6 And A Half Things To Make Your Next Generation Data Warehouse Successful

Klaus-Peter Sauer, Solution Management Data Warehousing, SAP SE
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SAP Data Warehousing Approaches

SAP Data Warehouse Cloud

- SAP HANA
  - SAP SQL Data Warehousing
  - SAP BW/4HANA

- CLOUD
- HYBRID
- ON-PREMISES
What are these six and a half things
What does Agility mean?

**Agility in terms of**

- Faster time to market
- Building business centric and data driven multi-model apps – not another silo
- Quickly respond to changing business needs
Agile Development in a DevOps style can be the answer

Unifying software development (Dev) & operations (Ops)

- Improved deployment frequency
- Faster time to market
- Shortened lead time between fixes
- Automate repetitive tasks
- Tool based development process
Agile Development is also a major change in culture
What does **Agility** mean?

**Agility in terms of**

- Faster time to market
- Building business centric and data driven multi-model apps – not another silo
- Quickly respond to changing business needs
- Agile deployment
  - Development in short cycles, many versions (frequency)
  - Business involvement early + often

**TIME TO VALUE**
What does **Flexibility** mean?

**Flexibility in terms of**

- Use cases and (containerized) Deployment
- Multi-model applications (OLAP | OLTP | HTAP)
- Flexible modeling (data vault | 3NF | dimensional)
- Connect different data persistencies & data sources (real-time, batch, remote)
What does Security mean?

Security in terms of

- Secure data access
- Encryption
- Data privacy (masking, anonymization)
- Auditing
- Data governance, compliance & lineage (Reliability of the data)

TRUSTED DATA
What does **Openness** mean?

**Openness in terms of**

- Open connectivity (ODBC, JDBC, RESTful Web Services)
- Choice of languages (SQL, Java, node.js, python, …)
- Support structured and multi-structured datatypes
- Open Source repositories and CI/CD tooling

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**LEVERAGE EXISTING SKILLS**
What does Content mean?

Content in terms of

- Industry models, LOB and Partner content for a quick start
- Reverse engineering
- Design Frameworks
Leveraging Platform Capabilities

**Support All Data**
Multi-model support to combine structured and semi-structured data

**Spatial**
Combine business data with geographical data

**Graph**
Build and analyze relationships in data on the fly

**Text & Search**
Full-text search, navigation, and access to structured and unstructured data

**Manage data at scale**
Intelligent data tiering and advanced compression for cost-effective scale

**Predictive & Machine Learning**
Proactive and intelligent decisions using predictive and machine learning models

**Streaming**
Real-time analysis of data streams

**Time Series Data**
Capture and analyze a sequence of successive data points

SAP HANA Data Management Suite
What does **Content** mean?

Content in terms of

- Industry models, LOB and Partner content for a quick start
- Reverse engineering
- Design Frameworks
- Leveraging Platform Capabilities
AUTOMATION
What does Automation mean?

Automation in terms of

- Reduction of manual & repetitive tasks
- Minimize admin work
- Intelligent data distribution
- Open for open source and partner automation tooling
Modern DWH development

Developer and feature isolation enabling parallel development and test

Continuous Integration / Delivery

Application development in the XSA environment

SAP SDI
SAP Web IDE
SAP EAD

XSA
BUILD

SAP HANA

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Continuous Testing, Integration & Delivery

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PERFORMANCE
What does **Performance** mean?

**Performance in terms of**

- Good performance is expected – even for complex analyses
- Query concurrency
- Self-optimizing views
- Reliability and system stability is mandatory
How can you leverage the SAP SQL Data Warehousing
Building Agile & Data Driven Applications with SAP HDMS Toolset
Why should you choose SAP SQL Data Warehousing using SAP HANA Data Management Suite


The automation process leverages the file-based artefacts to build and adjust the application and database artefacts automatically.

Flexible and containerized deployment (Cloud and On-Premises) to co-locate applications of different nature on the identical database tenant.

Each application & database artefact is defined by a file, which is hosted in an external repository to support versioning.

The automation process leverages the file-based artefacts to build and adjust the application and database artefacts automatically.

Faster time to market by frequently shipping small new versions.

All graphical editors are web-based in one integrated development environment.

Freedom of data modeling e.g. 3NF, dimensional, data vault, etc.

Flexible DevOps enabler using agile development methods for continuous testing, integration & deployment.
The Data Bits & Bites for Busy People

The Data Bits & Bites program is a weekly series of “WHAT IS” and “HOW TO” videos and live webinars on SAP Data Management and Database technologies.

SAP SQL Data Warehousing Sessions

31.01. How is an SAP HANA Data Warehouse Different?

07.02. Conceptual Modeling with SAP Enterprise Architecture Designer

14.02. Physical Modeling with SAP Enterprise Architecture Designer

21.02. Clone, edit and build data warehouse artifacts with SAP Web IDE & Git

28.02. How to Use Continuous Integration & Testing in your Data Management Environment

14.03. How to Leverage Run & Operate in Your Data Management Environment

28.03. Who is using SAP HANA for Data Warehousing and Why?

Check out the sessions and sign up here: https://webinars.sap.com/data-bits-bites-sap-2019/en/home
Join our Beta Program at www.sapdatawarehouse.cloud

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Q&A

For questions after this session, contact me at klaus-peter.sauer@sap.com.
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Attend these sessions:

**Escape From Data Sprawl with Real-Time Integration**
Tues, May 7th at 12:30 pm-12:50 pm | PL801

**Create a Unified Data Platform for Tomorrow**
Wed, May 8th at 12:30 pm-12:50 pm | PL801

**Explore Why You Should Run Your Data Warehouse in the Cloud**
Wednesday, May 8th at 3:00pm-3:40pm | PL801

**Six and a Half Things to Make Your Next-Generation Data Warehouse Successful**
Thursday, May 9th at 12:00 pm-12:40 pm | Room 319

Hear from other customers:

**Customer Panel**

**Discover What’s Next for Data Warehousing**
Wed, May 8th at 11:00 am-11:40 am | Theater 3

Featuring: ARI Fleet, Harland Clarke and Treehouse Foods

Talk to an expert:

**Topic Stations**

**Data Management for Analytics** PL837
All day, May 7th–9th | Show Floor

**SAP Data Warehouse Cloud** PL836
All day, May 7th–9th | Show Floor
Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

http://info.asug.com/2019-ac-slides
Thank you.

Contact information:

**Klaus-Peter Sauer**
Senior Director Big Data Warehousing
Solution Management, SAP SE
klaus-peter.sauer@sap.com
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