

Copy activity fails when oracle database as sink while using parallel copy

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Issue Summary

- Issue when copying data from **data-lake gen2 to Oracle database** throws an error: **ORA-00054 – Resource Busy**
- Copy from ADLS Gen2 to an oracle database fails with the error below:

Error details

Error code [UserErrorOdbcOperationFailed](#)

Failure type User configuration issue

Details Failure happened on 'Sink' side.
 ErrorCode=UserErrorOdbcOperationFailed,'Type=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException,Message=ERROR [HY000] [Microsoft][ODBC Oracle Wire Protocol driver][Oracle]ORA-00604: error occurred at recursive SQL level 1
ORA-00054: resource busy and acquire with NOWAIT specified or timeout expired
 ,Source=Microsoft.DataTransfer.ClientLibrary.Odbc.Odb

Note1

This error is somehow common in oracle when a table is locked and other process try to perform a DML operation in it.

- However, in our case, it is caused by the Oracle Driver when the degree of parallelism configured in the copy activity settings is greater than 1 and it is an error caused by the Oracle driver in ADF:

General Source Sink Mapping **Settings** User properties

i You will be charged # of used DIUs * copy duration * \$0.25/DIU-hour. Local currency and separate discounting may apply per subscription type. [Learn more](#)

Maximum data integration unit ^①

☐ Edit

Degree of copy parallelism ^①

☒ Edit

- This issue only happens when the source is Data Lake Gen2 because, the sql statement (which must be hardcoded in the driver code) uses an oracle hint for bulk insertions:

```

OBJECT_NAME      SID SERIAL# SPID      PROGRAM      USERNAME      MACHINE      PORT LOGON_TIM SQL_FULLTEXT
-----
SURNAMES1        458  41607 23673      oracle@ora    CAMILO        ad3c431080003WX 12289 02-MAR-23 INSERT /*+ SYS DL CURSOR */ INTO "CAMILO"."SURNAMES1" ("SURNAME_ID", "SURNAME") V
ALUES (NULL, NULL)
  
```

Workaround

- To overcome this issue, the recommendation is to use the **enableBulkLoad = 0** in the **Additional connection properties** as shown below:

https://supportability.visualstudio.com/AzureDataFactory/_wiki/wikis/AzureDataFactory/884332/Copy-activity-fails-when-oracle-database-as-sink-while-... 1/2

- Or, if the customer is using a keyvault, to add the property to the oracle connection string:

```
host=Camilo.COM;port=1521;servicename=Camilo_SRV1;user_id=me; enableBulkLoad=0;password=****
```

- As a result of above changes, we can see that the **SYS_DL_CURSOR** oracle hint does not exist at all:

USERNAME	SID	SERIAL#	MIN#	RUNNING	SQL_TEXT
CAMILO	426	12485	.5		INSERT INTO "CAMILO"."SURNAMES1" (SURNAME_ID,SURNAME) VALUES (:V
CAMILO	426	12485	.5		1, :Y2)
CAMILO	448	9820	.5		INSERT INTO "CAMILO"."SURNAMES1" (SURNAME_ID,SURNAME) VALUES (:V
CAMILO	448	9820	.5		1, :Y2)

- And we can see two parallel queries running: 426 and 448 session ids (SID).

Note1

- We're checking with the progress team to see if this can be improvised to support both DOCP and bulk insert at oracle sink side.

Additional Information

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