

Common Planning Model Based on Integrated Planning Covered in This Unit

Content

- SAP BW Integrated Planning overview
- SAP HANA optimized planning processes
- System demonstration



Overview

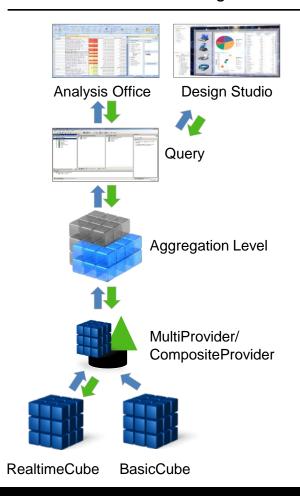
SAP BW Integrated Planning (BW-IP)

- Provides business experts with an infrastructure for creating and operating planning scenarios
- Planning covers a wide range of topics, from simple data entry to complex planning scenarios, forecasting, and simulations

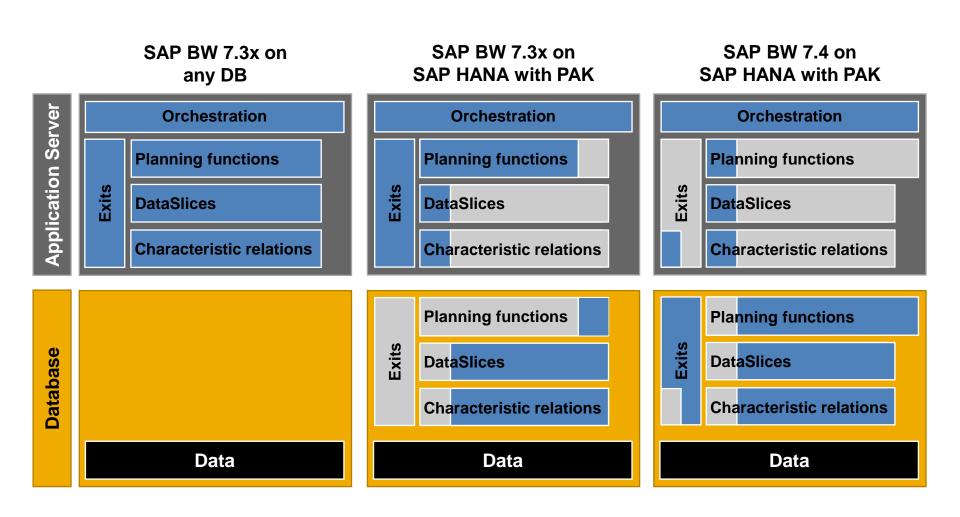
Planning Modeler as central tool for metadata

- Creates methods for changing the data (planning functions, sequences)
- All required utilities to define input-ready and planning-enabled data sets (filters, variables...)

BW-IP/PAK Planning Model



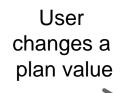
What Is Different with SAP HANA – Planning Applications Kit (PAK) (1)



What Is Different with SAP HANA – Planning Applications Kit (PAK) (2)

FY 2014 Actual	FY 2015 Plan
----------------	--------------

County	EUR	EUR
France	200.00	200.00
Germany	250.00	250.00
Italy	180.00	180.00



		FT 2014 Actual	FT 2013 FIAII
	County	EUR	EUR
	France	200.00	200.00
•	Germany	250.00	300.00
	Italy	180.00	180.00

Traditional Approach

- 1. Determine the delta → +50
- 2. Disaggregate (in application server)
 - per week (52)
 - per branch (500)
 - 26,000 combinations / values
- 3. Send 26,000 values to DB to save

SAP HANA-Based Approach

- 1. Determine the delta \rightarrow +50
- 2. Send 1 value to SAP HANA database+ instruction to disaggregate and how
- 3. Disaggregate (in SAP HANA)
 - per week (52)
 - per branch (500)
 - create + save 26,000 values

Features Executed In-Memory with the Planning Applications Kit

Selected Features SAP HANA-Optimized

- Query execution for reading and writing
- Disaggregation in queries
- Planning functions:
 - FOX (with some restrictions)
 - Distribution by reference data
 - Copy
 - Delete
 - Revaluate
 - Repost
 - Set Value
- For details about availability of pushed down planning functionality, see SAP Note 1637199



Common Planning Model Based on Integrated Planning System Demo

BW-IP Example

- Prepare a planning scenario by creating plan data
- Plan an increase on customer cluster level



What You've Learned in This Unit

Key takeaways

- BW-IP is an integrated framework to implement planning solutions within SAP BW
- Offers various planning functions outof-the-box and the possibility to write own planning functions
- Planning functions and processes are to a very large extent optimized by SAP HANA with the usage of the Planning Applications Kit
- With PAK, extensive calculations are processed directly in SAP HANA





Thank you

Contact information:

open@sap.com



© 2014 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see http://global12.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

Week 4 Unit 2: SAP BPC for SAP NetWeaver powered by SAP HANA – Embedded Model



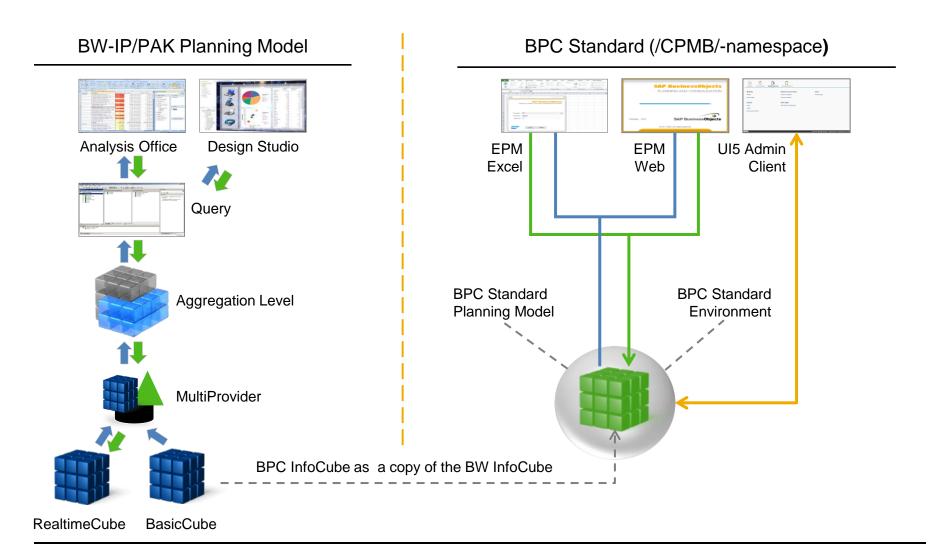
Covered in This Unit

Content

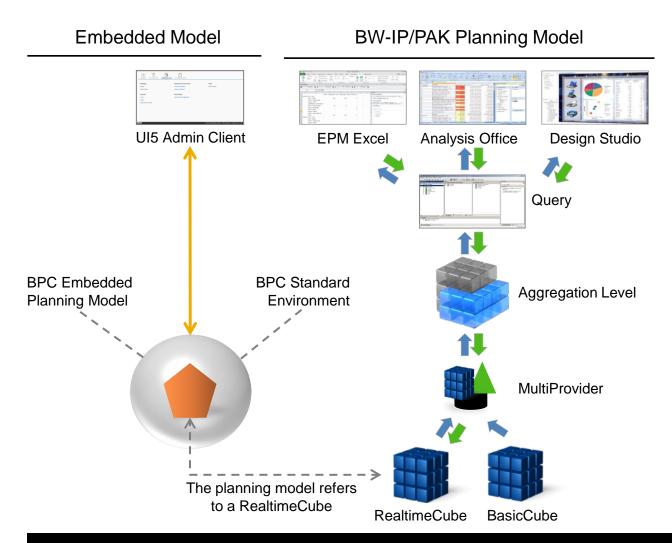
- Different planning models
- The new embedded model



Planning Models and Their Relationship – Traditional



Planning Models and Their Relationship – New Model



Planning Models Getting Combined

Combine the best of three worlds in a unique planning solution (SAP HANA, BPC, BW-IP)

Combines the

- ... successful EPM Excel add-in
- ... flexible BPC admin UI
- ... powerful BW-IP / PAK planning manager

... super-fast SAP HANA planning engine

BW-IP

- EDW integration
- Built-in functions

BPC NW

(10.1)

embedded •

BPC NW

- User experience
- Collaboration
- Data flexibility

SAP HANA

Unprecedented speed

Overview

Enhanced analysis and planning capabilities with the "embedded model"

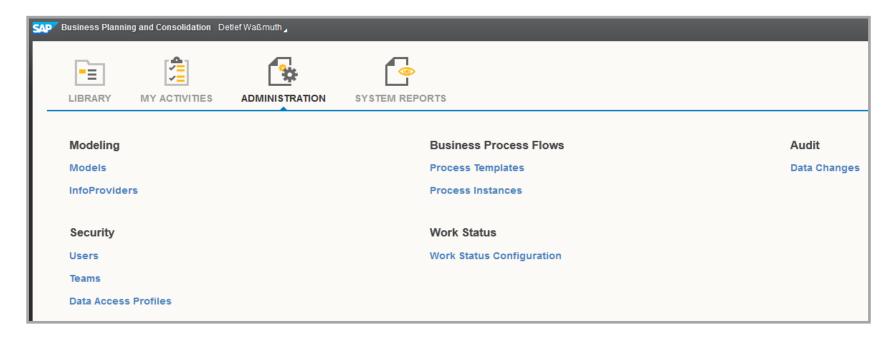
- Optimized planning functions leveraging SAP HANA for better, more timely decisions
- Leverages the existing BW-IP models and benefits from SAP HANA performance due to push-down of planning processes

Selected features

- Full PAK model compatibility
- Business process flows (BPF)
- Work status
- Data auditing
- Easy upload scenario
- LOB authorizations

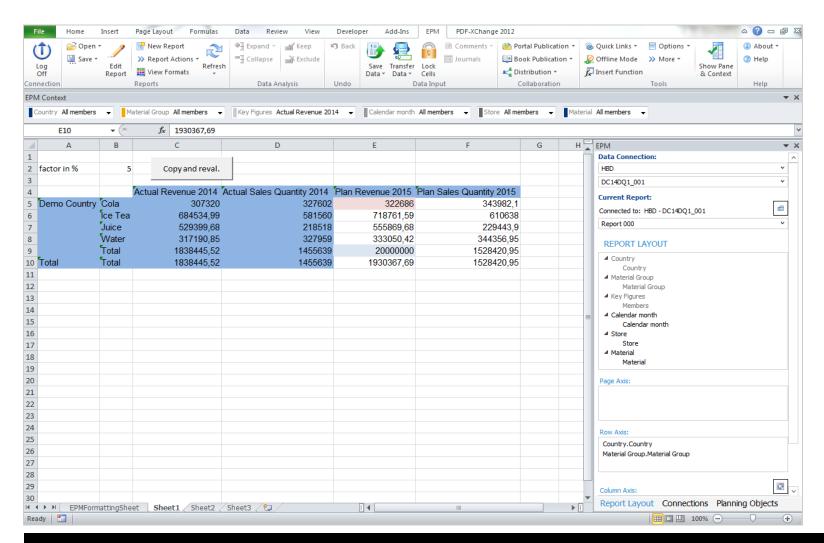


Web Admin Client



This presentation describes features and functions of the Web-based admin client of SAP BPC 10.1 for SAP NetWeaver. With the help of this client, users without deep knowledge of SAP BW can use this functionality and maintain planning models without any IT support.

EPM Client



New Usability

Increased usability

New HTML5 UI for easier navigation and cross-platform readiness

Lower cost of ownership

- New modeling capabilities with tighter integration into SAP BW and SAP ERP
- Deployed in the SAP HANA Enterprise Cloud with subscription pricing to get up and running faster with lower up-front costs

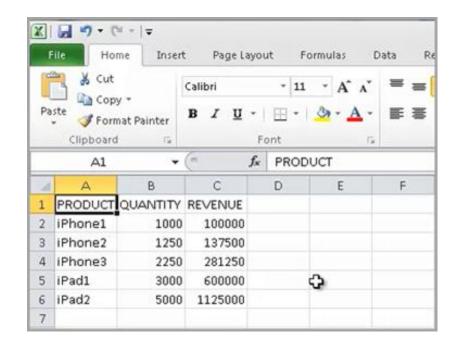




Define Local Data Sets

Local Provider

- With the help of this feature, business users are able to create their own local planning applications independently of the IT department
- In a first step, we upload CSV files to the system
- In the coming releases, it should be possible to define a local planning application from scratch.
 (This innovation is part of the roadmap)



What You've Learned in This Unit

Key takeaways

- Leverages the existing SAP BW application's integrated planning models and benefits from SAP HANA acceleration
- Adds new capabilities to existing BW-IP features
- The embedded model does not create an additional data copy; it is embedded in the IP model and references to the origin data





Thank you

Contact information:

open@sap.com



© 2014 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see http://global12.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

Week 4 Unit 3: Efficient Persistency Management



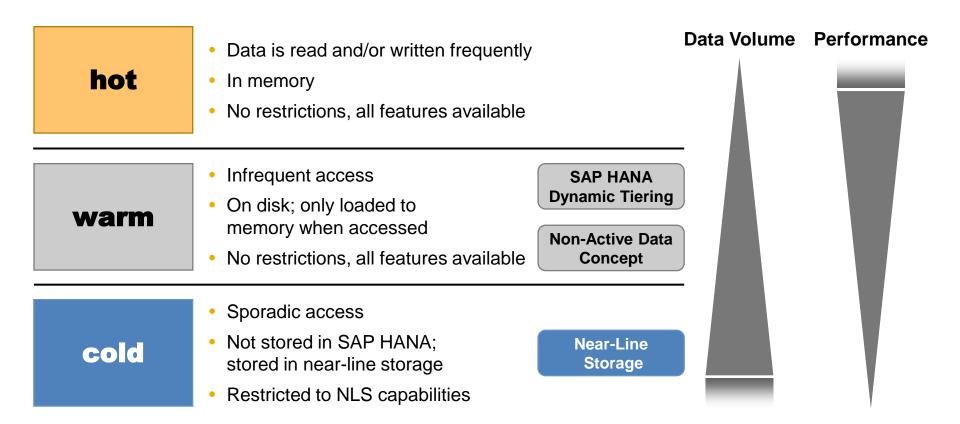
Covered in This Unit

Content

- Multi-temperature data management
- Non-active data concept
- SAP HANA Dynamic Tiering
- SAP BW Near-Line Storage with SAP Sybase IQ

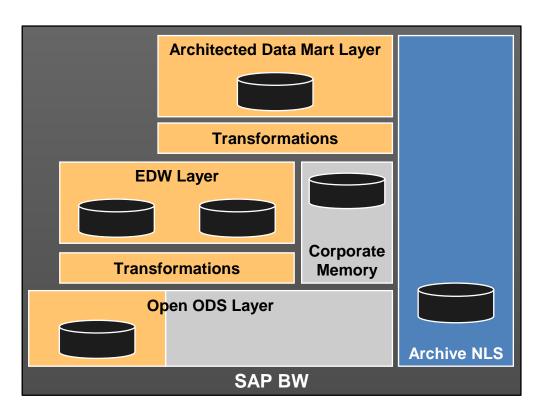


Multi-Temperature Data Management in SAP BW



Providing lower TCO by optimized SAP HANA RAM management

Architectural Heat Map – Temperature Data Distribution



Hot Areas

 Heavy reporting and/or native SAP HANA operations (Delta, Transf., etc.)

Warm Areas

 Limited reporting, limited native SAP HANA functions

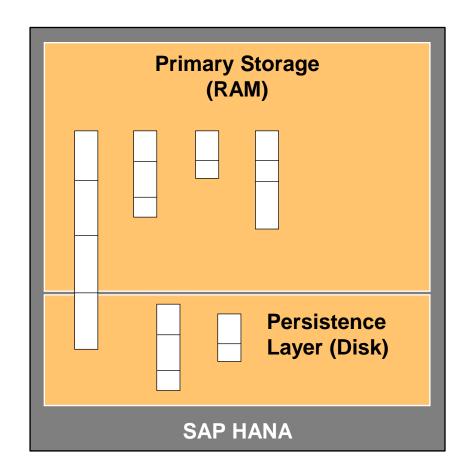
Cold Areas

Archive, read-only data, different SLAs

"Non-Active" Data Concept

Tables/partitions in SAP HANA can be marked as "not active" by SAP BW

- SAP BW automatically marks all PSA tables and all write-optimized DSO tables
- When there are bottlenecks in the main memory, it is preferably non-active data that is removed from the main memory
- "Non-active" data concept has substantial impact on SAP BW powered by SAP HANA RAM sizing
- Works on parts of the table (such as partitions, requests, and so on)



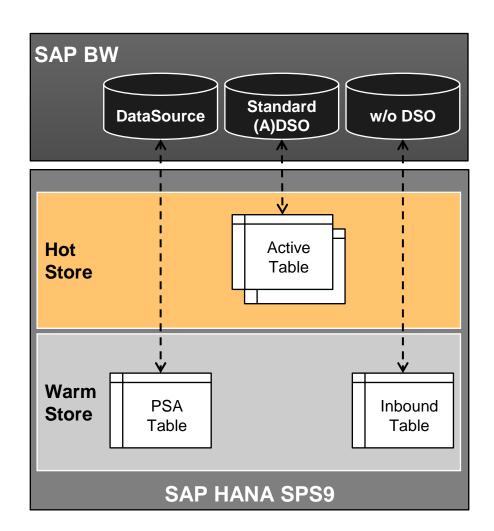
SAP HANA Dynamic Tiering - SAP BW 7.4 SP8 and SAP HANA SPS9

Warm store as dynamic extension to hot store and integral part of the SAP HANA platform

- Reduced in-memory footprint
- Unified installation & update management, backup, and so on

Can be set for write-optimized DSOs and DataSources as extended table property for the whole object

- Data load processes and queries are processed within the warm store
- Transparent for all operations, no change for SAP BW processes required



System Demo

Content

See extended table option



What You've Learned in This Unit

Key takeaways

- SAP BW offers concepts to efficiently manage SAP HANA main memory
- For PSA and write-optimized DataStore objects, a non-active data or an extended table concept is used
- Non-active is set by default, extended table is an optional feature
- Both concepts help to handle the warm data more efficiently
- Usage depends on the object purpose, for example, staging layer objects with rare reporting activities but still in focus for data operations are good candidates for warm data





Thank you

Contact information:

open@sap.com



© 2014 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see http://global12.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.



Information Lifecycle Management

Covered in This Unit

Content

- SAP BW Near-Line Storage with SAP IQ
- Comparison between SAP HANA Dynamic Tiering and NLS



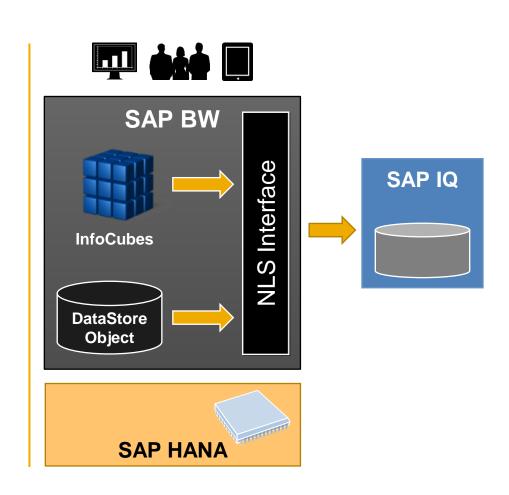
Information Lifecycle Management

SAP BW Near-Line Storage with SAP IQ

Data aging strategy with NLS

- Data still accessible by queries
- Great query performance for all data without administrative overhead
- Reduced backup and disaster recovery efforts
- Capabilities for reporting, ETL, and look-ups

Query optimizations for NLS with support of OLAP features
SAP HANA model generation includes NLS data



Information Lifecycle Management

SAP HANA Dynamic Tiering and Near-Line Storage for SAP BW

SAP HANA Dynamic Tiering

- Optimize RAM utilization within SAP HANA
- Integral part of the platform
- Meets mission-critical system SLAs
- Complete data manipulation cap. (Create, Read, Update, Delete)
- Complete tables (and partitions)

SAP BW Near-Line Storage with SAP IQ

- Optimize data persistence in system landscape
- Independent server
- Usually lower SLAs
- Write once, read many
- Arbitrary (semantic) data slices

Different types of data with different types of storage

Information Lifecycle Management

System Demo

NLS with SAP IQ

- Phase out data by archiving time slices of an InfoCube
- Data is still accessible by queries



Information Lifecycle Management

What You've Learned in This Unit

Key takeaways

- NLS with SAP IQ helps you to reduce the amount of online data in your database
- SAP HANA Dynamic Tiering and NLS are two different cases focusing on different aspects
- SAP HANA and SAP IQ share the same columnar paradigm
- NLS with SAP IQ is an archiving solution with a native interface by SAP.
 Partner solutions are also available





Thank you

Contact information:

open@sap.com



© 2014 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see http://global12.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

Week 4 Unit 5: Installation & Migration Options for SAP BW powered by SAP HANA



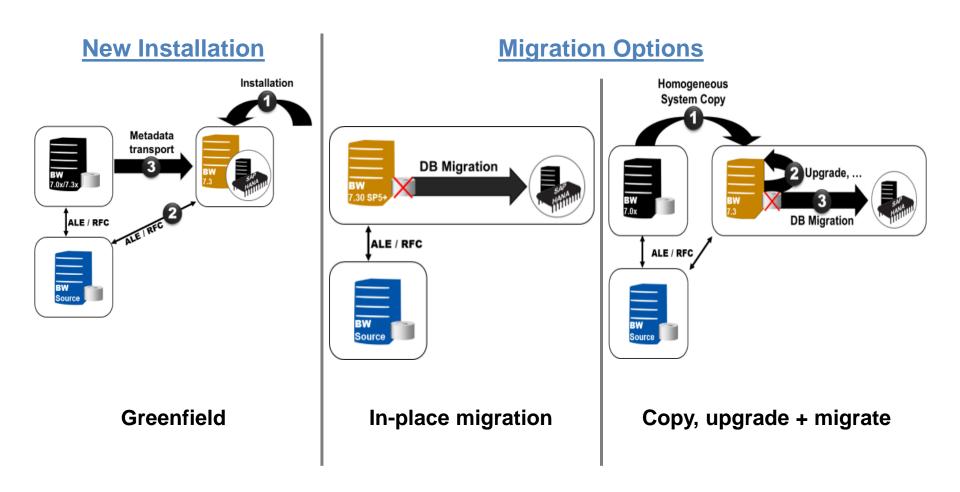
Covered in This Unit

Content

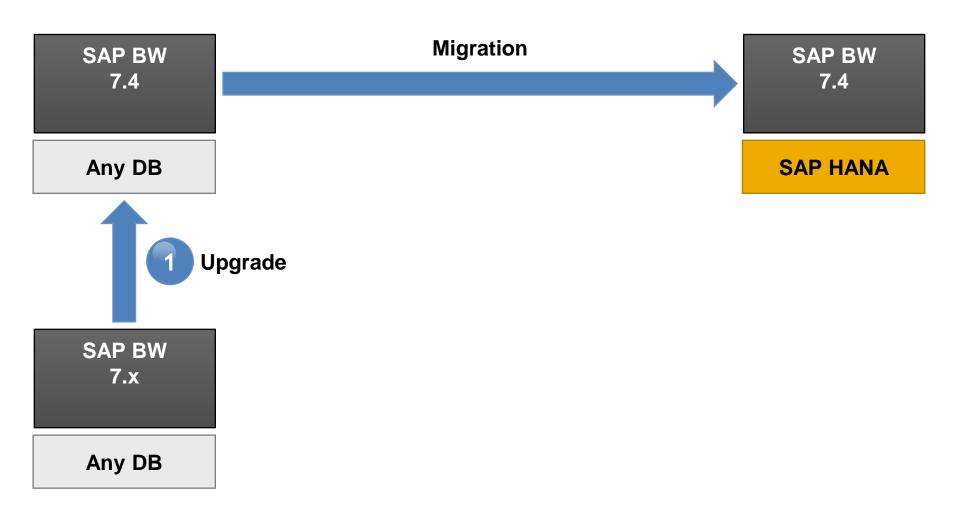
- Project approaches for migration
- Migration & upgrade scenarios
- Tools to know



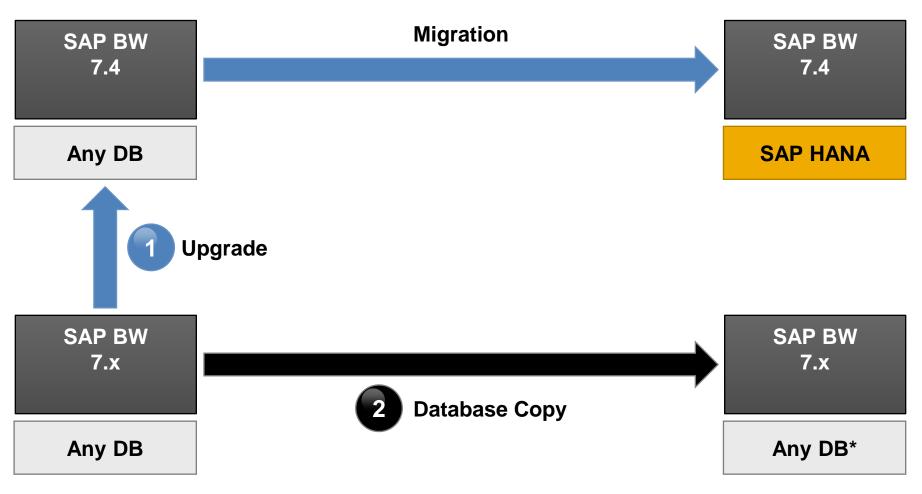
Different Project Approaches



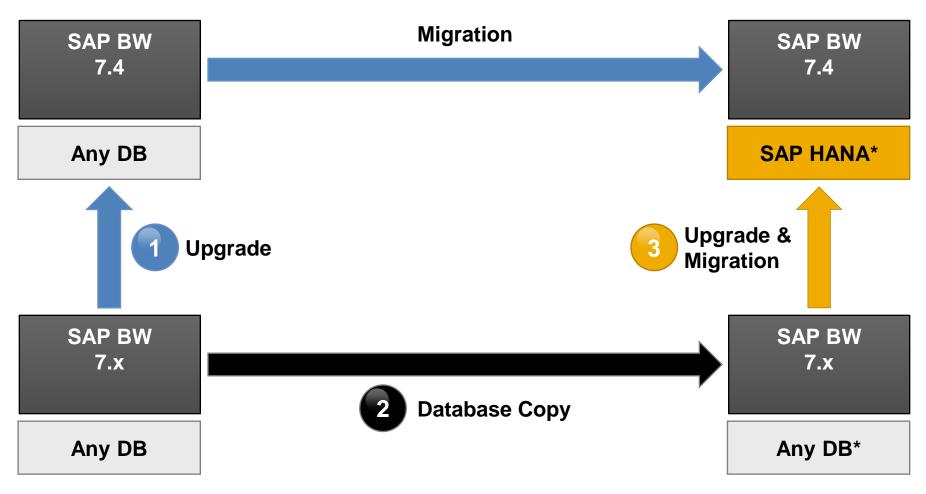
Migration Options (1)



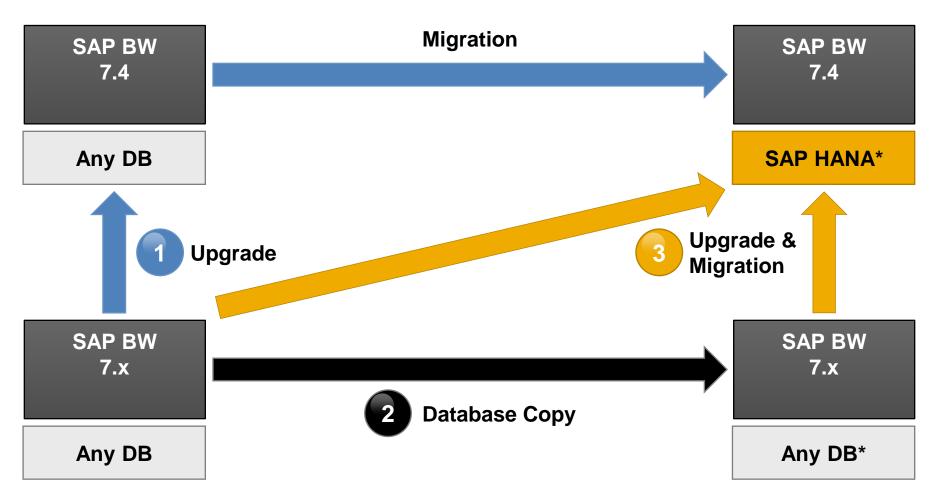
Migration Options (2)



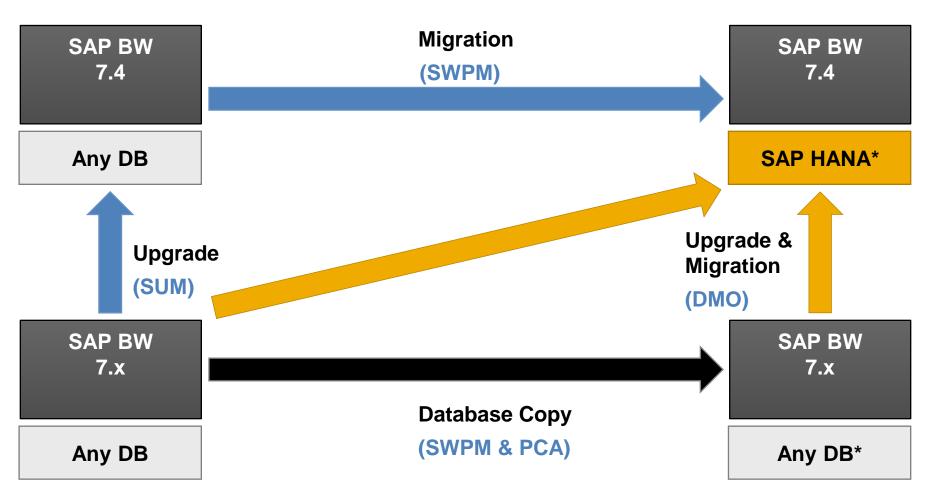
Migration Options (3)



Migration Options (4)



Migration Options and Their Tools



Tools & Approaches to Know (1)

Software Update Manager (SUM)

is the tool for system maintenance: Release upgrades, applying SP stacks

Direct migration option (DMO)

- DMO is an option in SUM to combine upgrade and migration
- It upgrades an existing SAP system to a higher software release, and migrates it to the SAP HANA database, which also includes the Unicode conversion of the source database
- DMO migrates from an existing relational database type ("any DB") to SAP HANA

Post-copy automation (PCA)

Framework includes post-copy automation templates

Software Provisioning Manager

 Software provisioning manager offers the execution of many system provisioning tasks and covers a broad range of platforms and products

Out-of-the-box task lists available to reduce efforts; see documentation

Tools & Approaches to Know (2)

Software Update Manager (SUM)

- Migration of SAP BW to SAP HANA Update 2014
 - https://scn.sap.com/docs/DOC-52321

Direct migration option (DMO)

- Using the DMO option to migrate SAP BW to SAP HANA
 - https://scn.sap.com/docs/DOC-46824

Post-copy automation (PCA)

- BW PCA FAQ frequently asked questions related to SAP BW post-copy automation
 - Https://scn.sap.com/docs/DOC-48779

Three things to know when migrating SAP BW to SAP HANA

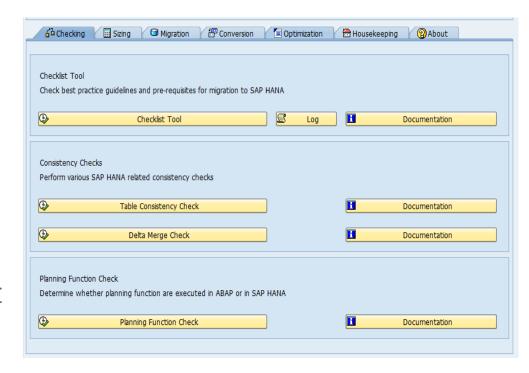
• http://scn.sap.com/community/bw-hana/blog/2013/11/13/three-things-to-know-when-migrating-netweaver-bw-on-hana

SAP BW Migration Cockpit

Check your system before the migration

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

- The SAP BW Migration Cockpit for SAP HANA provides easy access to the most used and useful tools
- SAP Note 1909597 SAP NetWeaver BW Migration Cockpit for SAP HANA



Golden Rules

- 1. Appropriate system sizing
- Check the prerequisites and start to make your system ready for SAP HANA
- 3. Housekeeping and data cleanup
- 4. Know and use the right tools
- Avoid issues and reduce efforts with predefined task lists



What You've Learned in This Unit

Key takeaways

- Evaluation of project approach helps to find the right way
- This depends on many factors like risk, SLAs, effort, and so on
- DMO and PCA are tools that help you execute an efficient migration to SAP HANA
- Housekeeping is essential before system migration





Thank you

Contact information:

open@sap.com



© 2014 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see http://global12.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.



Wrap-Up Covered in This Unit

Content

- Recap
- Roadmap



Recap: Simplification with SAP BW 7.4 powered by SAP HANA

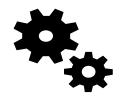
Only the combination of SAP BW and SAP HANA enables us to:

- Simplify data modeling processes
- Increase the agility of the Enterprise Data Warehouse (EDW)
- Reduce the complexity of the EDW landscape
- Combine the strengths of an SQL-oriented approach with an integrated EDW application



One common modeling environment





Process large amounts of data faster



Reuse SAP BW services to manage and analyze the data

Recap: SAP BW 7.4 powered by SAP HANA

Data-intensive functions are pushed down from SAP BW to SAP HANA

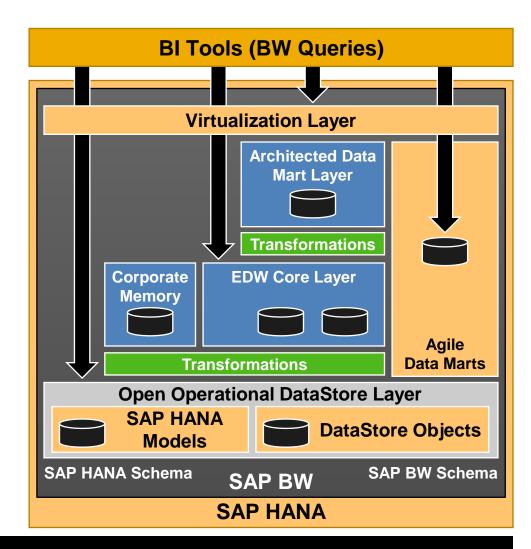
 Performance boost for data load, query, and planning processes

Simplified SAP BW

- Flexibly combine EDW with SAP HANA models
- Data persistency layers reduction
- Simplified data modeling

SAP HANA as platform

- Offers functionality that can be leveraged in SAP BW
- For example, predictive libraries integration

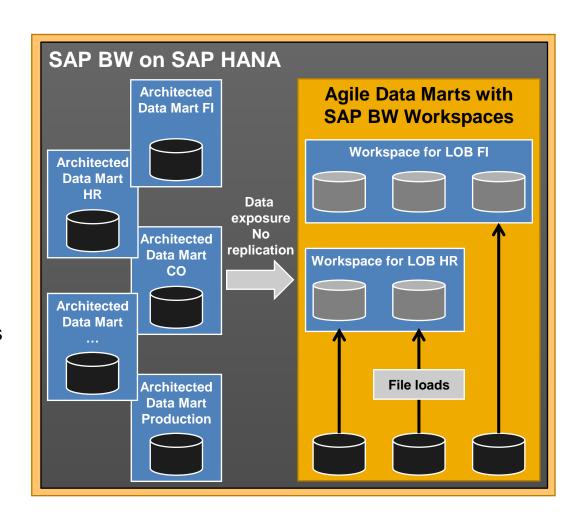


SAP BW Workspaces – An Agile Extension for Ad-Hoc Scenarios

An SAP BW Workspace enables business users to create ad-hoc scenarios for rapid prototyping.

- Area where new models can be created based on central data from the SAP BW system and local data
- Can be managed and controlled by a central IT department and used by local special departments

SAP BW Workspaces consist of an administrator tool, workspaces administration, and the BW Workspace Designer.



Wrap-Up System Demo

SAP BW Workspaces

- Define an SAP BW Workspace.
- Upload local data into SAP BW.



Product Roadmap Overview – Key Themes and Capabilities

Present release

- Pushdown of data- intensive functions to SAP HANA
- Eclipse & field-based modeling
- Consolidation of InfoProvider
- Enabling Big Data scenarios
- SAP HANA Enterprise Cloud migration best practices
- Exposing SAP BW data models for SQL consumption
- Introduction BPC Embedded Model
- Support of Mobile devices

Upcoming planned release

- Pushdown of data-intensive functions to SAP HANA
- Simplified data modeling
- Big Data scenarios (NLS extensions, dynamic tiering)
- Fast SAP HANA Enterprise Cloud deployments
- Exposing further SAP BW data models for SQL consumption
- Enhancing flexibility of BPC Embedded Model

Future innovations

- Integration with the SAP HANA platform
- Simplified and streamlined user experience
- Enhancing Big Data scenarios
- SAP HANA data warehousing services
- SAP HANA Enterprise Cloud
- BPC Embedded Model with local planning scenarios



Today

(SAP BW 7.4 SP8)



Planned innovations

(SAP BW 7.4 SP9/SP10)



Future direction

SAP will continue to support RDBMS platforms

Summary

Summary

SAP BW 7.4 is THE go-to release for running SAP BW on SAP HANA.

The SAP EDW platform evolves from SAP BW on SAP HANA – the natural entry point to SAP's EDW strategy.

Every new SAP BW release will make progress on the SAP HANA roadmap.



Summary

Summary

Thank you and good luck with the final exam!





Thank you

Contact information:

open@sap.com



© 2014 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. Please see http://global12.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors.

National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP SE or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP SE or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platform directions and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.