SAP Note

SAP **3221279 - FDA Query Fails With Error "ERROR [CODE-11] invalid state: oabapstream internal error: insufficient row segment space for the next row"**

Version 10   **Validity:** 13.09.2022 - active   **Language** English

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Header Data

Released On	13.09.2022 13:38:44 **By** Beate Groetschnig (I035208)
Release Status	Released for Customer
Component	HAN-DB SAP HANA Database [Display ACRF Content]
Priority	Correction with high priority
Responsible	Jinsol Kim (I533393)
Processor	Beate Groetschnig (I035208)
Category	Program error
Relevant for Translation	No

Symptom

FDA query fails with error "ERROR [CODE-11] invalid state: oabapstream internal error: insufficient row segment space for the next row".

In the Indexserver trace, similar error messages are observed for components **RemoteQuery** and **abapstream** as follows:

> [00000000]{000000}[0/0] 2022-12-31 11:59:99.999999 e **abapstream**   abapstream.h : oabapstream internal error: insufficient row segment space for next row: the row segment has only <n> bytes left which is insifficient for another row of lineSize=<m>

> [00000000]{000000}[0/0] 2022-12-31 11:59:99.999999 e **RemoteQuery**   RemoteQueryExecution.cc : remote query fetch failure: code=71000011, ltt=1, error=ERROR [CODE-11] invalid state: oabapstream internal error: insufficient row segment space for the next row

> [...]

Other Terms

EAPI, Fast Data Access (FDA), ABAP Stream, Federation

Reason and Prerequisites

Issue number 287525

Reason:

When an FDA query is routed from one indexserver to another, ABAP Stream is used to transfer the result of the FDA query. If the size of an FDA query result is larger than the size of ABAP Stream buffer, the query result needs to be split and fetched multiple times via ABAP Stream buffer.

However, due to a programming error in SAP HANA, the previously used ABAP Stream buffer is not cleared after data fetch so when the next fetch puts data into the buffer, which is already filled from the first data fetch, it raises this insufficient space exception.

Affected Releases:

- SAP HANA 1:
  - Revisions of SPS07 - SPS12

- SAP HANA 2:
  - Revisions of SPS00 - SPS04
  - Revisions <= 059.04 (SPS05)
  - Revisions <= 063.00 (SPS06)

Prerequisites:

- FDA query is executed **AND**
- Tables referenced by this query are distributed across multiple hosts

Solution

Apply one of the following SAP HANA Revisions:

- SAP HANA 2:
  - Revisions >= 059.05 (SPS05)
  - Revisions >= 064.00 (SPS06)
  - or higher

- or higher

Workaround:

- [On HANA Database level]

  Move all the tables that are accessed by the affected FDA query to one indexserver and apply to the query SQL Statement hint "ROUTE_TO(<n>)" where <n> is volume ID of the indexserver where the moved tables are located (you can check information of volume ID for HANA services via monitoring view 'M_VOLUMES').

  ! Warning !

  Since moving a table (or partitions) can change the overall workload pattern in the system and consequently degrade system performance, this approach must be taken with great care. Also tables associated and managed by SAP applications such as S/4HANA or BW have predefined table placement rules that partitioning and redistribution are supposed to use. In this case, this workaround is not applicable so do not move tables.

- [On ABAP application level]

  Set ABAP parameter 'rsdb/supports_fda_prot' to '0' (please refer to '5. How can fast data access be controlled?' in SAP KBA 2399993 - FAQ: SAP HANA Fast Data Access (FDA) for further detail).

  Please note that setting 'rsdb/supports_fda_prot' to '0' can degrade the performance of FDA query.

Remarks:

- Similar error messages can be raised for different root causes. If the prerequisites from the respective section are not met in your case, this SAP Note does not apply.

Validity

Software Component	From Rel.	To Rel.	And Subsequent	
HDB	1.00	1.00		
	2.00	2.00		

Support Packages & Patches

Support Package Patches

Software Component	Support Package	Patch Level
SAP HANA DATABASE 2.0	SP059	000005
	SP064	000000

References

This document refers to:

SAP Knowledge Base Articles
2399993   HAN-DB   FAQ: SAP HANA Fast Data Access (FDA)
SAP Notes
3128366   HAN-DB   Known issues detected in SAP HANA 2 SPS06
2945435   HAN-DB   Known issues detected in SAP HANA 2 SPS05

2784704	HAN-DB	[Known issues detected in SAP HANA 2 SPS04](#)
2628684	HAN-DB	[Known issues detected in SAP HANA 2 SPS03](#)
2525424	HAN-DB	[Known issues detected in SAP HANA 2 SPS02](#)
2462139	HAN-DB	[Known issues detected in SAP HANA 2 SPS01](#)
2432112	HAN-DB	[Known issues detected in SAP HANA 2 SPS00](#)
2380229	HAN-DB	SAP HANA Platform 2.0 - Central Note
2325090	HAN-DB	[Known issues detected in SAP HANA 1 SPS12](#)
2265103	HAN-DB	[Known issues detected in SAP HANA 1 SPS11](#)
2184212	HAN-DB	[Known issues detected in SAP HANA 1 SPS10](#)
2093754	HAN-DB	[Known issues detected in SAP HANA 1 SPS09](#)
2066225	HAN-DB	[Known issues detected in SAP HANA 1 SPS08](#)

This document is referenced by:

Customer Incident (4)

Number	Year	Title	Status	Processor	Customer Number	Customer Name
0003884448	2022	"oabapstream internal error: insufficient * segment space fo	Restricted	Ruchita Pandurang Rudrawar	0000887587	Turkiye Sise ve Cam Fab. A.S.
0000183130		SQL error "SQL code: 11"	Restricted	Byoungseob Park	0000132469	Petróleo Brasileiro S.A.- Petrobras
0000257321	2024	CX_SY_OPEN_SQL_DB Dump in P15 Production System	Confirmed		0000010272	D. Swarovski KG
0000591955	2022	DBSQL_SQL_Error with SQL Code 11	Restricted	Nidhi Sanjaykumar Rana	0000914303	Corbion NV

SAP Knowledge Base Articles (1)

| 2380176 | HAN-DB | [FAQ: SAP HANA Database Trace](#) |

SAP Notes (2)

| 3221209 | HAN-DB | SAP HANA 2 SPS05 Revision 059.05 |
| 3218836 | HAN-DB | SAP HANA 2 SPS06 Revision 064.00 |

ServiceNow Case (5)

Number	Year	Text	Status	Processor	Customer Number	Customer
0000591955	2022	DBSQL_SQL_Error_with SQL Code 11	Closed	Nidhi Sanjaykumar Rana (I556104)		
0000257321	2024	CX_SY_OPEN_SQL_DB Dump in P15 Production System	Closed	Sehyung Kim (I532207)	0000010272	D. Swarovski KG (0000010272)
0000183130	2022	SQL error "SQL code: 11"	Closed	Jinsol Kim (I533393)		
0000965556		DBSQL_SQL_ERROR in SJP_while_running ZQTC_SCH_SALESREP progr	Closed	Simon Forde (I337233)		
0003884448		"oabapstream internal error: insufficient row segment space	Closed	Ruchita Pandurang Rudrawar (C5284326)		