Simplifies data management with SAP HANA

Bogdan Rusu
SAP

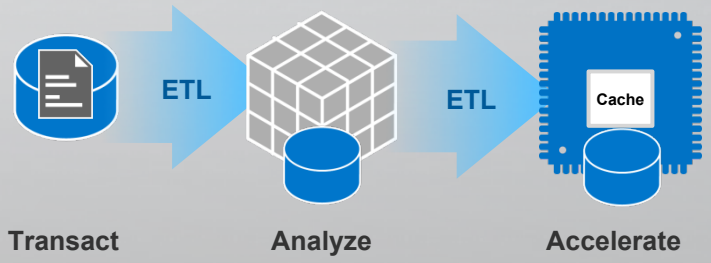
Rethink data management with in-memory computing

Need to eliminate redundant data copies, materialization, and models

A common database approach for online transaction processing (OLTP) and online analytical processing (OLAP) using an in-memory columnar database

Hasso Plattner

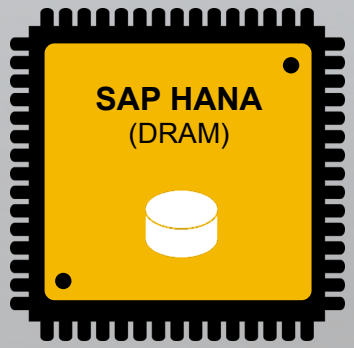
Separated transactions + analysis + acceleration processes



- Three copies of data in different data models
- Inherent data latency
- Poor innovation leading to wastage

VS

One in-memory atomic copy of data for transactions + analysis



- Elimination of unnecessary complexity and latency
- Less hardware to manage
- Acceleration through innovation and simplification

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SAP HANA platform: Rethink the possible

Uncover more business value while enabling breakthrough transformation

The SAP HANA platform converges database and application platform capabilities in memory to transform transactions, analytics, text analysis, predictive, and spatial processing so businesses can operate in real time.

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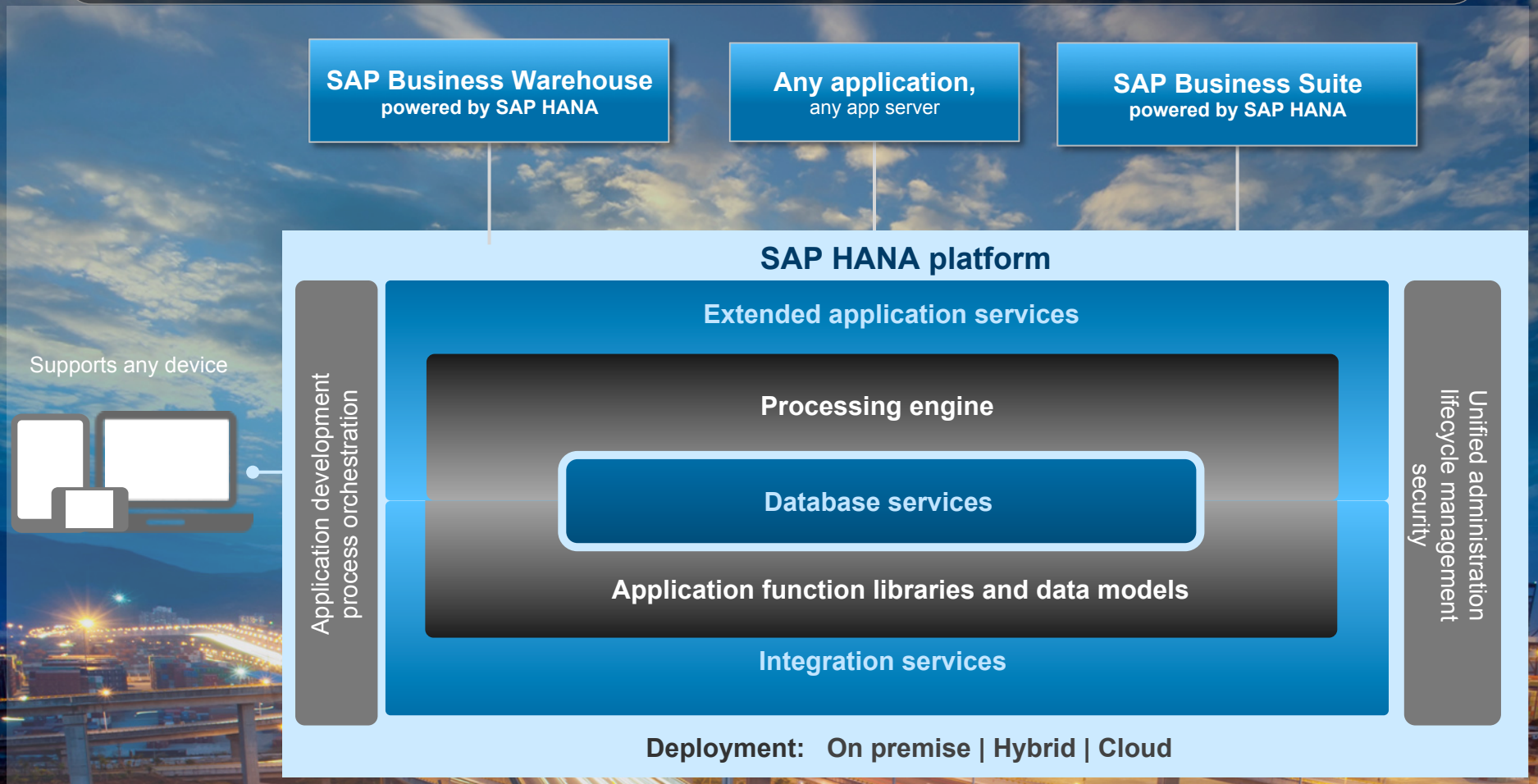
SAP HANA platform – more than just a database

The SAP HANA platform converges database, data processing, and application platform capabilities on one unified platform allowing for faster business processes, smarter business innovations, and a simplified IT landscape.



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Renovate existing systems while enabling future breakthroughs

SAP Business Suite
SAP Business One

Startups and ISV apps

40+ applications based on SAP HANA, accelerators, and rapid-deployment solutions

Operational data marts

Enterprise data warehouse and SAP BW on SAP HANA

Real-time applications

Consumer engagement

Sense and respond

Planning and optimization

Real-time analytics

Operational analytics

Big Data warehousing

Predictive, spatial, and text analytics

SAP HANA platform

Development

Extended application services

Processing engine

Database services

Application function libraries and data models

Integration services

Administration

Deployment: On premise | Hybrid | On demand

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Sense-and-respond applications for the Internet of Things

Faster execution by adjusting to signals in the business environment

- Detect and analyze data trends by aggregating sensor data
- Benefit from more energy efficient logistics, transforming retail distribution
- Increase quality of life through intelligent buildings, robots, cars, and cities

- Event stream processing (ESP)
- No data preparation
- RFID integration

- Embedded data processing
- Machine learning
- Spatial processing

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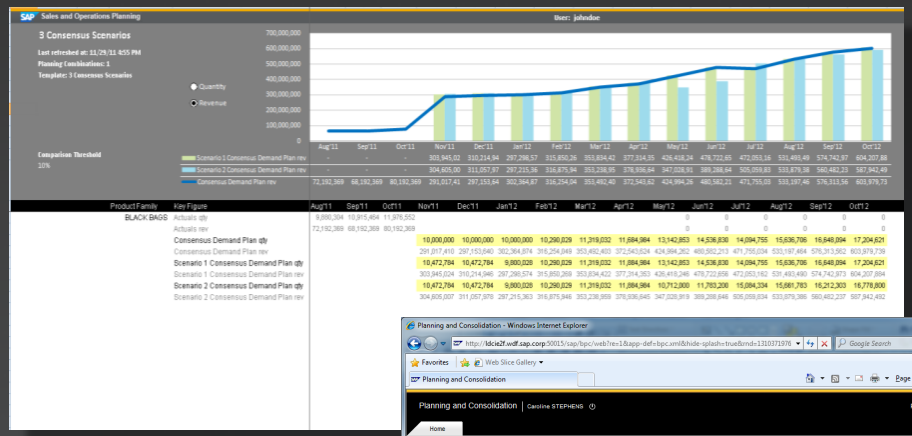
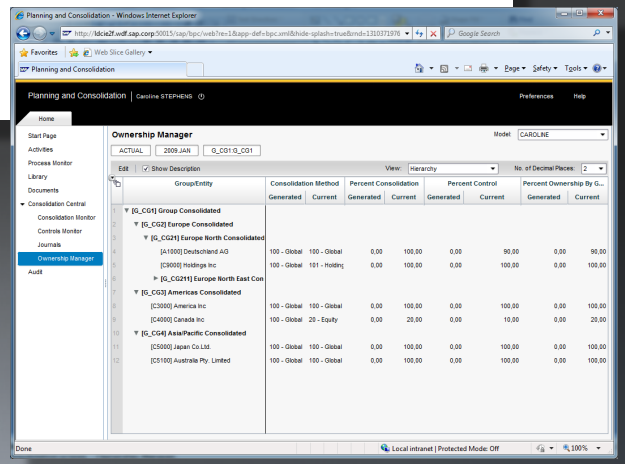
Planning and optimization applications

Faster execution to adjust to changes in the business

Sales and operations planning



Business planning and consolidation



- Enable iterative period end closing with continuous posting into accounts
- Support cash forecasting management
- Optimize procurement, manufacturing, and transportation without limits

- Procedures stored in memory
- Integrated planning and calculation engines
- Predictive analytics and business functions

- Recent data, preferably real time
- Supporting complex questions on interactive data
- Built-in spatial processing

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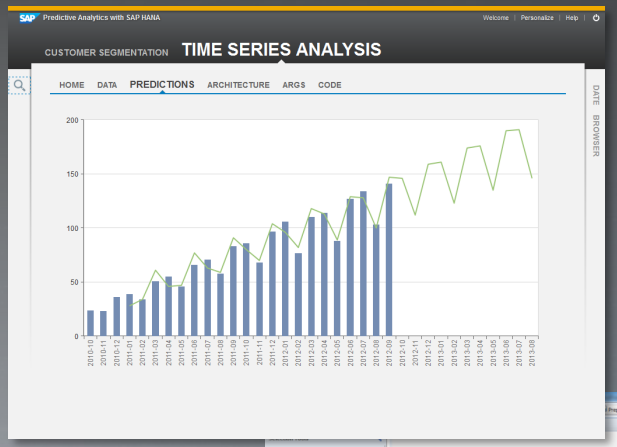
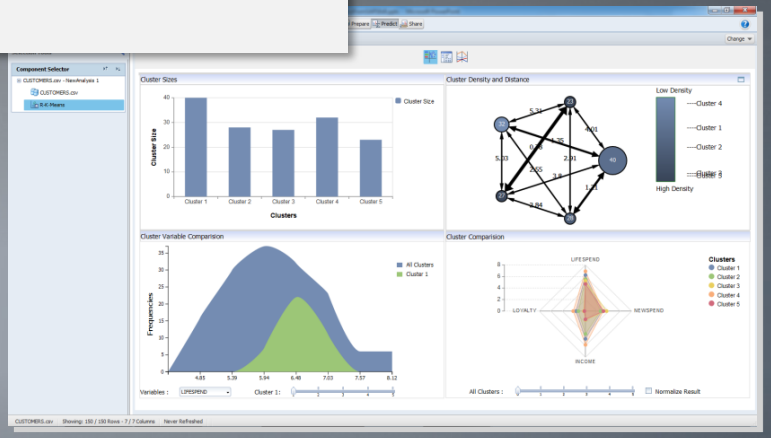
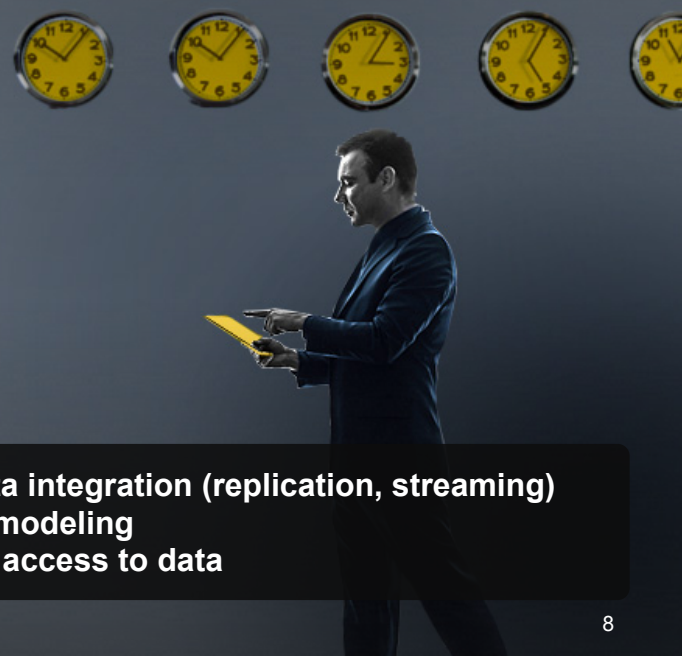
Predictive analytics and machine learning

Transforming the future with insight today





- Provide business analysts with sophisticated algorithms to take the next step in understanding their business and modeling outcomes
- Perform statistical analysis on your data to understand trends and detect outliers in your business
- Build models and apply to scenarios to forecast potential future outcomes
- Combine, manipulate, and enrich data to apply it to your business scenarios, self-service visualizations, and analytics to tell your story



- **OLTP + OLAP processing**
- **SAP HANA Live**
- **SAP HANA smart data access – data virtualization**

- **Real-time data integration (replication, streaming)**
- **Unified data modeling**
- **Single-query access to data**

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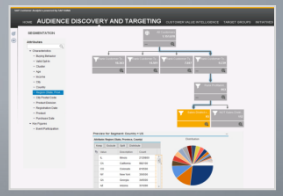
Consumer engagement applications

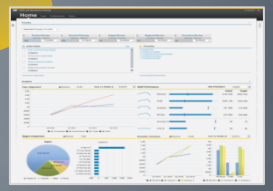
Game-changing innovation with new applications and business models

SAP HANA platform

Real-time engagement for consumers

Real-time insights for enterprise





- Generate real-time consumer insights
- Deliver personalized, engaging experiences
- Create more responsive business with precision targeting

- HTML-5 support
- Mobile integration
- Consumer-grade usability

- OLTP + OLAP real-time processing
- Sentiment intelligence
- Predictive analytics

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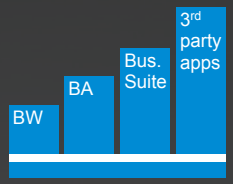
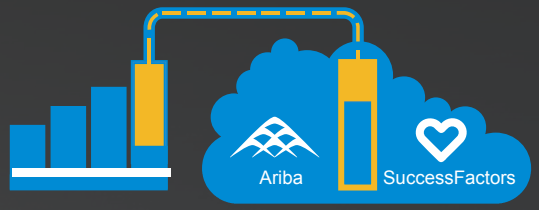
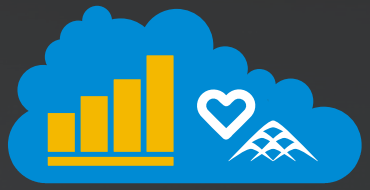
Choice of on-premise, hybrid, and cloud options

Provides security, privacy, and availability

Choose and change your deployment options anytime







On premise

Run all SAP solutions on SAP HANA

- Build or deploy your own solutions on SAP HANA
- Maintain all within your firewall
- Upgrade or leverage existing infrastructure

Hybrid

Leverage SAP Cloud

- Migrate some solutions to the cloud
- Create or deploy new software-as-a-service (SaaS) applications in the cloud
- Use cloud hosting and managed services
- Deploy via SAP HANA Enterprise Cloud service or public cloud

Cloud

Build, run, deploy all applications in the cloud

- Consider virtual private cloud option
- Enable faster innovations
- Simplify landscape
- Migrate or build new applications in SAP HANA Enterprise Cloud

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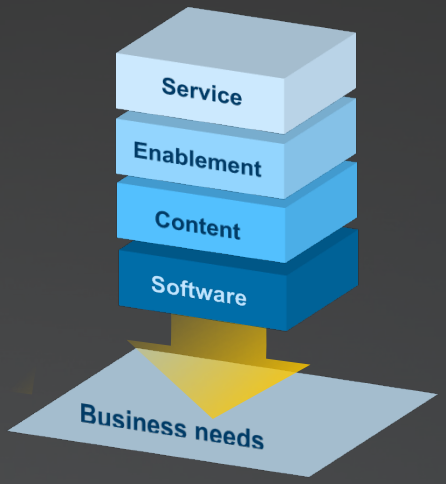
Deploy at your own speed

From optimizing your landscape to transforming your business

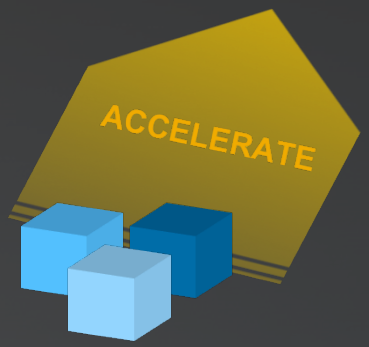
Scenarios with SAP HANA can be consumed from days to weeks to months

Optimize your current landscape



- **Experience** 2–3x faster data analysis even using your current environment
- Take advantage of preconfigured software and implementation services – **rapid-deployment solutions** to accelerate your implementation

Consolidate and accelerate



- **Consolidate** your applications and analytical legacy systems into a modern landscape
- **Leverage** integration of predictive analytics from SAP and HADOOP to extract value from Big Data scenarios
- **Create** real-time visibility into your business

Unleash the power of imagination to rethink your business

- **Engage** design thinking to identify opportunities to rethink your business
- **Validate** opportunities by assessing desirability, viability, and feasibility
- **Develop** a proof of concept to start executing on your vision immediately
- **Expand** your reach, redefine your industry

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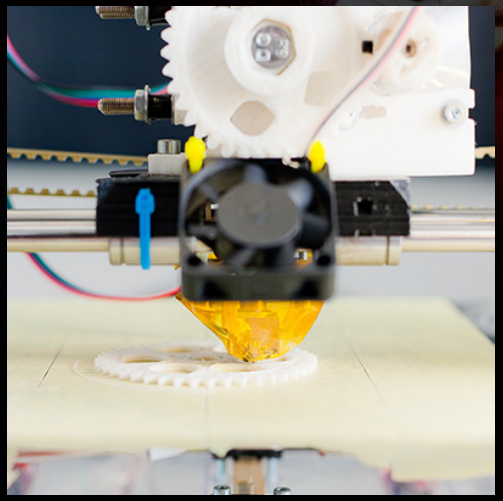
The future holds many transformational opportunities

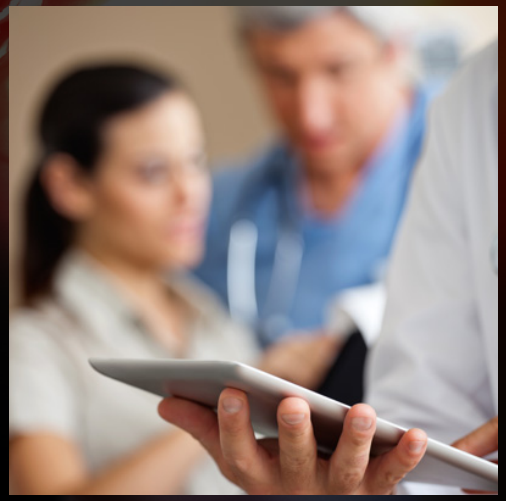
Capitalize on the new technology frontier

Retail: From transactions to 1:1 engaging relationships

Manufacturing: From mass production to custom 3D printing



Healthcare: From generic treatments to personalized medicine



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Values previously unattainable

Cancer cell genomic analysis at Mitsui Knowledge Industry

Streamlining the process of providing personalized cancer drug recommendation

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Innovation previously unfeasible

T-Mobile USA Inc.

Measure effectiveness of marketing campaigns in real time

- Enable targeted micro-offers in real time for optimum retention
- Support real-time decisions to maximize revenue by channel
- Refine sales offers for increased adoption and profitability

Quickly fine-tune campaigns to reduce churn and increase profitability

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Simplicity previously unachievable

eBay Early Signal Detection System powered by predictive analytics

Automated signal detection system increasing accuracy of forecasts

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