (=) appears in `credential_process`, the connector does not read the value set in `credential_process`.

Version 1.4.56

Released July 2022

Enhancements & New Features

Group federation support

You can now configure the connector to use group federation when using AWS IAM Credentials or AWS Profile for authentication. To do this, select the Group Federation checkbox (set the `group_federation` property to 1). For more information, see the *Installation and Configuration Guide*.

Application name support

You can now set the name of the current application on the server. To do this, set the `ApplicationName` property to application name. For more information, see the *Installation and Configuration Guide*.

Updated AWS SDK and endpoint support

The connector has been updated to use version 1.9.289 of AWS SDK and now supports workgroups in serverless endpoints. Previously, the connector used 1.9.136.

Updated SSL support

You can now retrieve the SSL information of a connection using the PGO_CONN_SSL_INFO custom attribute with SQLGetConnectAttr. The value of PGO_CONN_SSL_INFO is 16385.

Resolved Issues

The following issue has been resolved in Amazon Redshift ODBC Connector 1.4.56.

- When terminating the connection from the server using Declare or Fetch mode, the connector terminates unexpectedly.

Version 1.4.53

Released June 2022

Enhancements & New Features

Enable AWS SDK logging at TRACE level

You can now configure the connector to enable AWS SDK logging at the TRACE level. To do this, set the `EnableAwsSdkLogs` property to 1. For more information, see the *Installation and Configuration Guide*.

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Connector 1.4.53.

- In some cases, when using IAM authentication, the connector does not log the HTTP request's configuration.
- The connector does not recognize the `role_session_name` parameter in the AWS Profile.
- When using browser-based IAM authentication, the login pop-up window appears multiple times.

This issue has been resolved. The connector now enables cached IAM credentials by default.

- In some cases, when binding parameters, the connector incorrectly converts binary data.

Version 1.4.52

Released April 2022

Enhancements & New Features

Timeout properties

You can now configure the amount of time that the connector waits before a connection times out. To do this, set the `ConnectionTimeout` or `StsConnectionTimeout` property to the desired amount of time in seconds. For more information, see the *Installation and Configuration Guide*.

Updated third-party libraries

The connector has been updated to use the following libraries:

- Expat 2.4.6 (previously 2.2.9)
- OpenSSL 1.1.1n (previously 1.1.1l)

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Connector 1.4.52.

- On Windows, when non-alphanumeric characters are entered in the IdP Host field, the DSN Setup dialog box becomes unresponsive.
- In some cases, when querying with `TIMESTAMPADD` scalar function, the connector returns inaccurate results.
- In some cases, when querying with `TIMESTAMPADD` scalar function using the `SQL_TSI_MONTH` or `SQL_TSI_YEAR` interval, the connector returns an "Interval values with month or year parts are not supported" error.
- Updated SAML Plugin browser launch process.

Version 1.4.49

Released February 2022

Enhancements & New Features

Support for the GEOGRAPHY data type

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

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Connector 1.4.49.

- When multiple threads are creating and destroying the environment handle, the connector hangs or terminates unexpectedly.
- When authenticating with JWT and JWT is not capitalized in `plugin_name`, the connector returns a "Failed to execute the external plugin" error message.
- When calling `SQLColumns()` for character columns in external tables, the connector returns an "invalid input syntax for integer" error message.
- The connector does not support the credential process profile when authenticating with AWS Profile.
- In some cases, when calling `SQLDisconnect`, the connector terminates unexpectedly.
- When using applications that do not support extended resultset metadata, such as PgBouncer, the connector returns an error.

Version 1.4.45

Released September 2021

Enhancements & New Features

Support for the serverless endpoint

The connector now supports the serverless endpoint.

SHA-256 password hashing algorithm support

The connector now supports the SHA-256 password hashing algorithm.

Authentication Profile support

You can now use an authentication profile to authenticate your connections. For more information, see the *Installation and Configuration Guide*.

Support for Redshift and STS endpoints

When authenticating, the connector now supports using endpoints to communicate with the Redshift cluster or the AWS Security Token Service (AWS STS). For more information, see the *Installation and Configuration Guide*.

Updated Ubuntu support

The connector now supports Ubuntu 20.04. For more information on supported versions, see the *Installation and Configuration Guide*.

Updated third-party libraries

The connector has been updated to use the following libraries:

- AWS SDK 1.9.136 (previously 1.7.41)
- libcurl 7.78.0 (previously 7.74.0)
- OpenSSL 1.1.1l (previously 1.1.1k)

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Connector 1.4.45.

- Expired certificates in the root.crt file causes the connector to return an error.
This issue has been resolved. Expired and unnecessary certificates have been removed from the Root CA certificate.
- When a new user connects to SQL Server with Linked Server using ADFS Windows Integrated Authentication, the connector uses incorrect cached credentials.
- On Linux, when using the Amazon EC2 instance profile and IMDSv1 is disabled, the connection fails.
- When using UPDATE, INSERT, or DELETE statements, the connector returns an "a statement is already in progress" error message.
- When rounding floating point numbers, the connector returns an incorrect value.
- When calling SQLColumns() for boolean columns in external tables, the connector returns the boolean data type and causes the Boolean column to be unsearchable in PowerBI.
- When remotely connecting to SQL Server Linked Server using ADFS Windows Integrated Authentication and Kerberos authentication is expected, the connection fails.

Version 1.4.40

Released September 2021

Enhancements & New Features

Support for VARBYTE data

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

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Connector 1.4.40

- On Linux and macOS, when a query is executed and the results are retrieved from different threads, the connector becomes unresponsive.
- When calling SQLMoreResults without retrieving the current result set in a statement containing multiple queries, the connector does not return SQL_SUCCESS.
- When using ADFS authentication, WinHttpRequest returns an ERROR_WINHTTP_CLIENT_AUTH_CERT_NEEDED error.
- When using JWT authentication, and the Role Session Name is not specified, the connector assigns a default name.

This issue has been resolved. Now, the connector uses the derived user name from the JWT assertion as the Role Session Name.

- The precision and scale of SQLProcedureColumns do not match its definition.

This issue has been resolved. Now, SQLProcedureColumns is set to the following:

- COLUMN_SIZE for NUMERIC type: the defined number of digits
- BUFFER_LENGTH for NUMERIC type: the defined number of digits plus two (a sign and a decimal point)
- DECIMAL_DIGITS for NUMERIC type: the defined number of digits to the right of the decimal point
- DECIMAL_DIGITS for INTEGER type: 0
- SQL_MAX_CATALOG_NAME_LEN, SQL_MAX_SCHEMA_NAME_LEN, and SQL_MAX_COLUMN_NAME_LEN in SQLGetInfo are set to a maximum of 64 characters.

This issue has been resolved. These properties are now set to the Redshift maximum of 127 characters.

- When SQLTables is called and the schema and/or table name is over 124 characters, the name is truncated.

Version 1.4.34

Released July 2021

Enhancements & New Features

Updated third-party libraries

The connector has been updated to use the following libraries:

- libcurl 7.74.0 (previously 7.66.0)
- OpenSSL 1.1.1k (previously 1.1.1i)

Resolved Issues

The following issues have been resolved in Amazon Redshift ODBC Connector 1.4.34.

- When a query in a statement handle fails when using SQLPrepare(), the connector incorrectly returns an "Error occurred while trying to run statement: a statement is already in progress" error message.
- When executing DDL and DML statements, the connector becomes unresponsive without closing the cursor or freeing the statement handle.
- During IAM authentication, when the connector retrieves the STS API, the AWS region setting in the DSN is not used.

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>.