

SAP BW/4HANA

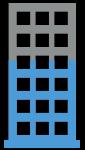
August, 2016



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GAME CHANGING TRENDS TRANSFORMING YOUR ORGANIZATION



64%

of Fast Growing
Companies are Agile¹

BUSINESS AGILITY

New ideas allow you to respond to changing business climate quickly—you need data delivered in a way to make better decisions sooner



Save
20%
or more!



\$4 to
\$11T
In new business

CLOUD

The cost savings and flexibility of cloud deployments are becoming an essential component of organizations' data warehousing strategy

NEW OPPORTUNITIES

Big Data, new data types and sources (e.g. social media, Data Lakes), and Internet of Things

¹ "Evolve Your Business Intelligence To Systems Of Insight," Forrester White Paper, 2015 | ²: <https://www.quora.com/How-much-money-can-be-saved-with-a-cloud-computing-infrastructure>

³ <http://www.mckinsey.com/business-functions/business-technology/our-insights/the-internet-of-things/the-value-of-digitizing-the-physical-world>

EXPERT INSIGHTS

“

Next Generation DW is Essential

“Digitization of everything and the increase in the number of data producers are driving greater demand in data capture, management, and analysis software.”

“Data warehouses will not disappear as they have a key place in an organization's data architecture.”

IDC¹

“

More Data and Greater Expectations are Driving IT

“Organizations now require data management solutions for analytics that are capable of managing and processing internal and external data of diverse types in diverse formats, in combination with data from traditional internal sources. Data may even include interaction and observational data — from Internet of Things sensors, for example. This requirement is placing new demands on software in this market as customers are looking for features and functions that represent a significant augmentation of existing enterprise data warehouse strategies.

Gartner²

¹ Worldwide Business Analytics Software Forecast, 2016–2019 by Dan Vesset et al, IDC, July 2016. Doc # 257402

² Gartner Magic Quadrant for Data Warehouse and Data Management Solutions for Analytics, February 2016. <http://www.gartner.com/doc/reprints?id=1-2ZFVZ5B&ct=160225&st=sb>

THE NEXT GENERATION DATA WAREHOUSING ANNOUNCING SAP BW/4HANA

SAP BW/4HANA...

- A new data warehousing solution
- Highly optimized for SAP HANA like SAP S/4HANA
- Leverages SAP HANA differentiators (e.g. integration, ...)
- Integrates with new data sources and engines
- Creates the Logical Data Warehousing foundation

New in SAP BW/4HANA ...

- Accelerate open data warehousing development
- Advanced multi-temperature management option
- Modern Interface
- Built for cloud

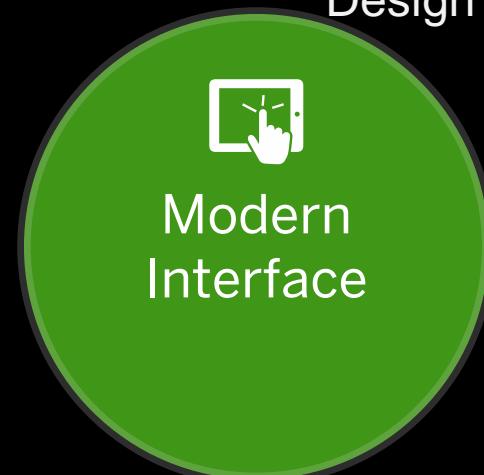


Simplicity



Openness

SAP BW/4HANA
Design Principles

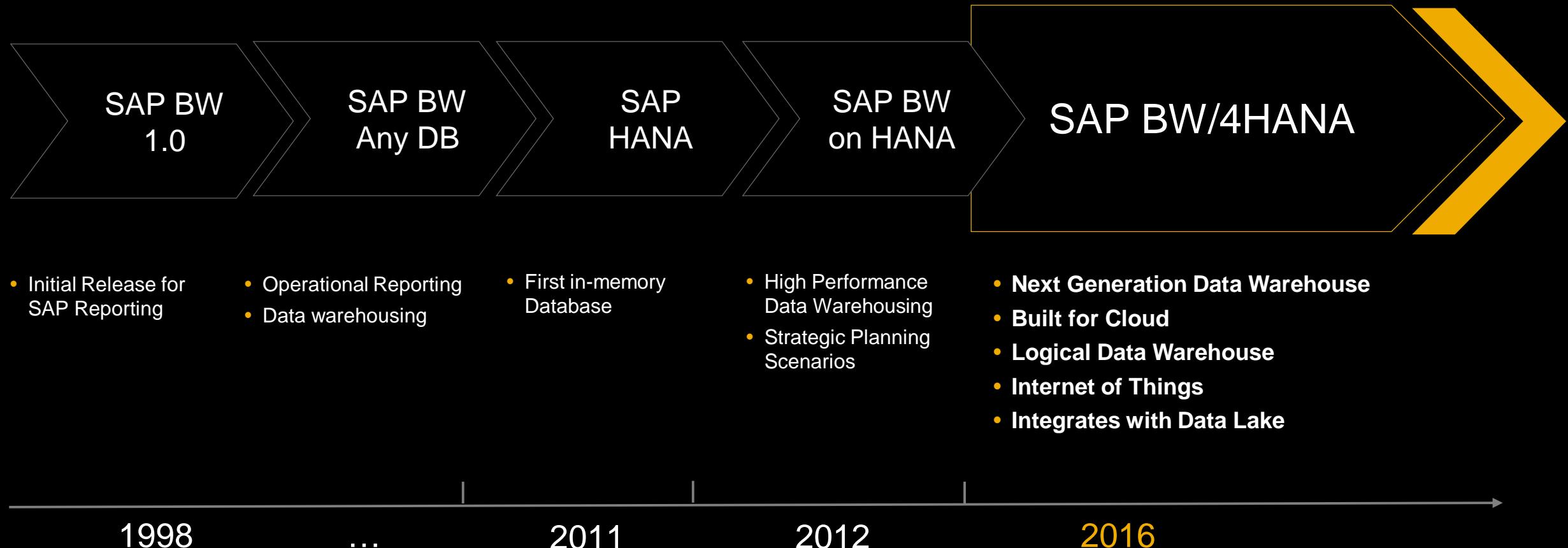


Modern
Interface



High
Performance

SAP DELIVERS THE NEXT GENERATION DATA WAREHOUSE



SAP BW/4HANA DESIGN PRINCIPLES



Simplicity

Get up and running sooner
and keep running at lower
cost

Reduce development efforts



Openness

Manage all kinds of data
whether in SAP applications
or SQL systems

Access all models through an
open SQL interface



Modern Interface

Simplify access for everyone,
not just database experts

New UI for all users



High Performance

Leverage huge amounts of
data in real time for
competitive advantage

10-100x faster query
performance

SAP BW/4HANA ENABLES THE NEXT GENERATION DATA WAREHOUSE REQUIREMENTS

SAP S/4HANA

Operational Reporting

SAP BW/4HANA

Historical Analysis

SAP HANA PLATFORM

[Streaming Analytics | Advanced Analytics | Smart Data Integration]



Logical Data Warehouse

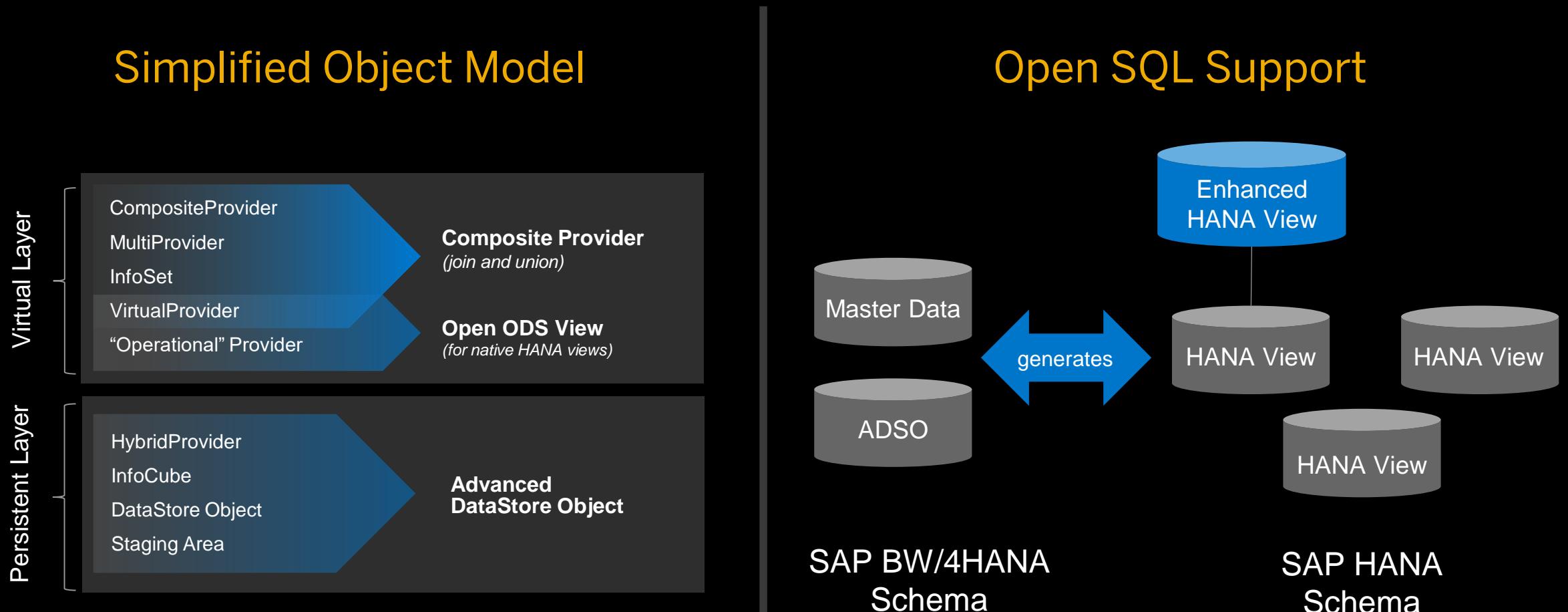


Internet of Things

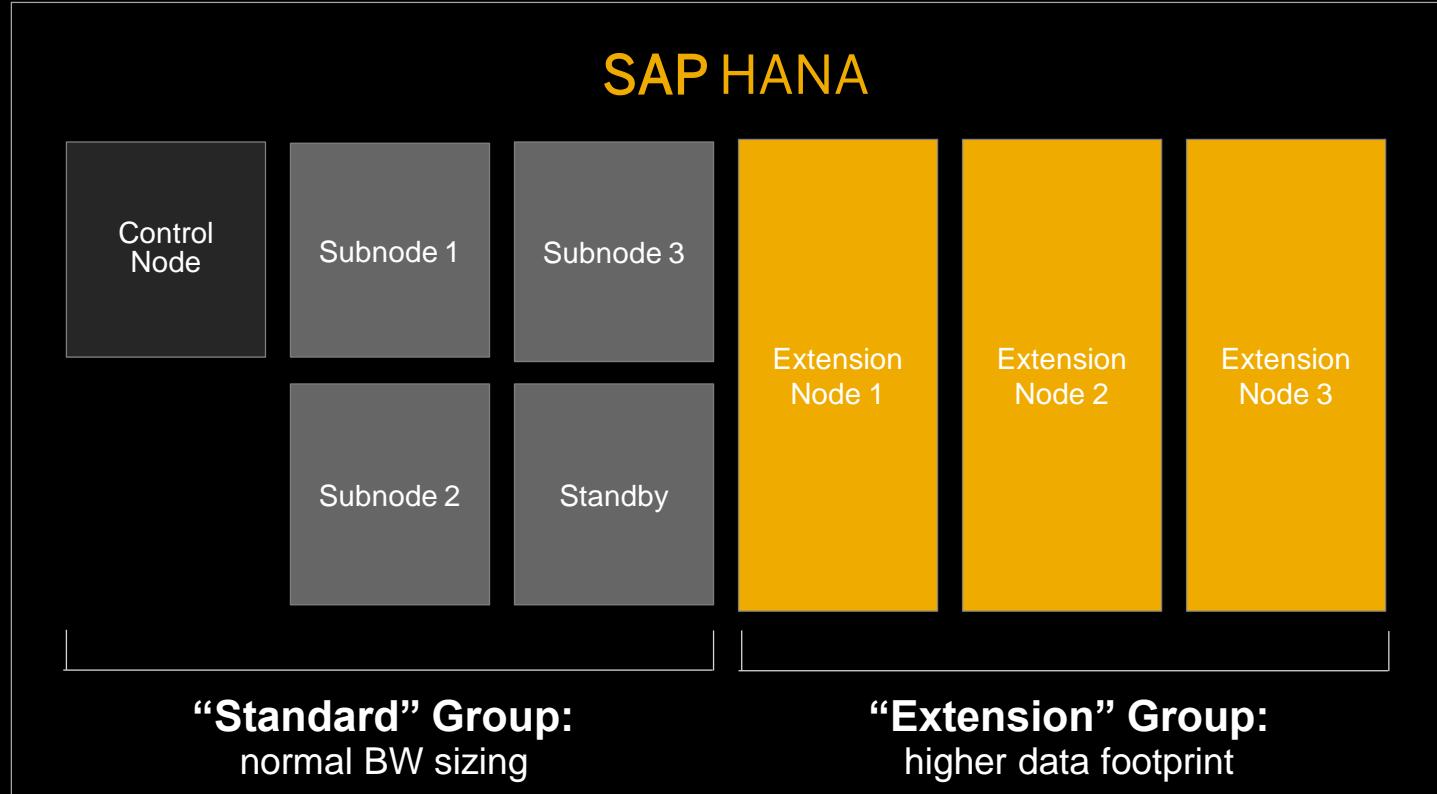


Data Lakes

NEW: ACCELERATE OPEN DATA WAREHOUSING DEVELOPMENT



NEW: ADVANCED MULTI-TEMPERATURE MANAGEMENT OPTION



**HOT Data location
in-memory**

WARM Data location*
in-memory

Enhanced Data Lifecycle Management for Warm Data

- Easy to set up and significantly reduced administration effort
- Support of all SAP HANA features for operations, updates and data management
- Dynamic data distribution
 - Distribute based on age
 - Distribute based on key values

* Only Available for SAP BW/4HANA currently

NEW: ADVANCED MULTI-TEMPERATURE MANAGEMENT OPTION

SAP HANA



Hot Data

- Modern in-memory platform
- Real-time transaction and analysis
- Native predictive, text, and spatial algorithms

SAP HANA
Dynamic Tiering



Warm Data

- New: in-memory dynamic tiering option
- Disk-based, dynamic tiering option using smart columns
- High performance and efficient compression
- Excels at queries on structured data, from terabyte to petabyte scale
- No data duplication

SAP IQ NLS
and ADK



Cold or Frozen Data

- Data persistence optimized in system landscape through relocation of infrequently accessed data to SAP IQ
- Less frequently accessed data archived in time partitions
- NLS data resides in a highly compressed state in cost-efficient storage with fewer backups to reduce operational costs

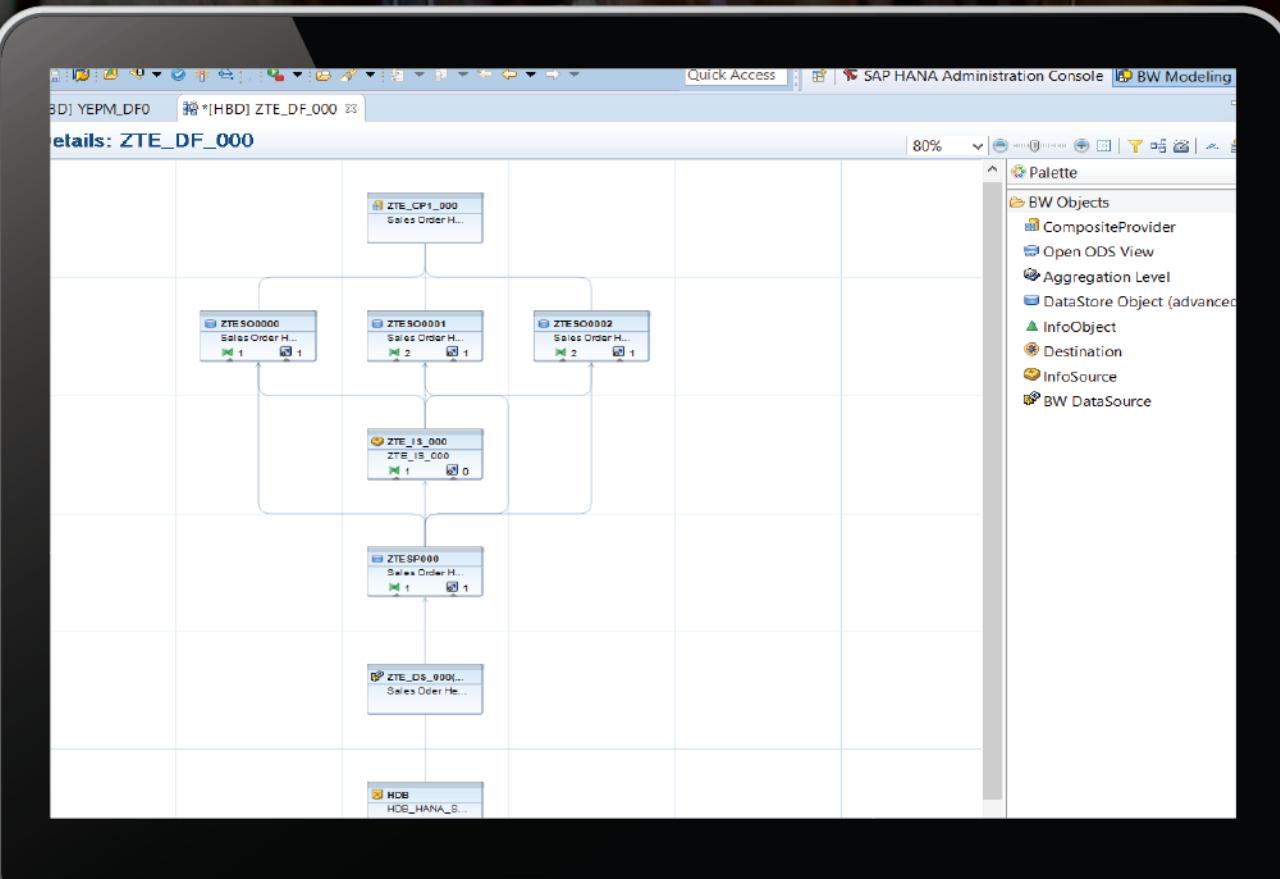
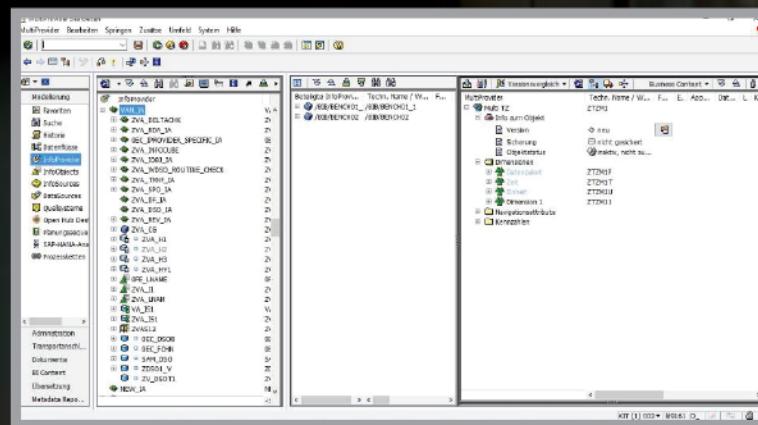
SAP HANA Vora
HADOOP



Candidate Data

- Acceleration with SAP HANA Vora
- SAP HANA smart data access capability for Hive- and Spark-type scenarios

NEW: MODERN INTERFACE – MODELING



NEW: MODERN INTERFACE – ADMINISTRATION

| Status Chain | | Name | Date | Time | Streaming | Monitoring | Runtime | Status | Runtime | Downtime |
|--------------|--|---------------------------|--|------------|-----------|------------|---------|--------|---------|----------|
| | | 01/BLOAD_R11 | Load Repairs Layer - Part 1 | 01.08.2015 | 11:36:25 | | | | | |
| | | /CPMB/ADMIN/TASK_VALIDATE | EPC: Admin Validate Task | | 01:00:00 | | | | | |
| | | /CPMB/ADMIN/LOCATION | EPC: Admin Location | | 01:00:00 | | | | | |
| | | /CPMB/APPEND | EPC: Append Transaction Data from Path File - Admin | | 01:00:00 | | | | | |
| | | /CPMB/ARCHIVE/ACTIVITY | EPC: Archive Activity | | 01:00:00 | | | | | |
| | | /CPMB/ARCHIVE/DATA | EPC: Archive Data | | 01:00:00 | | | | | |
| | | /CPMB/ARCHIVE/DIARY | EPC: Archive Diary | | 01:00:00 | | | | | |
| | | /CPMB/CLAR | EPC: Clear Transaction Data | | 01:00:00 | | | | | |
| | | /CPMB/COMMENTS | EPC: Clear Journal Tables | | 01:00:00 | | | | | |
| | | /CPMB/COMJOURNAL | EPC: Clear Journal Tables | | 01:00:00 | | | | | |
| | | /CPMB/COMPRESS | EPC: Compress Area | | 01:00:00 | | | | | |
| | | /CPMB/COPY | EPC: Copy Transaction Data | 01.08.2015 | 11:23:13 | | | | | |
| | | /CPMB/COPY/COMMENTS | EPC: Copy Comments | | 01:00:00 | | | | | |
| | | /CPMB/DEFAULT/FORMULAS | EPC: Default Formula Loss | | 01:00:00 | | | | | |
| | | /CPMB/DELTALIST | EPC: Delete Delta List | | 01:00:00 | | | | | |
| | | /CPMB/EXPORT/JOURNAL | EPC: Export Journal Tables | | 01:00:00 | | | | | |
| | | /CPMB/EXPORT/MO_TO_APPL | EPC: Export Master Data to Application Server | | 01:00:00 | | | | | |
| | | /CPMB/EXPORT/MO_TO_BAOI | EPC: Export Master Data to BAOI Retriever | | 01:00:00 | | | | | |
| | | /CPMB/EXPORT/MO_TO_FILE | EPC: Export Master Data to File Server | | 01:00:00 | | | | | |
| | | /CPMB/EXPORT/TD_TO_APPL | EPC: Export Transaction Data to Application Server | | 01:00:00 | | | | | |
| | | /CPMB/EXPORT/TD_TO_BAOI | EPC: Export Transaction Data to BAOI Retriever | | 01:00:00 | | | | | |
| | | /CPMB/EXPORT/TD_TO_FILE | EPC: Export Transaction Data to File Server | | 01:00:00 | | | | | |
| | | /CPMB/FULL/OPTIMIZE | EPC: Full Optimize | | 01:00:00 | | | | | |
| | | /CPMB/FPX/RESTAURATE | EPC: FPX Restoration | | 01:00:00 | | | | | |
| | | /CPMB/GEN/EMU/AUDIT/IFT | EPC: Generate Emu Pick-up Audit Result | | 01:00:00 | | | | | |
| | | /CPMB/IC/INITIALIZE | EPC: IC Initialize | | 01:00:00 | | | | | |
| | | /CPMB/IC/ELIMINATION | EPC: IC Elimination | | 01:00:00 | | | | | |
| | | /CPMB/IMPORT | EPC: Import Transaction Data from Path File - Overwrite | | 01:00:00 | | | | | |
| | | /CPMB/IMPORT/APPEND | EPC: Import Transaction Data from Path File - Append/Overwrite | | 01:00:00 | | | | | |
| | | /CPMB/IMPORT/A_SCHN_FMAIL | EPC: Import Tx Data from Path File - Overwrite / Send Email | | 01:00:00 | | | | | |

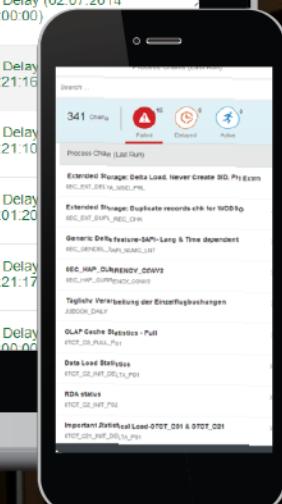


The smartphone screen displays the SAP Fiori modern administration interface. At the top, a summary bar shows 1 Chain, 13 Failed (red), 0 Delayed (orange), and 0 Active (green). Below this, a table lists process chains with their last run details:

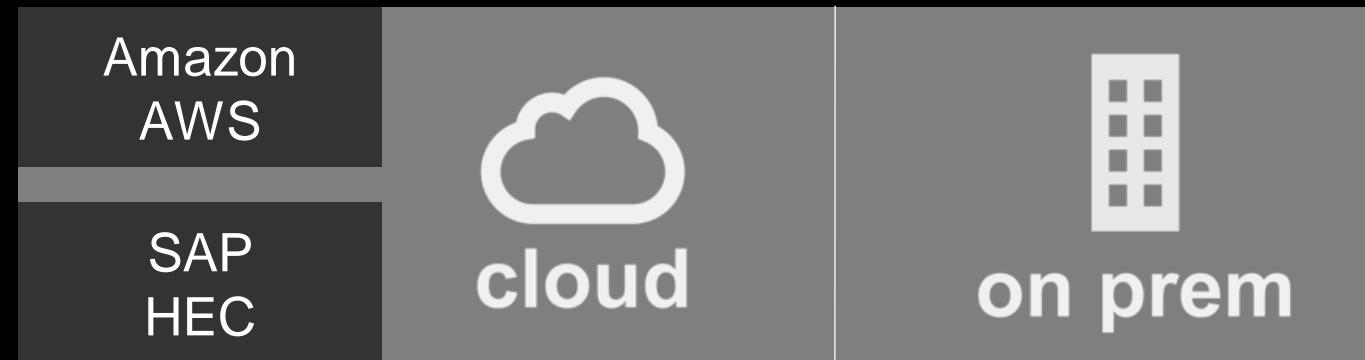
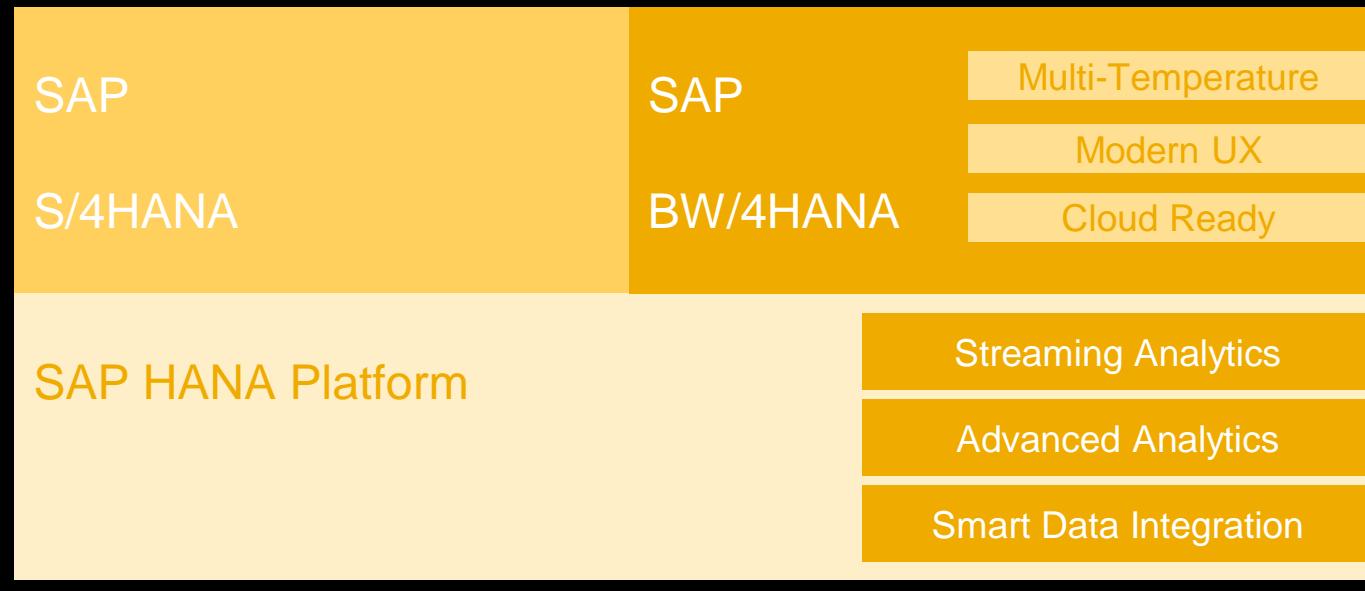
| Process Chain (Last Run) | Date | Runtime | Next Start |
|---|---------------------------|-----------------------|--------------------------------|
| Tägliche Verarbeitung der Einzelflugbuchungen OSBOOK_DAILY | Jun 30, 2014, 4:37:45 PM | Runtime OK (00:00:00) | No Delay (01.07.2014 16:36:52) |
| OLAP Cache Statistics - Full 0TCT_C0_FULL_P01 | Jul 1, 2014, 1:00:48 AM | Runtime OK (00:00:16) | No Delay (02.07.2014 01:00:00) |
| Data Load Statistics 0TCT_C2_INIT_DELTA_P01 | Jul 1, 2014, 1:00:48 AM | Runtime OK (00:00:00) | No Delay (02.07.2014 01:00:00) |
| RDA status 0TCT_C2_INIT_P02 | Jul 1, 2014, 1:21:28 PM | Runtime OK (00:00:00) | No Delay 14:21:16 |
| Important Statistical Load-0TCT_C01 & 0TCT_C21 0TCT_C21_INIT_DELTA_P01 | Jun 30, 2014, 3:21:22 PM | Runtime OK (00:05:21) | No Delay 15:21:10 |
| Database Volume Statistics 0TCT_C25_FULL_P01 | Jun 27, 2014, 11:01:32 PM | Runtime OK (00:27:05) | No Delay 23.01.20 |
| SAP Netweaver BI Accelerator Statistics 0TCT_C3_INIT_DELTA_P01 | Jun 30, 2014, 3:21:22 PM | Runtime OK (00:00:15) | No Delay 15:21:17 |
| Statistics for Selections 0TCT_C4_INIT_P01 | Jun 30, 2014, 3:00:46 PM | Runtime OK (00:08:34) | No Delay 15:00:00 |

Below the table, several error messages are listed:

- External Storage: Data Load, Never Create ID, Prt Ext Err, RECENT_JUNK_HAVING_PRNT, REC_EXC_IDP_PRNT_NECK_DISK
- External Storage: Duplicate records exist for WOB ID, REC_EXC_IDP_PRNT_NECK_DISK
- Generic Delta Feature-SAP Long & Time dependent, REC_GDF_DELTA_WAIT_NECK_LIST
- REC_HPR_DIFFERENCE, REC_HPR_DIFFERENCE, REC_HPR_DIFFERENCE
- Tägliche Verarbeitung der Einzelflugbuchungen
OSBOOK_DAILY
- OLAP Cache Statistics - Full
0TCT_C0_FULL_P01
- Data Load Statistics
0TCT_C2_INIT_P01
- Important Statistical Load-0TCT_C01 & 0TCT_C21
0TCT_C21_INIT_DELTA_P01
- Import Delta Real Load-0TCT_C01 & 0TCT_C21
0TCT_C21_INIT_DELTA_P01



NEW: BUILT FOR CLOUD – FLEXIBLE DEPLOYMENT



SAP BW/4HANA VALUES



Business Agility

The flexibility to compete in real time



Cloud Ready

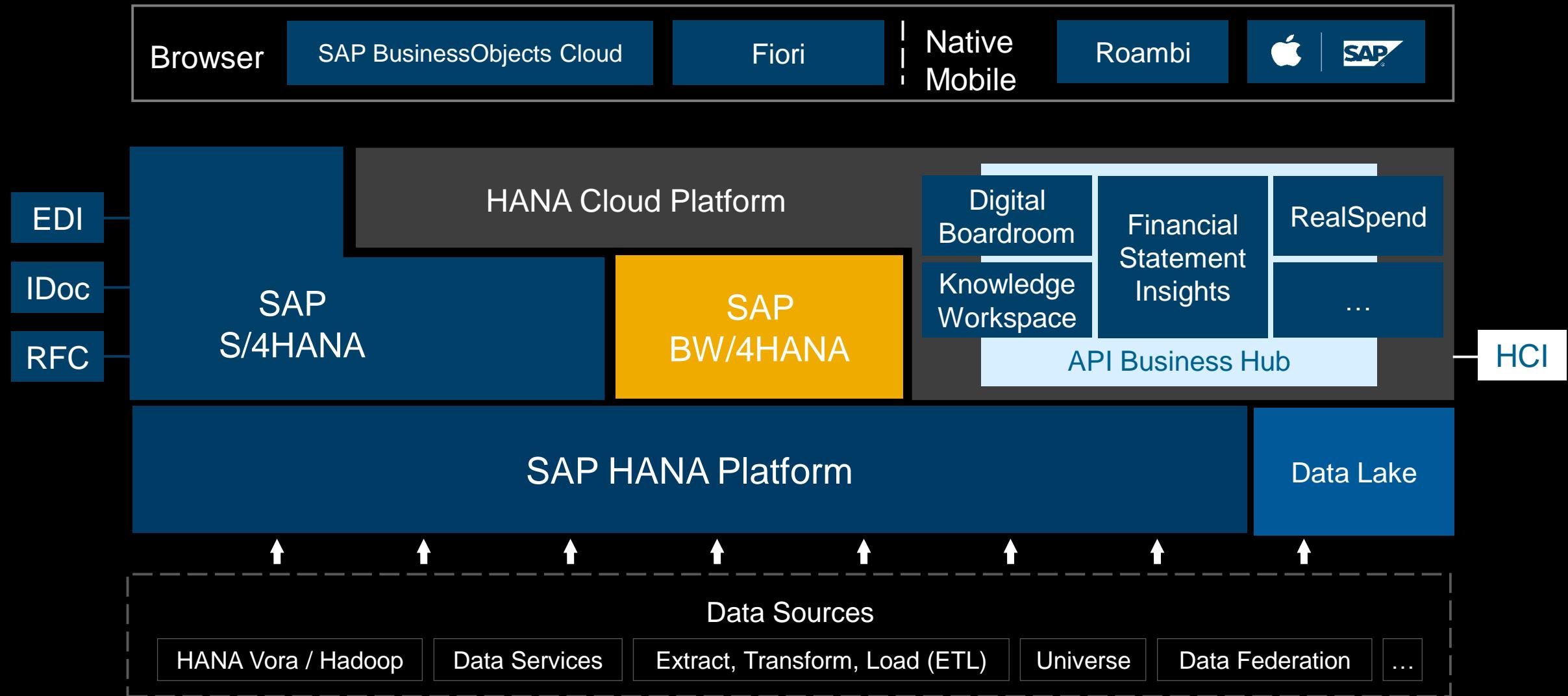
Prototype new ideas on a Cloud that grows with your business



Foundation for the Next Generation Data Warehouse

High performance, future-proof platform for all new challenges

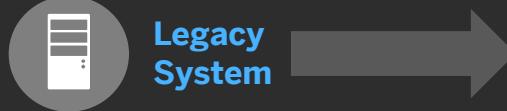
SAP BW/4HANA: THE NEXT GENERATION DATA WAREHOUSE



TRANSITION TO SAP BW/4HANA

New Customer

New customer to SAP or ready for a fresh start, migrate data from your legacy system to a new installation of SAP BW/4HANA with our integrated data management and quality tools.



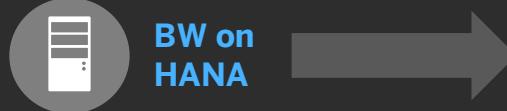
SAP BW on AnyDB

Upgrade your BW-on-AnyDB to BW-on-HANA then migrate to SAP BW/4HANA object set and convert to SAP BW/4HANA.



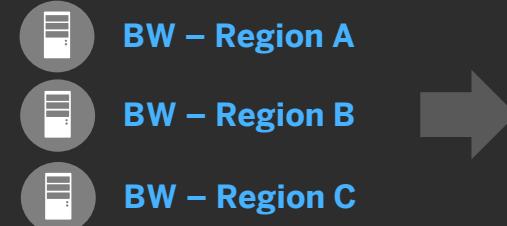
SAP BW on SAP HANA

Migrate to SAP BW/4HANA object set then convert to SAP BW/4HANA.



Landscape Simplification

Simplify your system landscape to carve out selected processes/functions, moving gradually to SAP BW/4HANA innovations. Improve M&A activities by consolidating rapidly, delivering predictive capabilities.



**SAP BW/4HANA
On-Premise
Or Cloud**

FAIRFAX MEDIA

PROVIDING AN AGILE INFORMATION PLATFORM WITH SAP® BW/4HANA®



Company

Fairfax Media Pty. Ltd.

Headquarters

Sydney, Australia

Industry

Media & Entertainment

Products and Services

Digital Media

Newspapers

Radio

Events

Video

Employees

5,515 (2016)

Revenue

AUD 1,837 (2016)

Web Site

www.fairfaxmedia.com.au

Partners

Internal Team

Business challenges

- Access accurate information in a timely manner
- Large amount of time spent downloading and manipulating spreadsheets
- Multiple ERP Systems with different chart



3 months

From nothing to productive system

<1 hour

Upgrade from 244gb to 2tb system using AWS



50%

Reduction in end to end development time



10x

Average report execution time improvement

"The use of SAP BW edition for SAP HANA has enabled us to deliver a new analytic platform to our constantly changing business in 3 months with minimal upfront investment and using an extremely flexible environment using AWS."

Diego Lombardini, Head of Finance Systems, Fairfax Media Pty. Ltd.



GET STARTED WITH SAP BW/4HANA TODAY

1

Visit the Website
sap.com/bw4hana

2

Take the Trial
sap.com/bw4hana

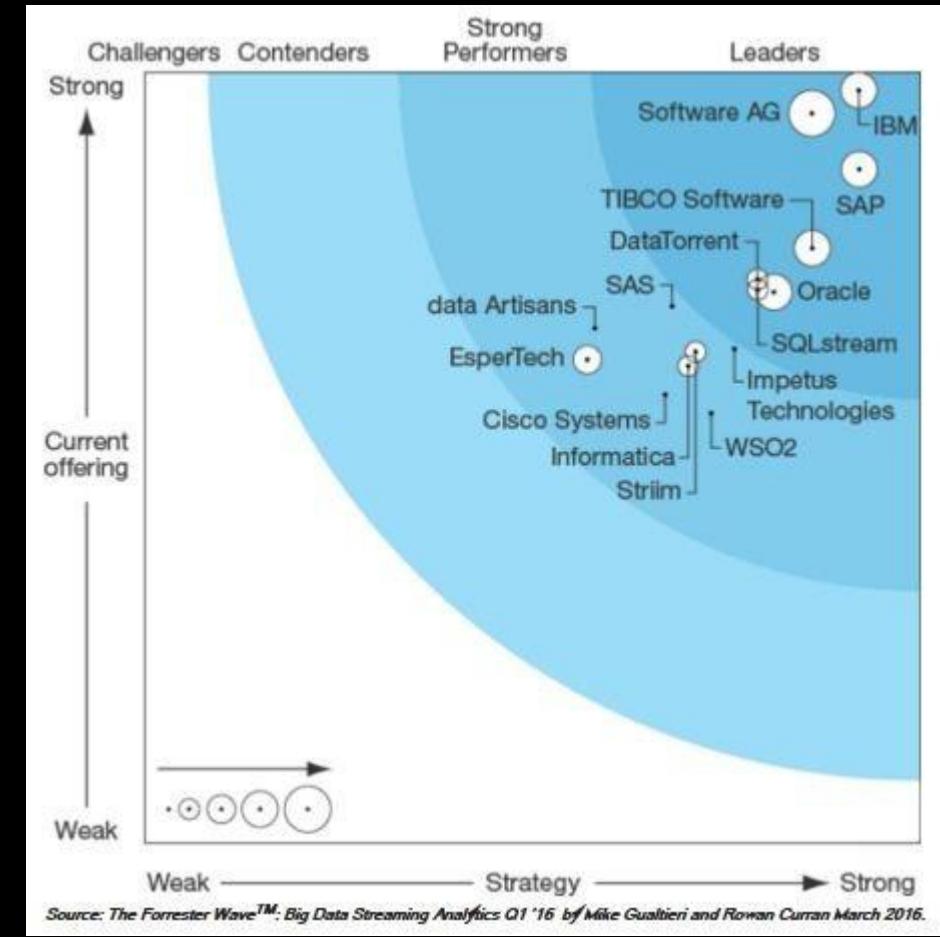
3

Join the SAP
BW/4HANA
Community
[scn.sap.com/community/
bw-hana](http://scn.sap.com/community/bw-hana)

APPENDIX



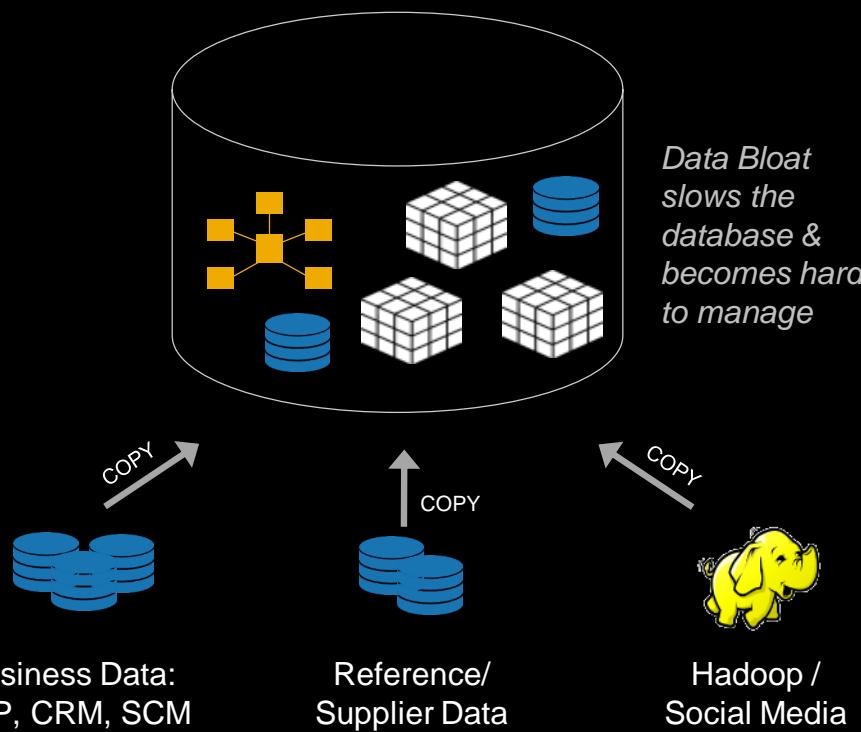
SAP A LEADER IN DATA WAREHOUSING & REAL-TIME STREAMING ANALYTICS



SAP HANA FLEXIBLE ARCHITECTURE EXAMPLE: DATA INTEGRATION

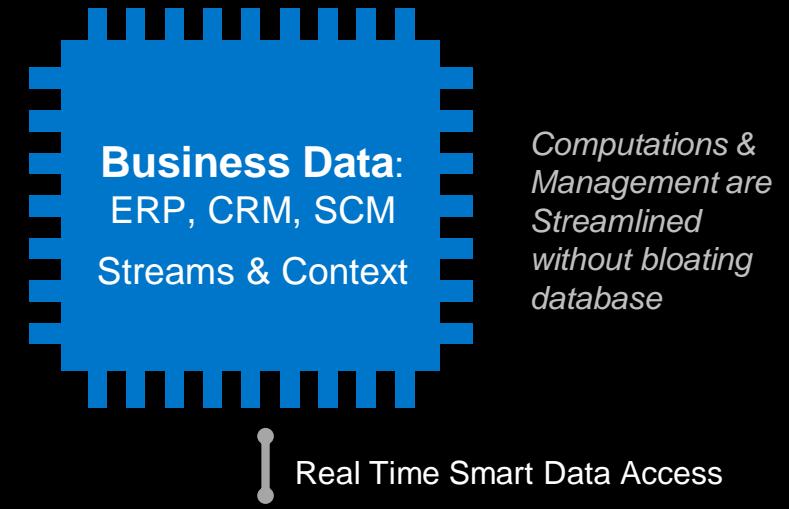
Traditional Data Warehouses Just **Copy Data** And Create More And More Copies In Indexes

Cubes and Indexes take time to build



Copy schedules delay data

SAP HANA Keeps Critical Data in Memory without Copies or Support Indexes



SAP BW/4HANA FEATURE GUIDE

| Feature | SAP BW on AnyDB | SAP BW on HANA | SAP BW/4HANA* |
|--|-----------------|----------------|---------------|
| BW Baseline Features | ✓ | ✓ | ✓ |
| Retain Existing BW Customizations | ✓ | ✓ | ✓ |
| HANA DB Platform | | ✓ | ✓+ |
| Integration with SAP Data and S/4 | | ✓ | ✓+ |
| Integration with Non-SAP Data | | ✓ | ✓+ |
| Support for Mixed Use DW Scenarios | | ✓ | ✓+ |
| Future Developments and Enhancements | | | ✓ |
| BW Optimizations for HANA | | ✓ | ✓+ |
| Cloud offering in AWS | | | ✓ |
| BW Simplification and Data Footprint Reduction | | ✓ | ✓+ |
| Algorithm Push Down | | ✓ | ✓+ |
| Exposure of BW Models as Native HANA views | | ✓ | ✓+ |
| Simplified Administration | | | ✓ |
| Simplified Modeling | | | ✓ |
| Modern User Interface | | | ✓ |
| Automated Multi-Temp Data Management | | | ✓ |
| Conversion Tools | | | ✓ |
| New BW/4HANA Business content | | | ✓ |
| Big Data Support | | | ✓ |

* High Level Feature Overview for 2016

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