



BW 74 Powered by SAP HANA : Use it to your Advantage

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Speaker Introduction



Pravin Gupta, TekLink International Inc.

- Director Business Analytics
- HANA CoE Lead
- Education/Training
- Over 16 years extensive experience in implementing SAP solutions including BW, BPC, SPM, APO and Analytics



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Agenda

- Why is the combination of BW 7.4 and HANA so fascinating
- Overview of new technical capability
- Converting new features into your advantages
- Further resources



BW 7.4 and HANA: A Power Couple

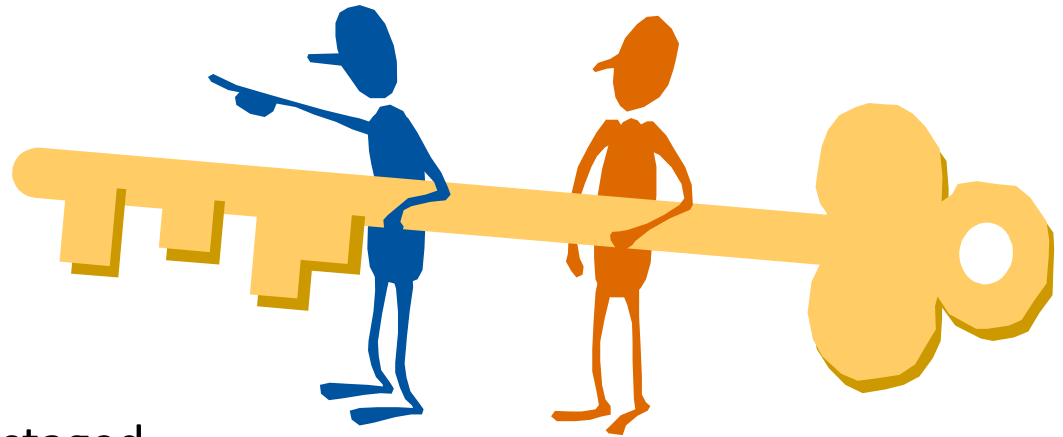
Let's look at greatest drivers for enterprise synergy resulting from the combination:

Speed (from HANA)

Without having to design a classic star schema

Simplification (from HANA)

Eliminates the necessity for multi-staged persisted data processing



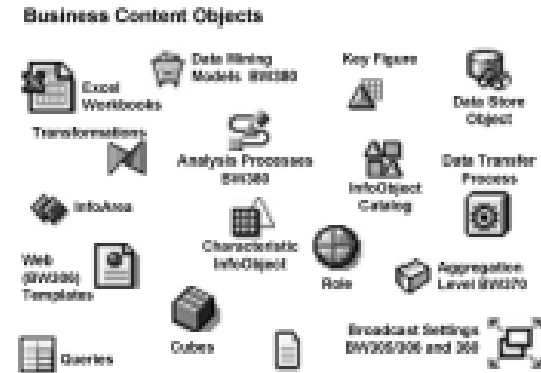
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BW 7.4 and HANA: A Power Couple

Available Content (from BW) — over the years the business content for BW has grown significantly — this can be used instantly by HANA

Governance (from BW) — BW has a strong foundation in terms of data and structure relationships. This can be used as an advantage in the HANA environment too.



Overview of New Technical Capability

- New Data Modeling Experience
 - LSA++ Architecture
 - BW/HANA Smart Data Access
 - Open ODS layer
 - Composite Providers
 - Modeling environment: Eclipse
- Processing logic executed in HANA
 - HANA Analysis Process
 - BW Analytic Manager
 - Unified Planning

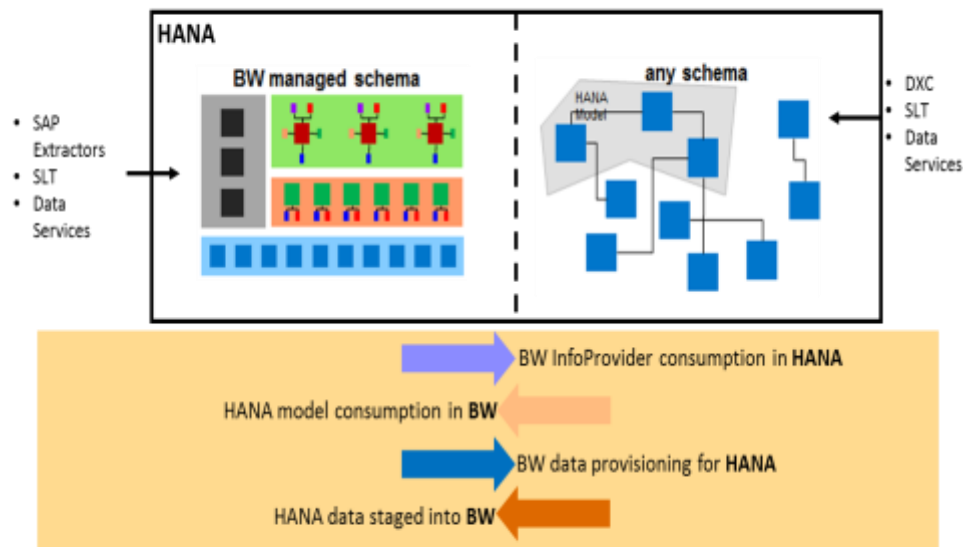


New Modeling Experience :Mix Scenario

Automatic generation of HANA models

- Push: Triggered from BW InfoProvider
- Direct consumption of BW data via generated HANA views
- Use generated view in HANA Studio to build own data
- Models using BW data and HANA native algorithms

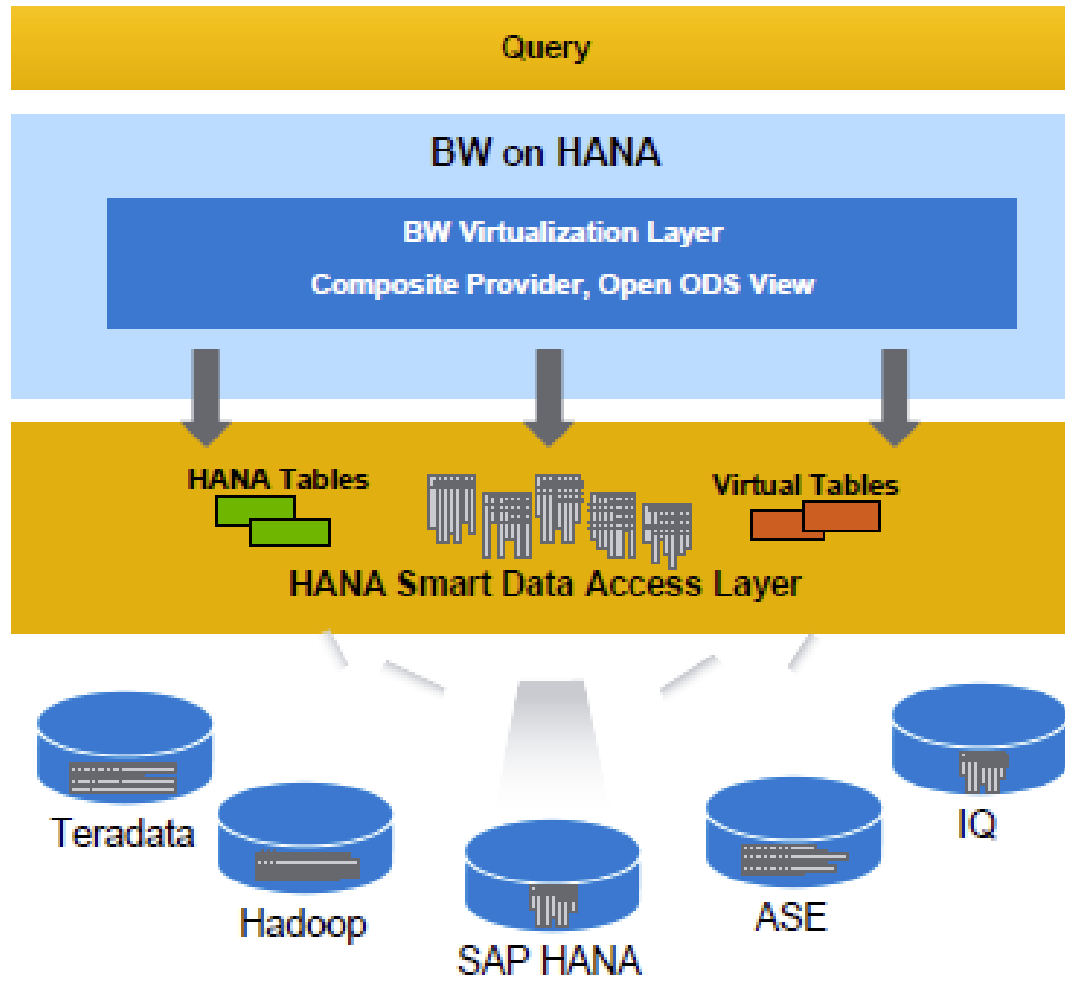
Combining the strengths of both worlds



[Note 1764251 - Documentation- Importing BW Models in SAP HANA Modeler](#)



Smart Data Access: Logical EDW



Data location agnostic development by making other DWH transparent to HANA



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Data Federation in diverse EDW landscapes

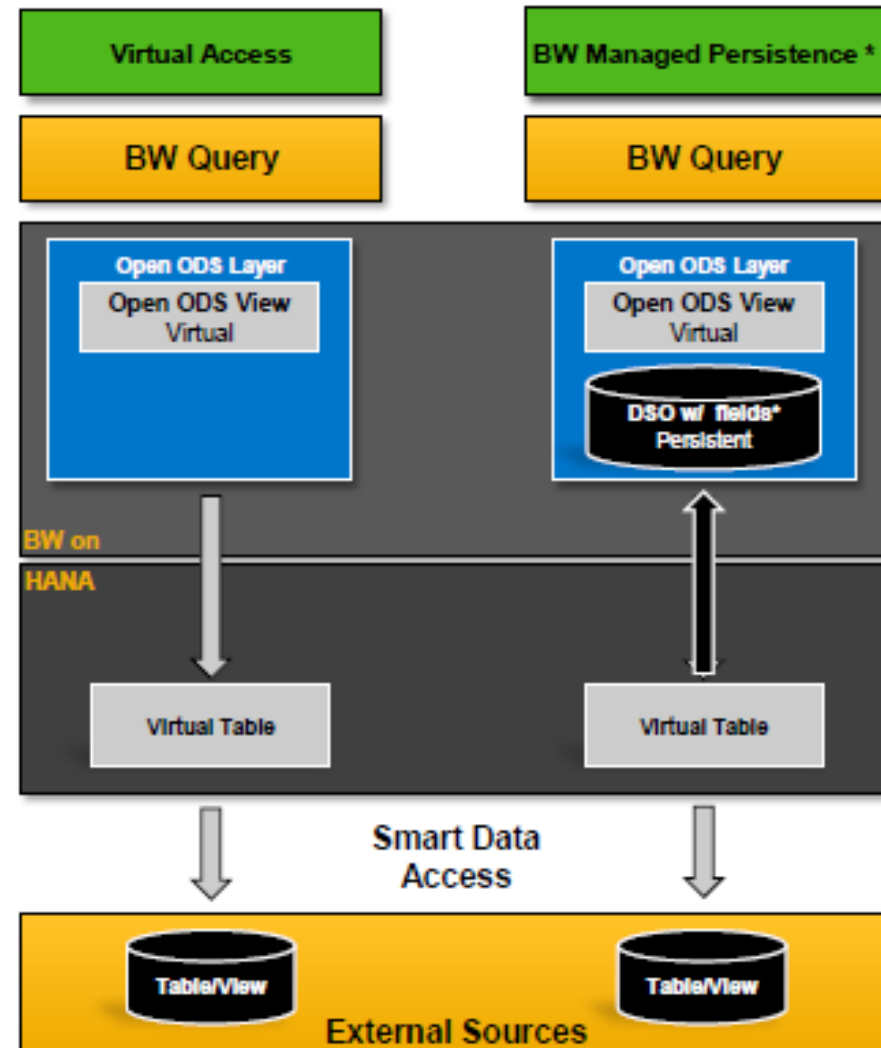
- Read access to relational and non-relational sources via ODBC
- Enables access to remote data access just like “local” table
- No special syntax to access heterogeneous data sources
- Evolve from virtual table to persistent structure by establishing ETL without major effort
- Consumption of HANA datamart scenarios from second HANA database



Flexible Consumption of External Data Models

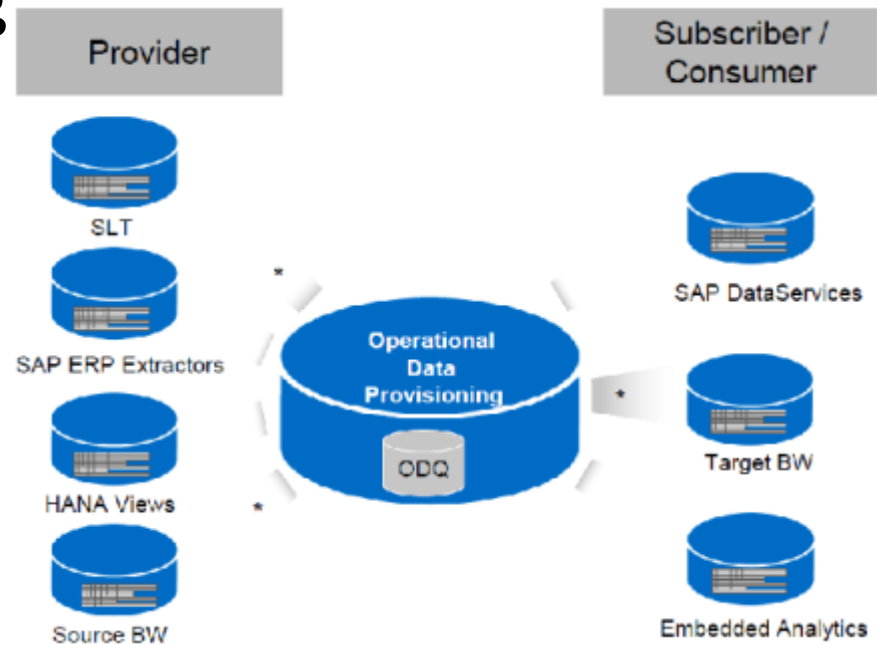
Open ODS View

- Metadata object as an abstraction layer for underlying source object
- HANA virtual tables as supported source objects via SDA
- Querying on field level
- Supported for Teradata, Sybase ASE/IQ, Hadoop
- Optimized Query execution by pushing down to HANA
- Virtual and Persistent Access



Operational Data Provisioning

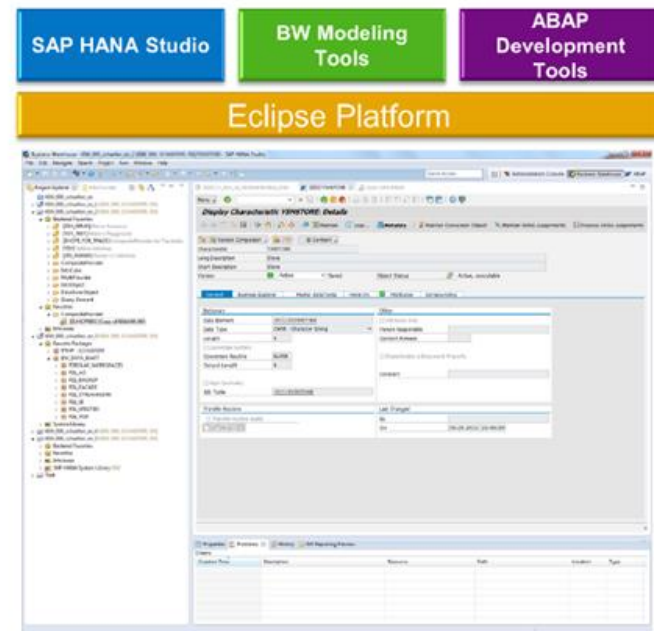
- ODP acts as a central source for accessing all data flowing into BW
- Supports unified config and monitoring service for all sources and targets
- Direct loading of HANA views via DTP into BW
- PSA Optional



Common Modeling Tools

An Eclipse based tool will offer a common user experience via a central, unified modelling environment. All of SAPs new design workbenches like HANA Studio, IDT, Design Studio etc. Eclipse enable and integrated development & modelling environment across SAP HANA Modelling, BW Modelling and ABAP development

- Common User Experience across tools
- Flexible and simplified modeling environment
- Integration of BW and HANA models and AAP development in one modeling approach



Source : SAP



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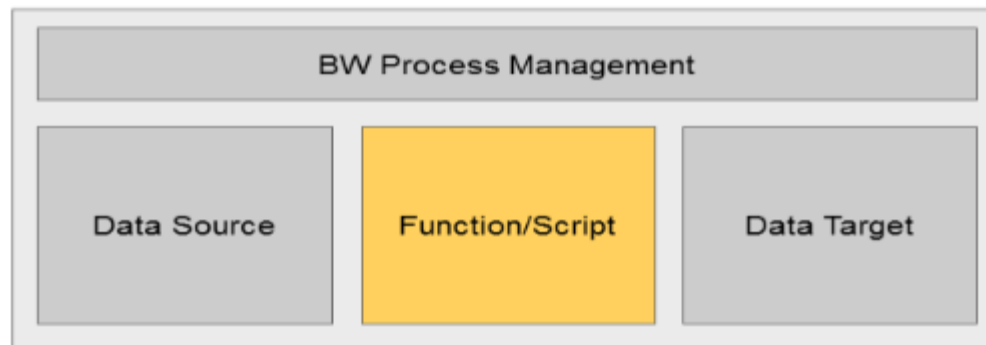
#RunSimple, #BeSmart, #GetEfficient

- Superb query performance
- Performance boost for Data Load processes
- In-memory planning capabilities for faster planning
- Combine BW and HANA native data
- Reduced administration of BW due to reduction in persistent data layers
- Simplified modeling
- Data intensive functions are pushed down from BW to HANA....*Speed*



What is HAP ?

- Using SAP HANA analysis process, functions of the SAP HANA database and functions in the BW systems can be combined
- Always made up of exactly one data source, a function for data analysis and data target



- SAP recommends to use SAP HANA analysis process instead of Analysis process designer (APD) to take advantage of improved performance



Analysis Process Designer: The Evolution

BW 3.x	BW 7.01	BW on HANA
5 Datasources	5 DataSources	6 DataSources
14 Transformations	16 Transformations	16 Transformations
8 Data Targets	9 Data Targets	10 Data Targets

The image displays three sequential screenshots of the SAP Analysis Process Designer interface, illustrating the evolution from BW 3.5 to BW on HANA. Each screenshot shows the 'Data Sources', 'Transformations', and 'Data Targets' panels. The 'Data Sources' panel shows the addition of a 'Read Analysis Authorization' icon. The 'Transformations' panel shows the addition of a 'Union' transformation. The 'Data Targets' panel shows the addition of a 'Data Target' icon.

Annotations in the screenshots include:

- Read Analysis Authorization:** A purple arrow points to a new icon in the 'Data Sources' panel of the BW on HANA screenshot.
- Unify data from Two Data Sources (Union):** A purple arrow points to a new icon in the 'Transformations' panel of the BW on HANA screenshot.



APD vs HAP

Analysis Process Designer(APD's) and Hana Analysis processes (HAP's) are not same ...

APD	HAP
Independent tcode (RSANWB)	Part of Modeling tab
Multiple Data Sources can be used	Only one Data source can be used in HAP
	Based on HANA Models



Current HAP Limitations

- Infoproviders having column views on HANA database are supported. (Others still need to continue using APD's, Eg: infosets cannot be used in SAP HAP)
- Only infoobjects that have standard master data access are supported.
- There are no direct Unions or Joins with SAP HAP
- Data Mining Methods and Models that you can use in an APD are not available in the SAP HAP. (Native functions in SAP HANA can be used instead)
- All infoproviders (that can be a datasource), cannot be used directly. Infoprovider connecting to the DTP, can only be used



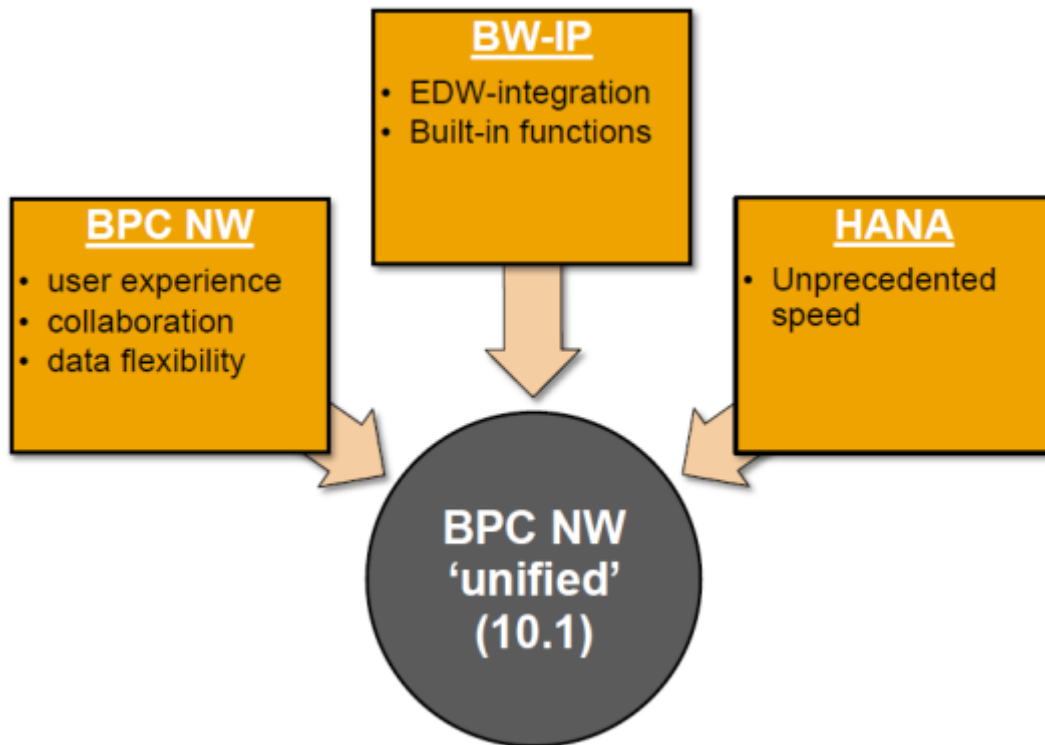
Business Planning and Unification

- Business planning in BW7.4 SP5 goes to another level of performance by pushing down further planning capabilities to HANA.
- Moving forward there will also be the possibility to combine the best of three SAP planning technologies (HANA, BPC, BW-IP) into a unique planning solution . It will combines the successful EPM Excel add-in, flexible BPC admin-UI and powerful BW-IP / PAK planning manager all within a super-fast HANA planning engine.



BPC 10.1 Unified Model :BW74 with HANA

- What is a BPC 10.1 Unified Model?
 - The BPC 10.1 Unified Model combines most beneficial features of BPC, BW-IP, PAK and HANA.



BPC 10.1 Unified Model
• BW Data Model
• Bex Planning Functionality
• Fox Formula Calculation
• PAK HANA based Functions
• EPM Add-In
• HTML 5 Admin Client
• HTML 5 Web Based Planning
• BPF
• Audit
• Work Status



Benefits – Leveraging BW-IP and PAK I

- The BPC 10.1 Unified Model combines most beneficial features of BPC, BW-IP, PAK and HANA.
 - BPC
 - Leverages User-Friendly EPM Add-in
 - Business Process Flows
 - Work Status
 - Audit
- Tight integration with BW Data Model
 - Multiple Key Figures
 - Can leverage existing BW Data Model (Existing Cubes, Multi-providers, Info-Objects, etc.)
 - Navigational Attributes



Benefits – Leveraging BW-IP and PAK II

- Leverages Bex BW-IP Functionality
 - BPC Top Down Planning
 - Cell Locking
 - Calculated Key Figures and Inverse Formulas
 - DSO Planning (Non-Cumulative Key Figure Planning)
 - Option to leverage BW Matrix Security
- PAK model HANA Based Planning functions



Further Resources

Useful Links

- <http://www.sdn.sap.com/irj/scn/go/portal/prtroot/docs/library/uuid/709c0127-5f1c-3110-9c9e-ddab845e800f?QuickLink=index&overridelayout=true&59407987753029>
- <http://www.saphana.com/community/blogs/blog/2014/03/25/3-major-reasons-to-migrate-to-bw-74-on-hana>
- <http://www.saphana.com/docs/DOC-3492>
- <http://www.saphana.com/community/blogs/blog/2013/12/30/bw-74-on-hana-in-a-nutshell>
- <https://scn.sap.com/docs/DOC-51166>



HANA sessions presented today...

- **Real-Time Operational Reporting Using SAP HANA Live**
- **BW 74 Powered by SAP HANA: Use It to Your Advantage**
- **SAP Big Data Platform Strategy: Combine HANA & Data Warehouse Functions (Mixed Scenarios)**
- **BW on SAP HANA Platform Optimization using SAP IQ & NLS**
- **Implementing Supply Chain Operations Metrics with SAP Dashboards and BW on HANA**



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