# SAP Note 1803674 -  SAP HANA appliance: Revision 47 of SAP HANA database

**Note Language: English**        **Version: 2 Validity:**   Valid Since 21.12.2012

## Summary

### Symptom
This is the SAP Release Note for the SAP HANA database Revision 47 for SAP HANA appliance software SPS 05.

### Other terms
NewDB, in-memory database, Hybrid database, update, installation, SPS 05

### Reason and Prerequisites

o   SAP HANA Appliance Software

   The SAP HANA appliance software consists of several SAP components including the SAP HANA database and related data replication technologies. The SAP HANA appliance software comes pre-installed on a specific appliance hardware system delivered in conjunction with leading SAP hardware partners.

o   It is only supported to run the installation and the update on a validated SAP HANA appliance.

o   Updates on SAP HANA security documentation

   -   The information on secure network set-up and integration was updated in the chapter of the SAP HANA security guide ("Network & Communication Security"-chapter). The information and recommendation in previous versions could lead to misunderstandings which may lead to insecure network set-ups.

   -   Please check the information and recommendations in the newest version of the security guide at https://help.sap.com/hana_appliance in the respective chapter.

   -   Please also regularly check the Central Security Note for SAP HANA appliance software (Note 1598623) for updates on security.

### Solution

   **If you upgrade from SAP HANA SPS 02 you have to update ALL other components (Studio, Modeler, DB Clients, DBSL, SLT, DS, ...) to at least the minimal version of SAP HANA SPS 05.**

### Documentation

o   For SAP HANA installation and deployment documentation, see SAP

Service Marketplace: https://service.sap.com/hana

o For SAP HANA administration documentation, see SAP Help Portal: http://help.sap.com/hana_appliance

## Installation and Update

o For the installation and update procedure of the SAP HANA appliance software and its core components (incl. SAP HANA database), see

- SAP HANA Master Update Guide
  https://service.sap.com/~sapidb/011000358700000604942011

- SAP HANA Automated Update Guide
  https://service.sap.com/~sapidb/011000358700000604952011

o For the installation and update procedure of SAP HANA database, SAP HANA studio and SAP HANA clients, see the following guides on https://service.sap.com/hana:

- SAP HANA Installation Guide with Unified Installer
  https://service.sap.com/~sapidb/011000358700000604562011

- SAP HANA Database - Client Installation Guide
  https://service.sap.com/~sapidb/011000358700000604582011

- SAP HANA Database - Studio Installation Guide
  https://service.sap.com/~sapidb/011000358700000604592011

For the installation and update of the SAP HANA client on SUSE Linux Enterprise Server 9 and 10, use the package "Linux SUSE 9 on x86_64 64bit".

## CSS/CSN components for SAP HANA and SAP HANA database

o BC-HAN: SAP HANA appliance

- BC-HAN-MOD: SAP HANA Information Modeler

- BC-HAN-LOA: Load Controler

- BC-HAN-REP: Sybase Replication Server

- BC-HAN-UPD HANA: SAP HANA Update Tool

- BC-HAN-UPD-UI: User interface for SAP HANA Update Tool

- BC-HAN-3DM: Information Composer

- BC-HAN-LTR: Landscape Transformation-based Replication

o BC-DB-HDB: SAP HANA database

- BC-DB-HDB-AFL: SAP HANA Advanced Function Library

- BC-DB-HDB-AFL-PAL: SAP HANA Predictive Analysis Library

- BC-DB-HDB-AFL-SOP: SAP HANA Sales&Operations Planning

- BC-DB-HDB-BAC: SAP HANA Backup & Recovery

- BC-DB-HDB-CCM: CCMS for SAP HANA

- BC-DB-HDB-CLI: SAP HANA Clients (JDBC, ODBC)

- BC-DB-HDB-DBA: Database Administration for SAP HANA

- BC-DB-HDB-DEC: Direct Extractor Connection to SAP HANA

- BC-DB-HDB-DXC: SAP HANA direct extractor connector

- BC-DB-HDB-ENG: Engine of SAP HANA database

- BC-DB-HDB-INS: Installation of SAP HANA database

- BC-DB-HDB-MDX: MDX Engine/Excel Client

- BC-DB-HDB-PER: Database Persistence for SAP HANA database

- BC-DB-HDB-PLE: Planning Engine

- BC-DB-HDB-POR: DB Porting for SAP HANA

- BC-DB-HDB-R: SAP HANA Integration with R

- BC-DB-HDB-SCR: SAP HANA SQL Script

- BC-DB-HDB-SEC: SAP HANA Security & User Management

- BC-DB-HDB-SYS: Database Interface/DBMS for SAP HANA database

- BC-DB-HDB-TXT: SAP HANA Text & Search Features

- BC-DB-HDB-UPG: Upgrade of SAP HANA database

- BC-DB-HDB-XS: SAP HANA Application Services


**Issues solved with this revision**

o   JECreateNTuple fails with an exception. Models from BW receive a column store error. The trace file contains the following entry: "[56036]{804644}[-130352018] 2012-12-06 22:46:07.343882 e Executor PlanExecutor.cpp(00219) : pop16 (rc 2617, executor: plan operation execution failed with an exception)".

o   MDX: The wizard at Excel 2010 does not complete successfully and closes silently without showing an error message.

o   A "not supported data type" error occurs for a "SELECT" statement when the result is a "TEXT" data type. The trace file contains the

following entry:
"SAP DBTech JDBC: [2051]: not supported data type for column table".

o   Index Server chrash inside the Calculation Engine. The trace file contains the following entry:
"[CRASH_SHORTINFO]   exception short info: (2012-11-20 09:07:21 000 Local) SIGNAL 11 (SIGSEGV) caught, thread: 883055[thr=60177]: SqlExecutor, addr: 0x00000000000000b0, time: 2012-11-20 09:07:21 000 Local Instance N6E/02, OS Linux ld9765 2.6.32.59-0.3-default #1 SMP 2012-04-27 11:14:44 +0200 x86_64".

o   Certain grouping set queries fail on an OLAP cube. The trace file contains the following entry:
"SAP DBTech JDBC: [2048]: column store error: search table error: [2621] Error executing physical plan: executor: a plan operation received the wrong number of arguments;BwPopJoin2Inwards pop23(REPLICN_ECC:TVEGRen to .MAGRV),in executor::Executor in cube: SYSTEM:THECOLUMNVIEW".

o   Too many invalid entries with the same key (at the same SQL statement) are shown in the plan cache.

o   Error at the Calculation Engine: The trace file contains the following entry:
"[70937]{257822}[-311980] 2012-12-04 11:23:47.280817 e itabattr InternalTable.cpp(06568) : BELNR@countdistinctvalues@ unknown in if("BELNR@countdistinctvalues@" = 1,1,0)(6900)
[70937]{257822}[-311980] 2012-12-04 11:23:47.280877 e ceExecute cePopBase.cpp(03160) : Failed to calculated expression for column $$CE_INTERNAL_HAVING_ATTR$$".

o   Name Server crash. The trace file contains the following entry:
"[CRASH_STACK]   stacktrace of crash: (2012-10-12 14:20:42 000 Local) ----> Pending exceptions (possible root cause) <---- exception  1: no.3000142 (DataAccess/impl/PersistenceSessionImpl.cpp:1799)     Consistent change is already active on thread/sessionSession[transcontext]@0x00007ffe1bf20000[TID=461914,refcnt=1]; $condition$=m_State.m_CCHCount == 0; $m_State.m_CCHCount$=1".

o   Numeric value is out of range when selecting value from dummy. The trace file contains the following entry:
"Error: [307]: numeric value out of range: '-1230000000000000000000'
SQLState:  22003 ... ErrorCode: 307".

o   Password handling on the part of HDBSQL and DSDesigner fails (at HDB Studio it works). The trace file contains the following entry:
"hdbsql=> \c -i 00 -n hbi5ba07b -u MC125389 -p ***
* 431: user's password will expire within few days: expire time (UTC) at [2012-1".

o   Presentation of "NVARCHAR" string with full-width-characters shows incompleteness using HDBSQL.

o   Index Server crash inside the ptime module. The trace file contains

following the entry:
"[CRASH_STACK]  stacktrace of crash: (2012-10-31 13:42:01 000 Local) ----> Symbolic stack backtrace <----
   0: ptime::TrexResultIMS::convColToCol(ptime::fastvector<int, 16ul> const&, ptime::TrexITabWrapper*) + 0xeb       Symbol: _ZN5ptime13TrexResultIMS12convColToColERKNS_10fastvectorIiLm16EEEPN S_15TrexITabWrapperE       SFrame: IP: 0x00007ff9f676bbbb (0x00007ff9f676bad0+0xeb) FP:".

o   Error during upgrade: Cannot import the delivery unit HANA_XS_SQLCC.tgz. The trace file contains the following entry: "Starting system...   Importing delivery units...   ERR: Upgrade failed.. ERR:   error upgrading.. ERR: Import of delivery units failed.. ERR: Cannot import delivery unit ....." "28576]{208996}[-346012128] 2012-11-28 10:43:40.810387 e RoleRuntime  ..... Index Server crash right after OOM (Objektorientierte Modellierung). In the trace file you find the entry:-- indexserver alert log "[10328]{213161}[23468093] 2012-11-19 15:57:04.213937 e parallel ParallelDispatcher.cpp(00684) : forwarding job exception exception 1: no.1000002  (ltt/impl/memory.cpp:67)    Out of memory ; $size$=65552; $name$=itab; $type$=pool; $inuse_count$=326116; $allocated_size$=156444758823; $job$=fillInternalTable".

o   Parallel processing is not being utilized on an OLAP query.

o   Special statements with "SELECT distinct *" throw an error. E.g.: SELECT distinct t.* from "DATWIN"."TBL_WOLI" t join DATWIN.VW_REG_COMNID a on t.NMI=a.NMI order by t.NMI).

o   At the HDB Studio the F4 help function needs a long time to come up with information, especially in a distributed landscape.

## Header Data

Release Status:          Released for Customer
Released on:             21.12.2012    14:31:02
Master Language:         English
Priority:                Correction with high priority
Category:                Upgrade information
Primary Component:       BC-DB-HDB SAP HANA database

## Valid Releases

| Software Component | Release | From Release | To Release | and Subsequent |
|---|---|---|---|---|
| HDB | 1.00 | 1.00 | 1.00 | |

## Related Notes

| Number | Short Text |
|---|---|
| 1802461 | Revision 46 Enhancements for Planning Functions |
| 1800806 | Indexserver-crash bei MDX über ODBO und Multithreading |
| 1785171 | SAP HANA DB: Revision 40 using Client Statement Routing |
| 1774187 | SAP HANA DB: GNav queries do not work in distr. environment |
| 1774082 | SAP HANA DB: [2999] exception 2999: unable create itabindex |
| 1774074 | SAP HANA DB: Duplicate entries in primary key |
| 1771591 | SAP HANA Appliance Software SPS 05 Release Note |
| 1769188 | Revision 38 Enhancements for Planning Functions 2 |
| 1766568 | SAP HANA DB: Duplicate entries in primary key |
| 1766006 | Revision 38 Enhancements for Planning Functions |
| 1764452 | SAP HANA Studio-Revision 37-data preview errof for rest meas |
| 1764251 | Documentation- Importing BW Models in SAP HANA Modeler |
| 1753944 | Revalidation of procedures/views using R script |
| 1749467 | Copying SAP HANA From a Multiple- to a Single-Host System |
| 1744687 | Wrong length for calculated attribute of type decimal |
| 1739779 | Activation of procedures might fail |
| 1735130 | Revision 33 Enhancements for Planning Functions |
| 1731572 | SAP HANA DB: Check for wrong values in E-Part of fact table |
| 1731569 | SAP HANA DB: Check for correct InfoCube migration |
| 1725574 | Data inconsistencies in BW on HANA |
| 1724330 | Revision 30 Enhancements for Planning Functions |
| 1718854 | SAP HANA Modeler: Error when opening Analytic privilege |
| 1710392 | SAP HANA DB (Rev27): PlanViz not showing correct CPU times |
| 1703675 | SAP HANA Appliance Software SPS 04 Release Note |
| 1701909 | SAP HANA DB (Rev26): Data compression setting before upgrade |
| 1698032 | SAP HANA DB (Rev26): Reactivate models after upgrade |
| 1695758 | SAP HANA for BW: Deserialization error in TREX_EXT_AGGREGATE |
| 1694574 | Revision 26 Enhancements for Planning Functions |
| 1666976 | uniqueChecker usage description |
| 1654455 | Upgrade News and Tips Hana Modeler from SP3 (Revision 20) on |
| 1652078 | SAP HANA database: Hardware check |
| 1598623 | SAP HANA appliance software: Central Security Note |
| 1523337 | SAP In-Memory Database 1.0: Central Note |
| 1514967 | SAP HANA: Central Note |