



Update – Conversion from SAP BW to SAP BW/4HANA

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EXTERNAL



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Agenda

Simplified Data Warehousing

Path 1: New Installation

Path 2: System Conversion

- In-place Conversion
- Remote Conversion
- Excerpt: SAP Business Planning and Consolidation
- Availability & Outlook

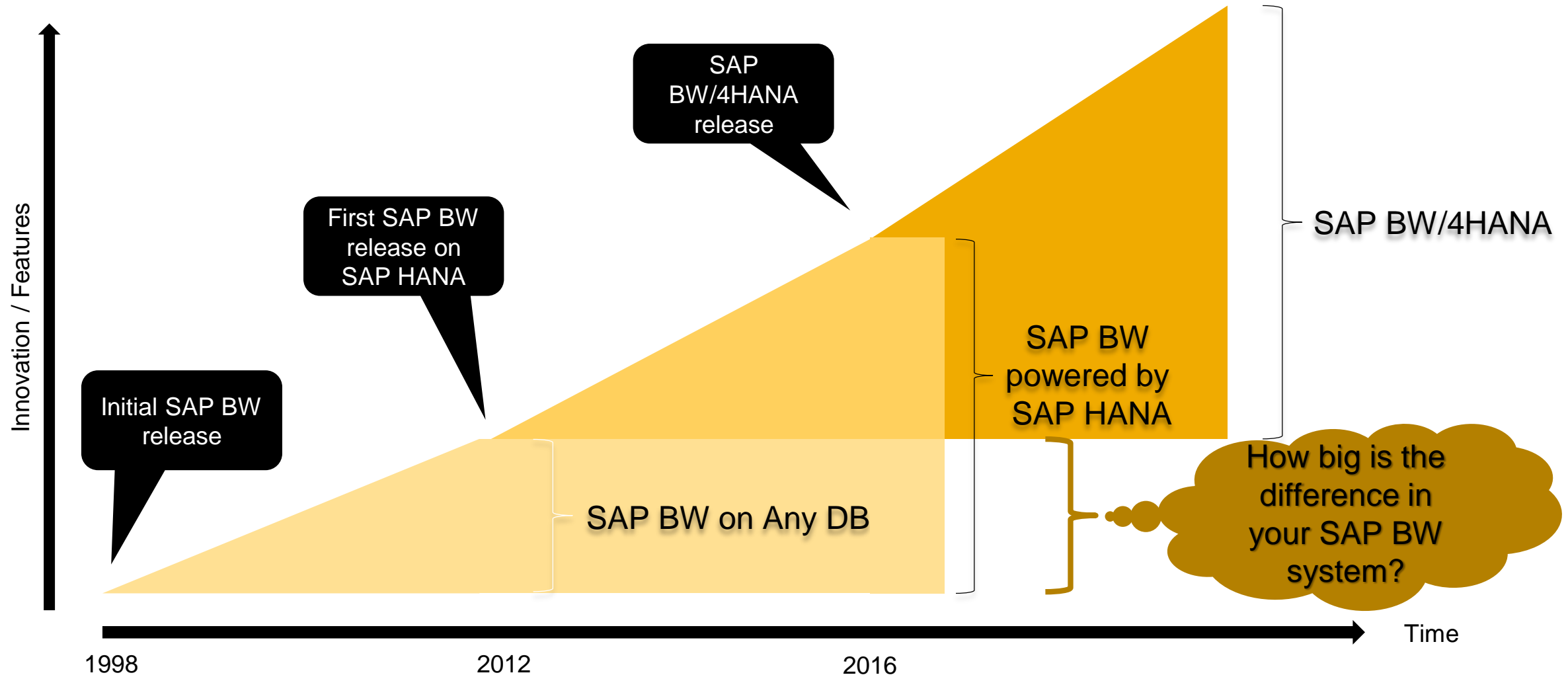
Path 3: Landscape Transformation

Summary

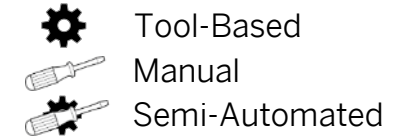
Simplified Data Warehousing



SAP BW/4HANA is the Innovation Code Line



SAP BW/4HANA - Removed Legacy Functionality



SAP BW

BEx Analyzer, BEx Web Templates, BEx Tools

BW Query (BEx Query Designer)

Classic Object Types (InfoCube, DSO, MultiProvider, InfoSet, ...)

SAPGUI Modeling & Workbench

Source System types DB Connect, Extractor (S-API), BW

Source System types UD Connect, Data Services, Partner ETL

BI Content Packages

PSA / InfoPackages

Easy Query













Analysis Process Designer

Virtual InfoProvider

Near-line Storage Partner Solutions



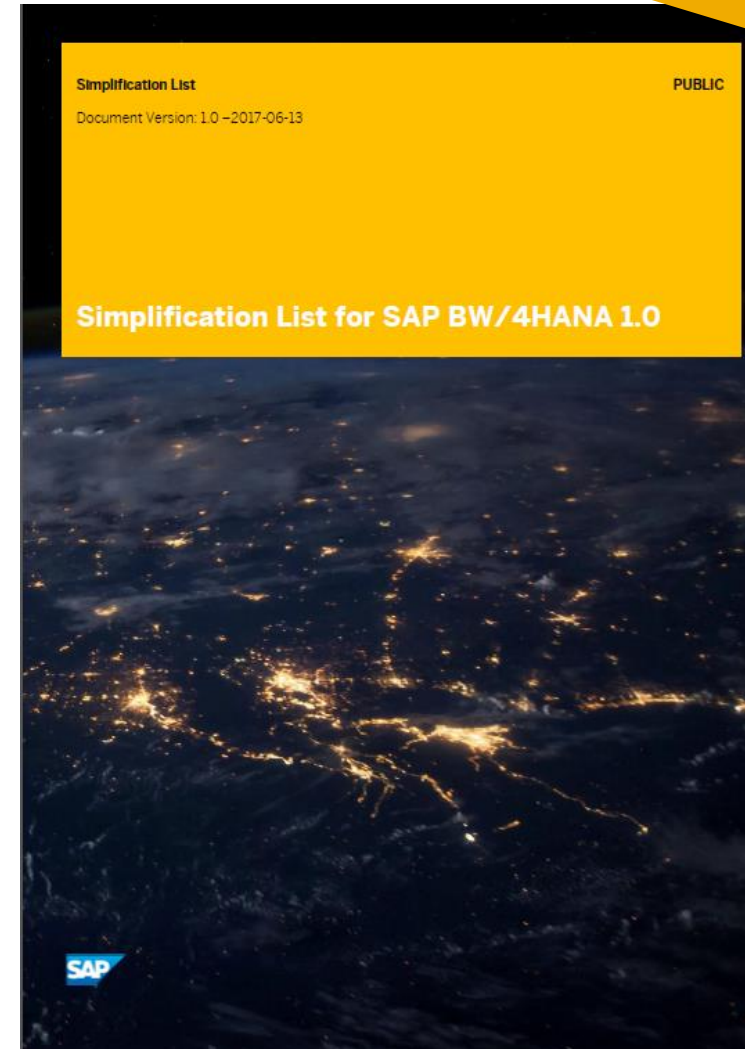
SAP BW/4HANA

	SAP BusinessObjects Cloud & Enterprise Clients & Tools
	BW Query (BW Modeling Tools Query Designer)
	New Object Model: DataStore Object (adv.) & CompositeProvider
	HANA Studio based BW Modelling Tools
	Consolidation to new HANA Source System & ODP
	Consolidation to new HANA Source System
	New HANA-optimized SAP BW/4HANA Content Packages
	Operational Delta Queue, field-based DataStore Object (adv.)
	OData Query
	HANA Analysis Process, new Data Flow
	HANA Calculation Views, Open ODS View
	New HANA-based Data Temperature Management with SAP IQ & Hadoop

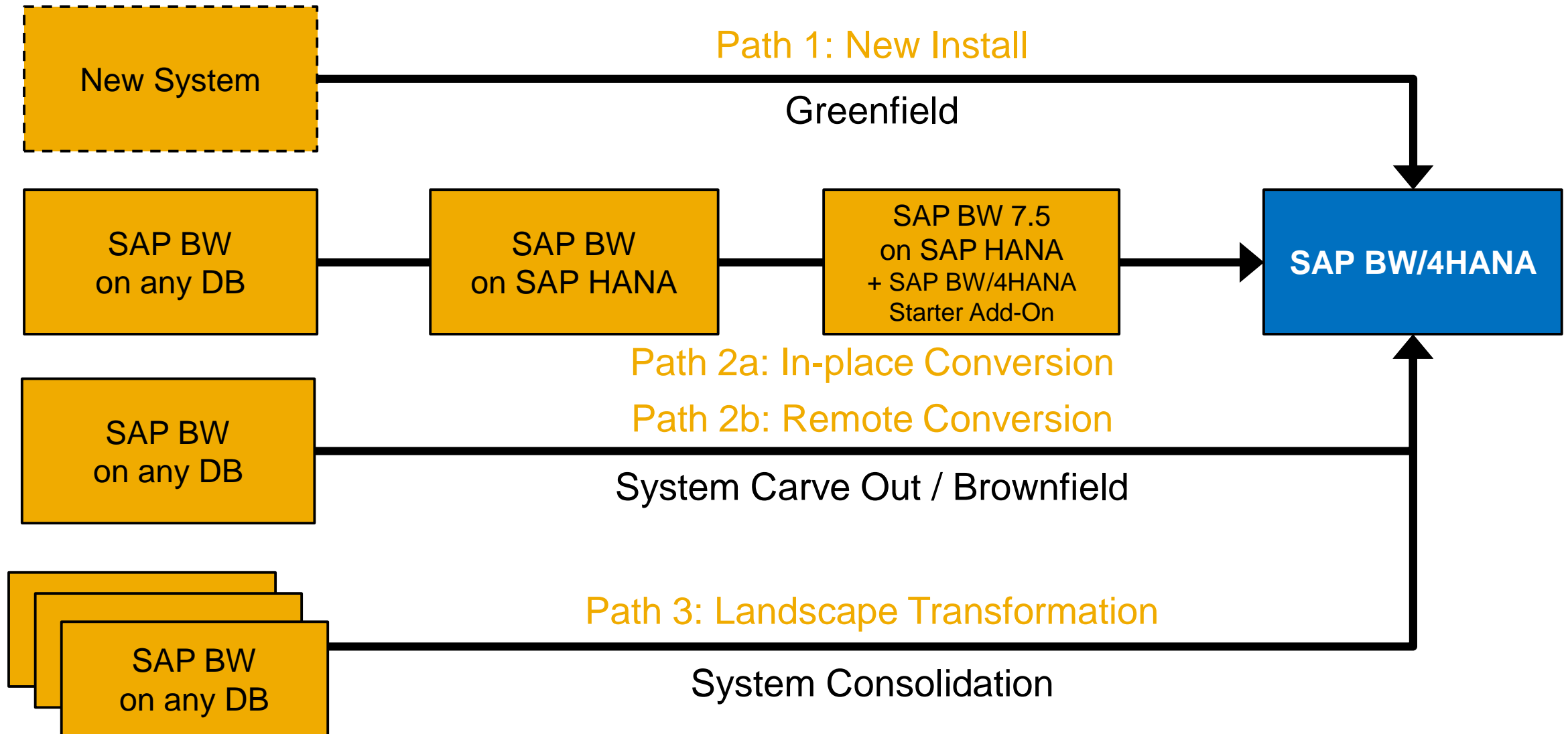
SAP BW/4HANA Simplification List

- Consolidated list and description of **delta** between SAP BW (as of 7.0) and SAP BW/4HANA
- Each **Simplification Item** is documented in an SAP Note which includes **recommendations** on how to handle the change
- Goal is to allow customers **better planning** and **estimation** of their way to SAP BW/4HANA
- List is **published** on help.sap.com/bw4hana10 as PDF and in XLS format attached to SAP Note [2421930](#) (which links to all available Simplification Notes)
- List is or will be **foundation for other tools**: SAP Readiness Check , Maintenance Planner, Pre-Checks, Custom Code Analysis

Available Now



Paths to SAP BW/4HANA

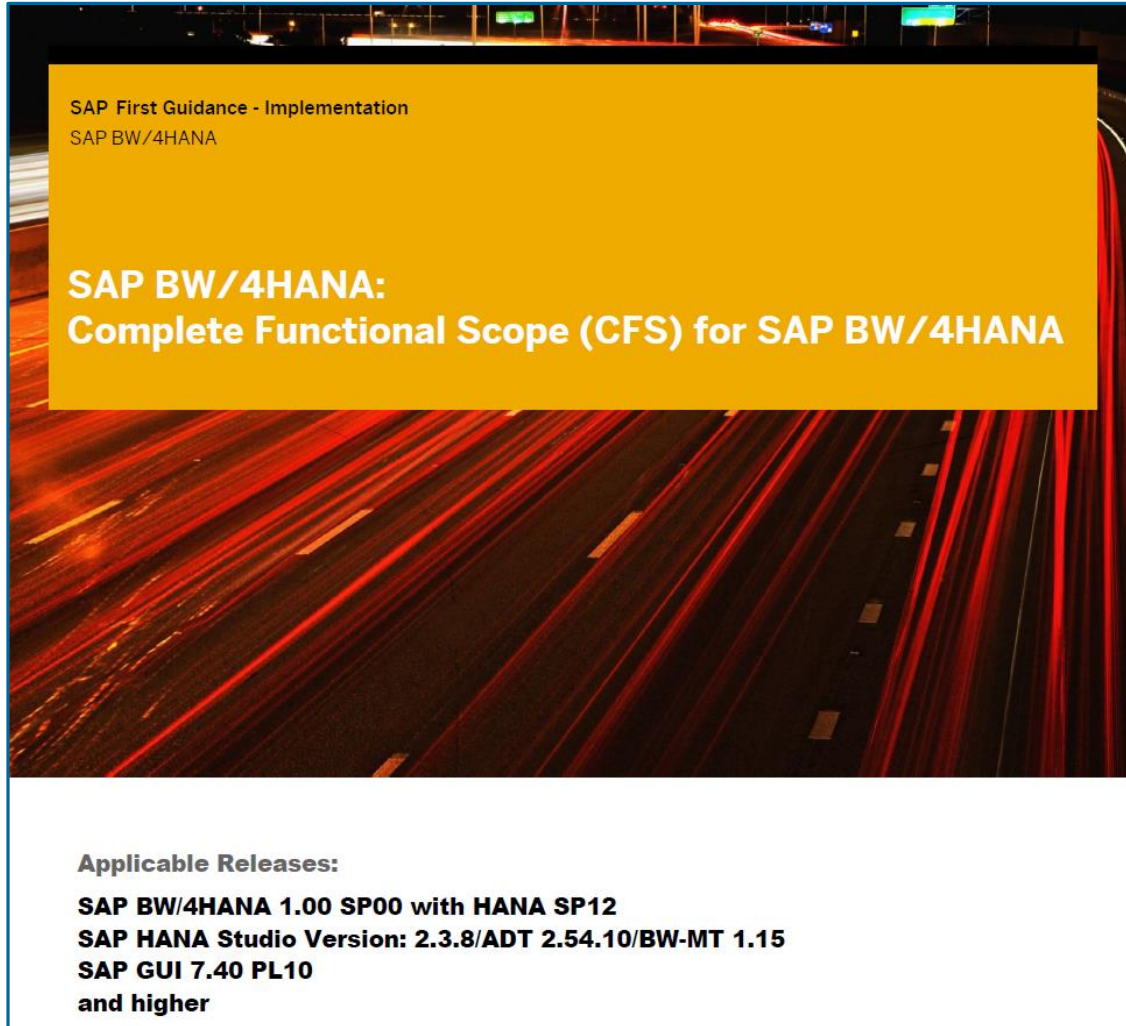


Path 1: New Installation



SAP BW/4HANA

New Implementation - SAP First Guidedance for SAP BW/4HANA

A presentation slide with a background image of a highway at night with light trails. A large yellow rectangle is overlaid on the top half of the slide. Inside the yellow rectangle, the text 'SAP First Guidance - Implementation' and 'SAP BW/4HANA' is at the top left. Below it, in a larger font, is 'SAP BW/4HANA: Complete Functional Scope (CFS) for SAP BW/4HANA'. At the bottom of the slide, outside the yellow rectangle, is a white box containing the text 'Applicable Releases:' followed by 'SAP BW/4HANA 1.00 SP00 with HANA SP12', 'SAP HANA Studio Version: 2.3.8/ADT 2.54.10/BW-MT 1.15', and 'SAP GUI 7.40 PL10 and higher'.

SAP BW/4HANA

- is a new data warehouse solution
- is highly optimized for SAP HANA with leaner component stack
- No Java stack required
- SAP BW/4HANA modelling environment built to run on SAP HANA
- All new SAP BW 7.5 developments on SAP HANA can be used without changes
- This [SAP First Guidance Document](#) puts emphasize to the complete functional scope (CFS) to ensure the full functionality is ready right from the start of the implementation of SAP BW/4HANA

SAP BW/4HANA

New Implementation - Design via BW Modeling Tools Only

The screenshot displays the SAP HANA Studio interface for BW Modeling. The main window shows the 'Details: DMM268_TEMPLATE' view, which contains a data flow diagram. The diagram consists of several nodes connected by arrows, representing the data flow from source systems to target objects. The nodes include:

- ZCUSTV_TPL** (Customer Classifi...)
- ZCUSTV2_TPL** (Customer with rea...)
- ZCUST2TPL** (Customer Classifi...)
- ZCUST_TPL** (Customer Master ...)
- ZSOHD_TPL** (Sales Order Head...)
- ZCUSTDS_TPL...** (Customer Classifi...)
- DMM268CUSTO...** (Customer Master ...)
- DMM268SALESO...** (Sales Order Header)
- _SYS_BIC00** (Alias for Schema ...)
- DMM268TEMP** (Source System fo...)

The Project Explorer on the left shows the hierarchy of the project, including the 'Data Flow' section and the 'DMM268_TEMPLATE' DataFlow (template). The Properties pane at the bottom shows the 'General' tab for the 'DMM268_TEMPLATE' DataFlow (template), with fields for 'InfoArea' (DMM268_TEMPLATE), 'Package' (STMP), and 'Version State' (Revised).

A context menu is open over the Project Explorer, showing the following options:

- New
- Open
- Copy Name (Ctrl+C)
- Delete (Delete)
- Where Used...
- Refresh (F5)
- Move...
- Add to Favorites
- Share BWMT Link

The menu also lists various BW Object Types, including:

- DataStore Object (advanced)...
- InfoSource...
- InfoObject...
- Open ODS View...
- InfoArea...
- Semantic Group...
- CompositeProvider...
- Open Hub Destination...
- Data Flow...
- Aggregation Level...

Path 2: System Conversion



SAP BW/4HANA Transfer Toolbox



- Full system conversion of an existing SAP BW installation (keep same SID)
- Step-by-step in-place transfer of classic objects into their HANA-optimized counterparts
- Followed by a system conversion to SAP BW/4HANA
- Minimum start release:
SAP BW 7.5 SP 5 powered by SAP HANA

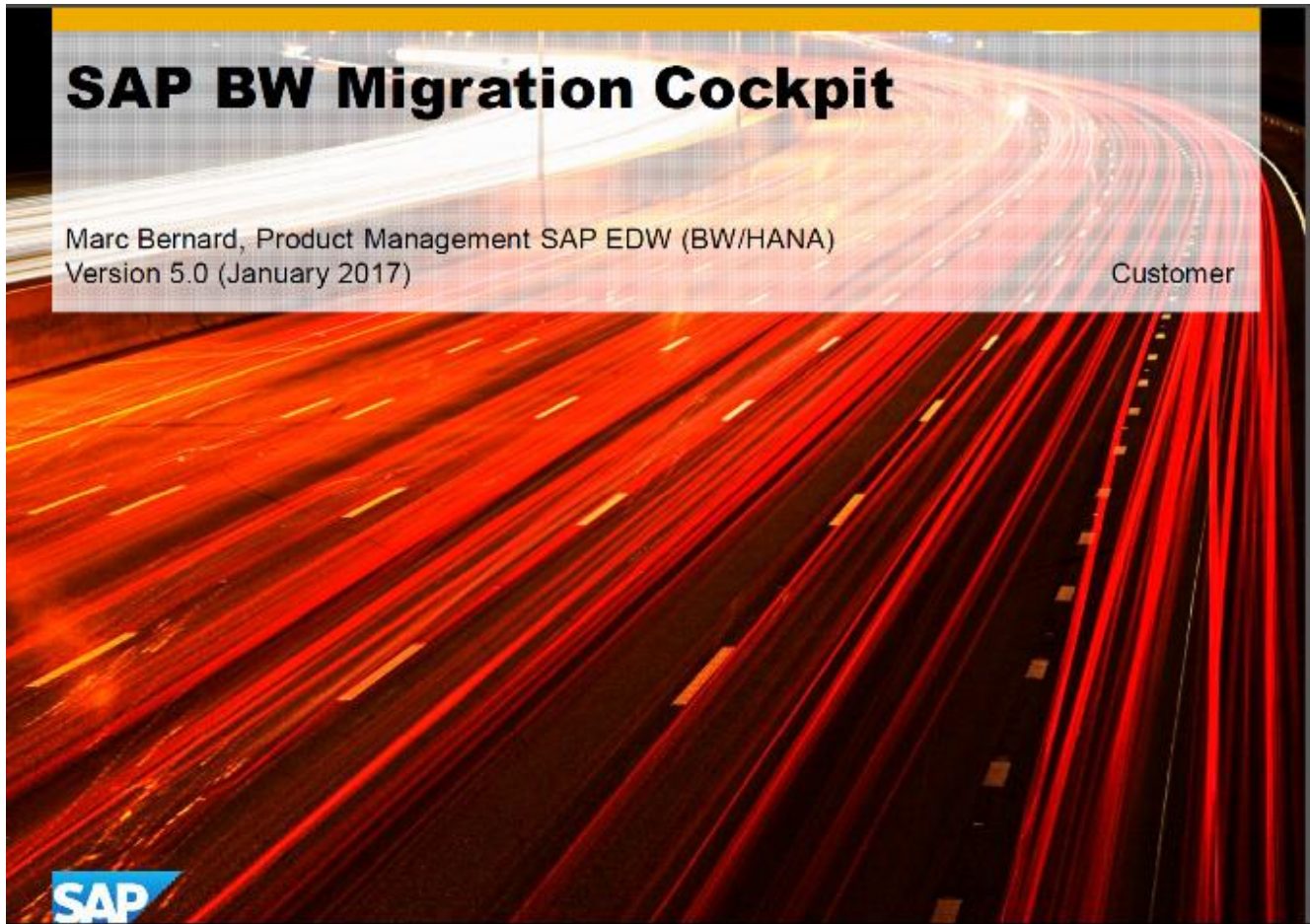


- Start with SAP BW/4HANA as green field installation (new SID)
- Support of carve-out and consolidation scenarios
- Transport data models and remote data transfer (including Unicode conversion)
- Risk mitigation due to parallel system
- Minimum start release:
SAP BW 7.0 or higher on AnyDB

Preparing to Move to SAP BW/4HANA

SAP Note [1909597](#)

Free!



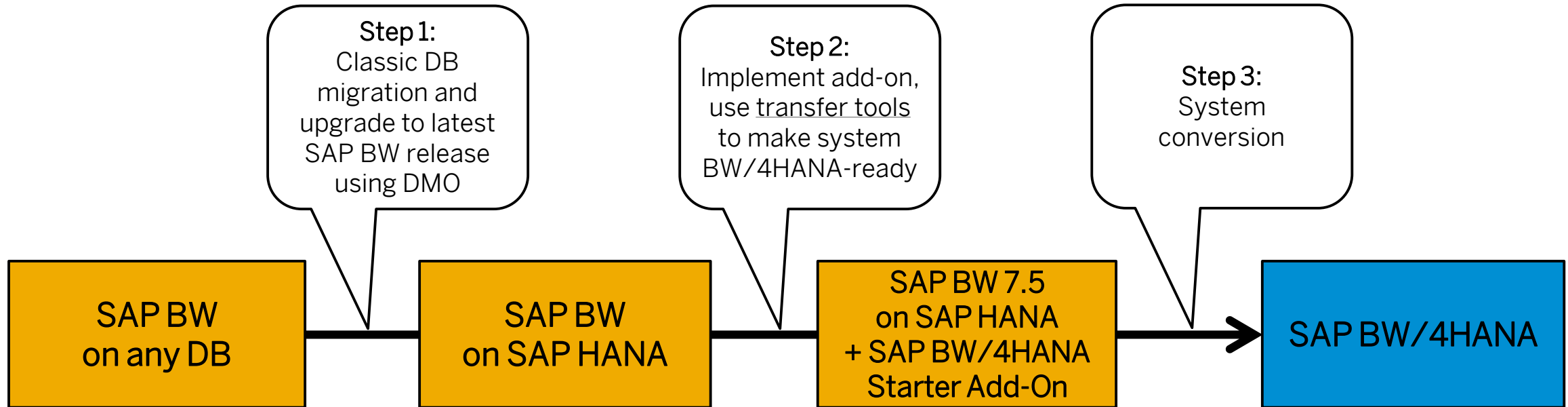
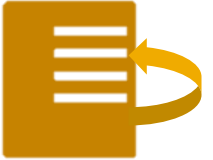
1. Check Your BW System Before /After Migrating to SAP HANA
2. Size via Automated Sizing Tool
3. Lower TCO by Leveraging Non-active Data Concept and Off-loading Data to Near-line Storage
4. Perform Housekeeping Task Regularly
5. Leverage Automated Task Lists
6. Validate SAP HANA Configuration, Check Table Consistency and Monitor Delta Merge
7. Convert Data Flows and InfoProviders
8. Check Best Practices for ABAP on SAP HANA

Path 2a: In-place Conversion



In-place Conversion

Path to Convert Your System



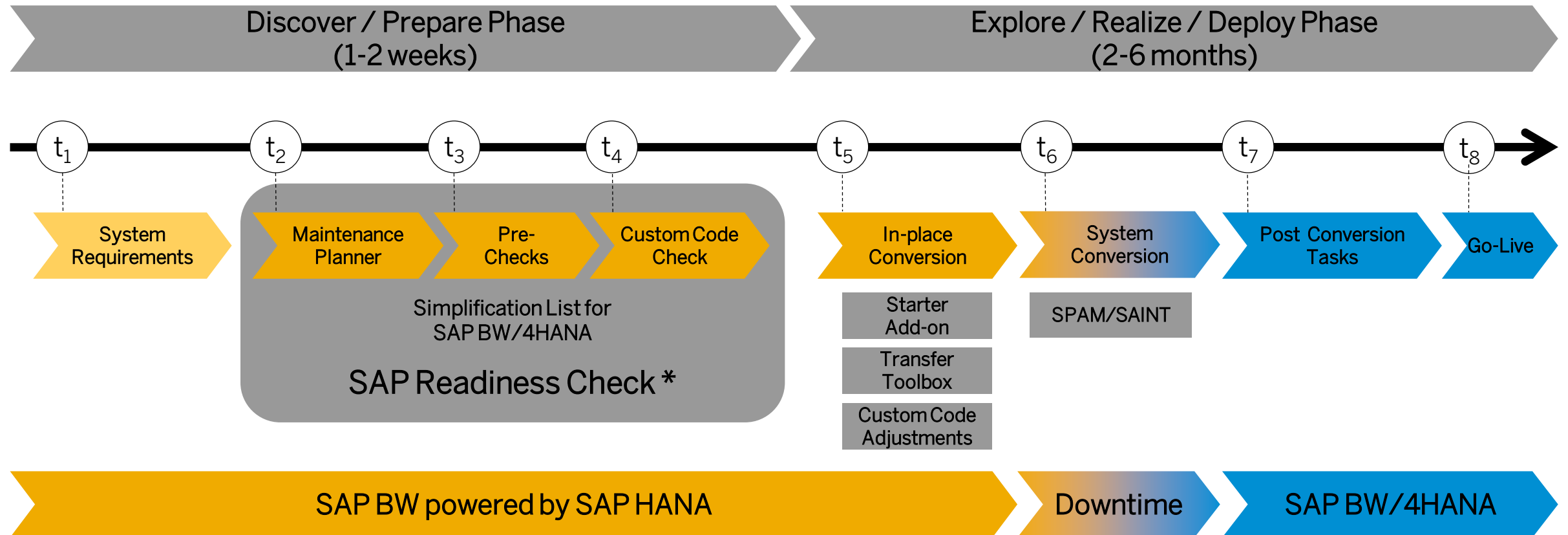
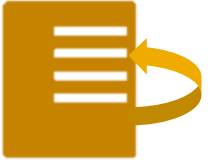
All SAP BW customers can start NOW

Customers on SAP BW powered by SAP HANA have a head-start

Customers can convert at their own pace – benefiting gradually from HANA-optimizations

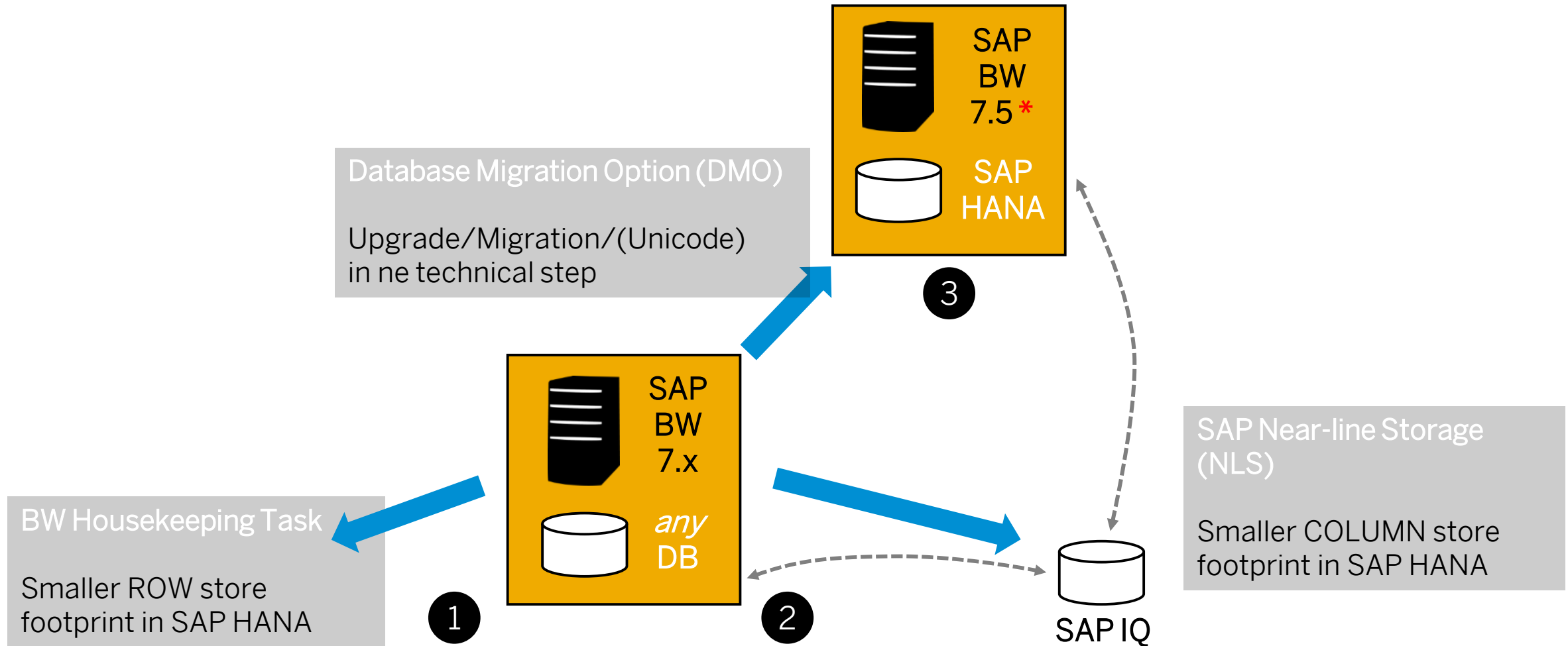
In-place Conversion

Basic Sequence



In-place Conversion

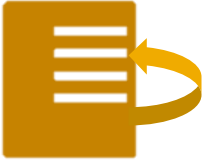
Migration to SAP BW powered by SAP HANA



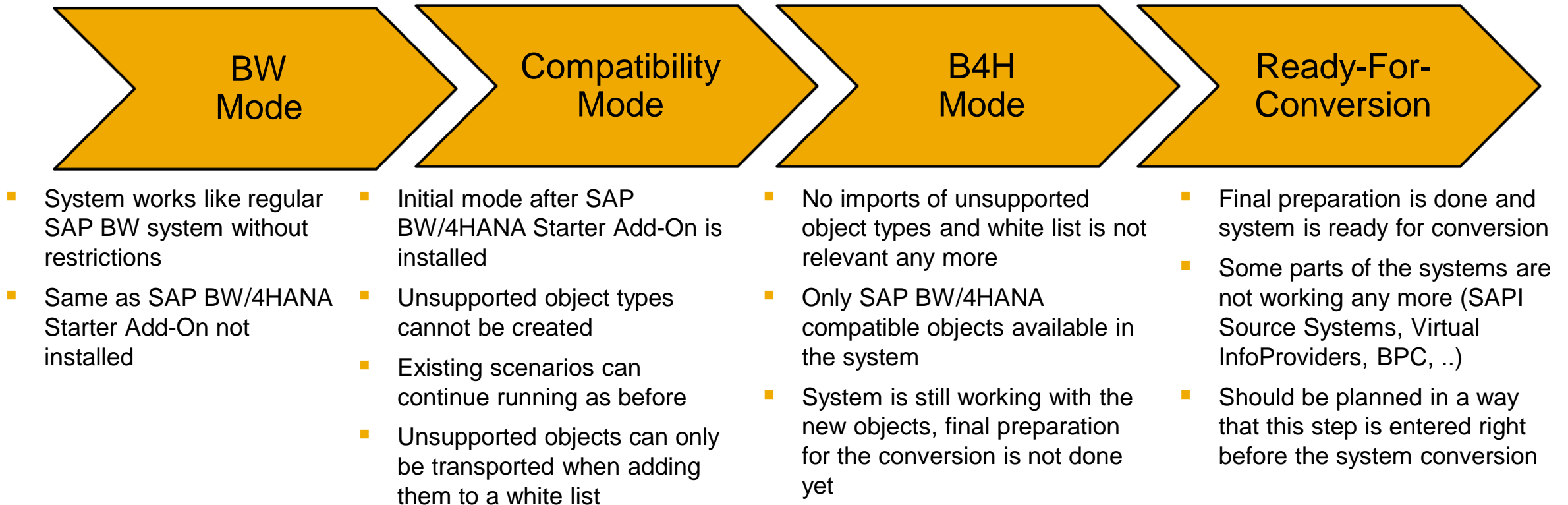
* Original system is already Unicode with 7.0x

In-place Conversion

SAP BW/4HANA Starter Add-On

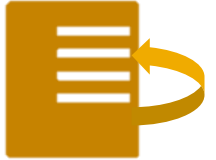


SAP BW/4HANA Starter Add-on (f.k.a. “SAP BW, edition for SAP HANA”) is prerequisite for In-Place Conversions. After the installation, the system can be set to the following modes:



In-place Conversion

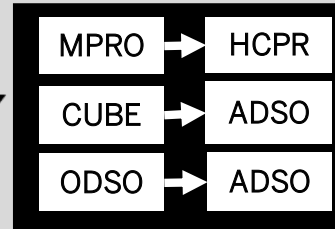
Process View



Expected Length of Stay

Month(s) dep. on
#objects

Compatibility
Mode



Task List		
SAP_BW_448_TRANSFER_INFPLACE		
Task List Run		
E...	C...	L...
✓	⊕	⊕
Scope definition		
✓	⊕	⊕
Prepare		
✓	⊕	⊕
Verification		
✓	⊕	⊕
Prepare		
✓	⊕	⊕
Prepare		
✓	⊕	⊕
Prepare		
✓	⊕	⊕
Integration		
✓	⊕	⊕
Rename		
✓	⊕	⊕
Rename		
✓	⊕	⊕
Integration		
✓	⊕	⊕
Validation		
✓	⊕	⊕
Repair		
✓	⊕	⊕
Finalization		
✓	⊕	⊕

- Scenario-wise in-place conversion

Week(s)

B4H
Mode

E...	C...	S...	L...	Autom. Phase	Comp.	Task Description
✓	⊕	⊕	⊕	Prepare		Check System Consistency for B4H Mode
✓	⊕	⊕	⊕	Prepare		Transfer 3.x Queries to 7.x
✓	⊕	⊕	⊕	Prepare		Transfer DataStores for personalization
✓	⊕	⊕	⊕	Prepare		Delete 3.x Web Templates (SAP)
✓	⊕	⊕	⊕	Prepare		Set B4H Mode

- Manual work finished
- BEx Query Designer disabled
- Exceptional incompatible scenarios will still run (e.g. VirtualProvider for BPC)

Hour(s)

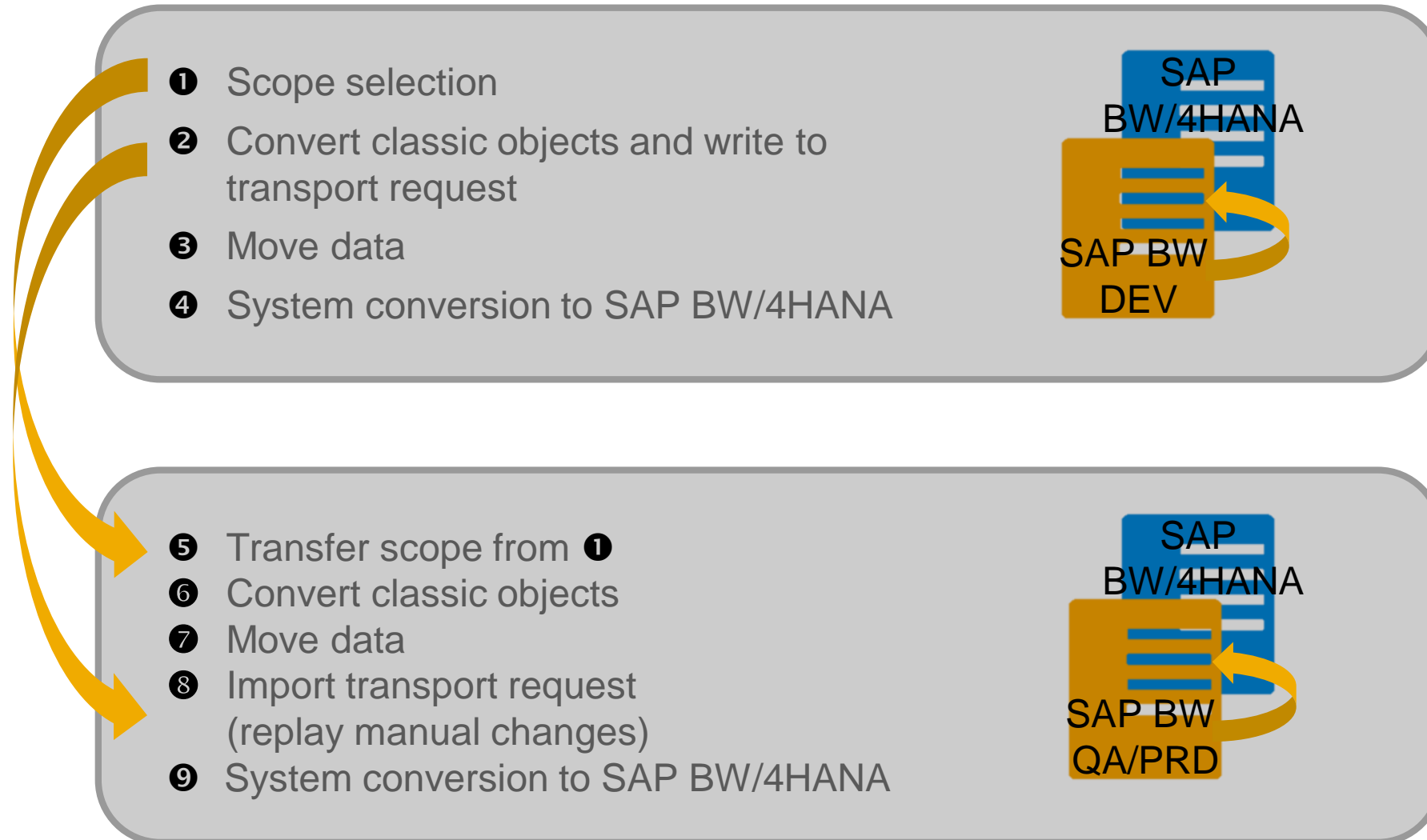
Ready-for-
Conversion

E...	C...	S...	L...	Autom. Phase	Comp.	Task Description
✓	⊕	⊕	⊕	Prepare		Check System Consistency for Rfc Mode
✓	⊕	⊕	⊕	Prepare		Delete D-versions
✓	⊕	⊕	⊕	Prepare		Delete Virtual InfoProvider
✓	⊕	⊕	⊕	Prepare		Set Ready-for-Conversion Mode

- System ready for conversion

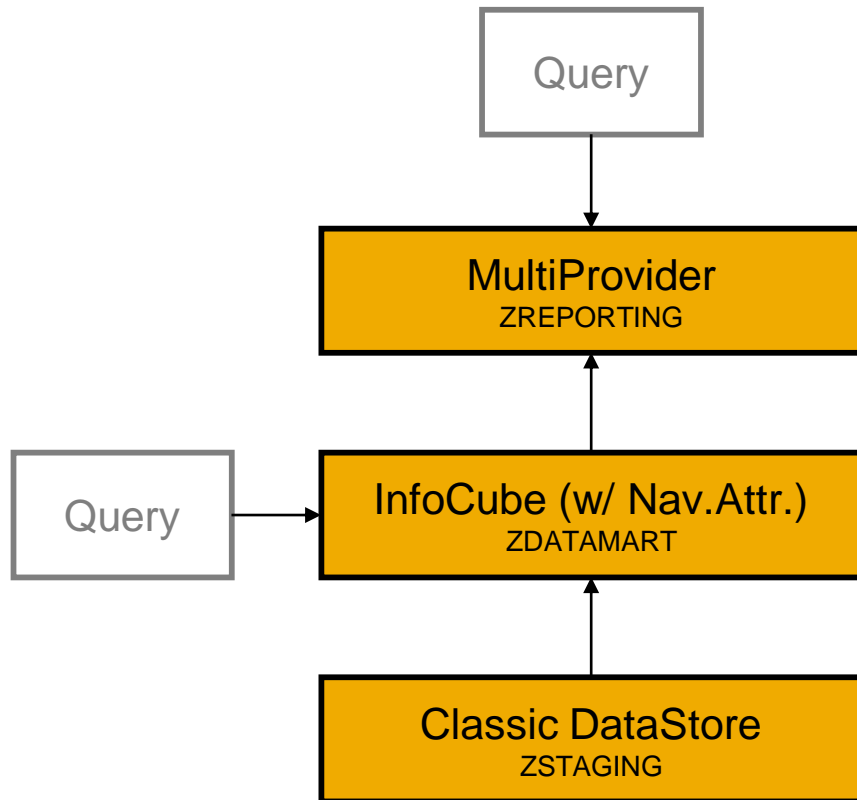
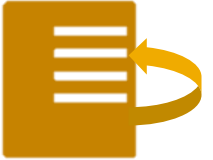
In-place Conversion

Scenario Transfer

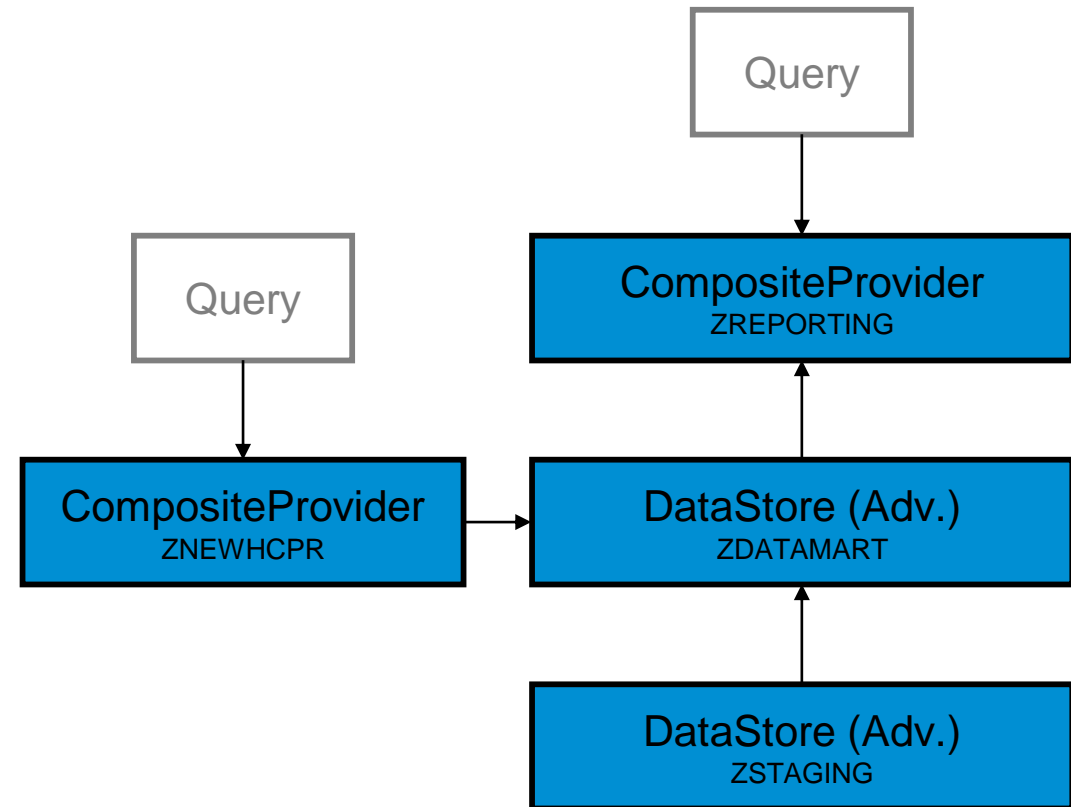


In-place Conversion

Meta Data Conversion



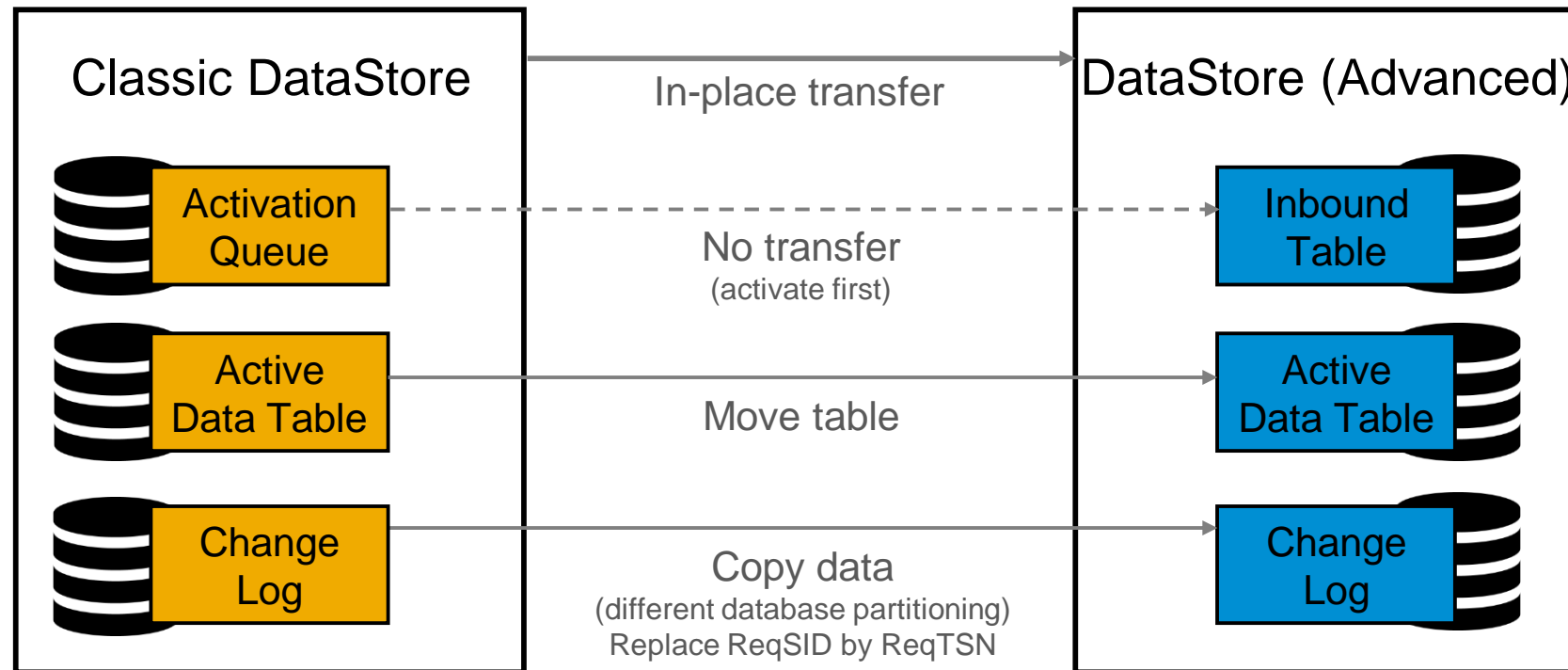
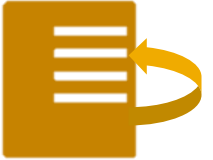
Before Transfer



After Transfer

In-place Conversion

Example for Data Transfer



Pre-check Tool

Look and Feel



Free!

BW/4 Starter-Addon: Check and Prepare System for BW/4HANA

Current Mode: BW mode(Addon installed)

Change system mode

Select new BW system mode

☐ BW mode
☒ Compatibility mode
☐ B4H mode
☐ Ready For Conversion mode

Set the system to the new mode:

Simulate new mode Execute new mode

Select transport request(s) to be validated for B4H mode:

Request/Task

Check

Application Log

Show Previous Applicati...

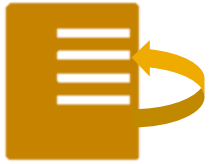
Display logs

Date/Time/User	Nu...	Ext...
2017-09-16 00:12:33 BERNARDMA	5,287	RS_B4H
Switch to B4H mode	5,287	
Check Result: Cannot set B4H mode. See details below.	1	
Please be aware that authorization objects need to be adjusted. -->SAP Note 2468657	1	
Required actions for switch to B4H mode	5,284	
Supported by Transfer Tool	3,891	
3.x Migration -->SAP Note 2470352	1,848	
BW4 Transfer Tool (use transaction RSB4HTRF)	2,042	
TLOGO ISIP (InfoPackage) -->SAP Note 2464367	81	
TLOGO MPRO (MultiProvider) -->SAP Note 2444718	155	
TLOGO ODSO (DataStore Object (classic)) -->SAP Note 2451013	431	
TLOGO RSPC (Process Chain) -->SAP Note 2448086	83	
TLOGO RSPV (Process Variants) -->SAP Note 2448086	32	
TLOGO RSDS (DataSource)	39	
TLOGO DTPA (Data Transfer Process) -->SAP Note 2464541	684	
TLOGO CUBE (InfoCube) -->SAP Note 2443489	361	
TLOGO COPR (Local CompositeProvider) -->SAP Note 2442062	50	
TLOGO ADSO (DataStore Object (advanced)) -->SAP Note 2487023	122	
Check conversion types -->SAP Note 2443281	3	
Automated Cleanup	115	
Adjustments	7	
Deletions	29	
Deletion of SAP Delivered Technical Content	78	
Manual Redesign (take the necessary action)	893	
BW Object Type	86	
Replace by HANA or ODP source system	278	
Check Service API target systems	448	
Extraction via ODP-SAPI context not supported; Create CDS view and extract via CDS	31	
Delete Data for Open Hub Destination	8	
User Exits -->SAP Note 2458521	2	
Archive-->SAP Note 2469514	39	
BW Planning	384	
BPC Standard	370	
Integrated Planning	13	

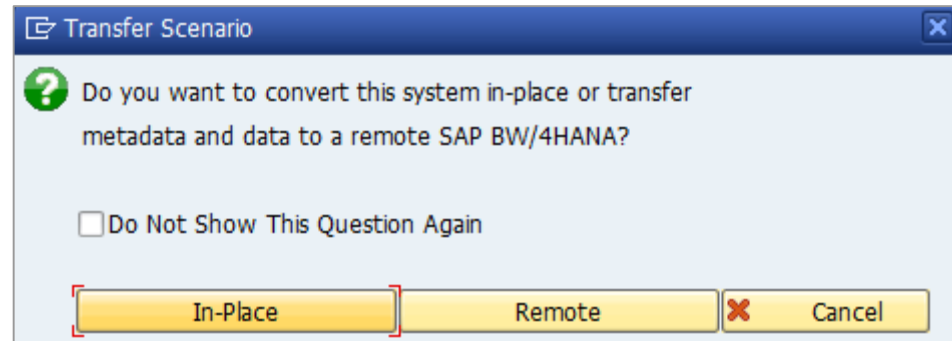
Ty...	Message Text
Switch to B4H mode	
Check Result: Cannot set B4H mode. See details below.	
Please be aware that authorization objects need to be adjusted. -->SAP Note 2468657	
Required actions for switch to B4H mode	
Supported by Transfer Tool	
3.x Migration -->SAP Note 2470352	
TLOGO ISCS (Communication Structure)	
OCM_MCATDIV_TEXT	
OCM_USER_TEXT	
OD_DEMOEXMPL_2	
OD_DEMOEXMPL_3	
OD_SD_C03_TD	
80D_FC_C01	
80D_SD_O01	
80TCA_DS05	
8C_ORAN01	
8C_YHTG02	
8C_YSHNLS	
8DSNLS21	
8FWD01	
8GROUP02	
8HDSO000	
8HDSO102	
8HDSO103	
8HDSO104	
8HDSO105	
8HDSO106	
8HDSO107	
8HDSO108	
8HDSO109	
8HDSO110	

In-place Conversion

Look and Feel

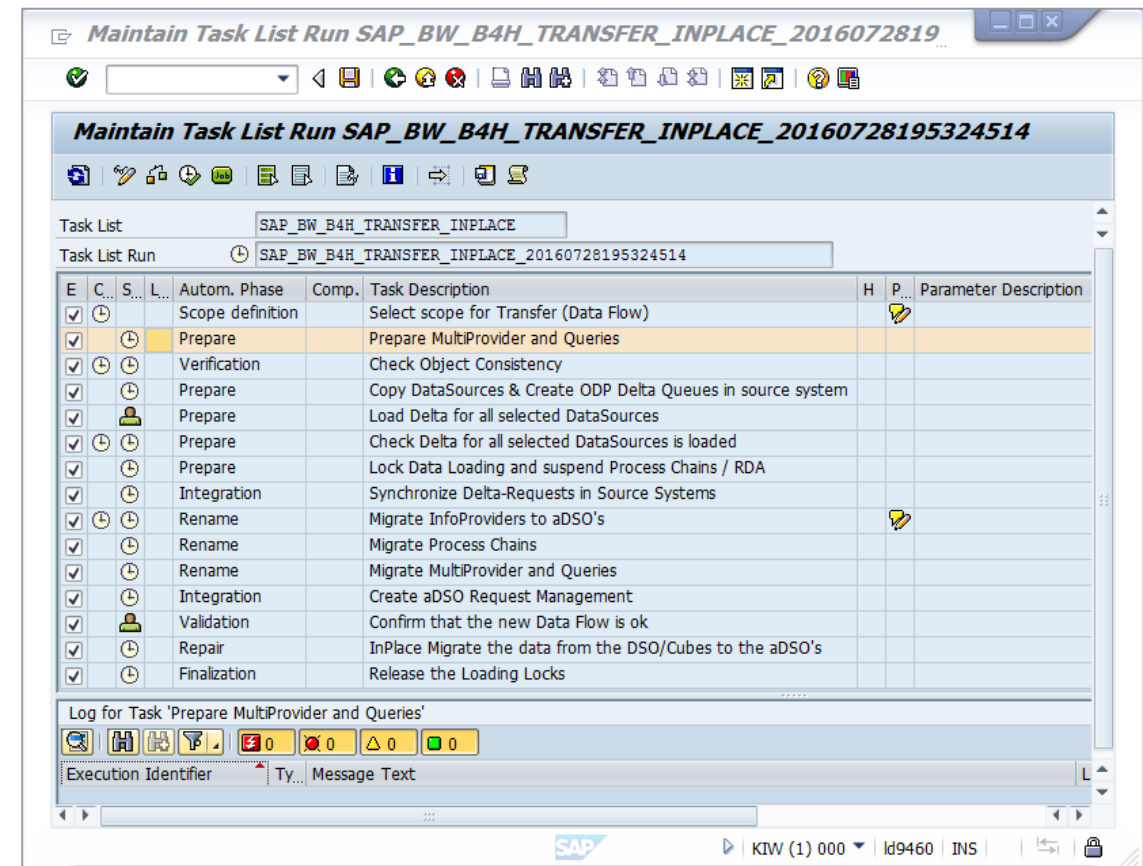


Starting SAP BW/4HANA Transfer Toolbox Allows to Choose Between In-place and Remote



“Do not show” flag is stored in table RSUSERANSWERS

Task List for In-place Conversion



Demo



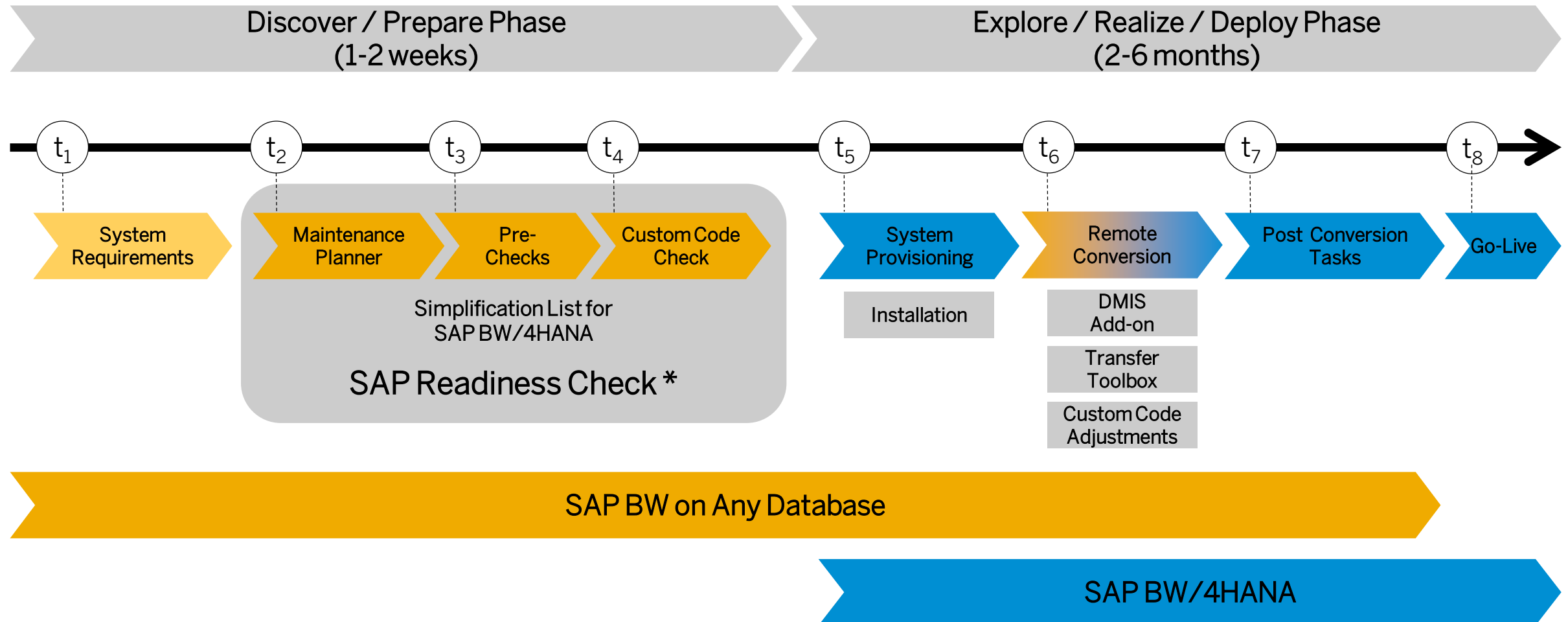
In-place Conversion

Path 2b: Remote Conversion



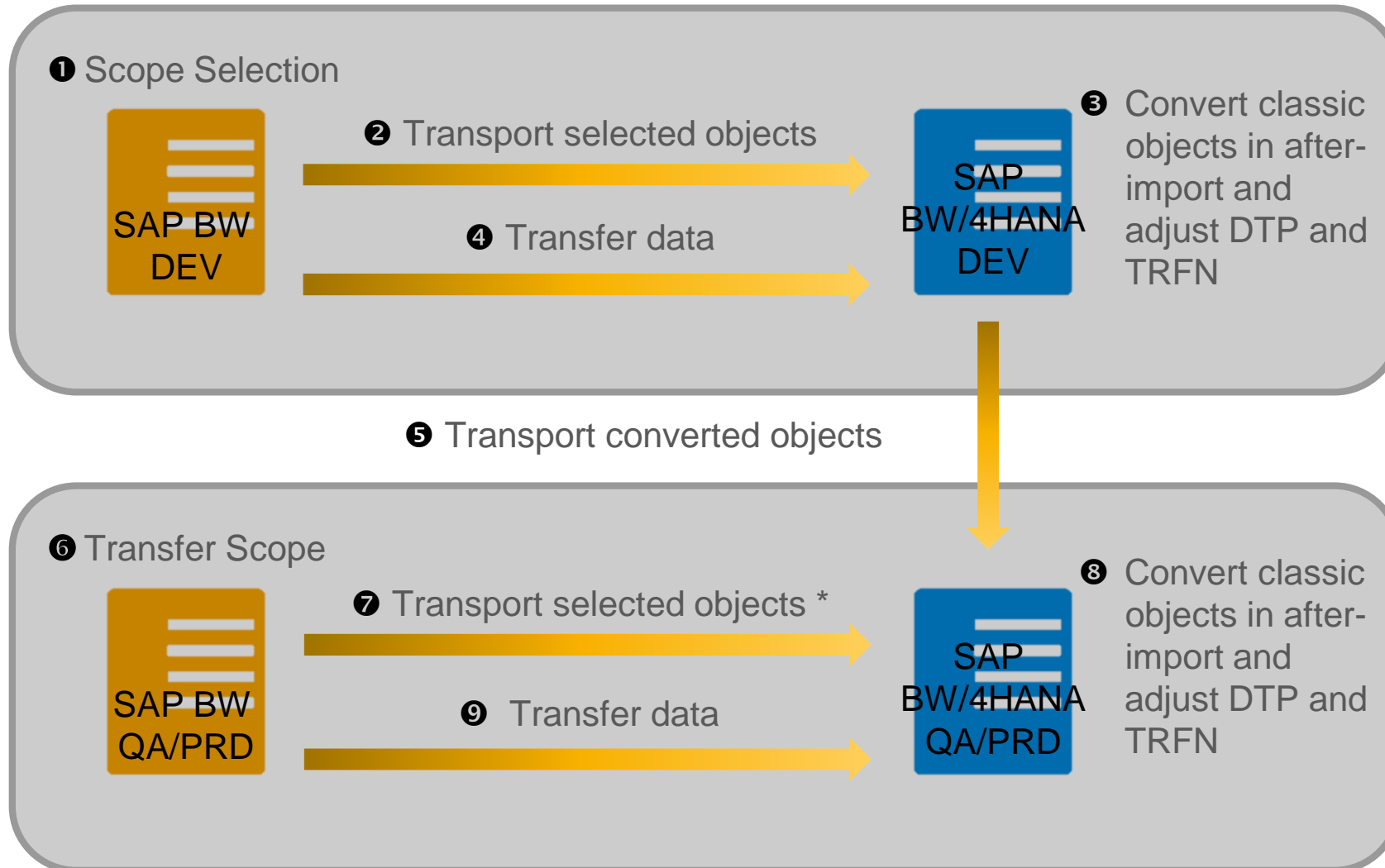
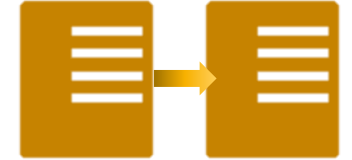
Remote Conversion

Basic Sequence



Remote Conversion

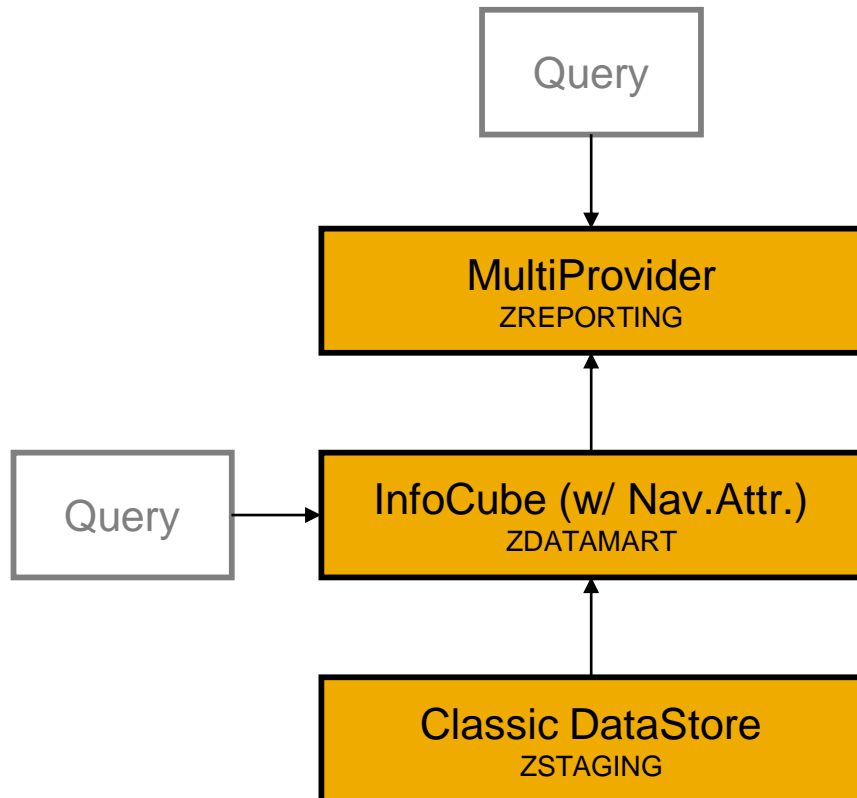
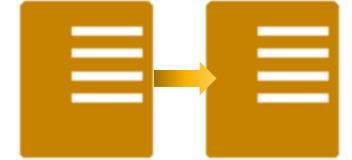
Scenario Transfer



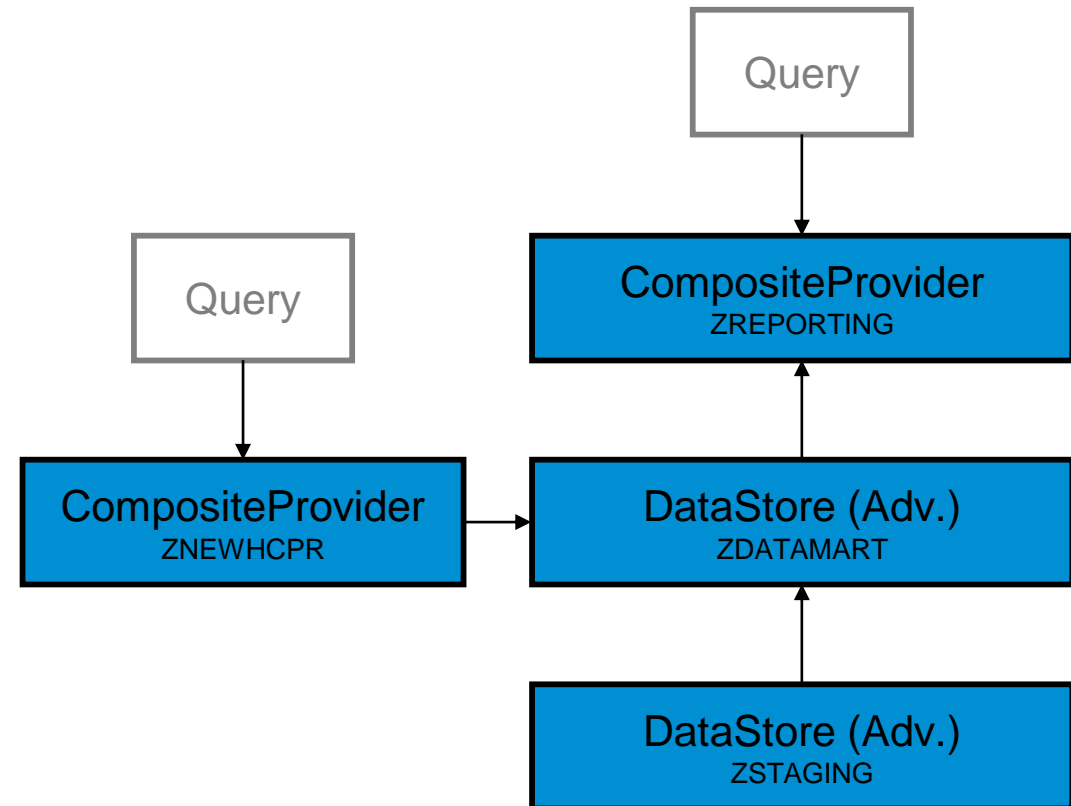
* Transport of copies to move objects created directly in production

Remote Conversion

Meta Data Conversion (Same as for In-place)



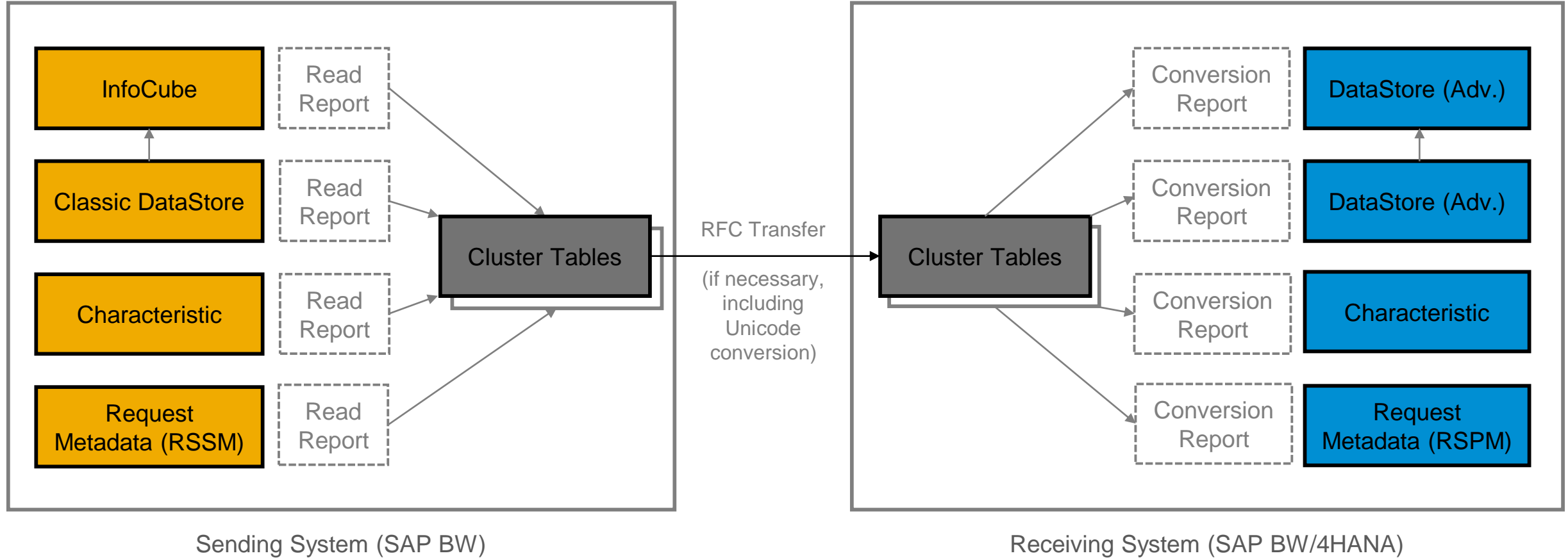
Before Transfer (SAP BW)



After Transfer (SAP BW/4HANA)

Remote Conversion

Example for Data Transfer



Remote Conversion Look and Feel



SAP BW/4HANA Conversion Cockpit

<div>Project: MIG_TEST Subproject: MIG_TEST_SUB1 Execution System: None Client: None Package: 90002 Package Description: BW/4HANA Conversion Cockpit Package Created By: GUPTAYA Package Created On: 20.07.2017 07:46:52 Solution: BW/4HANA Conversion Cockpit</div>										
Migration Process	Status	Progress (%)	Tasks	Executio...	Log	Start Date	Start Time	End Date	End Time	Runtime
• BW/4HANA Conversion Cockpit						20.07.2017	07:46:52	20.07.2017	12:15:58	04h 29m 06s
• Package Settings						20.07.2017	10:58:30	20.07.2017	10:58:31	01s
• Define RFC Destinations		100 %	0001			20.07.2017	11:02:09	20.07.2017	11:02:13	04s
• Verification of Active Packages		100 %	0001			20.07.2017	12:13:22	20.07.2017	12:15:58	02m 36s
• Add Source System to Transfer Tool		100 %	0002			20.07.2017	10:37:47	20.07.2017	10:39:16	01m 29s
• Setup Phase						26.07.2017	10:37:47	26.07.2017	10:39:16	01m 29s
• Collect Scope for Transfer (Data Flow)		100 %	0012			26.07.2017	11:20:46	26.07.2017	11:21:33	01m 41s
• Sender			0000			26.07.2017	11:21:32	26.07.2017	11:22:17	05s
• Receiver			0000			26.07.2017	11:21:32	26.07.2017	11:22:17	05s
• Identify Semantic Differences between InfoCube and ADSO		100 %	0007			26.07.2017	11:21:42	26.07.2017	11:21:43	01s
• Build List to Generate InfoCube Tables		100 %	0005			26.07.2017	11:21:52	26.07.2017	11:21:52	01s
• Generate Shadow InfoCube Tables		100 %	0005			26.07.2017	11:22:01	26.07.2017	11:22:06	05s
• Build Table Mapping between Mapped Objects		100 %	0016			26.07.2017	11:22:17	26.07.2017	11:22:17	01s
• Check Differences in Structure of Sender & Receiver		100 %	0012			26.07.2017	11:22:54	26.07.2017	11:22:55	01s
• Configure MIGSID rule on SID Fields for Conversion		100 %	0011			26.07.2017	11:23:04	26.07.2017	11:23:05	01s
• Make Special Setting Based on Migration Scenario		100 %	0007			26.07.2017	11:23:13	26.07.2017	11:23:13	01s
• Adjust TADIR based on Object Mapping (RSB4HTOBJECT)		100 %	0008			26.07.2017	14:28:45	26.07.2017	16:56:15	03h 12m 04s
• Generation Phase						26.07.2017	13:44:11	26.07.2017	13:44:42	31s
• Preprocessing Programs During System Lock						26.07.2017	13:44:52	26.07.2017	13:44:54	02s
• Copy Delta Queues from SAPI to ODP technology		100 %	0001			26.07.2017	13:48:58	26.07.2017	13:48:59	01s
• Check for Delta Queues can be copied from SAPI to ODP		100 %	0001			26.07.2017	13:59:07	26.07.2017	13:59:07	02m 08s
• Confirm INIT SIMU procedure & Lock user(s) is complete		100 %	0001			26.07.2017	16:47:51	26.07.2017	16:49:59	02m 08s
• Pre-Migration Validation		100 %	0001			26.07.2017	16:55:08	26.07.2017	16:56:15	01m 07s
• Synchronize Delta Queues & Lock All Data Changes		100 %	0006			26.07.2017				
• Activate Sequences		100 %	0006			26.07.2017				

Remote Conversion Task List

Maintain Task List Run SAP_BW4_TRANSFER_REMOTE_PREPARE_201708141542478										
Task List Run SAP_BW4_TRANSFER_REMOTE_PREPARE Tasks for Activities to be performed in original system of remote BW4-Transfer										
Task List Run SAP_BW4_TRANSFER_REMOTE_PREPARE_20170814154247861										
E...	C...	S...	L...	Autom. Phase	Comp.	Task Description	Help	Parameter	Parameter	
✓	⌵	⌵	⌵	Cleanup	BW	Cleanup BW Object Relation Table RSOBJXREF				
✓	⌵	⌵	⌵	Scope definition	BW	Collect Scope for Transfer (Data Flow)				
✓	⌵	⌵	⌵	Scope definition	BW	Define Object Mapping and Store Object List				
✓	⌵	⌵	⌵	Prepare	BW	Map InfoObjects for InfoProvider				
✓	⌵	⌵	⌵	Prepare	BW	Determine Usage of Involved Objects				
✓	⌵	⌵	⌵	Prepare	BW	Checklist for Usage of Involved Objects				
✓	⌵	⌵	⌵	Prepare	BW	Check to confirm that metadata was created in target and data migration setup has been completed				
✓	⌵	⌵	⌵	Prepare	BW	Copy delta queues from SAPI to ODP technology				
✓	⌵	⌵	⌵	Prepare	BW	Confirm that delta was loaded for the cloned DataSources				
✓	⌵	⌵	⌵	Prepare	BW	Synchronize Delta Queues between SAPI and ODP				
✓	⌵	⌵	⌵	Prepare	BW	Extract from PSAs of DataSources and Error Stacks				
✓	⌵	⌵	⌵	Prepare	BW	Lock All Data Changes				
✓	⌵	⌵	⌵	Prepare	BW	Master Data Activation				
✓	⌵	⌵	⌵	Prepare	BW	Prepare Request Mapping for Transfer				
✓	⌵	⌵	⌵	Prepare	BW	Confirm that data migration has finished				
✓	⌵	⌵	⌵	Finalization	BW	Unlock Loading and Data Target Changes				

Remote Conversion Process Tree - Highlighted are the activities to call and execute steps present in Transfer Tool task list

Excerpt: Conversion to SAP BPC 11 version for SAP BW/4HANA



SAP BW/4HANA Transfer Toolbox for BPC

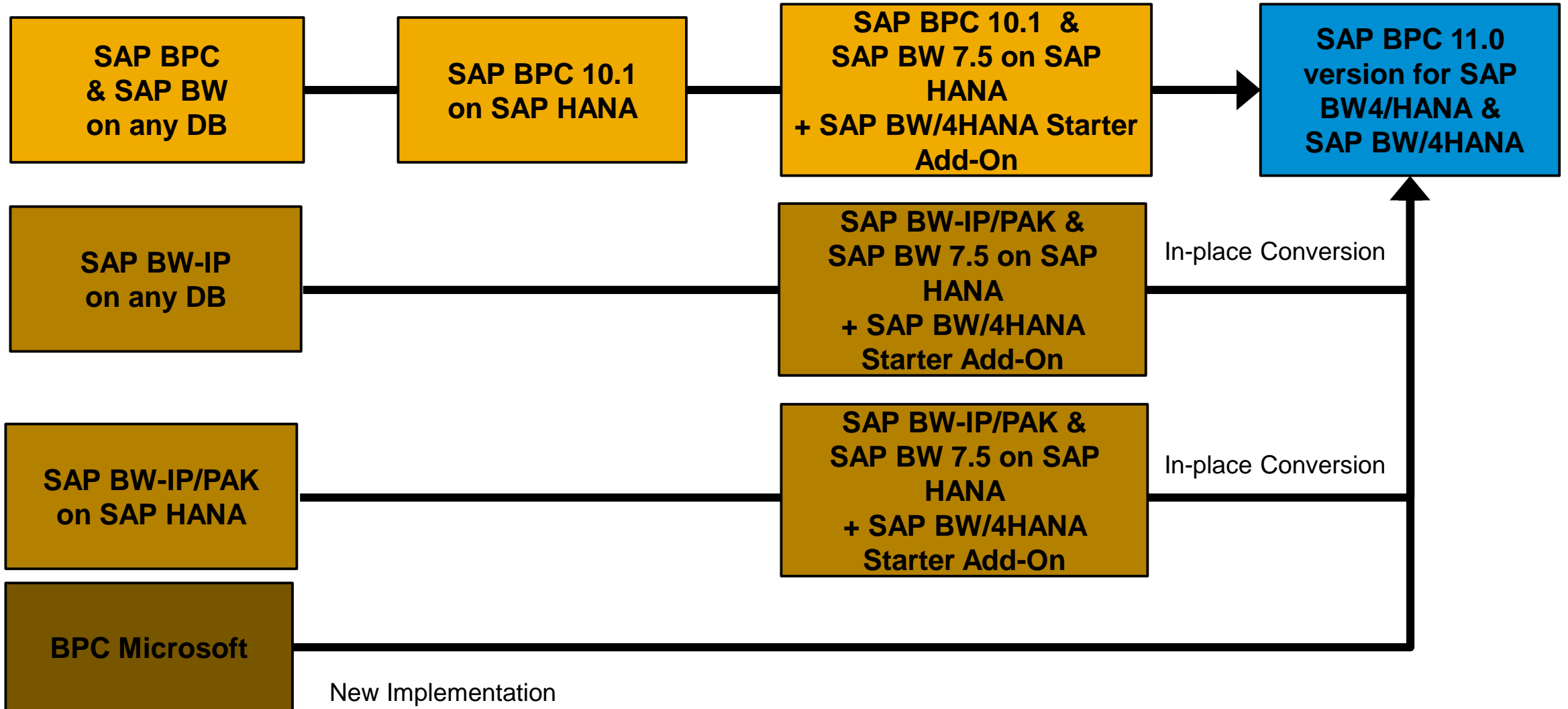


- Minimum start release:
SAP BW 7.5 SP 9 powered by SAP HANA
- Full system conversion of an existing SAP BW installation (keep same SID)
- Step-by-step in-place transfer of classic objects into their HANA-optimized counterparts
- Followed by a system conversion to
SAP BW/4HANA + SAP BPC 11.0 version for SAP BW4/HANA (add-on)



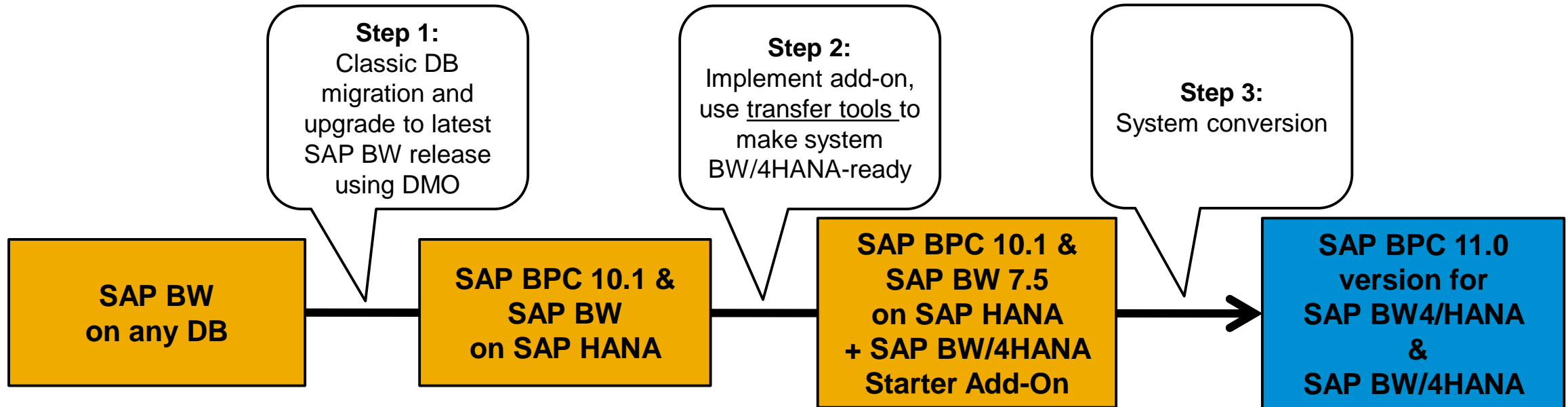
- Minimum start release:
SAP BW 7.0 or higher on Any DB for embedded
SAP BPC 10.0 or higher
- Start with SAP BW/4HANA as green field installation
- Support of carve-out and consolidation scenarios
- Transport data models and remote data transfer
(including Unicode conversion)
- Risk mitigation due to parallel system

Paths to SAP BPC 11.0 version for SAP BW4/HANA



In-place Conversion

Path to Convert Your System



All SAP BPC customers can start NOW

SAP BPC customers on SAP BW powered by SAP HANA have a head-start

Customers can convert at their own pace – benefiting gradually from HANA-optimizations

Path to SAP BPC 11.0 version for SAP BW4/HANA

Supported Scenarios

Available Now

SAP BPC Backup & Restore Tool supports the following scenarios (transaction UJBR):

BPC Standard Model

- Remote conversion

The screenshot displays the SAP BPC Backup & Restore Tool (UJBR) interface. The title bar reads "BPC: Backup & Restore Tool". The main window is divided into several sections:

- Execution:** Contains two radio buttons: "Execute Backup" (selected) and "Execute Restore".
- Execute in...:** Contains two radio buttons: "Background" and "Foreground" (selected).
- Parameters & Procedures:** This section contains various input fields and checkboxes:
 - Environment ID:** A text field containing "ANA260".
 - Download Directory Name:** A text field with a yellow highlight.
 - Backup Metadata Tables:** A list of checkboxes: "Backup Metadata Tables" (checked), "DM Data Files" (checked), "Audit Data" (checked), "Archived BPF Data" (unchecked), "Package File Service" (unchecked), and "Backup Master Data" (unchecked).
 - Log Files:** A checkbox (unchecked).
 - Archived Audit Data:** A checkbox (unchecked).
 - Work Status Data:** A checkbox (unchecked).
 - Backup Transaction Data:** A checkbox (unchecked).
 - Record Count (0 = All Records):** A text field containing "200".
 - Packaged by Million Records:** A text field containing "100".
 - If contains large amount of da:** A checkbox (unchecked).
 - Use Dummy Value:** A checkbox (unchecked).
 - Application ID (empty = all):** A text field.
 - Including related Rate and Owner:** A checkbox (unchecked).
 - Time (examples: 2014.01, 2015):** A text field.
 - Category:** A text field.

At the bottom of the window, there is a status bar with the SAP logo and the text "B4H (1) 001 | t5007 | OVR".

Path to SAP BPC 11.0 version for SAP BW4/HANA

Planned Scenarios

Planned for
Q4/2017

SAP BW/4HANA Transfer Toolbox is planned to support the following conversion scenarios:

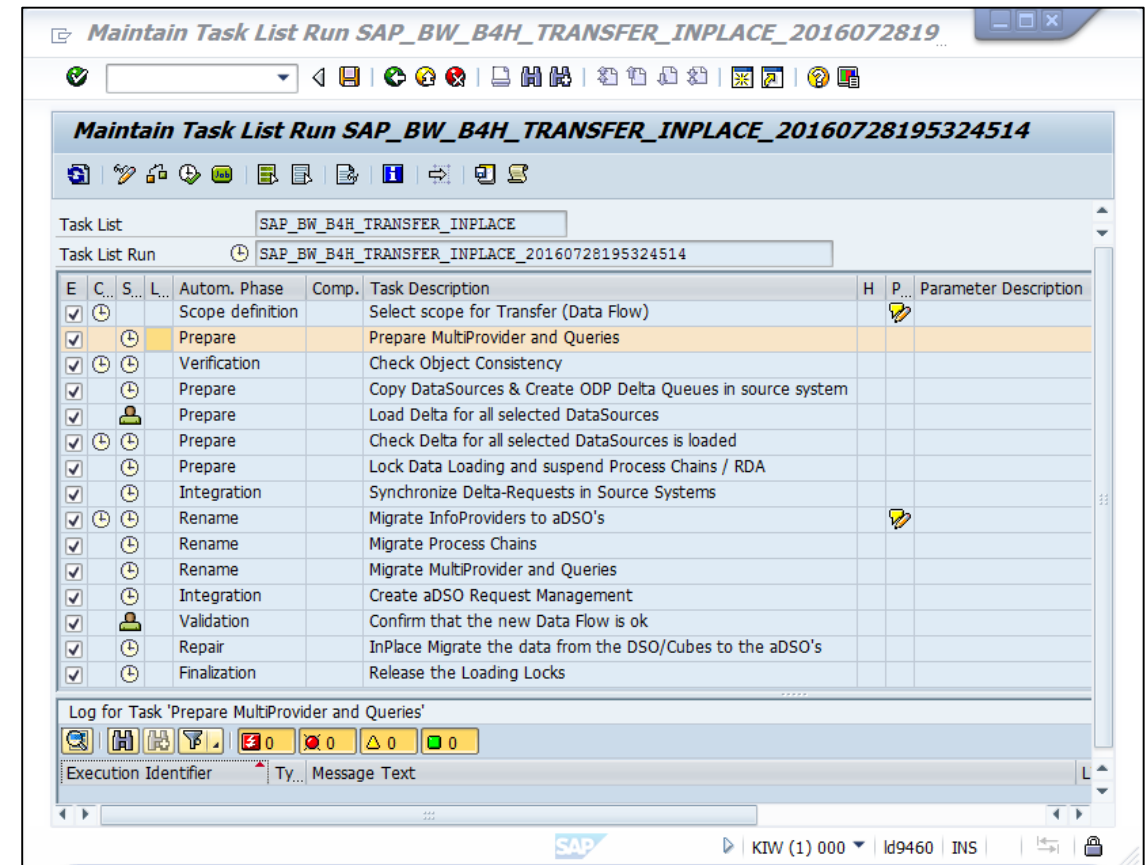
BPC Embedded Model

- In-place Conversion
- Remote Conversion

BPC Standard Model

- In-place conversion

See roadmap for details



Path 3: Landscape Transformation



Landscape Transformation

Customers who want to consolidate their SAP BW landscape (multiple production systems) or carve out selected data models or flows into a global SAP BW/4HANA system

Customer-specific conversion project re-using standard tools

Expert consulting highly recommended

Planned service offering from SAP's Data Management & Landscape Transformation group

→ Plan is to use a combination of one in-place conversion and one or more remote conversions

Availability and Outlook



Availability Matrix

Last update: 2017-10-01

	SAP BW 7.0	7.01	7.02	7.3	7.31	7.4	7.5
Preparation (Checks, Operating Modes)	Released (General Availability)						
In-Place Conversion							Release 1 available
Remote Conversion	Release 1 available	Release 1 available	Release 1 available	Release 1 available	Release 1 available	Release 1 available	Release 1 available

Preparation: Install via SAP BW Note Analyzer (SAP Note [2383530](#))

In-place Conversion: Install via SAP BW Note Analyzer (SAP Note [2383530](#)) and pilot note (SAP Note [2500045](#))

Remote Conversion: Install via SAP BW Note Analyzer (SAP Note [2383530](#)) and DMIS Add-on (SAP Note [2513088](#))

Roadmap for SAP BW/4HANA Transfer Toolbox

In-Place Conversion



Version 1.0 – June 2017

Customers can convert an existing system **running on SAP HANA**

Will be made available via notes for **SAP BW 7.5 SP 5 or higher**

Legacy functionality gets transferred into HANA-optimized counterparts

Customer exits are scanned for incompatible usages

Shared Features

Remote Conversion



Customers can convert systems on **SAP BW >= 7.0** on **Any-DB**

Conversion projects will be driven by SAP Data Management & Landscape Transformation group

Version 1.5 – Q4/2017

Performance enhancements

More tool-based guidance

Transfer of authorization objects

Complete set of supported scenarios (Semantically Partitioned Objects, Real-time Data Acquisition, etc.)

Transfer of SAP BPC to **SAP BPC, version for SAP BW/4HANA**

Transfer Near-line-Storage based on **SAP IQ / Hadoop**

Enhanced Status Management

Enhanced monitoring capabilities

Simplified Guided Process steps

Version 2.0 – Q1/2018

Major Add-ons available for SAP BW/4HANA (enable upgrade path)

Data model optimizations (e.g. skip obsolete layers)

Improved data verification capabilities

Comfort functions like code replacement in customer exits

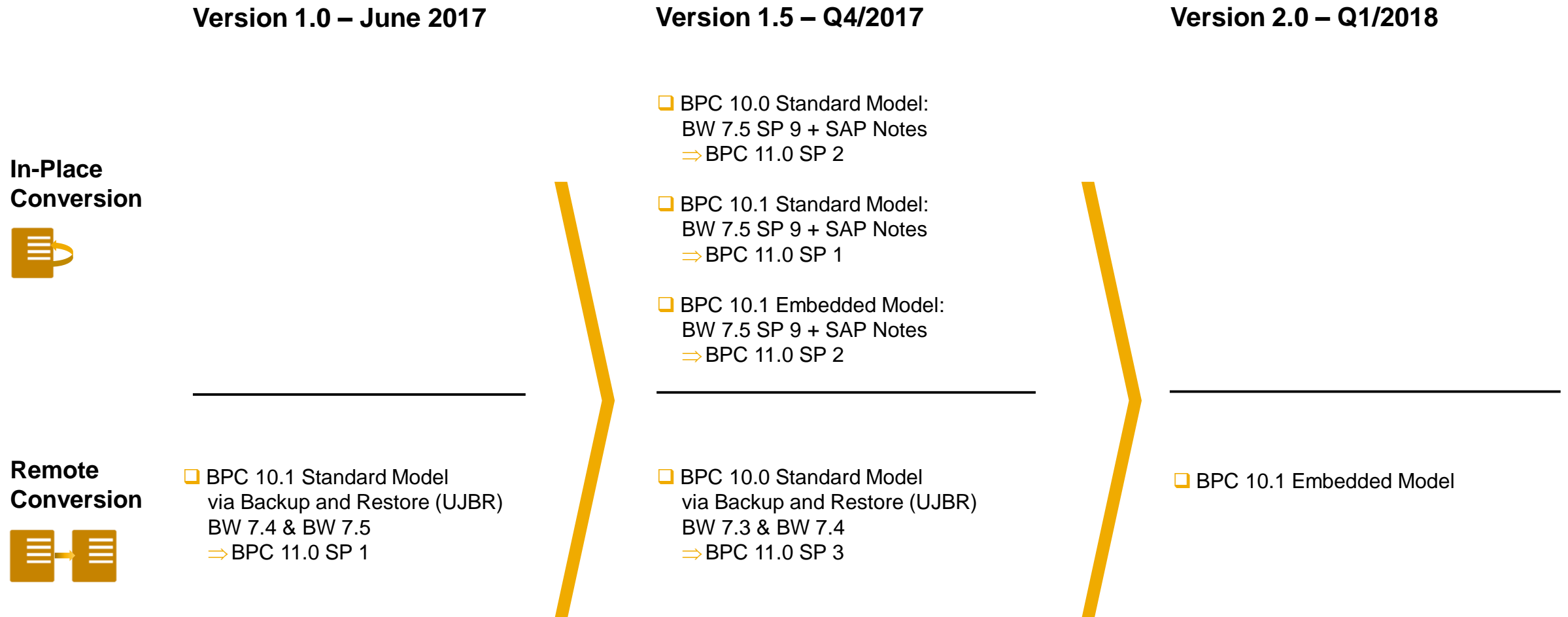
Transfer of **BEx**-related objects

Transfer Near-line-Storage **partner solutions** via partner

SAP BW/4HANA Conversion Cockpit released for partners

Troubleshooting functions

Roadmap for SAP BW/4HANA Transfer Toolbox for BPC



Summary



Summary

1. SAP BW/4HANA is the **Innovation Code Line**
2. The **Simplification List** is a consolidated description of the delta between SAP BW and SAP BW/4HANA
3. Different paths are available to customers for transitioning from SAP BW to SAP BW/4HANA: **New Install, In-place & Remote Conversion, and Landscape Transformation**
4. All SAP BW customers can **start now** and convert at their own pace
5. Check your system using the **SAP BW Migration Cockpit** (SAP BW Checklist Tool) and **Pre-check Program**
6. Follow the steps of the **task lists** to convert all required scenarios
7. Go-live with a modern and simplified data warehouse, **SAP BW/4HANA**

Thank You!

Marc F. Bernard

Chief Architect, Product Management SAP Data Warehousing

SAP Canada, Inc.

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Follow me on Twitter: [@marcfbe](https://twitter.com/marcfbe)

Landing Page: <http://sap.com/bw4hana>

Community Page: <http://sap.com/bw4hana10>

Appendix – The Right Path



SAP BW/4HANA

Which Path is Right for You?

Starting Point	Path 1 New Install	Path 2 System Conversion		Path 3* Landscape Transformation
		In-place	Remote	
One or more legacy systems	✓✓	x	x	✓
SAP BW on any database	✓	✓	✓✓	✓
SAP BW powered by SAP HANA	✓	✓✓	✓	✓
SAP BW 7.5 powered by SAP HANA w/ SAP BW/4HANA Starter Add-on	✓	✓✓✓	✓	✓
Multiple SAP BW systems	✓	x	✓✓	✓✓✓

Legend:

- ✓✓✓ **Highly recommended path**
- ✓✓ **Recommended path**
- ✓ **Possible alternative path**
- x **Not supported**

* Planned

SAP BW/4HANA

Decision Criteria for the Right Path

Criteria *	Path 1 New Install (plus remodel and reload of data)	Path 2 System Conversion	
		In-place	Remote
Is system running on SAP HANA already?	O	++	O
Is system running on SAP BW 7.5 already?	O	++	O
Are the data models LSA++ compliant?	-	++	+
Are there a lot of redundant data layers?	+	-	++
Are proper naming conventions used?	++	-	-
Are you using front-ends that are compatible with SAP BW/4HANA?	+	O	O
Is there a lot of redundant custom coding?	+	-	++
Are there a lot of redundant objects that would require manual redesign?	O	-	O
Are there a lot of redundant objects that would required deletion?	+	-	+
Are there a lot of required objects that are compatible with SAP BW/4HANA?	-	++	+
Are there a lot of required objects that can be converted automatically?	-	++	+

Appendix – Landscape Preparation



Landscape Preparations

Recommendation and SAP BW Note Analyzer



**Pre-check, Transfer Toolbox, required ODP and SAP BW/4HANA updates
are shipped as **SAP Notes****

General Recommendation

To **reduce manual effort** and the number of SAP Notes to be implemented,
deploy the **latest available support package stack**

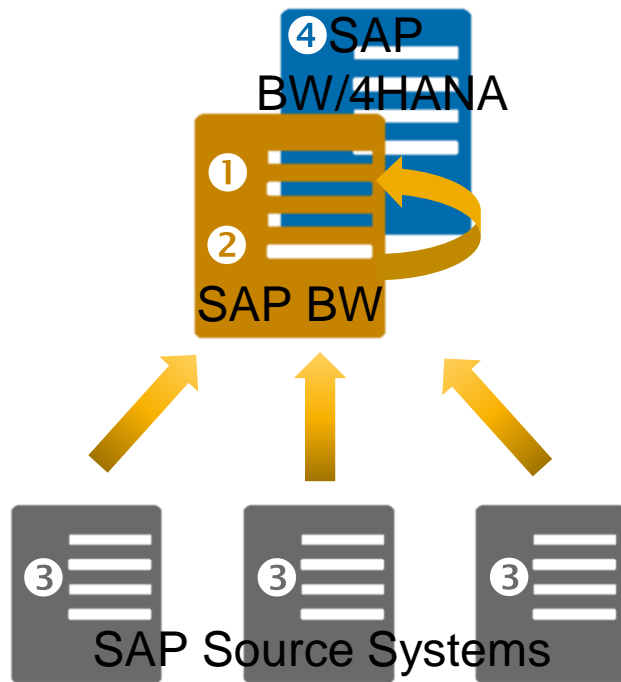
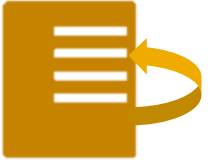
Guided Installation using SAP BW Note Analyzer

SAP BW Note Analyzer provides
a **clear and consistent process**
to **update** a particular **component** of SAP BW or SAP BW/4HANA
without implementing **support packages**

SAP BW Note Analyzer and content (XML files) are available via SAP Note [2383530](#)

Landscape Preparations

In-place Conversion



Discovery Phase

- ❶ Install **Pre-check** in original SAP BW system *

Realization Phase

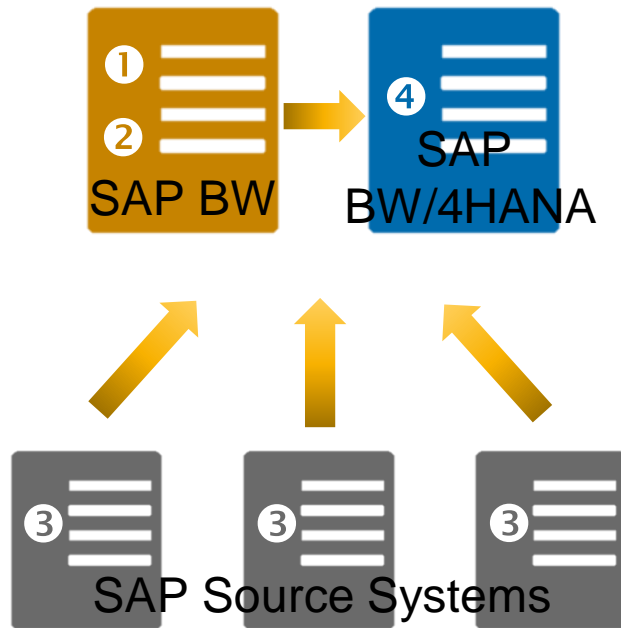
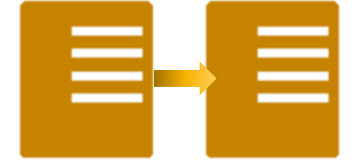
- ❷ Install **Transfer Toolbox** in original SAP BW system *
- ❸ Install **ODP updates** in each SAP source system
- ❹ Install **SAP BW/4HANA updates** (after system conversion)

Complete installation process is supported by the **SAP BW Note Analyzer**

* For SAP BW 7.5, installation of pre-check and transfer toolbox are combined and require the **SAP BW/4HANA Starter Add-on** (available via [Maintenance Planner](#))

Landscape Preparations

Remote Conversion



Discovery Phase

- ❶ Install **Pre-check** in original SAP BW system

Realization Phase

- ❷ Install **Transfer Toolbox** and **DMIS add-on** in original SAP BW system
- ❸ Install **ODP updates** in each SAP source system
- ❹ Install **Transfer Toolbox** and **DMIS add-on** in target SAP BW/4HANA system

Complete installation process is supported by the **SAP BW Note Analyzer**

Landscape Preparations

SAP BW Note Analyzer



SAP BW and SAP BW/4HANA Note Analyzer

XML files to load

	Load XML file (1 file loaded, 38 SAP Notes)
	Show last loaded XML file
	Reset all loaded XML files

Check options

☒ Check implementation state against information in XML file

☐ List dependent notes separately (search in SAP Support Portal required - slow)

Download options before check

☐ Download needed SAP Notes

☒ In background

☐ In dialog

Installation Process

- Implement SAP BW Note Analyzer in all development systems of your landscape
- Run SAP BW Note Analyzer in each development system with the content (XML file) corresponding to the installation scenario (to on to previous pages)
- To complete an installation scenario, all traffic lights must be green. In case of yellow or red lights, follow the given instructions

For details, see SAP Note [2383530](#)

Landscape Preparations

SAP BW Note Analyzer



SAP BW and SAP BW/4HANA Note Analyzer Results									
Scope ID	Checked	Status	Action	Message	More	SW Component	Release	SP Level	
System	Analyzer	○○		System information	?				
	System	○○		Note analyzer version 103 executed at 20170908180649					
	Component	○○		SID CBW Host mo-e6bc7bf8f					
		○○		Installed component "Business Intelligence Content"		BI_CONT	737	21	
		○○		Installed component "Business Intelligence Content for Bobj I"		BI_CONT_XT	737	21	
		○○		Installed component "DMIS 2011_1"		DMIS	2011_1_730	10	
		○○		Installed component "PCAI_ENT 100"		PCAI_ENT	100	00	
		○○		Installed component "Basis Plug-In"		PI_BASIS	730	17	
		○○		Installed component "Cross-Application Component"		SAP_ABA	730	17	
		○○		Installed component "SAP Basis Component"		SAP_BASIS	730	17	
		○○		Installed component "SAP Business Warehouse"		SAP_BW	730	17	
		○○		Installed component "Servicetools for other App./Netweaver200"		ST-A/PI	01S_710	02	
		○○		Installed component "SAP Solution Tools Plug-In"		ST-PI	2008_1_710	16	
	Kernel	○○		Kernel Release 720 support package level 800					
	R3trans	○○		R3trans build at 20150205115200					
BW4_ADDON	Database	○○		Database name CBW type MSSQL release 12.00.4419.00 DSBL patchlevel 720					
	SPAM	○○		SPAM release 730 version 65					
	BW	○○		System is a BW system					
		○○		Preparation note checking phase	?				
		○○		Scope checking phase	?				
BW4_ADDON	BW4_ADDON	○○		Scope ID BW4_ADDON Requirements for Pre-Checks for Conversion to SAP BW/4HANA loaded					
SAP_BW4HANA_ADDON	SAP_BW4HANA_ADDON	○○		Scope ID SAP_BW4HANA_ADDON Requirements for Pre-Checks for Conversion to SAP BW/4HANA loaded					
		○○		System profile parameter checking phase	?				
		○○		Software component checking phase	?				
SAP_BW4HANA_ADDON	SAP_BW	○○		Software component fulfills prerequisites					
		○○		SAP Note checking phase					
		○○		Patch up to the following support packages or implement the SAP Notes with status RED	2447513	○○			SAP Note not relevant for this system: 2447513 (15) "BW4HANA: Starter Add-On - further corrections (4)"
		○○		Component SAP_BW; release 730; support package level 18	2468411	○○			SAP Note not relevant for this system: 2468411 (12) "BW4HANA: Starter Add-On - further corrections (5)"
		○○		SAP Note not relevant for this system: 2495422 (4) "BW4HANA: Starter Add-On - further corrections (6)"	2495422	○○			SAP Note not relevant for this system: 2495422 (4) "BW4HANA: Starter Add-On - further corrections (6)"
		○○		SAP Note not relevant for this system: 2255359 (4) "Preparation for corrections"	2255359	○○			SAP Note not relevant for this system: 2255359 (4) "Preparation for corrections"
		○○		SAP Note 2453476 does not exist in system and needs to be downloaded	2453476	○○			SAP Note 2453476 does not exist in system and needs to be downloaded
		○○		SAP Note to be implemented: 2453476 (4) "SP37: Technical correction in PSA service"		○○			SAP Note to be implemented: 2453476 (4) "SP37: Technical correction in PSA service"
		○○		SAP Note 2456689 does not exist in system and needs to be downloaded	2456689	○○			SAP Note 2456689 does not exist in system and needs to be downloaded
		○○		SAP Note to be implemented: 2456689 (1) "System dump CONVNT_NO_NUMBER when loading a query"		○○			SAP Note to be implemented: 2456689 (1) "System dump CONVNT_NO_NUMBER when loading a query"
		○○		SAP Note 2448571 does not exist in system and needs to be downloaded	2448571	○○			SAP Note 2448571 does not exist in system and needs to be downloaded
		○○		SAP Note to be implemented: 2448571 (75) "BW4HANA: Starter Add-on(checks)"		○○			SAP Note to be implemented: 2448571 (75) "BW4HANA: Starter Add-on(checks)"
		○○		Several programs need to be executed as manual activity after implementing the note		○○			Several programs need to be executed as manual activity after implementing the note
		○○		Execute program RS_NOTE_2448571 after implementing SAP Note 2448571		○○			Execute program RS_NOTE_2448571 after implementing SAP Note 2448571
		○○		Execute program RS_NOTE_2448571_2 after implementing SAP Note 2448571		○○			Execute program RS_NOTE_2448571_2 after implementing SAP Note 2448571
		○○		Execute program RS_NOTE_2448571_3 after implementing SAP Note 2448571		○○			Execute program RS_NOTE_2448571_3 after implementing SAP Note 2448571
		○○		Execute program RS_NOTE_2448571_4 after implementing SAP Note 2448571		○○			Execute program RS_NOTE_2448571_4 after implementing SAP Note 2448571
		○○		SAP Note 2503455 does not exist in system and needs to be downloaded	2503455	○○			SAP Note 2503455 does not exist in system and needs to be downloaded
		○○		SAP Note to be implemented: 2503455 (9) "BW4HANA: Starter Add-On - Änderungen (Transfer Toolbox Versi"		○○			SAP Note to be implemented: 2503455 (9) "BW4HANA: Starter Add-On - Änderungen (Transfer Toolbox Versi"
		○○		A program needs to be executed as manual activity after implementing the note		○○			A program needs to be executed as manual activity after implementing the note
		○○		Execute program ZNOTE_2503455 after implementing SAP Note 2503455		○○			Execute program ZNOTE_2503455 after implementing SAP Note 2503455

Example Result of SAP BW Note Analyzer Run

- Quick run with default options
- Download of required SAP Notes in batch
- Implementation of required SAP Notes and trigger of manual activities (pre or post program executions) directly from results

Landscape Preparations

SAP BW Note Analyzer



Install **Pre-check** Tool in **Discovery** Phase

- ❶ For SAP BW from 7.0 to 7.4, use SAP_BW4HANA_Pre_Checks_[last_update].xml
- ❶ + ❷ For SAP BW 7.5, the pre-checks cannot be installed isolated but are bundled with the Transfer Toolbox. Use SAP_BW4HANA_In-place_Conversion_[last_update].xml

Install **Transfer Toolbox** and Perform an **In-place Conversion** in **Realization** Phase

- ❷ For SAP BW 7.5 and in-place conversion, use SAP_BW4HANA_In-place_Conversion_[last_update].xml
- ❸ For source systems connected to SAP BW, use Source_System_for_SAP_BW4HANA_[last_update].xml

Install **Transfer Toolbox** and Perform an **Remote Conversion** in **Realization** Phase

- ❷ For SAP BW from 7.0 to 7.5 acting as sending system for a remote conversion, use SAP_BW4HANA_Remote_Conversion_(Original_System)_[last_update].xml
- ❸ For source systems connected to SAP BW, use Source_System_for_SAP_BW4HANA_[last_update].xml
- ❹ For SAP BW/4HANA acting as receiving system for a remote conversion, use SAP_BW4HANA_Remote_Conversion_(Target_System)_[last_update].xml

Appendix – Certification and Training



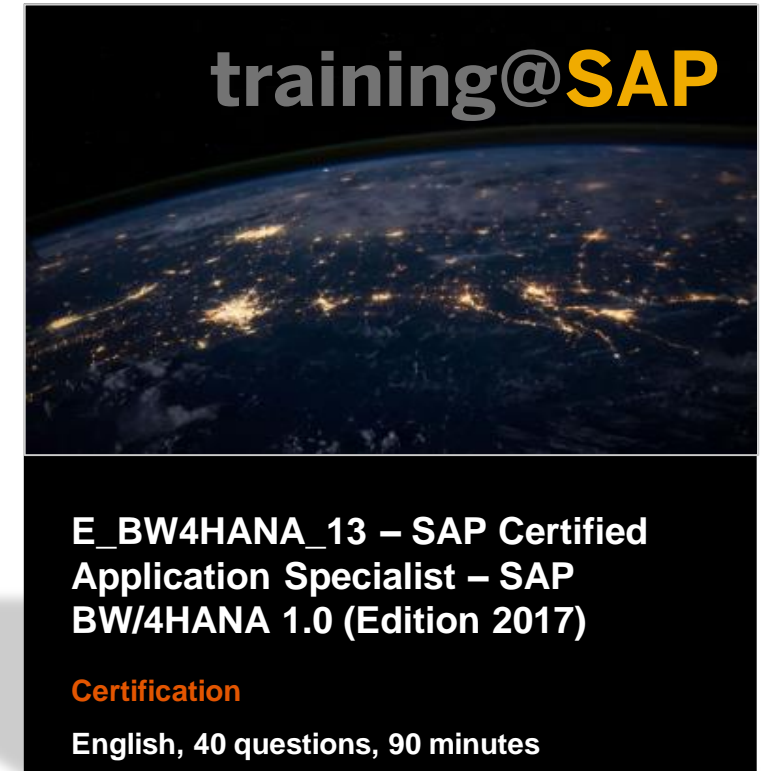
Certification for **SAP BW/4HANA**

This **certification exam** verifies that the candidate has the knowledge of **implementing and modeling SAP BW/4HANA** required by the profile of an SAP BW application consultant.

Topics that may be covered within this certification

- Optimization Areas in SAP BW/4HANA
- Modeling with SAP's Reference Architecture LSA++
- Hybrid Modeling in Mixed Scenarios
- SAP BW/4HANA Data Management
- Data Provisioning into SAP HANA as well as SAP BW/4HANA
- Getting started with SAP BW/4HANA and SAP HANA
- Migration to SAP BW/4HANA
- SAP HANA Modeling

For details, go to → [**SAP Training**](#) ←



Courses for Preparation:

[BW462 \(BW/4HANA 1.0 SP02\)](#)

[BW362 \(SAP HANA SPS12\)](#)

[DBW4H \(BW/4HANA 1.0 SP02\)](#)

[HA100 \(SAP HANA SPS12\)](#)

Training for **SAP BW/4HANA**



training@SAP

BW462 – SAP BW/4HANA

Classroom or Virtual Live Classroom

Material in English; course in local language

- 5 days (available in several countries)
- Prerequisites:
 - Hands-on experience in data modeling with SAP BW 7.x
 - BW310 (SAP BW Enterprise Data Warehousing non-HANA)

For details, go to → [SAP Training](#) ←



training@SAP

DBW4H – Data Warehousing with SAP BW/4HANA - Delta from SAP BW powered by SAP HANA to SAP BW/4HANA

Classroom or Virtual Live Classroom

Material in English; course in local language

- 2 days (available in several countries)
- Prerequisites:
 - SAP BW 7.4 / 7.5 and SAP HANA 1.0 knowledge is necessary
 - DBW74, BW362, HA100 or HA100e, BW310H

For details, go to → [SAP Training](#) ←



openSAP

SAP BW/4HANA in a Nutshell

Open Online Course

English

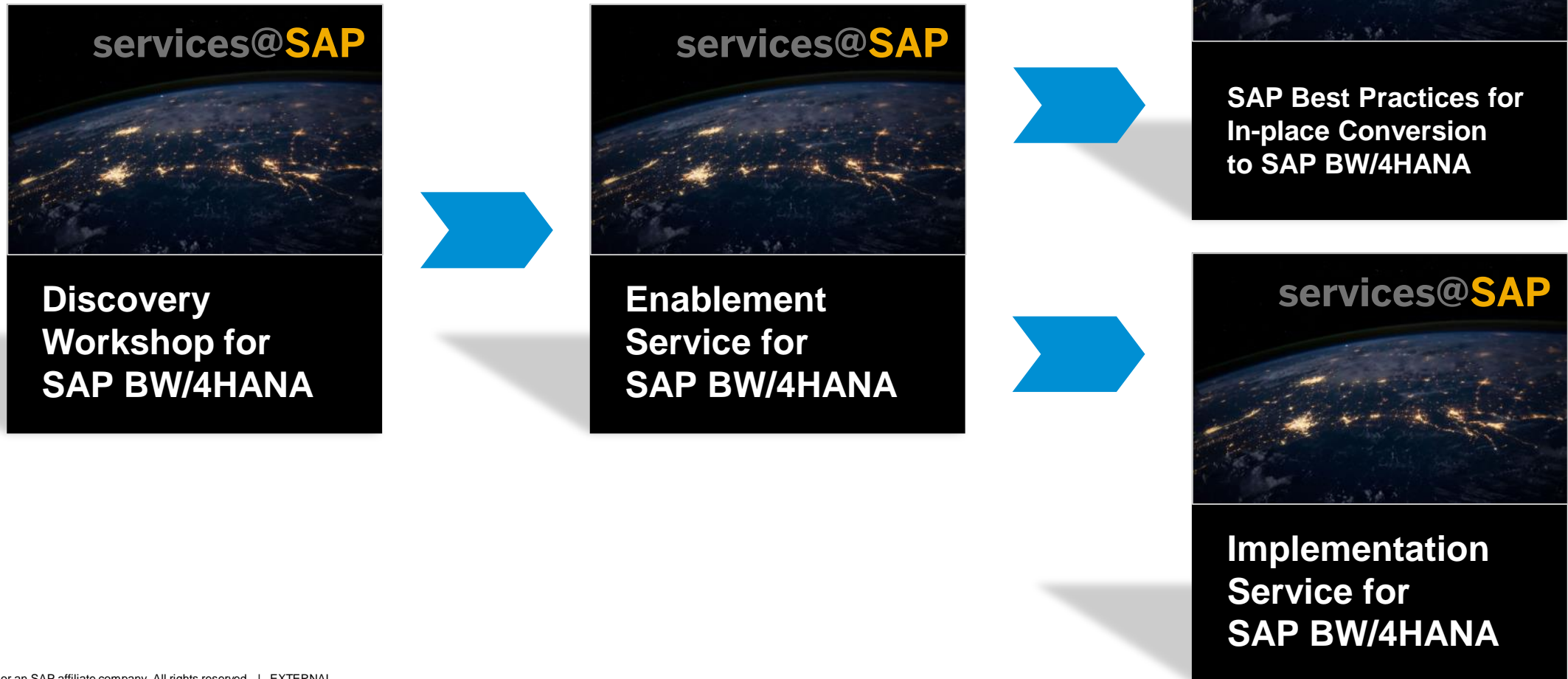
- 4 Units – 2-3 hours in total
- No prerequisites
- Free participation & certification

For details, go to → [openSAP](#) ←

Appendix – Services



Digital Business Services for SAP BW/4HANA



SAP Best Practices for In-place System Conversion to SAP BW/4HANA

This package provides you with a proven project approach and configuration guides for the conversion of an existing SAP NetWeaver BW to SAP BW/4HANA. The tool-based conversion to SAP BW/4HANA includes step-by-step documentation with project schedule, streamlined project methodology, and optimized project tools. Use best practices to plan and convert your system, gaining all of the benefits of real-time data.

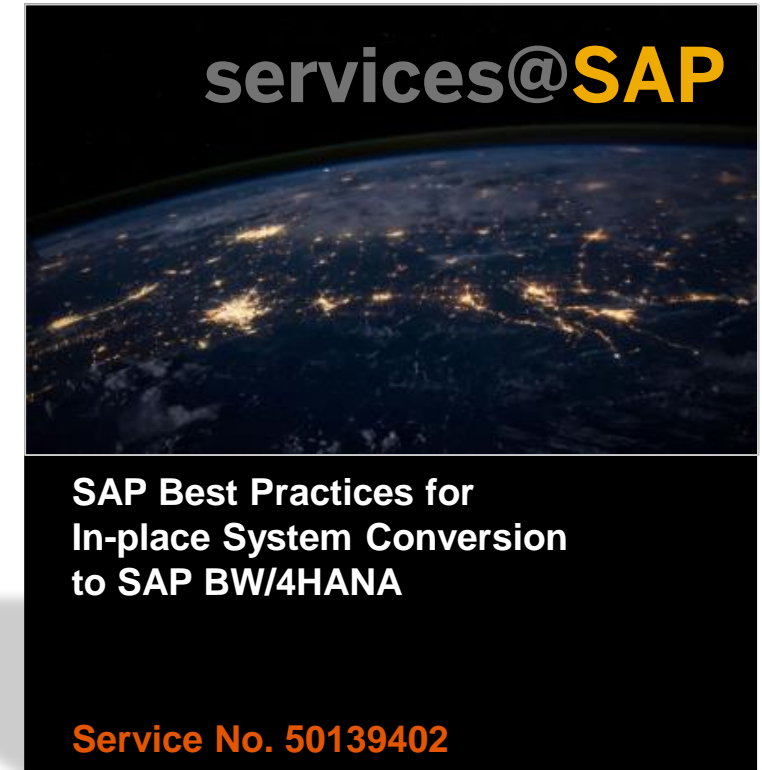
Business Benefits

- Dramatically improve performance for data loading, querying, analysis, staging, and planning processes
- Simplify data modeling using a modern user interface, ADSO, and CompositeProvider
- Accelerate solution development with simplified object models and SQL support
- Use multi-temperature storage options to optimize data management, improve data query response time, and lower TCO

Key Competitive Differentiators

- In-place conversion without reimplementation
- Flexible and unconstrained SAP BW/4HANA conversion
- Simplified conversion process due to streamlining of steps
- Tool-based conversion with SAP proven technology

→ [Overview](#) ← for details, go to → [SAP Best Practices](#) ←



Discovery Workshop for SAP BW/4HANA

The discovery workshop for SAP BW/4HANA helps customers identify crucial benefits and suggested approaches for their road to SAP BW/4HANA in order to leverage latest functional and technical innovations and move forward to the future-proof, scalable and high performance enterprise data warehousing platform by SAP.

Business Needs

- Evaluate possible transition scenarios towards SAP BW/4HANA for increased predictability
- Identify areas of added value due to functional and technical innovations
- Ensure security of investment by planning the road to the future data warehousing platform

Delivery Approach and Scope

- Acquisition of relevant, available system and customer information during a preparation phase
- Introduction to innovations, suggested approaches and findings from preparation phase during a 2-day onsite workshop
- Handover of workshop findings to customer
- Proposal and alignment on next steps on the road to SAP BW/4HANA
- Understanding of SAP's data warehousing and reporting portfolio, roadmap and strategy

Value and Benefits

- Increased predictability of implementation projects and system conversion and transition scenarios
- First guidance on and better understanding of SAP's future data warehousing vision and insights in the value of adopting



Enablement Service for SAP BW/4HANA

The enablement service for SAP BW/4HANA helps customers familiarize with the innovations introduced with SAP BW/4HANA and to identify how to leverage the new functionalities to kick-start with SAP BW/4HANA and the future-proof enterprise data warehousing platform by SAP.

Business Needs

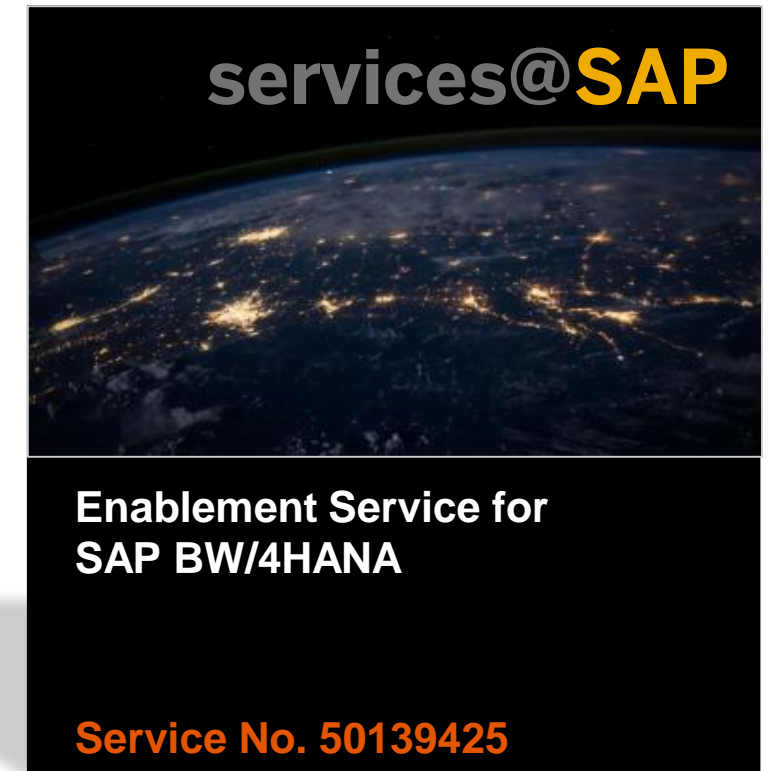
- Ensure key stakeholders are provided with knowledge on key functionalities and innovations of SAP BW/4HANA
- Close knowledge gaps with the help and advise of SAP experts

Delivery Approach and Scope

- Identification of relevant topics upfront service delivery
- Scenario-based, guided on-site workshop
- On-hands experience provided during the workshop

Value and Benefits

- Ability to unleash the full potential of SAP BW/4HANA
- Better understanding of new functionalities and innovations and faster productive usage of SAP BW/4HANA due to elimination of uncertainties



Implementation Service for SAP BW/4HANA

The implementation service for SAP BW/4HANA assists customers in quickly establishing a SAP BW/4HANA environment that delivers enterprise wide analytics. SAP BW/4HANA is natively built on the SAP HANA platform with a simplified set of data warehouse objects and SAP HANA optimized business content. This service enables companies to experience the speed and powerful analytics of SAP BW/4HANA and set the foundation for Driving Innovation, with a fixed scope and a fixed price.

Business Needs

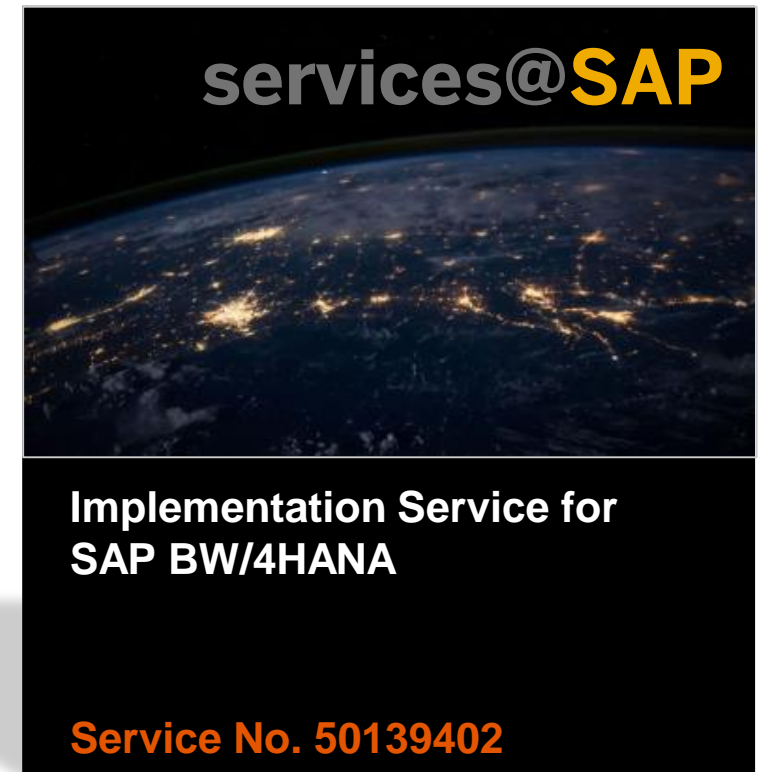
- Business Agility – Ability to respond quickly to changing business climate
- Access to accurate information in a timely manner (incl. real-time analytics)
- Enable an Open Data warehouse development environment
- Enable a Simplified Data warehouse development environment
- Establish a solid, extensible foundation for data management and data governance

Delivery Approach and Scope

- Establish a SAP BW/4HANA development environment (e.g. project accelerator, PoC)
- Identify and activate one area of Business content
- Identify relevant optional scope items (e.g. activate additional Business Content)

Value and Benefits

- Accelerator for Establishing a SAP BW/4HANA development system
- Simplified development environment with a simplified set of data warehouse objects and simplified governance to enable agile data warehouse development and flexible modeling
- Establish the Foundation for different development approaches (BW Objects modelling)



Related Service: Rapid Database Migration of SAP BW to SAP HANA

This package provides you with a proven project approach and configuration guides for the conversion of an existing SAP NetWeaver BW to SAP BW/4HANA. The tool-based conversion to SAP BW/4HANA includes step-by-step documentation with project schedule, streamlined project methodology, and optimized project tools. Use best practices to plan and convert your system, gaining all of the benefits of real-time data.

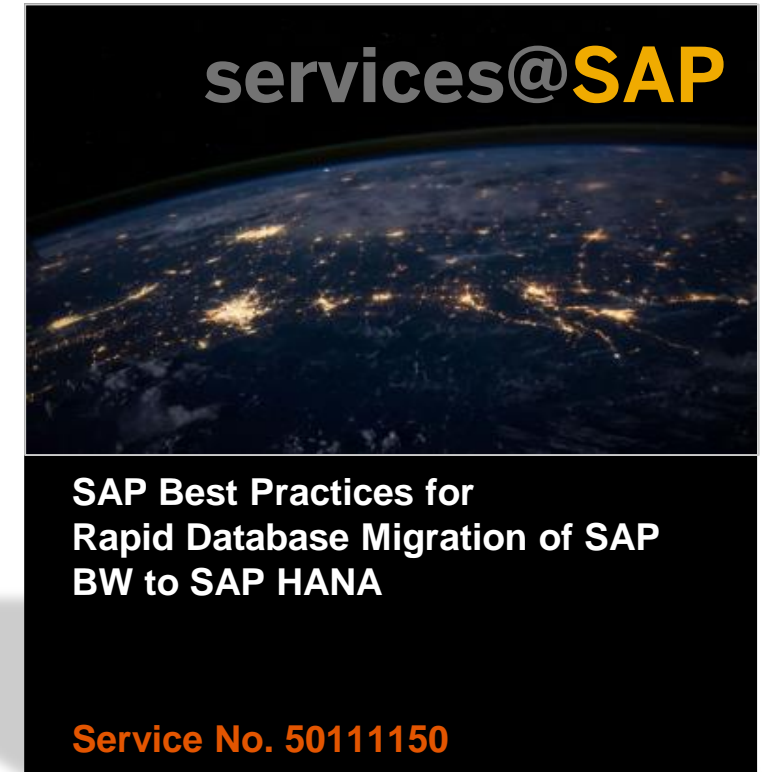
Business Benefits

- Dramatically improve performance for data loading, querying, analysis, staging, and planning processes
- Simplify data modeling using a modern user interface, ADSO, and CompositeProvider
- Accelerate solution development with simplified object models and SQL support
- Use multi-temperature storage options to optimize data management, improve data query response time, and lower TCO

Key Competitive Differentiators

- In-place conversion without reimplementation
- Flexible and unconstrained SAP BW/4HANA conversion
- Simplified conversion process due to streamlining of steps
- Tool-based conversion with SAP proven technology

→ [Overview](#) ← for details, go to → [SAP Best Practices](#) ←

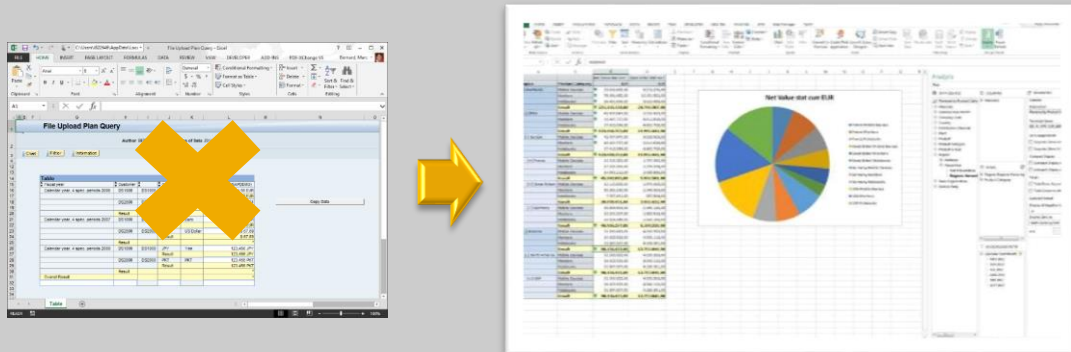


Simplified Transition for SAP Business Explorer (BEx)

New Options for Customers

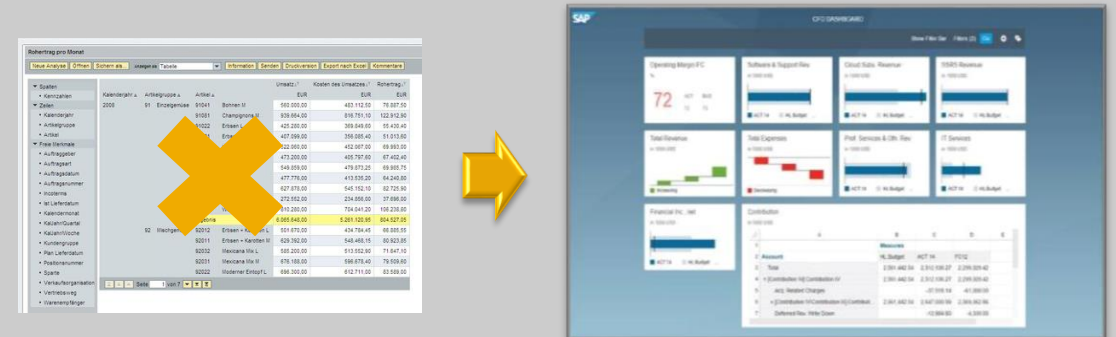
SAP BEx Analyzer

- Semi-automated transition of SAP BEx Analyzer Workbooks to SAP Analysis Office is available as a **service offering**
- For more details, see the following [blog](#)



SAP BEx Web Applications

- Planned support for **temporary use** of the existing SAP BEx Web Applications in SAP BW/4HANA through a dedicated **pilot program**
- Exclusively available with the In-Place Conversion to SAP BW/4HANA 1.0 SP 6 or higher (support for a limited time until end of 2019)
- For more details, see SAP Note [2496706](#) (not released yet)



Appendix – Additional Information



Blogs about Transitioning to SAP BW/4HANA

The Road to SAP BW/4HANA – Parts 1 to 3

<https://blogs.saphana.com/2016/09/07/the-road-to-sap-bw4hana-part-1/>

<https://blogs.saphana.com/2016/09/18/the-road-to-sap-bw4hana-part-2/>

<https://blogs.saphana.com/2017/06/06/the-road-to-sap-bw4hana-part-3/>

On the Road to SAP BW/4HANA – Parts 1 & 2

<https://blogs.sap.com/2016/12/15/on-the-road-to-bw4hana-first-stage-accomplished/>

<https://blogs.sap.com/2016/12/15/on-the-road-to-bw4hana-second-stage-ahead/>

[SAP First Guidance](#) – **SAP BW/4HANA complete functional scope (CFS)**

More Information about **SAP BW/4HANA**

SAP BW/4HANA Landing Page

<http://sap.com/bw4hana>

SAP BW/4HANA Community / Product Page

<http://sap.com/bw4hana10>

SAP BW/4HANA Documentation

<http://help.sap.com/bw4hana10>

SAP BW/4HANA [FAQ](#) / SAP BW/4HANA [Roadmap](#)

Analytics Solutions from SAP (for SAP BW/4HANA Customers) [Roadmap](#)

SAP BW/4HANA [Blogs](#) / Community [Blogs](#)

SAP BW/4HANA [Events](#)

SAP BW/4HANA on [Twitter](#)

SAP BW/4HANA and SAP HANA Data Warehousing [YouTube Channel](#)

[SAP Training and Certification](#) for SAP BW/4HANA

[SAP Best Practices](#) for In-place System Conversion to SAP BW/4HANA