



Header Data

Released On	13.05.2016 10:09:47
Release Status	Released for Customer
Component	SV-SMG-SER SAP Support Services
Other Components	HAN-DB SAP HANA Database HAN-DB-ENG-BW SAP HANA BW Engine
Priority	Recommendations / Additional Info
Category	Program error

Symptom

Enhancement of Function Module /SDF/HANA_TABLE_SIZE and new Report /SDF/HANA_BW_SIZING

You intend to migrate an SAP NetWeaver BW system from any database platform to the SAP HANA In-Memory Database and need information on hardware sizing of the HANA platform, or you want to verify the sizing for an SAP NetWeaver BW system that has already been migrated to HANA.

Other Terms

BW on HANA Sizing, Sizing, SAP In-Memory Database, SAP HANA, SAP In-Memory Computing, BW HANA Sizing, Orange sizing, scale-out

Reason and Prerequisites

Starting with version 7.30 SP5 you can run SAP Business Information Warehouse (SAP BW) on SAP HANA as database platform. This enables you to leverage the In-Memory capabilities of HANA and the SAP-HANA-optimized BW objects.

Solution

PLEASE NOTE: This note will not be maintained any more. For later updates of the sizing report (version 2.2.0 and above) please apply SAP note 2296290.

IMPORTANT: Before applying this note you first have to upgrade to at least ST-PI 2008_1_700 SP 08. An upgrade of ST-PI to the latest SP is recommended in any case.

Latest version of BW on HANA Sizing Report: 2.1.8

Major Changes 2.1.8:

- Updated 7.40 row store list
- Bug fix in handling of 'n/a' results

Major Changes 2.1.7:

- Bug fix in Hybrid LOB handling

Major Changes 2.1.6:

- Bug fix of size calculation for InfoCubes
- Bug fix in Hybrid LOB handling

Major Changes 2.1.5:

- Bug fix of size calculation for InfoCubes
- Correction in Hybrid LOB handling
- Bug fix for calculation of non-active share of tables
- Haswell support (1.5TB / 3 TB)

Major Changes 2.1.4:

- Bug fix of size calculation for InfoCubes
- Integration of Hybrid LOBs
- Persistence of sizing results in database tables
- Color coding if utilization of master or worker nodes exceed certain thresholds
- Elimination of duplicates in table details

Major Changes 2.1.3:

- Bug fix of statistics table issue (only for MaxDB)
- Integration of HANA PAK sizing (first approach)

Major Changes 2.1.2:

- Bug fix in length handling of tables with character fields with improved sizing for DSO objects
- For InfoCubes number of characteristics is now taken into account instead of number of dimensions
- Chose between 7.30 and 7.40 target release to determine correct set of rowstore tables
- Display DB host rather than Application Server host in System Information section

Major Changes 2.1.1:

- Bug fix in length handling of tables with BLOBS
- In 7.40 based systems, row store tabs are determined by their DDIC attributes, not by hard coded list
- Dimension tables are deteremined by metadata rather than by naming conventions

Major Changes 2.1:

- Revised row store sizing:
 - Now considers indexes for row store tables
 - Adapted compression factor for row store tables
- Bug fix to correctly handle dimension tables
- Added utilization percentage for master and worker nodes

Major Changes 2.0.1:

- Support for various memory configurations
- Minimum / recommended memory configuration
- Adapted compression factor for row store tables

So far, to estimate the resource requirements of the SAP HANA In-Memory Database, a set of database-dependent scripts has been provided which analyze the database dictionary and compute the size of the relevant source database tables. Please refer to note 1637145 for more details. To simplify sizing of an SAP BW system that is supposed to be migrated, we now provide the database independent ABAP report /SDF/HANA_BW_SIZING which computes all information relevant to sizing a HANA database server. A first version of the report is available with this note. ST-PI 2008_1_7xx SP08 or higher is required as prerequisite. Improvements of the report are also shipped with this SAP Note, so please make sure that you always download the latest version of the note.

Important: If you plan to migrate a BW system with significant size (e.g. 20+TB source system database size), please read SAP note 1855041.

For a detailed description of the report, its input parameters, and how to interpret its output, please refer to the attached document "SAP_BW_on_HANA_Sizing_Report.pdf".

The ABAP report now includes the following features:

- enhanced sizing precision by table type specific compression factors
- "non-active data" concept: optimized memory consumption by taking into account that specific tables are preferred for memory displacement (e.g. tables belonging to objects in Corporate Memory).
- Sizing of a Part of the scenarios can be done specificating a subset of BW Objects which have to be considered for sizing. Dependent BW Objects will be automatically taken into account.
- Extended Tables: Sizing information for Sybase IQ database to support extended tables.

Note that for a stand-alone version of SAP HANA (i.e. HANA without BW) separate sizing information is available in note 1514966.

Prerequisite for Implementing this Note is ST-PI 2008_1_700 SP 08 or ST-PI 2008_1_710 SP 08.

Manual Activity			
VALID FOR			
Software Component	ST-PI	Support Tools	
Release 2008_1_700	SAPKITLRD6 - SAPKITLRD7		
Release 2008_1_710	SAPKITLRE6 - SAPKITLRE7		
Release 2008_1_710	SAPKITLRE6 - SAPKITLRE7		

Please extend data structure /SDF/HANA_DB_SIZE by adding the following five lines (using transaction SE11) as additional components at the end of the structure:

Component Component type Data Type Length Decimal

```
TAB_TYPE CHAR 4 0
BUCKET INT2 INT2 5 0
UNLD_FACT DEC 3 2
ABAP_SIZE DEC 22 0
HANA_SIZE DEC 22 0
```

Validity

Software Component	From Rel.	To Rel.	And Subsequent
ST-PI	2008_1_700	2008_1_700	☐
	2008_1_710	2008_1_710	☐
	740	740	☐

Correction Instructions

Correction Instructions			
Software Component	Valid from	Valid to	Number
ST-PI	2008_1_700	2008_1_710	1547046
ST-PI	2008_1_700	2008_1_710	1545305
ST-PI	2008_1_700	2008_1_710	1504395
ST-PI	2008_1_700	2008_1_710	1495990
ST-PI	2008_1_700	2008_1_710	1495989
ST-PI	2008_1_700	2008_1_710	1487262
ST-PI	2008_1_700	2008_1_710	1555757
ST-PI	2008_1_700	2008_1_710	1555659
ST-PI	2008_1_700	2008_1_710	1491322
ST-PI	2008_1_700	2008_1_710	1490380
ST-PI	2008_1_700	2008_1_710	1443429
ST-PI	2008_1_700	2008_1_710	1442884
ST-PI	2008_1_700	2008_1_710	1434895
ST-PI	2008_1_700	2008_1_710	1560634
ST-PI	2008_1_700	2008_1_700	1910662
ST-PI	2008_1_700	2008_1_700	1899078
ST-PI	2008_1_700	2008_1_700	1886421
ST-PI	2008_1_700	2008_1_700	1880790
ST-PI	2008_1_700	2008_1_700	1873108
ST-PI	2008_1_700	2008_1_710	1835243
ST-PI	2008_1_700	2008_1_710	1727555
ST-PI	2008_1_700	2008_1_710	1676720
ST-PI	2008_1_700	2008_1_710	1676719
ST-PI	2008_1_700	2008_1_710	1613553
ST-PI	2008_1_700	2008_1_710	1597590
ST-PI	2008_1_700	2008_1_710	1595253
ST-PI	2008_1_700	2008_1_710	1582141
ST-PI	2008_1_700	2008_1_710	1422486
ST-PI	2008_1_700	2008_1_710	1269088
ST-PI	2008_1_700	2008_1_710	1258913
ST-PI	2008_1_700	2008_1_710	1258912
ST-PI	2008_1_700	2008_1_710	1250645
ST-PI	2008_1_700	2008_1_710	1244419
ST-PI	2008_1_700	2008_1_710	1229140
ST-PI	2008_1_700	2008_1_710	1229138
ST-PI	2008_1_700	2008_1_710	1205536
ST-PI	2008_1_700	2008_1_710	1174529
ST-PI	2008_1_700	2008_1_710	1174147
ST-PI	2008_1_700	2008_1_710	1162763
ST-PI	2008_1_700	2008_1_710	1411651
ST-PI	2008_1_700	2008_1_710	1411672
ST-PI	2008_1_710	2008_1_710	1174529
ST-PI	2008_1_710	2008_1_710	1676720
ST-PI	2008_1_710	2008_1_710	1676719
ST-PI	2008_1_710	2008_1_710	1205536
ST-PI	2008_1_710	2008_1_710	1613553
ST-PI	2008_1_710	2008_1_710	1442884
ST-PI	2008_1_710	2008_1_710	1597590
ST-PI	2008_1_710	2008_1_710	1229138
ST-PI	2008_1_710	2008_1_710	1595253
ST-PI	2008_1_710	2008_1_710	1582141
ST-PI	2008_1_710	2008_1_710	1910662
ST-PI	2008_1_710	2008_1_710	1422486

ST-PI	2008_1_710	2008_1_710	1899078
ST-PI	2008_1_710	2008_1_710	1162763
ST-PI	2008_1_710	2008_1_710	1886421
ST-PI	2008_1_710	2008_1_710	1411672
ST-PI	2008_1_710	2008_1_710	1880790
ST-PI	2008_1_710	2008_1_710	1434895
ST-PI	2008_1_710	2008_1_710	1873108
ST-PI	2008_1_710	2008_1_710	1174147
ST-PI	2008_1_710	2008_1_710	1835243
ST-PI	2008_1_710	2008_1_710	1727555
ST-PI	2008_1_710	2008_1_710	1269088
ST-PI	2008_1_710	2008_1_710	1491322
ST-PI	2008_1_710	2008_1_710	1555659
ST-PI	2008_1_710	2008_1_710	1258913
ST-PI	2008_1_710	2008_1_710	1555757
ST-PI	2008_1_710	2008_1_710	1490380
ST-PI	2008_1_710	2008_1_710	1487262
ST-PI	2008_1_710	2008_1_710	1258912
ST-PI	2008_1_710	2008_1_710	1495989
ST-PI	2008_1_710	2008_1_710	1495990
ST-PI	2008_1_710	2008_1_710	1229140
ST-PI	2008_1_710	2008_1_710	1560634
ST-PI	2008_1_710	2008_1_710	1411651
ST-PI	2008_1_710	2008_1_710	1547046
ST-PI	2008_1_710	2008_1_710	1244419
ST-PI	2008_1_710	2008_1_710	1545305
ST-PI	2008_1_710	2008_1_710	1250645
ST-PI	2008_1_710	2008_1_710	1443429
ST-PI	2008_1_710	2008_1_710	1504395
ST-PI	740	740	1443428
ST-PI	740	740	1910661
ST-PI	740	740	1555658
ST-PI	740	740	1490382
ST-PI	740	740	1899073
ST-PI	740	740	1555660
ST-PI	740	740	1886420
ST-PI	740	740	1555663
ST-PI	740	740	1880789
ST-PI	740	740	1835242
ST-PI	740	740	1442853
ST-PI	740	740	1872984

Support Packages & Patches

Support Packages		
Software Component	Release	Support Package
ST-PI	2008_1_700	SAPKITLRD7
	2008_1_700	SAPKITLRD8
	2008_1_700	SAPKITLRDM
	2008_1_700	SAPKITLRD9
	2008_1_700	SAPKITLRDJ
	2008_1_700	SAPKITLRDL
	2008_1_700	SAPKITLRDK
	2008_1_710	SAPKITLREM
	2008_1_710	SAPKITLREL
	2008_1_710	SAPKITLREK
	2008_1_710	SAPKITLREJ
	2008_1_710	SAPKITLRE9
	2008_1_710	SAPKITLRE8
	2008_1_710	SAPKITLRE7
	740	SAPK-74002INSTPI
	740	SAPK-74003INSTPI

References

This document refers to:

SAP Notes

- 1909597 [SAP BW Migration Cockpit for SAP HANA](#)
- 1872170 [Suite on HANA and S/4 HANA sizing report](#)
- 1855041 [Sizing Recommendation for Master Node in BW-on-HANA](#)
- 1829728 [BW Housekeeping Task List](#)
- 1777465 [SAP HANA Feasibility Check for Netweaver BW on HANA](#)
- 1767880 [Non-active data concept for BW on SAP HANA DB](#)
- 1637145 [SAP BW on HANA: Sizing SAP In-Memory Database](#)
- 706478 [Preventing Basis tables from increasing considerably](#)

This document is referenced by:

SAP Notes (12)

- 1903576 [SAP HANA DB: additional main memory in exceptional cases](#)
- 2121768 [Considerations with SAP HANA multitenant database containers and SAP BW](#)
- 1964437 [SAP HANA on AWS: Supported AWS EC2 products](#)
- 1909597 [SAP BW Migration Cockpit for SAP HANA](#)
- 2021372 [Sizing Report for BW on HANA \(for BW 3.5 Systems\)](#)
- 1777465 [SAP HANA Feasibility Check for Netweaver BW on HANA](#)
- 1855041 [Sizing Recommendation for Master Node in BW-on-HANA](#)
- 1767880 [Non-active data concept for BW on SAP HANA DB](#)
- 1637145 [SAP BW on HANA: Sizing SAP In-Memory Database](#)
- 706478 [Preventing Basis tables from increasing considerably](#)
- 2140959 [SAP HANA Dynamic Tiering - Additional Information](#)
- 1829728 [BW Housekeeping Task List](#)

Attachments

File Name	File Size (KB)	Mime Type
SAP_BW_on_HANA_Sizing_V2_1_6.pdf	892	application/pdf
HANA_BW_Scale_Out_V1_3.pdf	382	application/pdf