

## SAP Note

**3105417 - A Query Referencing a Remote Table Returns Inconsistent Results**

**Version** 3    **Validity:**  
08.03.2022 - active

**Language** English

## Header Data

<b>Released On</b>	08.03.2022 07:35:41	<b>By</b> Jinsol Kim (I533393)
<b>Release Status</b>	Released for Customer	
<b>Component</b>	HAN-DB-SDA SAP HANA Smart Data Access	<a href="#">Display ACRF Content</a>
<b>Other Components</b>	<a href="#">HAN-DB SAP HANA Database</a>	
<b>Priority</b>	Correction with high priority	
<b>Responsible</b>	Jinsol Kim ( I533393 )	
<b>Processor</b>	Jinsol Kim ( I533393 )	
<b>Category</b>	Program error	
<b>Relevant for Translation</b>	No	

## Symptom

A query that references a remote table via Smart Data Access returns inconsistent results. It is likely that some result values are returned more than once when the query is executed repeatedly.

For example,

1st result -> **133.23**  
2nd result -> 23.1  
3rd result -> 23.1  
4th result -> 57.61  
5th result -> **133.23**  
6th result -> -316.82  
7th result -> 23.1  
8th result -> 57.61  
[...]

## Other Terms

Remote Table, Virtual Table, Smart Data Access (SDA)

## Reason and Prerequisites

Issue number 267112

**Reason:**

Due to a programming error in SAP HANA, the size of the intermediate result of JOIN at the remote source is calculated to be a smaller value than its actual size. Consequently, the rows that exceed the calculated size (= actual size - calculated size) are filled with NULL. Based on how the intermediate result table of JOIN is ordered, last rows being filled with NULL value and the final result might differ at each execution.

**Affected Releases:**

- SAP HANA 1:
  - Revisions of SPS07 - SPS12
- SAP HANA 2:
  - Revisions of SPS01 - SPS04
  - Revisions <= 059.00 (SPS05)

**Prerequisites:**

- A query references a virtual table via SDA **and**
- That virtual table is used by JOIN operation in the query **and**
- JOIN operation is relocated to the remote source and then executed there

## Solution

Apply one of the following SAP HANA Revisions:

- SAP HANA 2:
  - Revisions >= 059.01 (SPS05)
  - or higher
- or higher

**Workaround:**

- [System level] Set a configuration parameter 'enable\_rid\_for\_join\_relocation' to 'false' as follows:

```
ALTER SYSTEM ALTER CONFIGURATION ('indexserver.ini', 'SYSTEM' ) SET
('smart_data_access', 'enable_rid_for_join_relocation') = 'false' WITH
RECONFIGURE COMMENT 'SAP Note 3105417. Revert after upgrade to a revision containing
the fix';
```

- [Statement level] Apply SAP HANA Statement hint 'NO\_REMOTE\_JOIN\_RELOCATION'

**Disclaimer**

The SAP HANA configuration parameter [smart\_data\_access] no\_remote\_join\_relocation is an internal parameter and may only be used in the context of this SAP Note. Using such a parameter requires that the SAP HANA system has the revision specified in the SAP Note. Using internal

parameters outside of this given scope is not supported. Please unset this parameter once you have upgraded to a revision containing the permanent solution.

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## Validity

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

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## Support Packages & Patches

### Support Package Patches

Software Component	Support Package	Patch Level
SAP HANA DATABASE 2.0	SP059	<a href="#">000001</a>

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## References

### This document refers to:

#### SAP Notes

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](#)  
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 (1)

Number	Year	Title	Status	Processor	Customer Number	Customer Name
0000089077	2021	<a href="#">Value of measures changes after every refresh</a>	Restricted	Jinsol Kim	0001392483	Associated British Ports

#### SAP Knowledge Base Articles (1)

2222121 HAN-DB-ENG [SAP HANA Wrong Result Sets](#)

**SAP Notes (2)**3120845 HAN-DB [SAP HANA 2 SPS05 Revision 059.01](#)3102470 HAN-DB [SAP HANA 2 SPS06 Revision 060.00](#)**ServiceNow Case (2)**

Number	Year	Text	Status	Processor	Customer Number	Customer
0000089077	2021	<a href="#">Value of measures changes after every refresh</a>	Closed	Jinsol Kim (I533393)		
		<a href="#">Value of measures changes after every refresh</a>	Closed	Jinsol Kim (I533393)		