

Week 1 Unit 2: ABAP Meets SAP HANA: Evolution and Architecture



ABAP Meets SAP HANA: Evolution and Architecture - Outline



Additional
Material

Content

- SAP HANA Ambitions
- Hardware & Software Innovations
- Evolution of ABAP and SAP HANA
- ABAP for SAP HANA Architecture
- Highlights of SAP NetWeaver Application Server ABAP 7.4



ABAP Meets SAP HANA: Evolution and Architecture

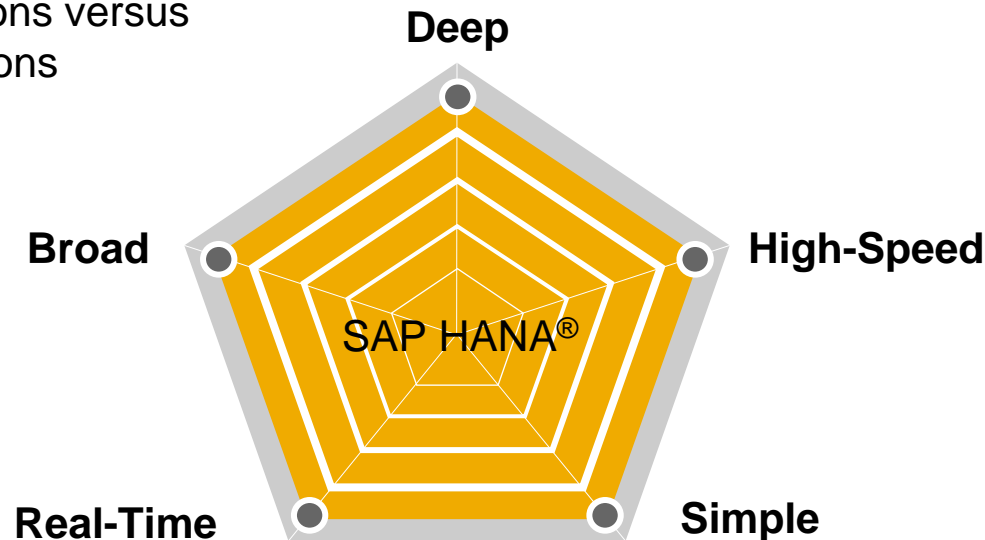
SAP HANA Ambitions

Pre-SAP HANA technology requires trade-off decisions, for example:

- High-speed versus simple
- Real-time versus deep
- OLTP-like applications versus OLAP-like applications

SAP HANA ambition: Deliver across all five dimensions:

- Allow combining OLTP and OLAP patterns within one application

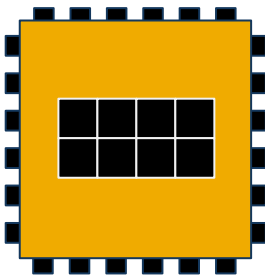


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Hardware Technology Innovations

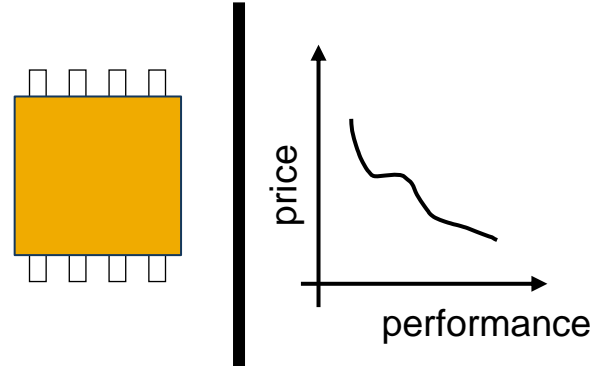
Multicore Architecture

- 8 CPUs x (8-16) cores per blade
- Parallel scaling with many blades



Address Space

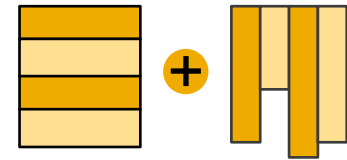
- 64-bit address space (4TB in current server boards)
- Dramatic decline in price



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SAP Software Technology Innovations

Row and Column Store



Data Compression

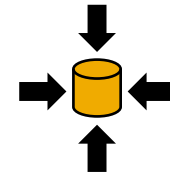
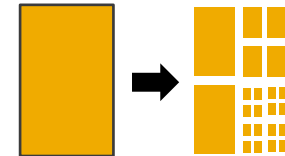
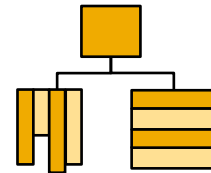


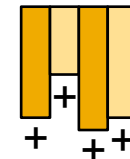
Table Partitioning



Avoidance of Aggregate Tables



Insert Only on Delta



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SAP HANA Goals

Compatibility and standard DBMS features

Hybrid data management system

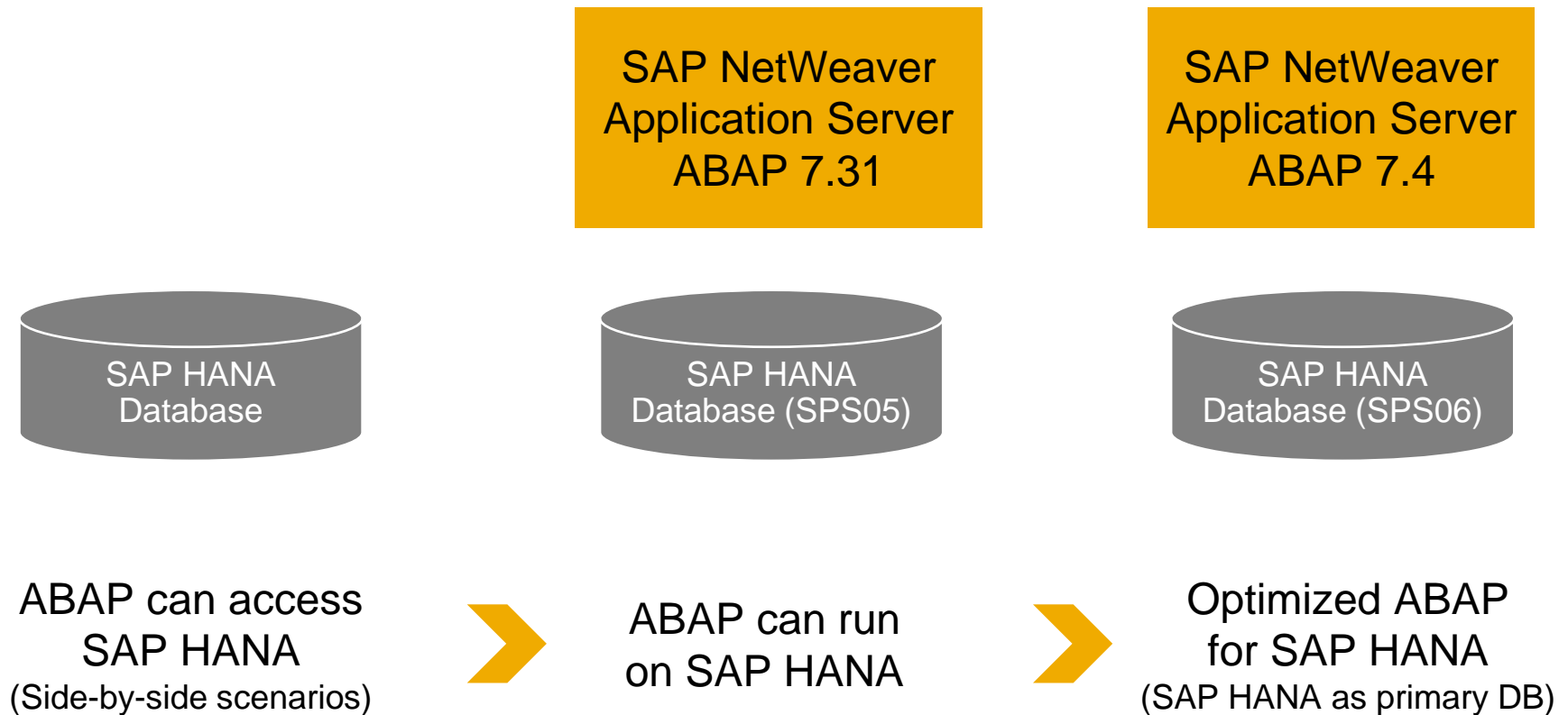
Enable new applications and optimize existing applications

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Evolution of ABAP for SAP HANA



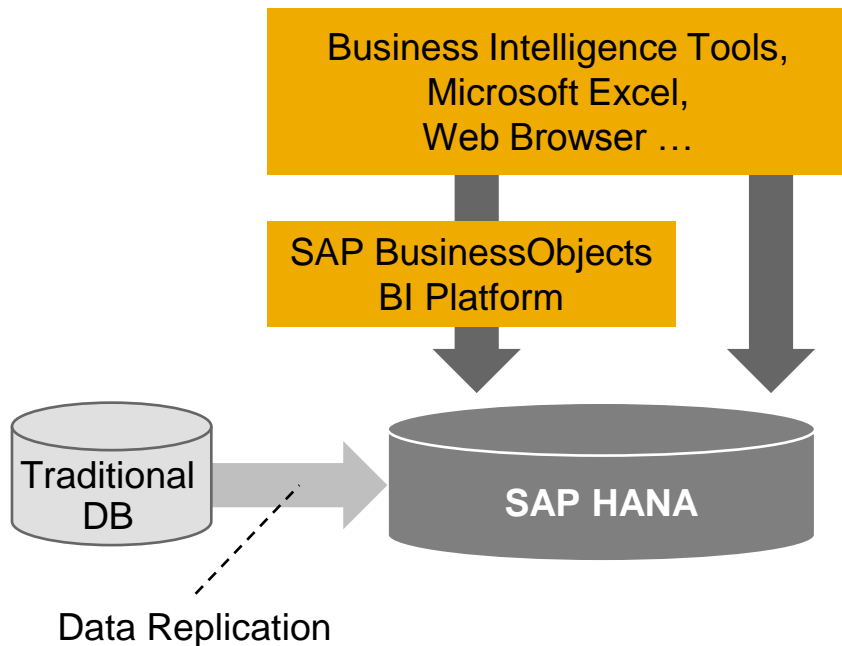
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Possible Types of SAP HANA-Based Applications

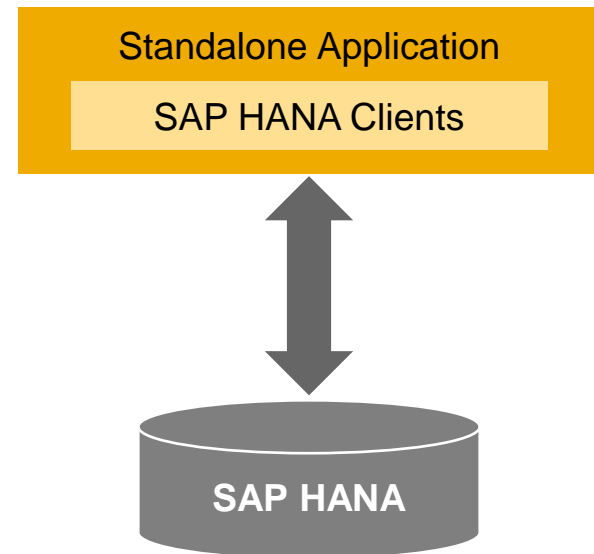


Additional
Material

Data marts based on SAP HANA



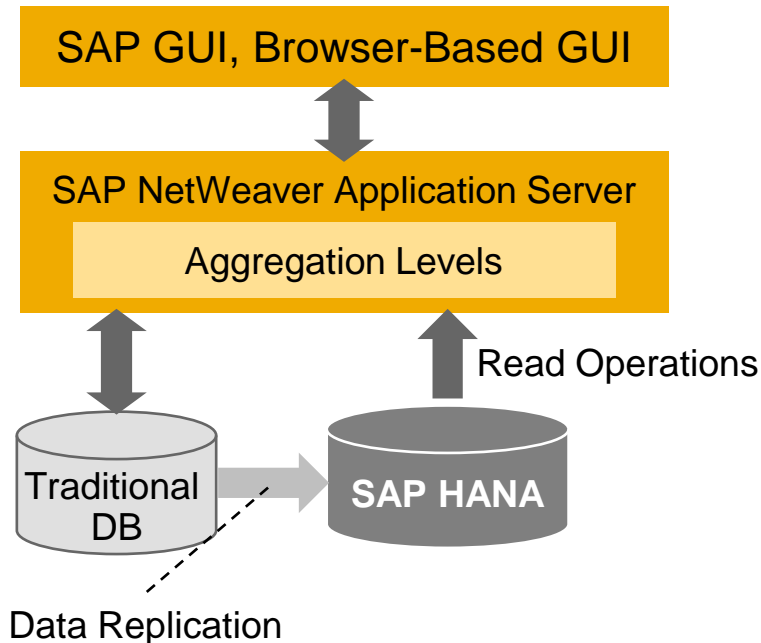
Native SAP HANA applications



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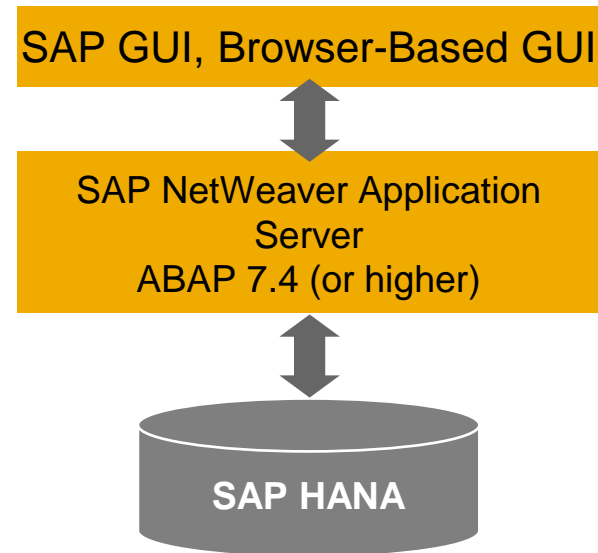
Possible Types of SAP HANA-Based Applications

Application Accelerators



Redirect data-intensive
calculations to SAP HANA

Optimized ABAP Applications



Focus of this course

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SAP NetWeaver Application Server ABAP 7.4

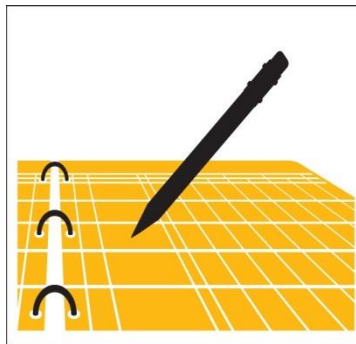
Go-to release for ABAP development for SAP HANA

Foundation of

- SAP Business Suite 7 i2013
- SAP Business Warehouse powered by SAP HANA



SAP BW



SAP Business Suite



New applications

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Highlights of SAP NetWeaver Application Server ABAP 7.4 – Overview

ABAP development guidelines

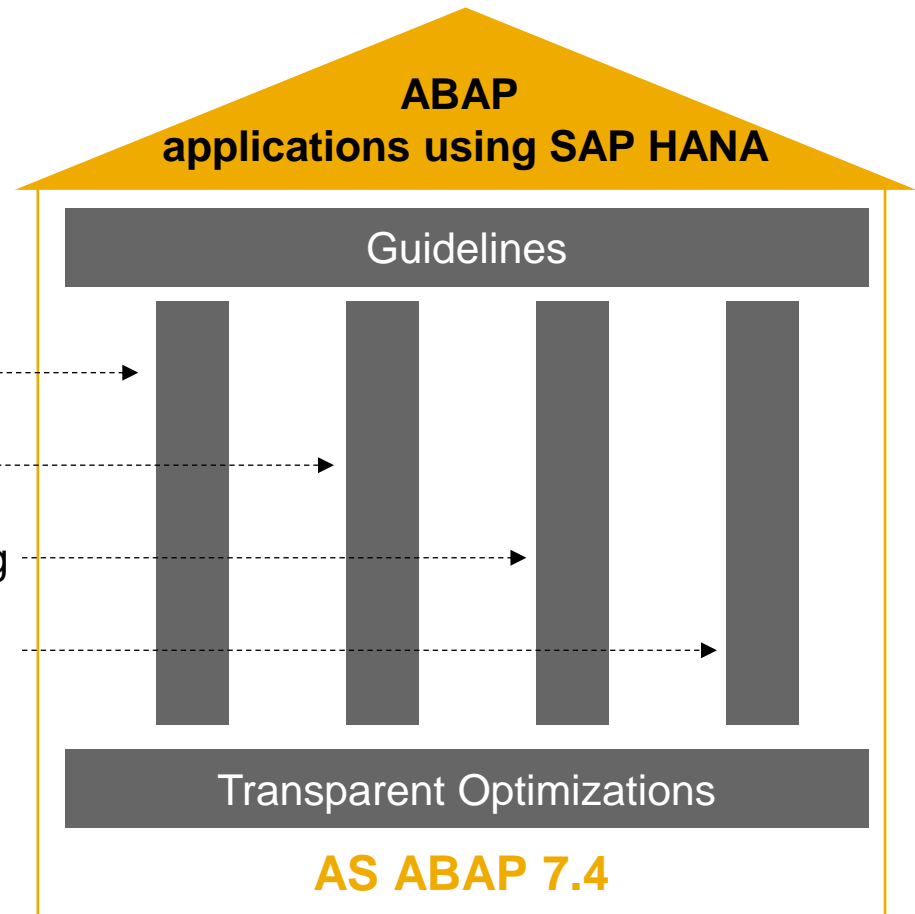
Improved tools for performance analysis

Extensions to ABAP and OpenSQL

Features for SAP HANA-oriented programming

Re-use components optimized for SAP HANA

Transparent optimizations

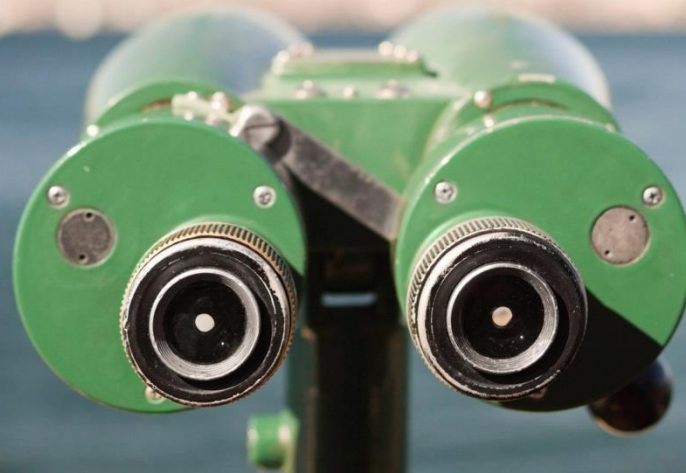


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What's Next?

Week 1 Unit 3

ABAP Meets SAP HANA: What You Need to Know





Thank you

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