Note Language: English   **Version: 10 Validity:**   Valid Since 02.12.2011

Summary

Symptom

- o SAP HANA Appliance Software

  - SAP HANA is a flexible, data source agnostic appliance that allows customers to analyze large volumes of data in real-time avoiding the necessity to materialize transformations.

  - SAP HANA is a hardware and software combination that integrates a number of SAP components including the SAP HANA database, Sybase Replication technology and SAP LT (Landscape Transformation) Replicator.

  - SAP HANA is delivered as an optimized appliance in conjunction with leading SAP hardware partners.

- o SAP HANA Database

  - The SAP HANA database is a hybrid in-memory database that combines row based, column based and object based database technology and it is optimized to exploit parallel processing capabilities of modern multi core/CPU architectures. With this architecture SAP applications can benefit from current hardware technologies.

  - The SAP HANA database is at the heart of SAP offerings like SAP HANA that help customers to improve their operation efficiency, agility, and flexibility.

Other terms
in-memory technology, NewDB, In-Memory Database, Hybrid Data Base, MaxDB, IMDB, LiveCache

Reason and Prerequisites
This is the central SAP note for SAP In-Memory Appliance (SAP HANA).

Solution
Documentation
The documentation for SAP HANA and for the SAP In-Memory Database is published on:

- o SAP Help Portal: http://help.sap.com/hana

- o SAP Service Marketplace: https://service.sap.com/hana

Software Download
The components of SAP HANA and of the SAP In-Memory Database can only be installed by certified hardware partners on validated hardware running a specific operating system. Any other system or content developed with such systems is not supported by SAP. For further information please refer to the information page of the product version. Support Package Stacks (SPS) can be downloaded and applied to appliances according to agreements with the respective hardware partner.

CSS/CSN components for SAP In-Memory Database and SAP HANA

- o BC-HAN: SAP High-Performance Analytic Appliance (SAP HANA)

    - – BC-HAN-MOD: SAP High-Performance Analytic Appliance Modeler

    - – BC-HAN-LOA: Load Controler

    - – BC-HAN-REP: Sybase Replication Server

- o BC-DB-HDB: SAP In-Memory Computing Engine

    - – BC-DB-HDB-DBA: Database Administration for HDB

    - – BC-DB-HDB-INS: Installation HDB

    - – BC-DB-HDB-PER: Database Persistence for HDB

    - – BC-DB-HDB-SYS: Database Interface/DBMS for HDB

    - – BC-DB-HDB-UPG: Upgrade HDB

    - – BC-DB-HDB-ENG: SAP In-Memory Computing Engine

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

Hardware Requirements for SAP HANA Network Connection
SAP recommends a dedicated server network communication of 10 GBit/s between the SAP HANA landscape and the source system for efficient data replication. A source system can be an ERP system, from which data are replicated to the SAP HANA appliance (replication scenario), or an SAP NetWeaver Application Server ABAP, based on which an SAP NetWeaver Business Warehouse, powered by SAP HANA, is running on top of the SAP HANA appliance.

License Key
In order to activate the SAP HANA 1.0 software, the license key codes for Sybase Replication Server, Sybase Replication Agent and Sybase Enterprise Connect Data Access (ECDA) components are already embedded in the software. So no explicit license key obtainment for the Sybase components inside of SAP HANA 1.0 is necessary.

- o Note:SAP HANA 1.0 includes a license for SAP BusinessObjects Data Integrator of SAP BusinessObjects Data Services 4.0. Find all the necessary information on how to receive temporary license keys on the License Keys page of the SAP Service Marketplace https://service.sap.com/licensekeys. On the License Keys page you will also find all the requirements that need to be fulfilled for obtaining a license key.

Installing additional software/applications on SAP HANA
The installation of additional software/applications on SAP HANA (e.g. software for monitoring) by means of the SAP HANA customer lies beyond the SAP HANA shipment scope, which has been certified by SAP, and may potentially hamper the proper operation of the SAP HANA system.

Header Data

Release Status:	Released for Customer
Released on:	02.12.2011 14:44:22
Master Language:	English
Priority:	Correction with high priority
Category:	Installation information
Primary Component:	BC-HAN SAP HANA Appliance
Secondary Components:	
	BC-DB-HDB SAP HANA database

The Note is release-independent

Related Notes

Number	Short Text
1776798	SAP HANA appliance: Revision 39 of SAP HANA database
1774253	SAP HANA appliance: Revision 40 of SAP HANA database
1774187	SAP HANA DB: GNav queries do not work in distr. environment
1774074	SAP HANA DB: Duplicate entries in primary key
1772104	SAP HANA appliance: Revision 38 of SAP HANA database
1766568	SAP HANA DB: Duplicate entries in primary key
1762834	SAP HANA appliance: Revision 37 of SAP HANA database
1754314	SAP HANA appliance: Revision 36 of SAP HANA database
1747042	Providing support access to HANA database instance
1745057	SAP HANA DB: Studio connection to slave nodes fails
1744526	SAP HANA appliance: Revision 35 of SAP HANA database
1743225	HANA: Potential failure of connections with scale out nodes
1741481	SAP HANA DB: Check for user "support"
1740711	SAP HANA appliance: Revision 34 of SAP HANA database
1740633	HANA: Converting DataStore objects with large data volume
1740136	SAP HANA: wrong mount option may lead to corrupt persistency
1737205	SAP HANA appliance: Revision 33 of SAP HANA database
1734588	Lock timeout occur with parallel DSO activation
1733139	SAP HANA DB: Increased memory consumption for Explorer
1732911	SAP HANA DB: OLAP performance of Revision 32
1732276	High availability limitations of HANA database
1731623	SAP HANA DB: Wrong data by JoinEngine for "ORDER BY" query
1731572	SAP HANA DB: Check for wrong values in E-Part of fact table
1731571	SAP HANA DB: E-table contains wrong values after compression

Number	Short Text
1731569	SAP HANA DB: Check for correct InfoCube migration
1730928	Using external software in a HANA appliance
1730345	SAP HANA DB: Cube migration may lead to corrupted data
1729784	SAP HANA appliance: Revision 32 of SAP HANA database
1728340	Insert / upsert query gets blocked with high CPU concumption
1726390	SAP HANA appliance: Revision 31 of SAP HANA database
1723370	SAP HANA appliance: Revision 30 of SAP HANA database
1718944	SAP HANA DB: Securing External SQL Communication (SAPCrypto)
1717633	SAP HANA appliance: Revision 29 of SAP HANA database
1716972	Query crashes with: addLateMatColumns failed
1715806	SAP HANA DB: Crash due to MIN/MAX funct. on string keyfigure
1714279	SAP HANA SPS04: Numeric overflow for SUM aggregation
1713279	DBACockpit: TABLE_INVALID_INDEX from INI FILE application
1711643	SAP HANA appliance: Revision 27 of SAP HANA database
1710432	SAP HANA for BW: length too short with TREX_EXT_CREATE_INDEX
1710392	SAP HANA DB (Rev27): PlanViz not showing correct CPU times
1710315	SAP HANA DB: Database doesn't start after upgrade to Rev. 26
1709828	SAP HANA DB: Statisticsserver - No SQL command-line defined
1709026	SAP HANA DB: Crash of the indexserver due RTT issue
1705640	DBACockpit: new parameter is not appeared in INI File
1703675	SAP HANA Appliance Software SPS 04 Release Note
1703417	SAP HANA database Revision 26: New version available
1702409	HANA DB: Optimal number of scale out nodes for BW on HANA
1702224	Disable password lifetime for technical users
1702214	SAP HANA DB: Closed connections remain opened
1700750	SAP HANA appliance: Revision 28 of SAP HANA database
1698032	SAP HANA DB (Rev26): Reactivate models after upgrade
1695990	SAP HANA DB: Currency conversion error - insufficient priv.
1694627	SAP HANA DB: Crash of indexserver due QueryOptimizer issue
1692981	SAP HANA appliance: Revision 26 of SAP HANA database
1691977	DBACockpit: CX_SY_STRUCT_COMP_NAME from INI FILE application
1691733	SAP HANA DB: Crash of HDBIndexserver in case of Outer Joins
1690552	HANA DB:Fix for getting current user from a stored procedure
1689352	SAP HANA db: Connection timeout due to no incoming message
1684255	SAP HANA appliance: Revision 25 of SAP HANA database
1681865	SAP HANA DB (Rev24): Incorrect results in column table joins
1680966	SAP HANA Modeler - revision 24 - upgrade news and fixes.
1679938	Log Volume is full (log mode = legacy)
1679099	Stocks: Incorrect data for historical movements
1676348	SAP HANA db: Statisticsserver runs out of memory
1675260	"invalidated view" error for monitoring views
1673965	SAP HANA appliance: Revision 24 of SAP HANA database
1663228	SAP HANA appliance: Revision 23 of SAP HANA database
1658845	Recently certified SAP HANA hardware not recognized
1657960	SAP HANA db: Indexserver runs out of memory during startup

Number	Short Text
1657892	SAP HANA appliance: Revision 22 of SAP HANA database
1654455	Upgrade News and Tips Hana Modeler from SP3 (Revision 20) on
1654454	SAP HANA Modeler - revision 21 - upgrade news and tips.
1653315	SAP HANA Database Column Store Data Type CS_TEXT not Allowed
1653292	SAP HANA appliance: Revision 21 of SAP HANA database
1652078	SAP HANA database: Hardware check
1650394	SAP HANA DB: Partitioning and Distribution of Large Tables
1648962	SAP HANA: Prerequisites for Data Modeling
1648901	SAP HANA appliance: Revision 20 of SAP HANA database
1646743	SAP HANA db: CleanUp of temporary procedure objects
1646723	BW on SAP HANA DB: SAP HANA-opt. DSO Activation Parameters
1646695	SAP HANA db: Invalidated procedures after upgrade to Rev. 17
1646454	SAP HANA appliance: Revision 18 of SAP HANA database
1646010	SAP HANA: different DB connections are not handled correctly
1644964	SAP HANA db: prepareDeltaMerge failed ... rc 6966
1644300	SAP HANA db: Udiv Lookup failed
1642937	SAP HANA Appliance Software SPS 03 Release Note
1642295	SAP HANA DB: Activation of calc view fails
1641272	SAP HANA DB: Calculated Measure returns wrong results
1641210	SAP HANA datebase: Checking for suspected problems
1641148	HANA server hang caused by GPFS issue
1640917	Syntax failure from TREX_EXT_MERGE_DELTA_INDEX
1640808	SAP HANA for BW: fix merging history tables in ABAP Client
1639568	SAP HANA studio displays system status as yellow
1639140	SAP HANA appliance: Revision 17 of SAP HANA database
1634848	SAP HANA database service connections
1632506	SAP ERP RDS for profitability analysis with SAP HANA
1632205	SAP HANA db: Calculated measure causes an error in MDX
1631966	SAP HANA db: MDX needs recent ODBO client version
1631919	SAP HANA db: "COUNT DISTINCT" not correct for CalcView
1630154	SAP HANA Database: Crash of HDBIndexserver while data load
1629440	SAP HANA appliance: Revision 16 of SAP HANA database
1627904	SAP HANA Information Composer: Central Note
1625712	SAP HANA appliance: Revision 15 of SAP HANA database
1621486	SAP HANA appliance: Revision 14 of SAP HANA database
1620958	Restriction for aggregation "MIN" & "MAX" on (N)VARCHAR TYPE
1614870	SAP HANA appliance: Revision 13 of SAP HANA database
1612696	"Invalidated view" error when using analytical views
1607982	Statisicsserver crashes after upgrade from rev. 10 to 12
1605168	SAP HANA - Handling priviledges after upgrade to Revision 12
1605140	SAP HANA 1.0: Central Note - SAP LT Replication Server
1604725	SAP HANA appliance: Revision 12 of SAP HANA database
1603794	SAP IMDB 1.0: Revision 10 for SAP HANA 1.00
1603671	SAP HANA 1.0: Software Components and Software Download
1601489	SAP IMDB 1.0: Revision 11 for SAP HANA 1.00

Number	Short Text
1600147	SAP HANA 1.0 SPS2 Release Note
1599888	SAP HANA: Operational Concept
1598623	SAP HANA appliance software: Central Security Note
1597627	SAP HANA connection
1593170	SAP IMDB 1.0: Revision 6 for SAP HANA 1.00
1592925	SAP HANA Studio service connection
1583460	SAP IMDB 1.0: Revision 5 for SAP HANA 1.00
1577128	Supported clients for SAP HANA
1577019	SAP HANA Database: Abap module for Segment Builder
1570935	SAP IMCE 1.0: Revision 4 for SAP HANA 1.00
1560398	SAP HANA 1.0: Statistic Server In-Memory Computing Engine
1556097	SAP IMCE 1.0: Revision 3 for SAP HANA 1.00
1546865	SAP IMCE 1.0: Migration of SQLScript data needed
1546229	SAP IMCE 1.0: Revision 2 for SAP HANA 1.00
1534185	SAP IMCE 1.0: Revision 1 for SAP HANA 1.00
1533048	SAP IMCE 1.0 Revision 0 for SAP HANA 1.00
1523337	SAP In-Memory Database 1.0: Central Note
1514966	SAP HANA 1.0: Sizing SAP In-Memory Database
1513496	Release Restrictions for SAP HANA 1.0