# Common process to handle RFI driver connector related issue

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For RFI driver connector issue, please follow below steps for trouble shooting.

## 1. Identify the issue

First need to identify whether the issue is caused by Simba/Progress driver, or by ADF side. Usually we can sift the issues into some common types.

# 1.1 Copy failure

Need to check the error message.

- If the error message is similar to Message=ERROR [HY000] [Microsoft][xxx] xxxx , this kind of error is thrown from driver, please directly open ticket to Simba/Progress.
- If the error message is empty (like below example), usually it is caused by driver side as well, still need to open ticket to Simba/Progress.

'Operation on target CmmAcqCopyData failed: Failure happened on 'Source' side.

ErrorCode=UserErrorOdbcOperationFailed, 'Type=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException, Message=, Source=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException, Message=, Source=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException.HybridD ft.DataTransfer.Runtime.GenericOdbcConnectors,"Type=System.Data.Odbc.OdbcException,Message=,Source=,"

· Otherwise, you may involve PG on Ava.

\*TSG to open ticket to Progress and Simba

## 1.2 Copy stuck

\*Please distinguish stuck from low perf. Stuck usually means the copy progress stays at the same point and totally not moving forward.

The majority cases are caused by driver crash, which should be investigated by Simba/Progress. But please involve PG to double check before contacting them.

#### 1.3 Low perf

If the copy does have progress but obviously more slowly than it usually did and customer is using SHIR, it is more likely to be caused by low machine resource (high CPU usage/low memory) or network issue between SHIR machine and data store service. Customer can try to use some third party tool to retrieve data from data store via same SHIR machine and compare the perf gap.

## 2. Contact Simba/Progress support

#### 2.1 Check driver version

Need to provide correct driver version to Simba/Progress for trouble shooting, especially for those drivers who have multiple side by side versions. For a particular activity run id, follow this <u>TSG</u> to check the version we are using.

\*If customer is using SHIR, it is recommended to upgrade to the latest version first.

#### 2.2 Open support ticket

Here are the TSGs to open ticket to Progress and Simba.

\*Note: If Simba/Progress doesn't give any valid responses within 3 days each time after you reply to them (statements like "still investigating" are **not** considered as valid response), please escalate to **David Zhao** or **Keynes Yang** to push them with higher priority.

#### 3. Collect driver logs

Usually Simba/Progress will ask for driver logs for trouble shooting.

#### 3.1 AzurelR

Customer needs to build a copy pipeline and manually modify the copy payload. Refer to TSG.

#### **3.2 SHIR**

We have two approaches to collect driver logs on SHIR. Refer to TSG.

\*A shortcut for collecting **Oracle** logs on SHIR.

#### 4. Trouble shoot

#### 4.1 Add additional properties

Sometimes Simba/Progress may ask for adding some additional properties to the linked service to enable some internal features for trouble shooting. Follow the TSG.

#### 4.2 Help customer set up SHIR

In some cases we do need to use SHIR to do some local debugging. But customer is using AzureIR and not willing to switch to SHIR, or they don't want to change the SHIR config as they are production environment. For this scenario, CSS needs to help set up SHIR for customer. Follow the <u>TSG</u>.

# 4.3 Generate New Version NuGet Package for SHIR test

## 4.3.1 Simba driver

- Download necessary packages: <u>Documents>Simba>Binaries</u> ☑. (Some drivers may locate here: <u>Documents>Simba>Binaries>RESTful ODBC Drivers>RDFODBC 1.6.X</u> ☑)
- Unzip the new version driver for Windows 64bit (Also unzip the nested zip, if the extension is .nuget , rename it with .zip).
- Find the lib folder under the folder {DriverName} ODBC Driver\_x.x.x.xxxx you unzipped just now (Always keep in mind to use 64bit when you see 2 folders with similar name). Find lib folder and Dependencies.xml.
- Move files and folders according to Dependencies.xml from <Source> to <Target>.
  - o Sometimes common.zip is not included in the parent folder, then according to the version, please find the dependencies here:

    <u>Documents>Simba>Binaries>Common</u> ☑ and <u>Documents>Simba>Binaries>RESTful ODBC Drivers>RDFODBC 1.6.X>RDFODBC</u> ☑, rename the extension from .nupkg to .zip , find the corresponding file and copy it to <Target>.
- Search {DriverName}ODBC.did and {DriverName}ODBC64.man under parent folder. Then put these two files under 1ib folder.
- Check driver version and notify the DriverVersion to our customer so that they can update driver in the correct folder in next step.
- Zip the lib folder and send to customer for testing. Ask customer to make a backup copy for Microsoft Integration Runtime\5.0\Shared\ODBC Drivers\
  {DriverName}\_{DriverVersion}\lib, paste the new lib folder to replace the old one and remember not to delete the old one since the driver also need some other files in the old lib folder.
- This replacement should be done for all nodes in SHIR.

#### 4.3.2 Progress driver

Find new driver according to the instructions in **Progress tickets**. Directly replace it in SHIR.

# 5. Upgrade driver

Usually Simba/Progress will ask us to upgrade the driver to newer version. Need to follow below checklist.

#### 5.1 Confirm RCA

If Simba/Progress just asks us to upgrade the driver to have a try, need to double confirm RCA with them regarding below key points:

- They need to confirm it is caused by their code bug in current version.
- They need to confirm they have a fix regarding this issue in some newer version, and give us the version number.

If they are not sure about the answer to above questions clearly, but just ask us to "try with new version" as an experiment, please push back to them and ask them to further trouble shoot with a concrete conclusion. We are not willing to put much effort and utilize our customer to just test for it.

#### 5.2 (Optional) Test with new version

After Simba/Progress confirms their code bug and gives a new version with the fix, we have an option to do some test to make sure the issue is fixed indeed.

- If CSS has the repro environment, please ask PG to share a private SHIR build, then you need to set up SHIR for yourself for test.
- If customer is using SHIR or agrees to set up an SHIR to help have the test on that machine.
  - Follow step 4.3 to generate new driver folder.
  - Follow step 2.1 to check current driver version.
  - Go to the driver folder of the corresponding version in SHIR, back up old files and replace old files by the new driver provided by PG.
  - o Go to ADF to test.
  - Recover the old files after test
- If we need customer to involve into the test but customer is not willing to set up SHIR, please ask PG to share a private SHIR build and follow step 4.2 to help customer finish the test.

#### 5.3 Official release

Involve PG to start the process of driver upgrade after driver team shares the official release of the new driver.

#### 6. Common cases

Below are some common cases for each driver.

#### 6.1 Zoho

- With OAuth2.0, sometimes may meet error like ERROR [HY000] [Microsoft][Zoho] (1017) Authentication failed: Malformed response received from the authentication server... Please follow below guide.
  - o In "Endpoint" field, fill in "www.zohoapis.com ☐" (or some other domain specific url, such as \*.eu, \*.in, etc). No prefix (https://), no suffix (/crm/v2).
  - If customer is using a domain specific account url to get access token, other than default "https://accounts.zoho.com [2]", fill in "accountsUrl" field with value: "https://accounts.zoho.in [2]" (or \*.eu, etc).
- With above correct config, sometimes may still meet connection error, which is because the Zoho account doesn't have necessary modules. Please ask customer to go to Zoho side to add it.
  - The necessary modules listed by Driver team: "Accounts", "Calls", "Campaigns", "Cases", "Contacts", "Events", "Invoices", "Leads", "Potentials", "Price\_Books", "Products", "Purchase\_Orders", "Sales\_Orders", "Solutions", "Tasks", "Vendors", "Quotes", "Users".
  - Log in to your Zoho account.
  - Go to settings.
  - Click Modules and Fields in the Customization tab.
  - Add a new module.

## 6.2 Hive

- In some cases customer may have their own cert file for authentication, but don't know how to config the linked service. Please follow below guide. Note that using own cert file requires SHIR.
- 1. If the cert file contains the client's SSL certificate which will be verified by Hive server.

In this case, customer should add below two additional properties following this TSG

- (1) In portal, choose "Enable SSL"
- (2) Add property name "TwoWaySSL", property value: 1
- (3) Add property name "ClientCert", property value is path to customer's own cert.
  - 2. If the cert file contains trusted CA certificates, for verifying the server's cert when using SSL.

In this case, customer should follow below steps.

- (1) In portal, choose "Enable SSL".
- (2) The property "trustedCertPath" in linked service is by default pointing to the cert file under driver folder. Customer can manually replace it in portal by their own cert path.

#### 6.3 MySQL

- In some cases customer may have their own cert files for SSL authentication, but don't know how to config the linked service. Please follow below guide. Note that using own cert file requires SHIR.
- 1. Put the cert files to the VM where SHIR is installed.
- 2. For "SSL mode", select "Required" or above.
- 3. Add additional property name "SSLKey", property value is the full path and name of a file containing the private SSL key used for encrypting the client-side certificate.
- 4. Add additional property name "SSLCert", property value is the full path and name of a .pem file containing the SSL certificate used for proving the identity of the client.
- 5. Add additional property name "SSLCA", property value is the full path and name of a .pem file containing a root certificate from a trusted CA. Note that the CA cert should be stored as .pem file.

<sup>\*</sup>To be added...