Migration to SAP Business Warehouse on SAP HANA – SAP First Guidance

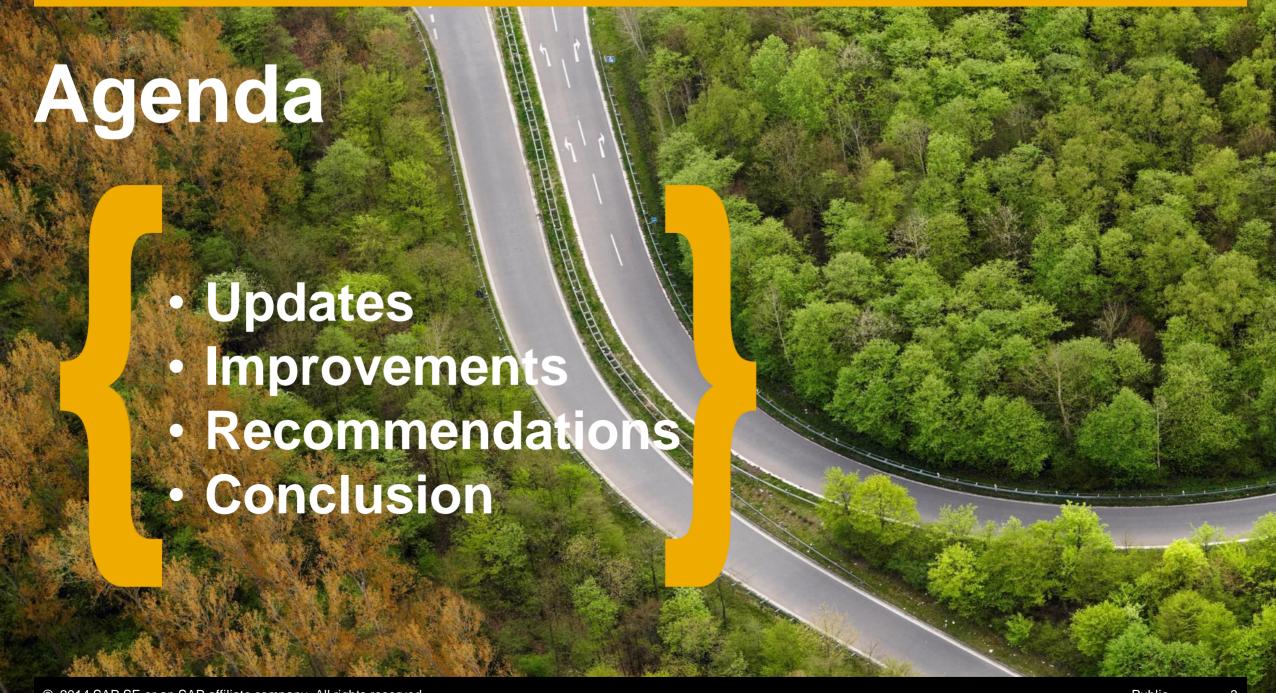
Public



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Please Note: As the collaboration Platform has changed, and with these caused circumstances a lot of available Documents were retired. So mostly new links are included now in this Update to guarantee to access the up-to-date Informations.





Updates

- ► End To End Guide Migration BW on SAP HANA
- SAP First Guidance
- SAP NetWeaver BW Application Lifecycle Management Page
- SAP NetWeaver BW Migration Cockpit for SAP HANA



SAP BW Application Lifecycle Management (ALM)

https://blogs.sap.com/2016/10/11/software-application-lifecycle-management-sap-bw/#bwmigration



Migration to SAP BW on SAP HANA

New Version 1.7x available using the latest SUM/DMO Features and the new UI

SAP First Guidance - Using the new DMO to migrate to BW on HANA

Please Note that since Q1/2014 the Presentation – Migration to BW on HANA – First Guidance concludes all of these manual efforts now.

- . BLOG: Three things to know when migrating SAP BW on SAP HANA
- BLOG: 3 Major Reasons to Migrate To SAP BW 7.4 on SAP HANA
- BLOG: What's the Difference between a Classic #SAPBW and #BWonHANA?
- BLOG: Upgrade and Migration SAP BW on SAP HANA
- BLOG: Migration of SAP Systems to SAP HANA
- BLOG: Where to find information on SAP BW on SAP HANA migrations
- BLOG: SAP BW Powered by SAP HANA Scale out Best Practices
- BLOG: The SAP HANA Reference for NetWeaver Basis Administrators
- BLOG: Migration to SAP HANA: Latest News about SAP Note 1775293

End-to-End Implementation Roadmap

http://help.sap.com/nw74#section7

Technical Preparation

Task	More Information	
Change to the new Add-On product version of SAP SEM using the CISI process.	 SAP First Guidance - SEM/BW Configuration in Sol-Man 7.1 (SCN) SAP Solution Manager: Special Cases in Installation and Upgrade -> "chapter 4.4 Modeling of SAP SEM-BW, SAP ERECRUIT, LSOFE, and FINBASIS" (SMP) 	
Separate ABAP and Java stack, considering the following:	Dual-Stack Split:	
Portal migration	Task	More Information
 Isolating the ABAP instance Setting up Java with an upgrade or a fresh installation Tools: Dual-Stack Split Tool SAPInst for Java deinstallation (for installations that are not supported by Dual-Stack Split) 	Use Near-Line Storage (NLS) to clean-up your system from historical read-only data prior to the migration to SAP HANA. Depending on your system being a Unicode system or not, you use the SAP Near-Line Storage solution based on SAP IQ (for Unicode systems) of the partner solution based on SAP IQ (for Non-Unicode systems).	Storage Solution (HP) For SAP EhP1 for SAP NetWeaver 7.3: Sybase IQ as a Near-Line Storage Solution • SAP First Guidance - SAP-NLS Solution with Syb-

SAP First Guidance Collection

https://blogs.sap.com/2016/10/11/sap-first-guidance-collection-sap-bw-hana/

SAP First Guidance Collection for SAP BW on HANA

October 11, 2016 | 2,228 Views | Edit



Roland Kramer more by this author



Replacement of the retired "SAP HANA Cookbook": End-to-End Implementation Roadmap for SAP BW

SAP First Guidance - SAP BW on SAP HANA Installation/Systemcopy/HANA Revisions



This Document also reflects the released SAP HANA SP/Revisions so far and also contains details for selected HANA Revisions and the usage together with SAP BW.

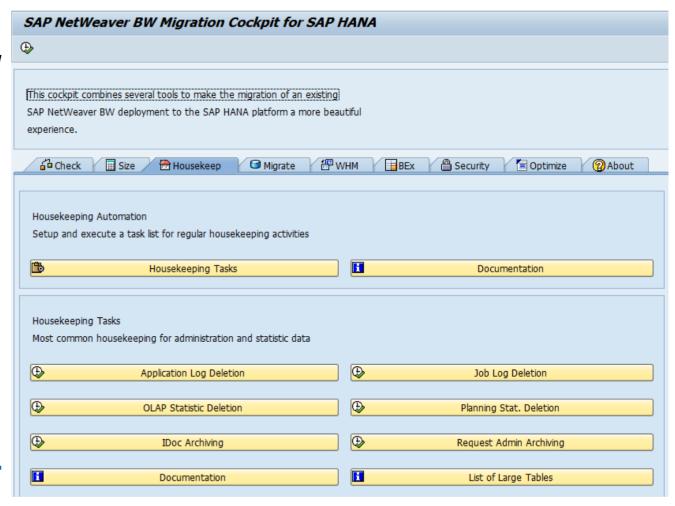
SAP NetWeaver BW Migration Cockpit for SAP HANA

Note 1909597 - SAP NetWeaver BW Migration Cockpit for SAP HANA

There are many transactions and programs to help you configure BW on SAP HANA in an optimal way

The
SAP NetWeaver BW Migration
Cockpit for SAP HANA
provides
easy access
to the
most used and useful tools

ZBW_HANA_MIGRATION_COCKPIT





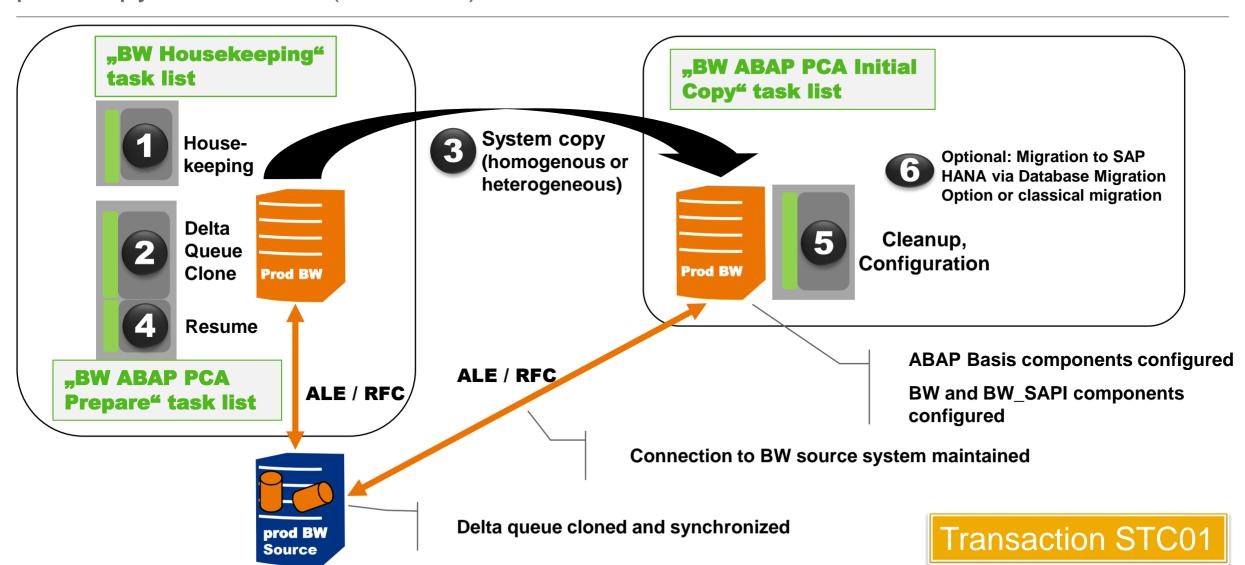
Improvements

- Post Copy Automation for BW (BW-PCA)
- Upgrade/Migration Procedure
- database migration option (DMO) as part of software update manager (SUM)



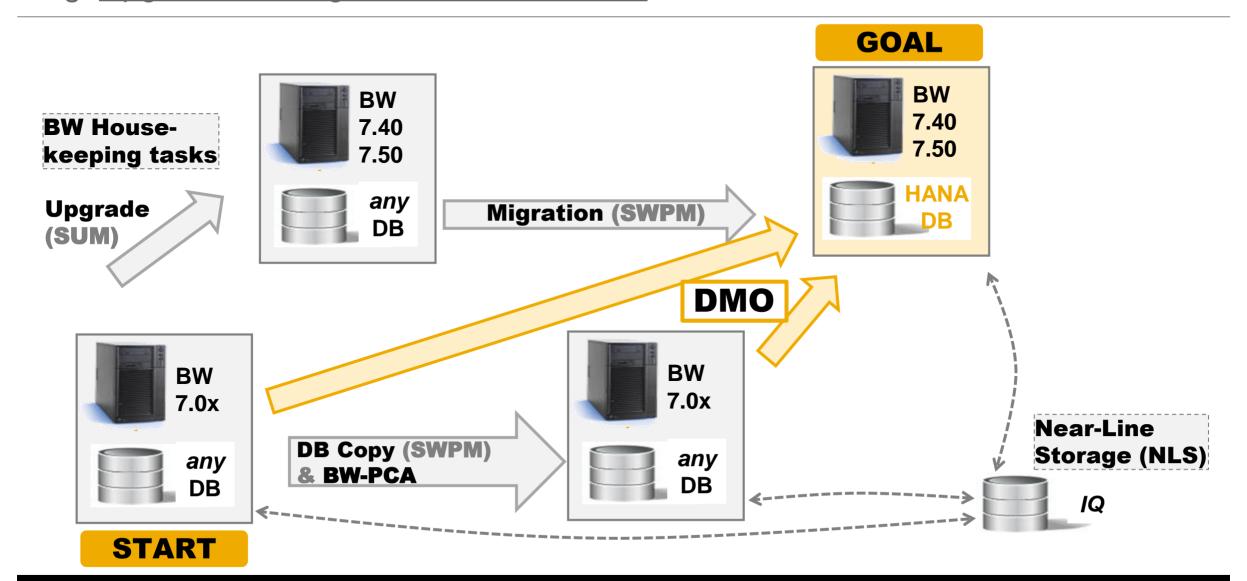
BW ABAP PCA for regular system copies and DMO

post copy automation (BW-PCA) as the minimized downtime enabler for DMO



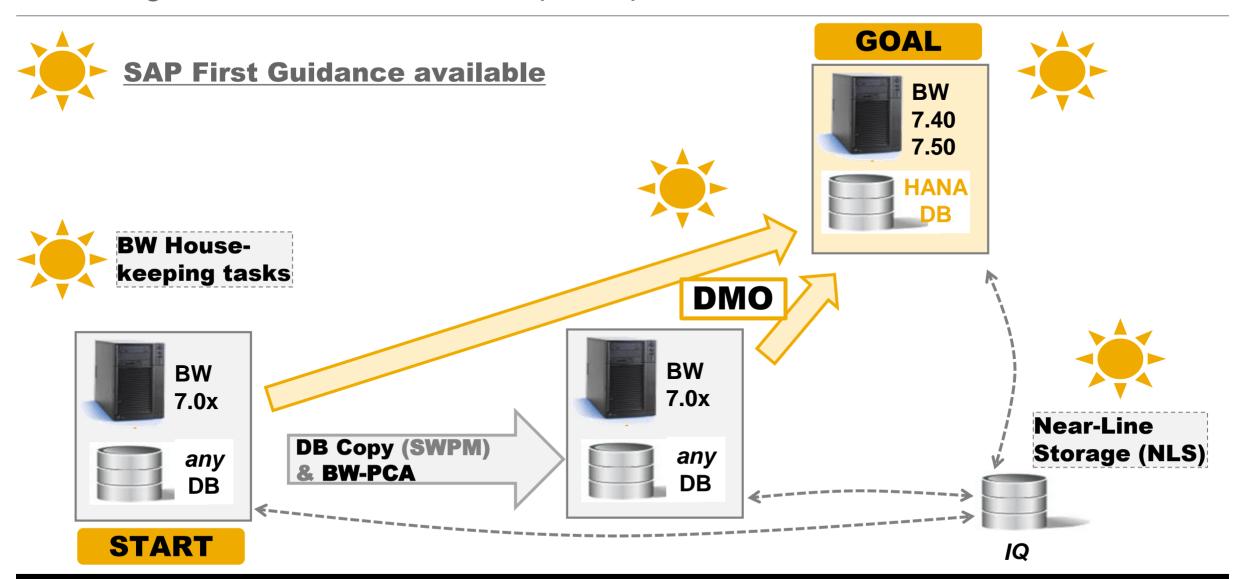
Migration BW on SAP HANA - classical and new way

Blog: Upgrade and Migration - BW on HANA



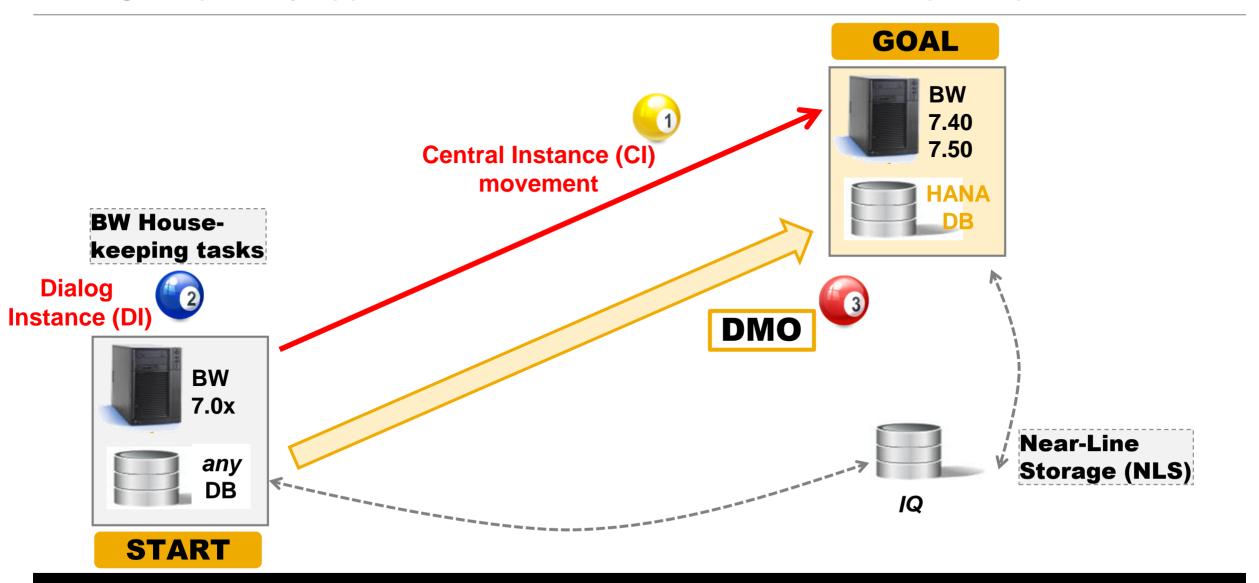
Migration BW on SAP HANA on Premise

combining BW-PCA and DMO to keep the "production downtime minimized"



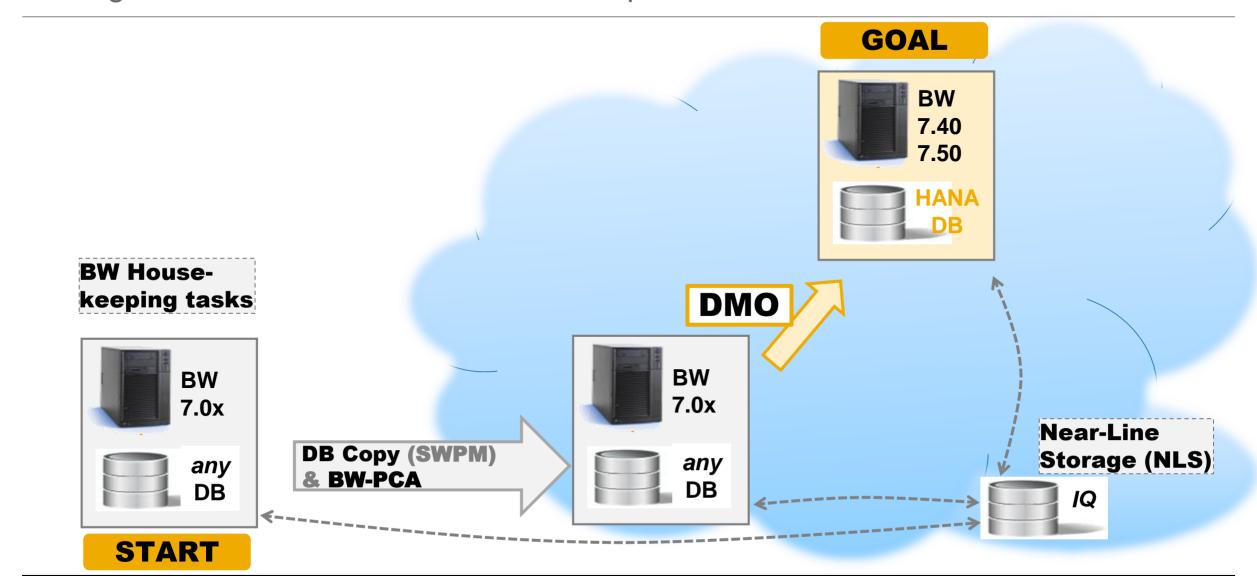
Migration BW on SAP HANA - alternative

moving the primary application server to the HANA server to improve performance



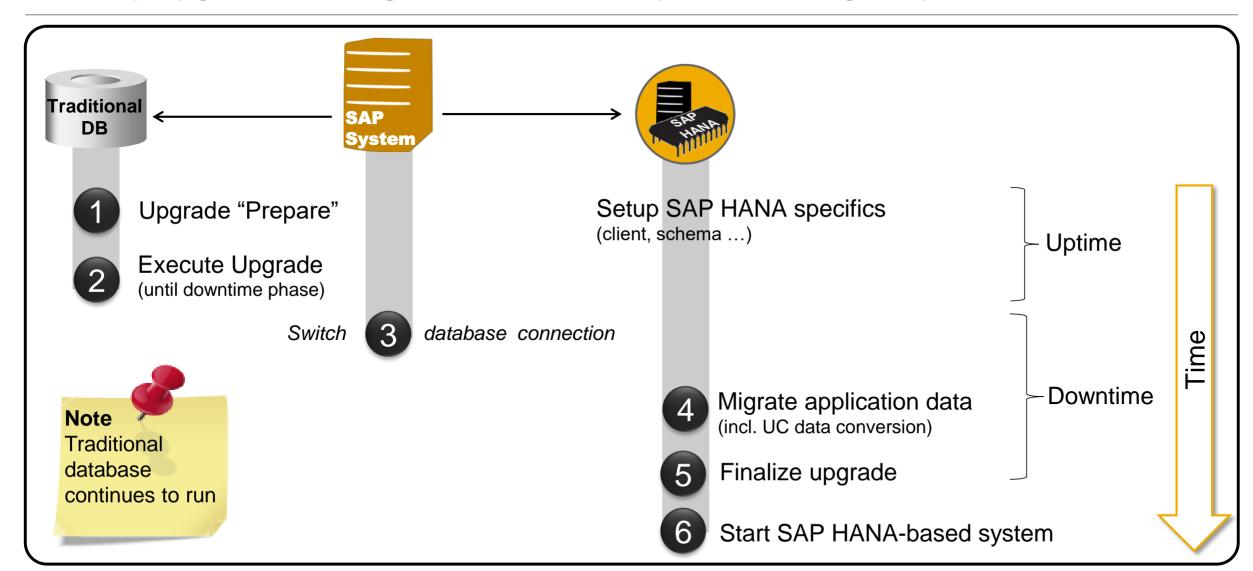
Migration BW on SAP HANA to HEC

moving BW on Premise to the HANA Enterprise Cloud



Database migration option (DMO) in the SUM Framework

one-step upgrade and migration with DMO - phases during the procedure



What's new with the Upgrade to BW 7.4

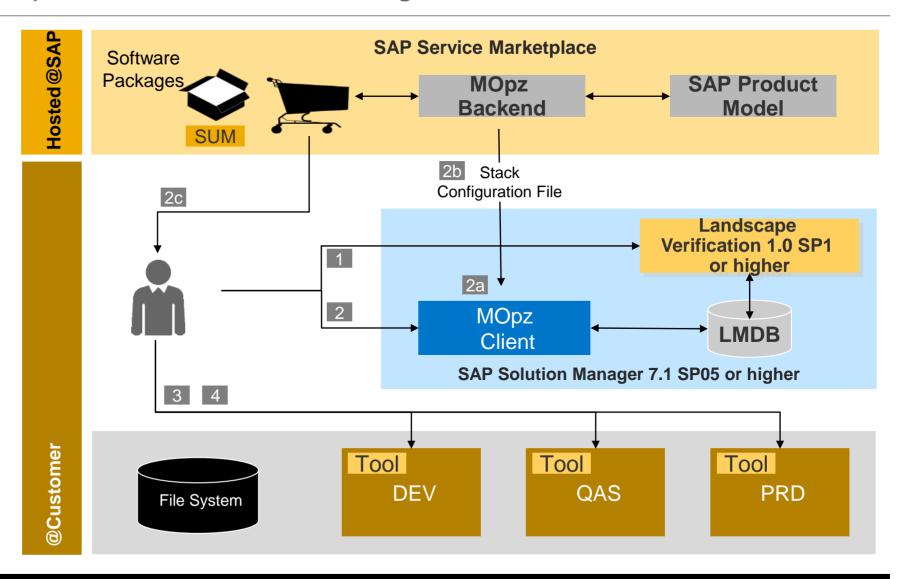
software update manager (SUM) vs. database migration option (DMO)

- The database migration option (DMO) is an integrated part of the software update manager (SUM) and not a separate tool.
- The upgrade procedure differs from the upgrade part of the database migration option
 - A standard upgrade requires a main database upgrade, DMO not.
 - In a standard upgrade, you have manually to run the ASU toolbox, and/or the upgrade pre/post task lists, DMO includes them automatically.
- The (heterogeneous) migration procedure to SAP HANA differs from the heterogeneous system copy
 - The DMO procedure uses a UI5 browser based fronted based on the SAP host agent, SUM the classical JAVA based GUI frontend.
 - The start release can be already SAP NetWeaver 7.0 (SPS17/SP19). Also a lower start release 6.40 is available with SUM SP11.
 - The specific script SMIGR CREATE DDL run's already automatically in the source release.
 - The in-place migration (related to the PAS) uses parallel export/import (via pipes) and is not comparable to the SWPM procedure. The usage of manual created MigMon scripts is not supported and not compatible with the DMO procedure.
 - The DMO procedure call's a reduced version of the ASU toolbox and the pre/post task lists for upgrade and migration, SWPM not.
 - The DMO procedure calls the post program RS_BW_POST_MIGRATION automatically, SWPM not.
 - For an optimized table splitting from the source database, also the SWPM calls the SUM/DMO procedure (no further enhancement in SWPM).
- A standard upgrade followed by a heterogeneous system copy to SAP HANA (BW based systems) is a different approach than the usage of the database migration option (upgrade with a in-place database migration)

What's new with the Upgrade to BW 7.4

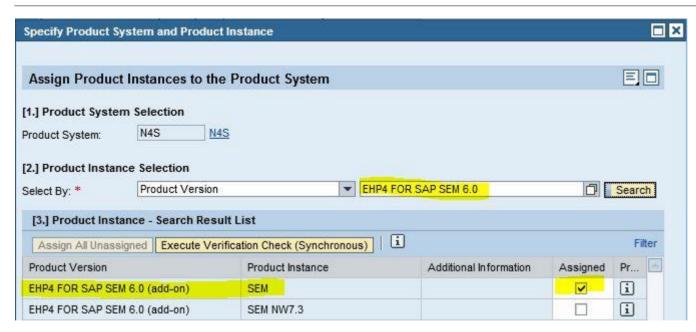
Solution Manager pre requisites for the correct usage of the MOPZ



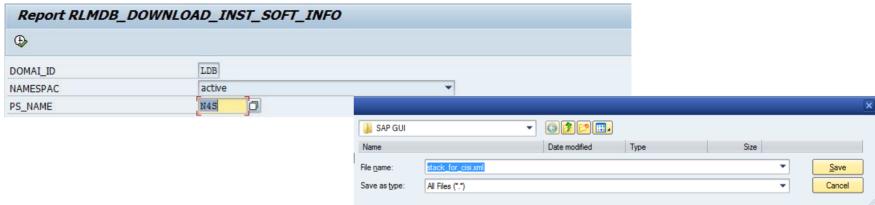


What's new with the Upgrade to BW 7.4

Blog: Good News - Easier Modeling of the SEM Add-On in Solution Manager

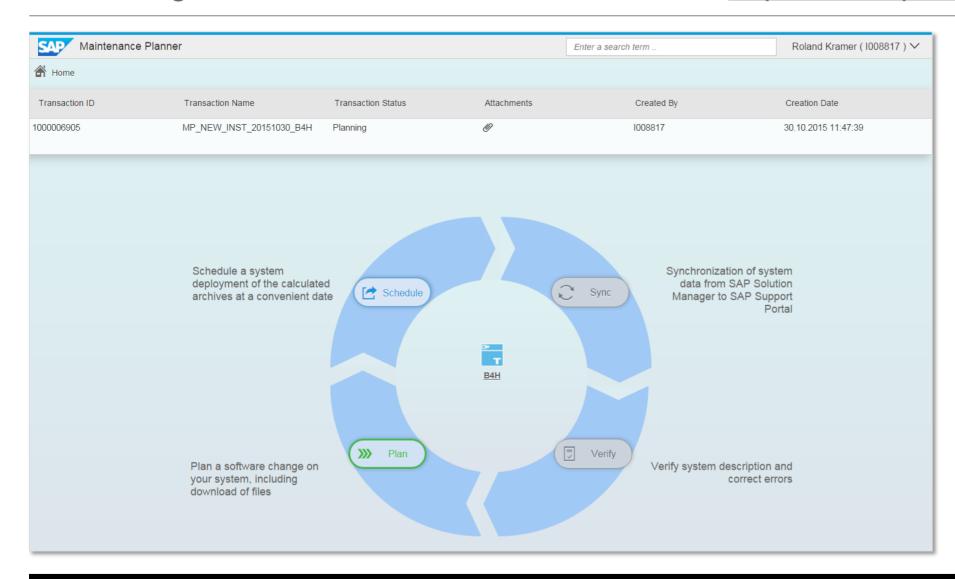






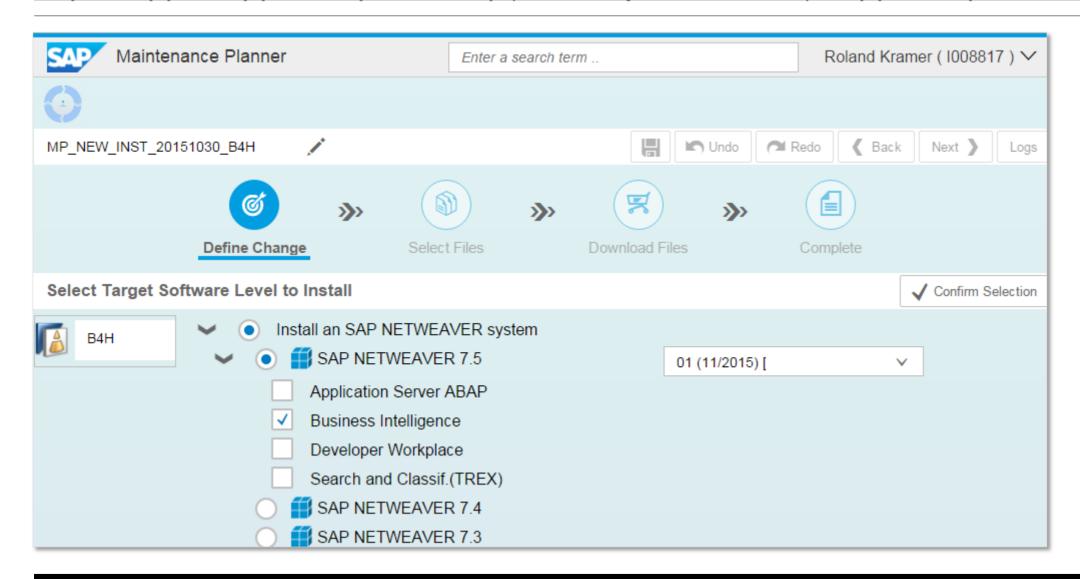
What's new with the upgrade of SAP BW 7.50

Introducing the new SAP Maintenance Planner - http://scn.sap.com/docs/DOC-65243



What's new with the upgrade of SAP BW 7.50

https://apps.support.sap.com/sap(bD1lbiZjPTAwMQ==)/support/mp/index.html



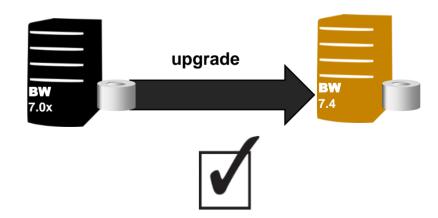
General checks prior to the Upgrade

Reminder: the ASU toolbox/task list for BW is the first step for the upgrade prep.

NetWeaver BW

Object consistency

Cleaning old data





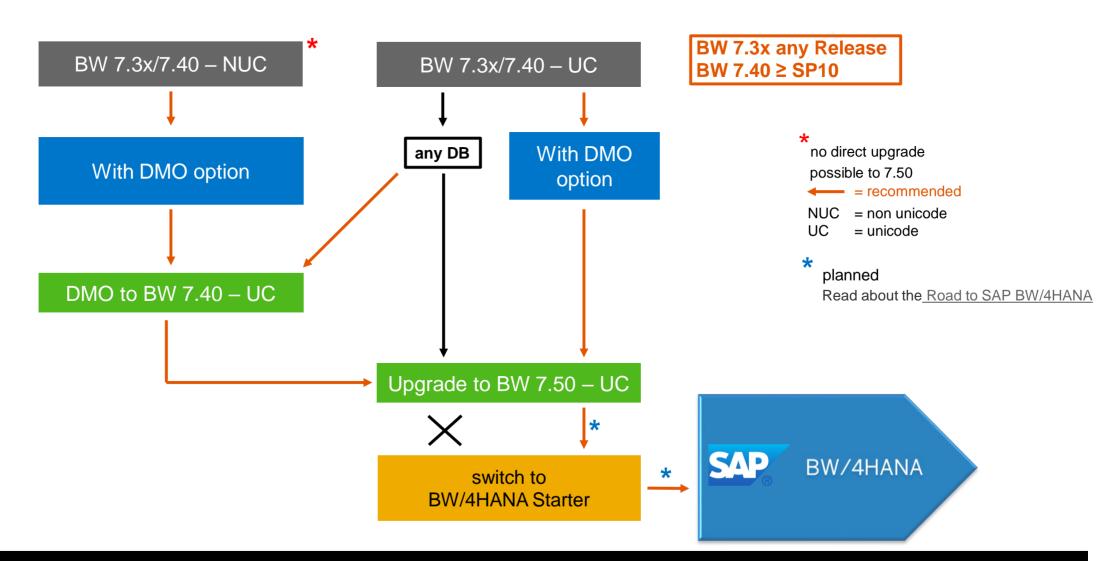
Recommendations

- The Master Plan
- ► BW Housekeeping Tasklist/Pre-Post Upgrade/Migration Tasklist
- ► Data reallocation Process (DAP) with SAP-NLS Solution based on SAP Sybase IQ



The Road to SAP BW/4HANA

Which Upgrade fits to the existing SAP BW environment – Release 7.3x/7.40



The Master Plan: one tool: DMO, one target: BW on SAP HANA!

All current SAP NetWeaver Releases

- 7.0/7.01/7.02
- \bullet 7.3/7.31
- 7.40
- apply at least one SP or upgrade

Database migration option (DMO)

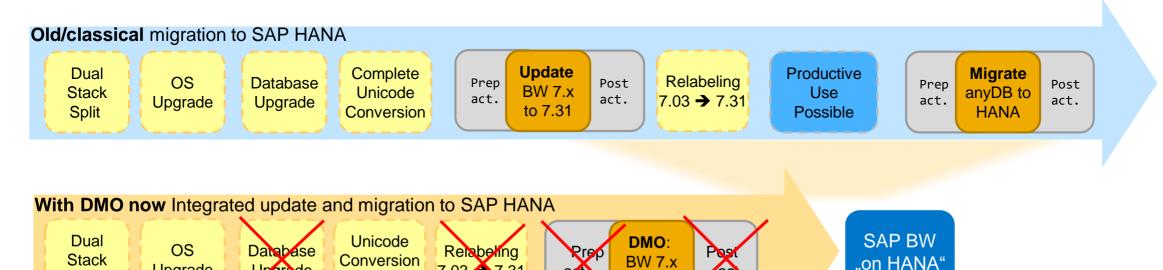
BW 7.50 on SAP HANA

The Master Plan!

Comparison of the Standard and New Migration Processes

new option also reduces time by eliminating prep/post activities

not needed



to 7.40



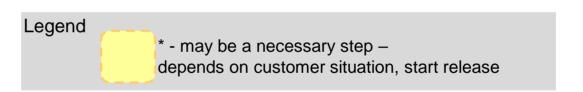
Upgrade

Split

Upgrade

not needed

Prep only

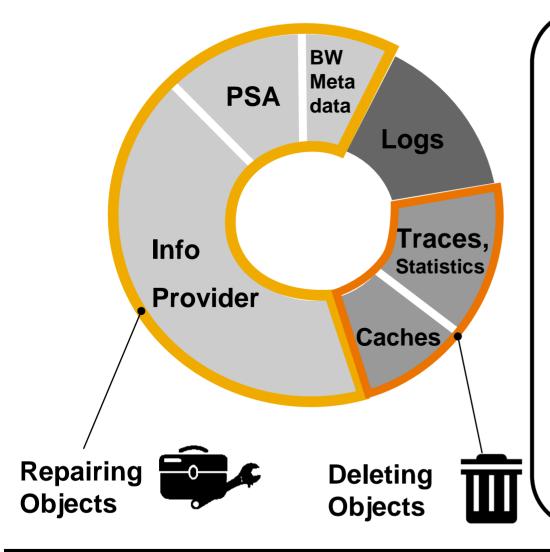


SAP BW

..on HANA"

BW Housekeeping and Upgrade Before Tasklists

challenges with growing number of Data objects in SAP NetWeaver BW



Challenges:

- Data Objects in BW system grow over time
- Some data objects get inconsistent and corrupted
- BW systems become too large with outdated data
- System copy with inconsistent and outdated data will result in inconsistencies

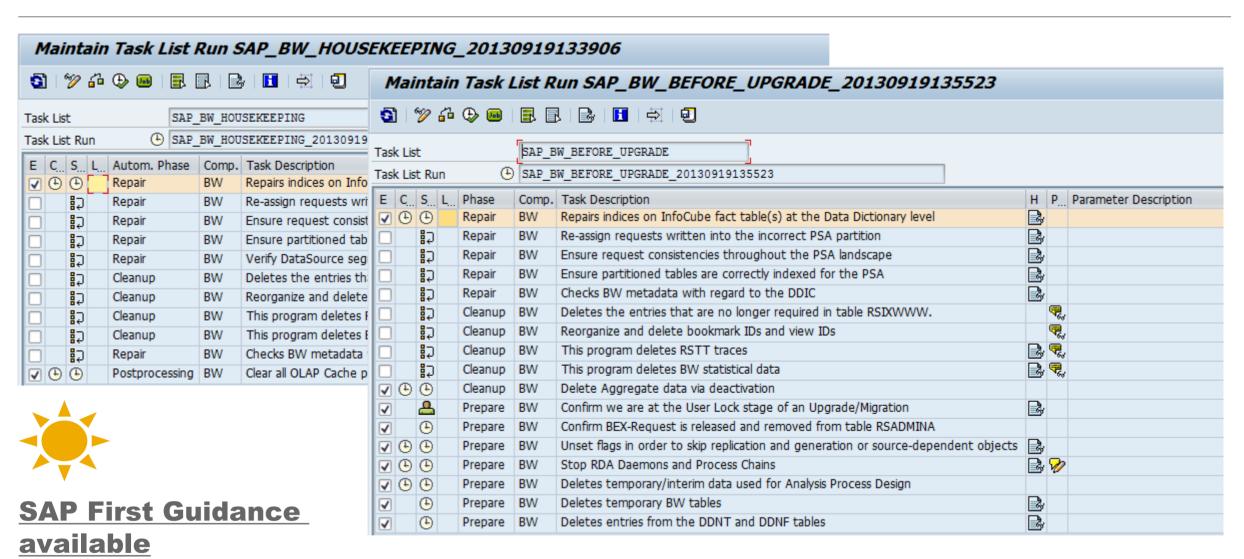
Solutions:

- Clean-up system regularly (e.g. monthly)
- Repair inconsistent data objects regularly
- Housekeeping especially before system copy
- Delivered with SAP Note 1829728

Transaction STC01

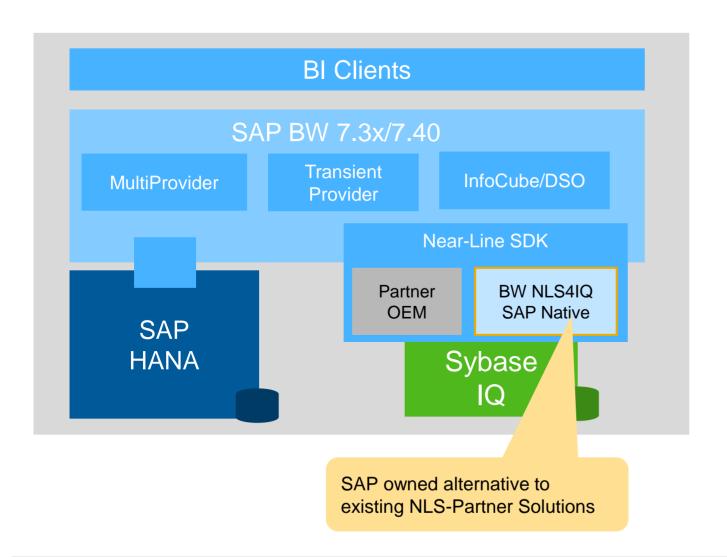
BW Housekeeping and Upgrade Before Tasklist

https://blogs.sap.com/2016/10/11/software-application-lifecycle-management-sap-bw/#bwhousekeeping



SAP BW on HANA and SAP IQ

Near-Line Storage (SAP-NLS) Architecture - Overview



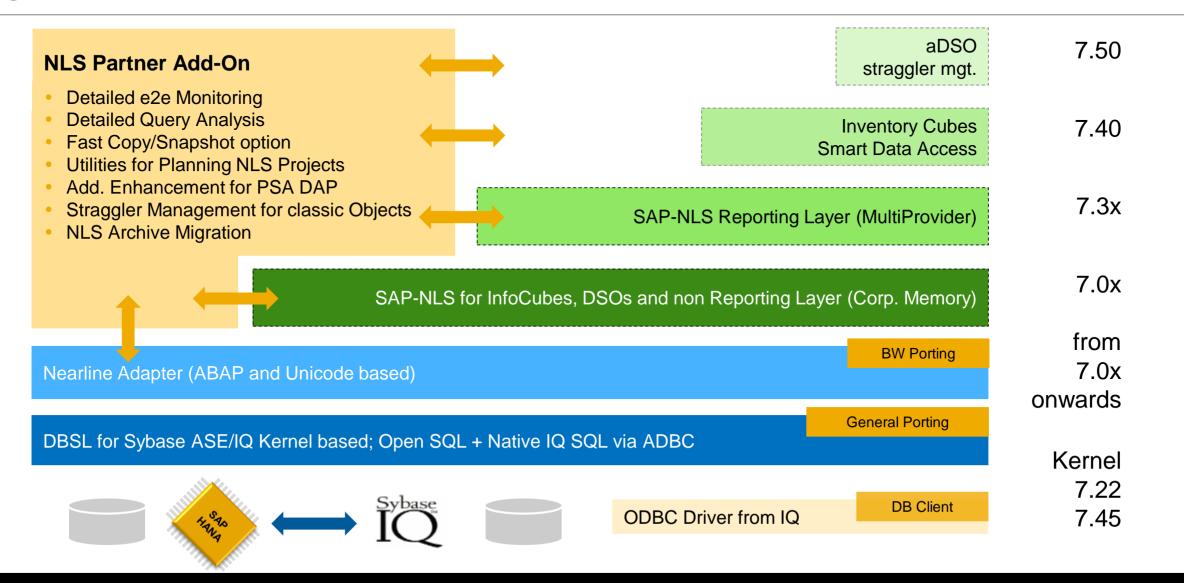
An SAP - owned BW NLS implementation for Sybase IQ offers a fully integrated solution from one provider

Main aspects:

- Deliver an ABAP-based implementation of the BW NLS interfaces
- Deliver a Sybase IQ DBSL 'light' that covers all the needs of the abovementioned NLS implementation
- Sybase IQ to deliver reliable, highperformance execution of the DBSL driven loads and queries
- Availability since Q2/2013

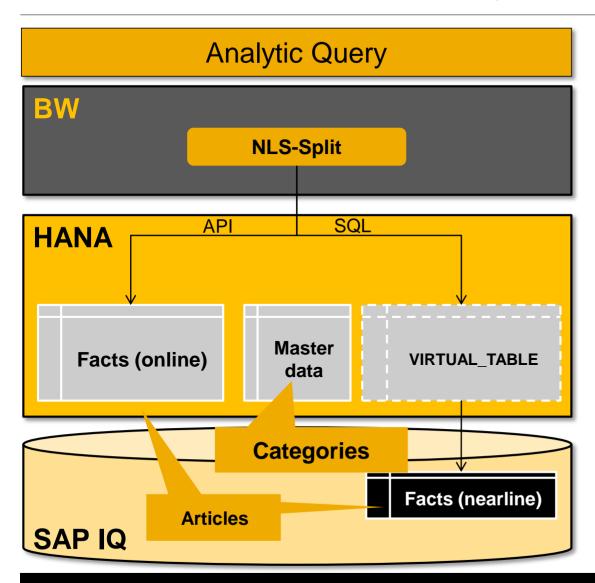
The SAP-NLS Implementation – Release Capabilities

Together with NLS Partner Add-On's and SAP



HANA Smart Data Access for BW NLS with SAP IQ

Available with SAP BW 7.4, SP8 (Q3/2014) on HANA

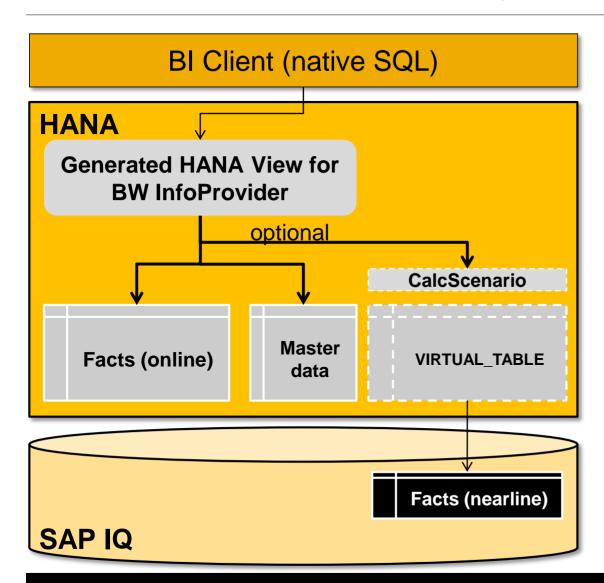


- Query Access to NLS part of InfoProvider can leverage SDA (if NLS uses SAP Sybase IQ for NLS)
- Optimized Query execution plan (Semi-JOIN), Filter push-down, ...
- Significantly better Query performance for many NLS queries
 - especially Queries using Hierarchies or Nav.
 Attributes can run 100 times faster

Example from Retail: Aggregation of articles in categories as Nav. Attributes

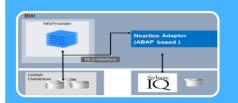
BW NLS data for External HANA Views

Available with SAP BW 7.4, SP8 (Q3/2014) on HANA



- Generated HANA Views for InfoProvider (new with BW7.4 SP05)
- HANA Views can (optionally) include NLS part as UNION between online and nearline facts
- NLS part is available for external consumption, e.g. 3rd Party Frontend's
- NLS part is always accessed

SAP IQ is the preferred solution for warm and cold data archiving capabilities for SAP BW, Business Suite, and HANA



NLS (Near Line Store) for SAP BW

- Optimized NLS data transfer throughput using IQ Loader functionality
- SAP HANA and IQ share the same columnar paradigm, and similar data compression rates
- Ready for large data volumes
- Suitable for ad-hoc queries with long history
- Minimum administration effort



ILM for SAP Business Suite

- Fast archive index read w/o additional secondary DB indexes
- Increased search capabilities
- Faster archive I/O fewer layers (software, network, storage hardware)
- FRP archive files as well as archive indexes stored in SAP IQ



Warm archive for HANA using smart data access (SDA)

- Using SDA, HANA customers can access IQ as a federated store
- Store warm data in IQ, and real time data in HANA
- Push query processing down to IQ



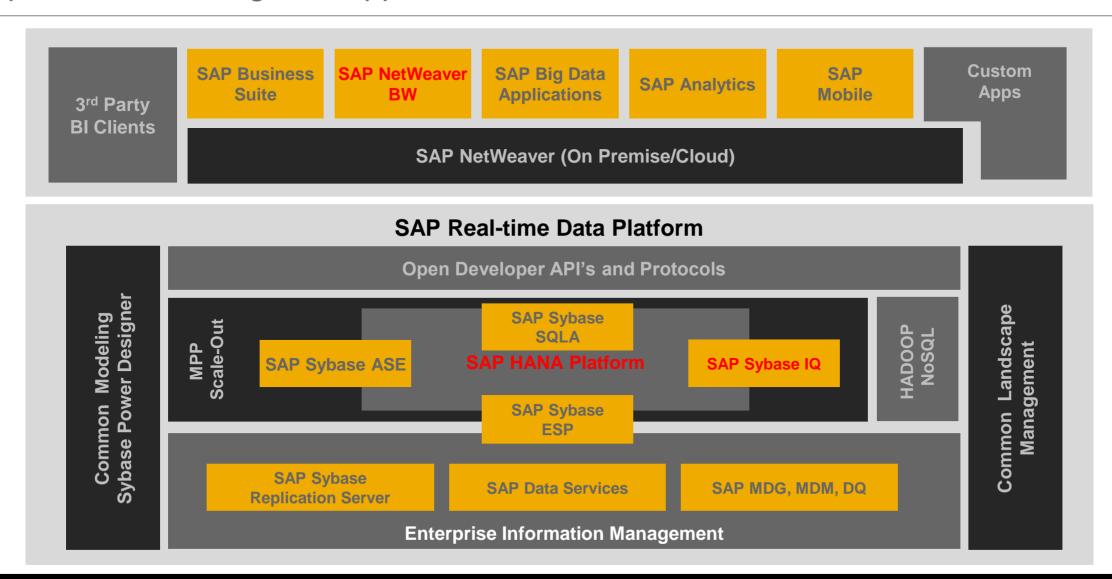
Conclusion

- ► SAP Realtime Database Platform
- ► SAP BW on SAP HANA



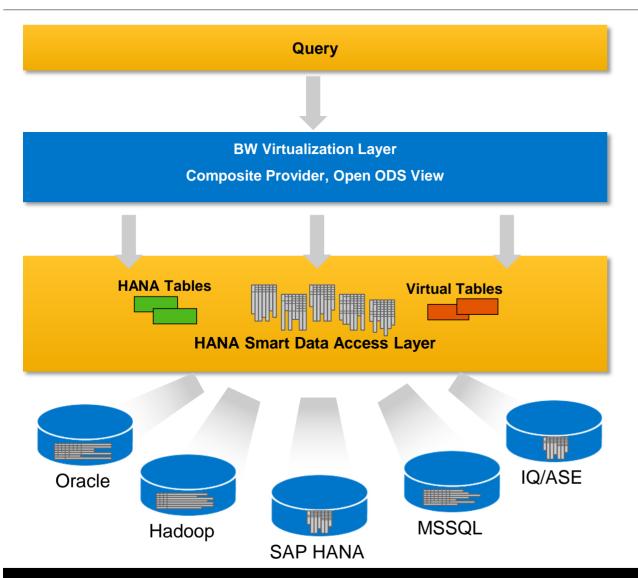
SAP Real-time Data Platform

optimized for all big data applications



SAP HANA Smart Data Access

data virtualization for on-premise and hybrid cloud environments



Enhanced Business Flexibility by providing "the logical EDW"

Data Federation in diverse EDW landscapes

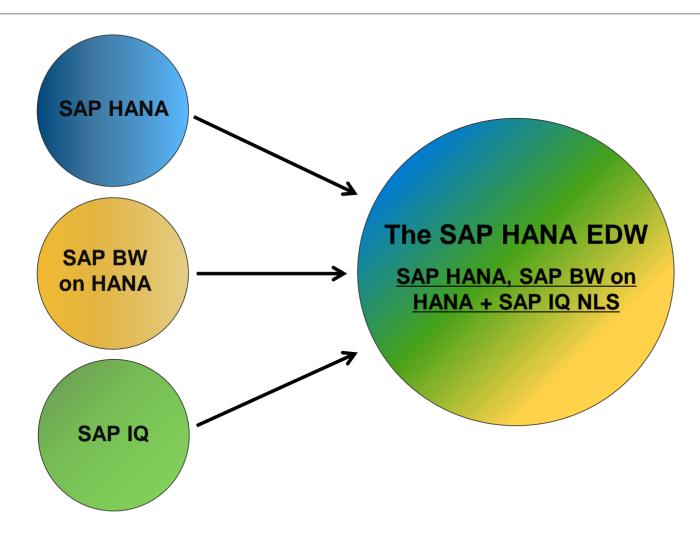
- Smart data access read access to relational and non-relational sources via ODBC
- Enables access to remote data access just like "local" table
- Supports data location agnostic development
- No special syntax to access heterogeneous data sources
- BW based Analytic Services on external data

Scenario

- Make other DWHs transparent to HANA
- Non-disruptive evolution from virtual table to persistent structure by establishing ETL without major effort
- Consolidating / rationalizing the DWH landscape
- Consumption of HANA datamart scenarios from second HANA database

Conclusion – combining the strengths of the different worlds

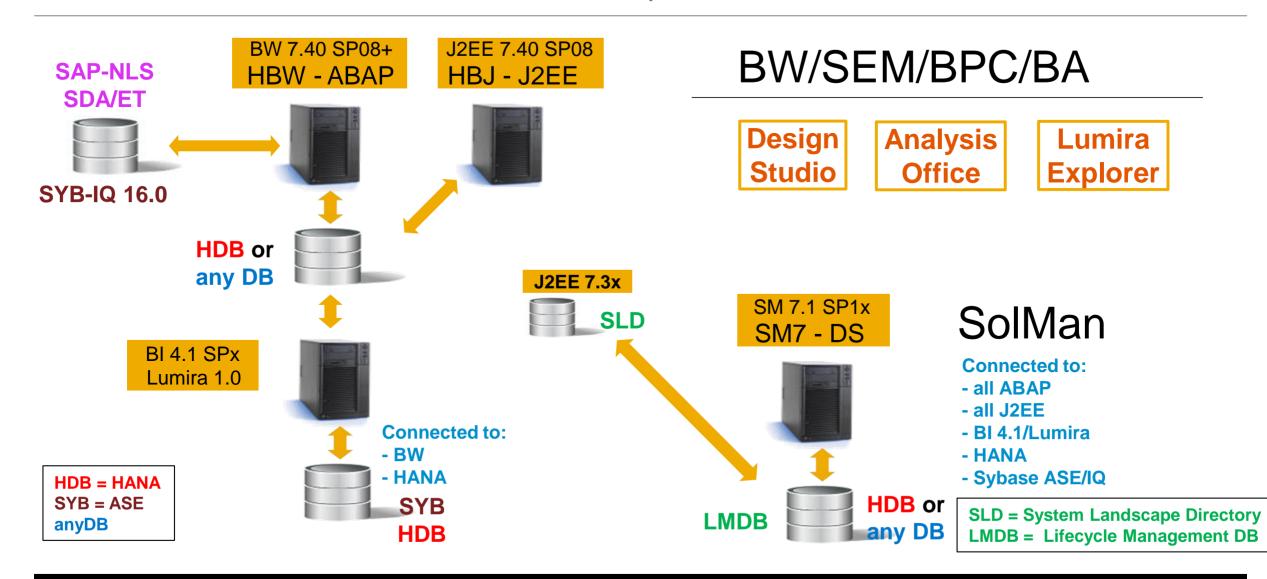
Blog: 3 Major Reasons To Migrate To SAP BW 7.4 on SAP HANA - SAP BW EDW



- SAP HANA Agile Data Mart scenarios and SAP NetWeaver BW powered by HANA perfectly address the needs of, Data Marts and Central (E)DW
- SAP Sybase IQ is SAP's recommended NLS for SAP NetWeaver BW powered by SAP HANA and is capable of storing terabytes to petabytes of structured & unstructured data
- Mature customer architectures will leverage the capabilities of all three components where appropriate

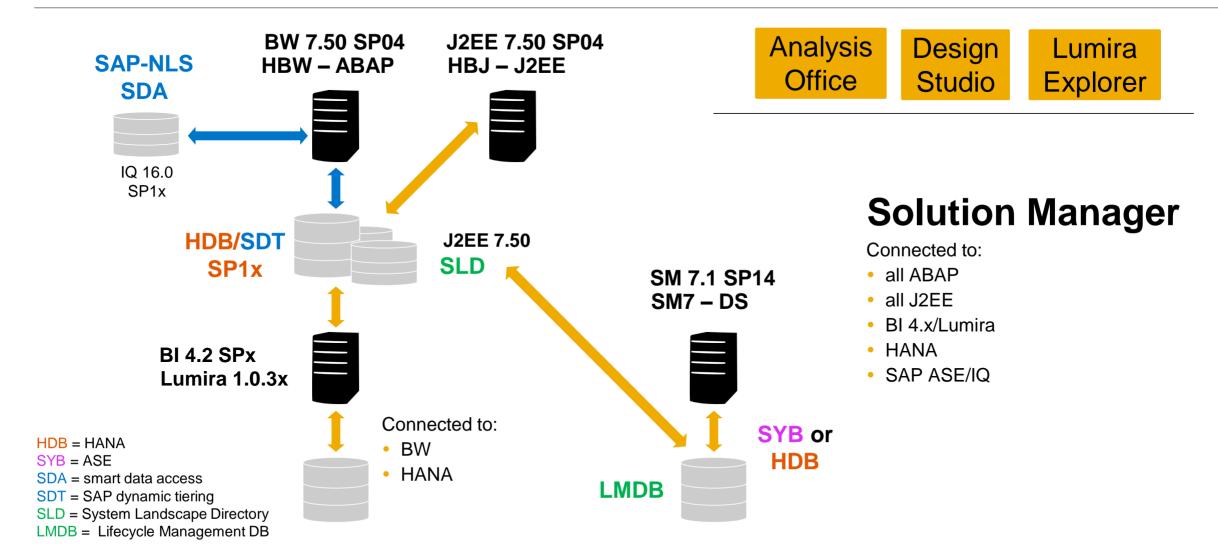
SAP Business Intelligence Architecture

based on SAP BW 7.40 and additional components



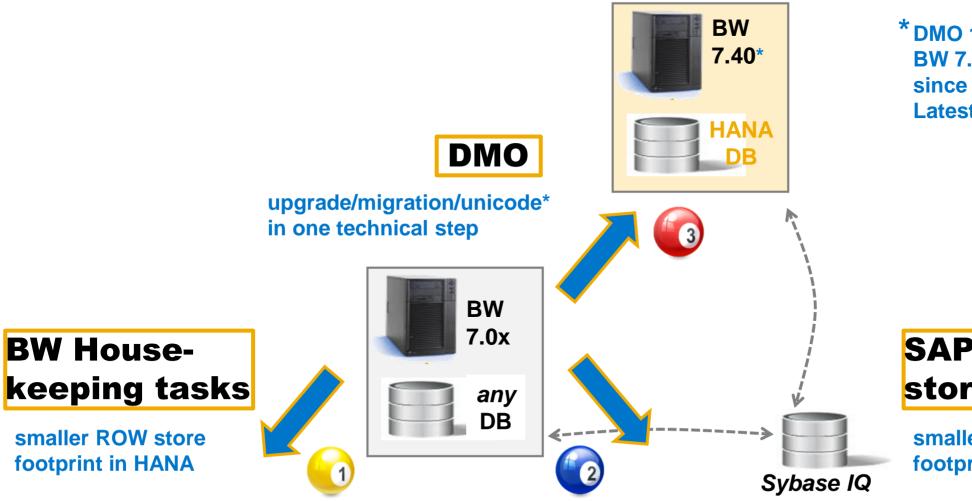
SAP Business Intelligence Architecture

Based on SAP BW 7.50, HANA, IQ and additional components



Three things to know – Migration BW on HANA

Blog: Three things to know when migrating to SAP BW on HANA



*DMO 1.0 SP10 and BW 7.40 SP06 available since Q1/2014 Latest Version SP18

SAP Near-line storage (NLS)

smaller COLUMN store footprint in HANA

Conclusion: SAP BW? - three things to know ...

- Three Things to now when migration BW on HANA Blog: Three Things to Know when Migrating SAP NetWeaver BW on SAP HANA
- The Upgrade from 7.0x to 7.50 is possible directly/one step including SEM Blog: Good News Easier Modeling of the SEM Add-On in Solution Manager

The SAP BW 7.40/7.50 Released (on HANA)
Our Customers know the (Business) Value - Features per Release 7.40/7.50

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