# [ODBC] Hive Troubleshooting Suggestion

Last updated by | Jackie Huang | Jan 4, 2022 at 12:24 AM PST

When you are working on the ODBC Hive via ADF copy activity, you may probably see the error below.

1. Failure happened on 'Source' side.
   'Type=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException,Message=ERROR [HY000] [Microsoft][Hardy] (35) Error from server: error code: '0' error message: 'Invalid OperationHandle: OperationHandle [opType=EXECUTE_STATEMENT, getHandleIdentifier()=fd57fbd2-3bae-4673-a98e-af3f017d1128]'.,Source=Microsoft.DataTransfer.ClientLibrary.Odbc.OdbcConnector,''Type=System.Data.Odbc.OdbcException,Message=ERROR [HY000] [Microsoft][Hardy] (35) **Error from server**: error code: '0' error message: 'Invalid OperationHandle: OperationHandle [opType=EXECUTE_STATEMENT, getHandleIdentifier()=fd57fbd2-3bae-4673-a98e-af3f017d1128]'.,Source=Microsoft Hive ODBC Driver,'

2. Failure happened on 'Source' side.
   ErrorCode=UserErrorOdbcOperationFailed,'Type=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException,Message=ERROR [HY000] [Microsoft][Hardy] (34) Error from server: Bad Status: HTTP/1.0 504 Gateway Time-out.,Source=Microsoft.DataTransfer.Runtime.GenericOdbcConnectors,''Type=System.Data.Odbc.OdbcException,Message=ERROR [HY000] [Microsoft][Hardy] (34) **Error from server**: Bad Status: HTTP/1.0 504 Gateway Time-out.,Source=Microsoft Hive ODBC Driver,'

You can see error from server side, then you can check what's happened from the server side in order to narrow down the issue.

If the source is HDI, you can leverage the kusto query below from the HDI side,

You can check kusto table from HDI to get more information: https://hdinsight.kusto.windows.net ⧉

CentralApplicationEvents

CentralGatewayLogs

For example: CentralGatewayLogs | where ClusterDnsName == "brianwanhdi" | where HttpStatus == "502" or HttpStatus == "500" or HttpStatus == "504"

CentralApplicationEvents | where ClusterDnsName == "brianwanhdi" | where EventDescription contains "502" or EventDescription contains "500" or HttpStatus == "504"

If you are not sure how to check it further, you can engage the HDI engineer to help you.

If you need further escalation from client side, please raise ticket to https://supportability.visualstudio.com/AzureDataFactory/_wiki/wikis/AzureDataFactory/286964/How-to-contact-Simba-Support.

**More detail**

Regarding above error message from ADF side, we found the root cause from HDI side from CentralApplicationEvents.

Here is Root cause analysis:

After looking at odbc driver logs and backend logs, suspecting couple of potential gateway code restrictions;

1. The current Gateway code needs some graceful handling of JSessionID cookie. These cookies are generated by the server and are used by client on subsequent requests. The current gateway code is more restrictive in terms of handling the name of the cookie, For example JSessionId Vs JSESSIONID as case sensitive. This restricted behavior will cause gateway to fall back on the unsought code path that chooses the head node in round robin manner to be sent back to client. Whereas as desired code path would be to use and validate info in JessionID cookie and send back the correct headnode info.

2. From the Application logs below, looks like there is a race condition happening in the code. It appears that sometimes gateway fails to set Hive session cookie in the HTTP response and the response is sent to the client before hive session cookie is set. This may need to be fixed by identifying correct order of event handling in the gateway code. Error message from **CentralApplicationEvents**: 0!! [1399325dc2c241139751b2320714554f]::Hs2 session cookie creation failed System.Web.HttpException ( 0x80004005): Server cannot modify cookies after HTTP headers have been sent. at System.Web.HttpResponse.BeforeCookieCollectionChange() at System.Web.HttpCookieCollection.Add(HttpCookie cookie) at Microsoft.HdInsight.Iaas.Gateway.Hs2SessionEndPointModule.SetSessionCookie(HttpResponse response, String hs2EndPoint, TimeSpan timeout) at Microsoft.HdInsight.Iaas.Gateway.Hs2SessionEndPointModule.SetStickySession(HttpRequest request, HttpResponse response) Exception: An exception has occurred: Server cannot modify cookies after HTTP headers have been sent.

Above messages implies that the HTTP reply was sent back to client even before setting correct information in the cookie.

**Reference**

ADMS ICM: https://portal.microsofticm.com/imp/v3/incidents/details/183385499/home ⊡

HDI ICM: https://portal.microsofticm.com/imp/v3/incidents/details/183993147/home ⊡

Simba ticket: https://magnitudesoftware.force.com/support/5001S000016zL1E ⊡

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