

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

Klaus-Peter Sauer, Solution Management Data Warehousing, SAP SE Session ID 82943, May 9th, 2019

PUBLIC



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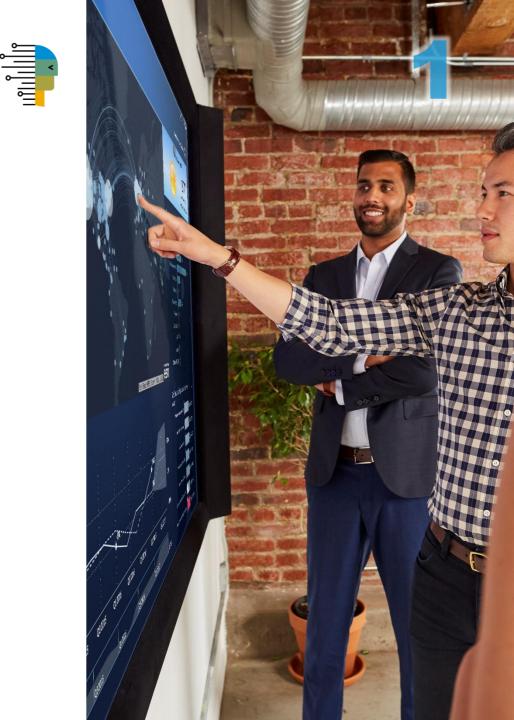
What are these six and a half things



What does Agility mean?

Agility in terms of

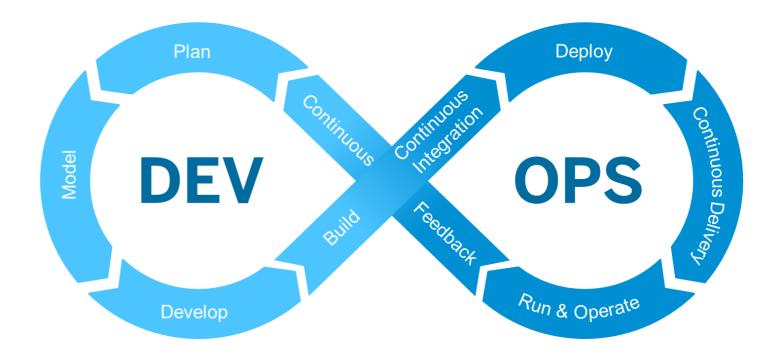
- Faster time to market
- Building business centric and data driven multi-model apps – not another silo
- Quickly respond to changing business needs



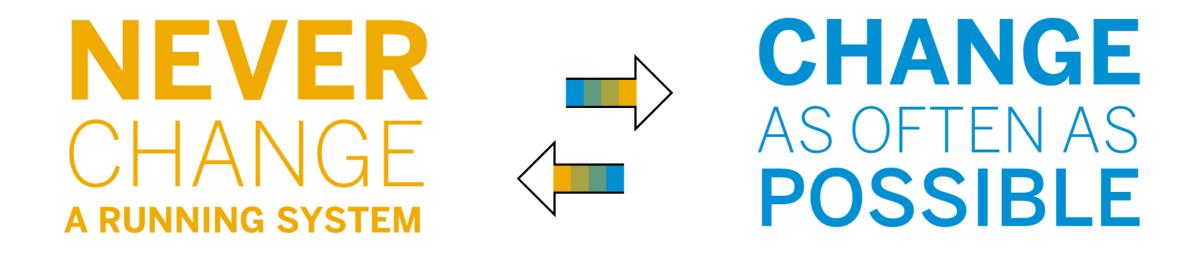
Agile Development in a DevOps style can be the answer

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







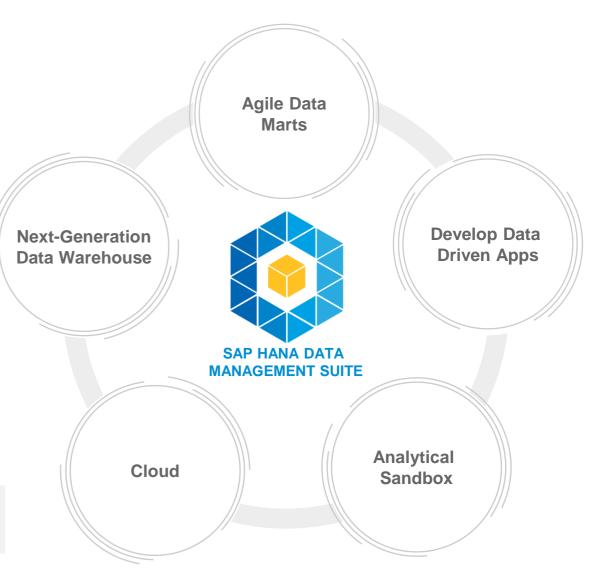
What does Flexibility mean?



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)

CONNECTED DATA





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)

Comprehensive encryption for data at rest and in motion

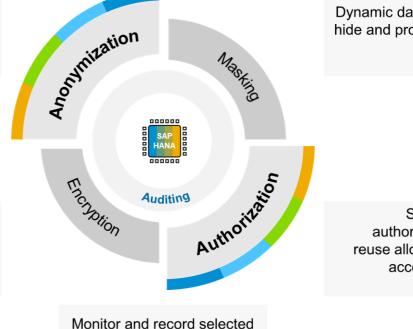
The first data platform

anonymization to allow

for real insight without

exposing real data

with real-time



Dynamic data masking to hide and protect sensitive information

> SAP's security authorization model reuse allow any app to access SAP data securely

Monitor and record selected actions performed

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

SQL, JDBC/O	DBC, ADO.Net, HTTP(s) (REST/OData), Web Sockets
SAP HANA extended application services (XSA)	Node.js / XSJS Java BYO Runtime Multi-target application (MTA) modules
SAP HANA database and	DB Containers Schemas
data processing services	Business Function Library (BFL), Predictive Analytics Library (PAL), Advanced Data Processing, Core Data Services, Calculation views, and more



LEVERAGE EXISTING SKILLS



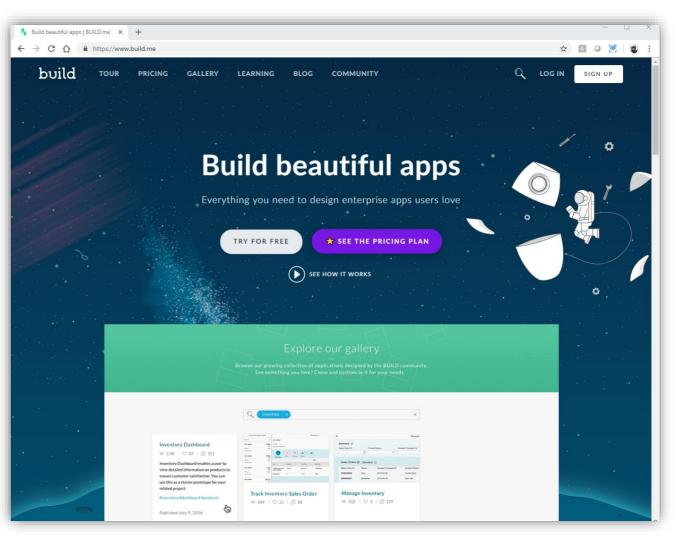
What does **Content** mean?





Content in terms of

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



Leveraging Platform Capabilities





Support All Data

Multi-model support to combine structured and semi-structured data

Spatial

Combine business data with geographical data

Å

Graph

Build and analyze relationships in data on the fly



Text & Search

Full-text search, navigation, and access to structured and unstructured data

SAP HANA Data

Management Suite

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

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Time Series Data



Capture and analyze a sequence of successive data points

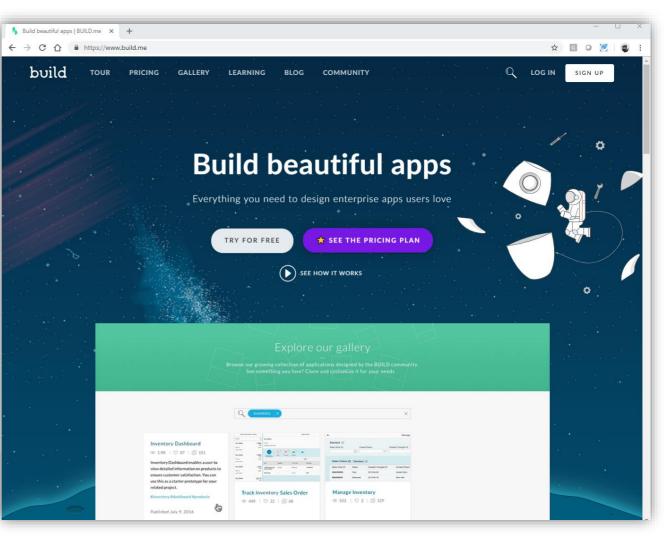
What does **Content** mean?





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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

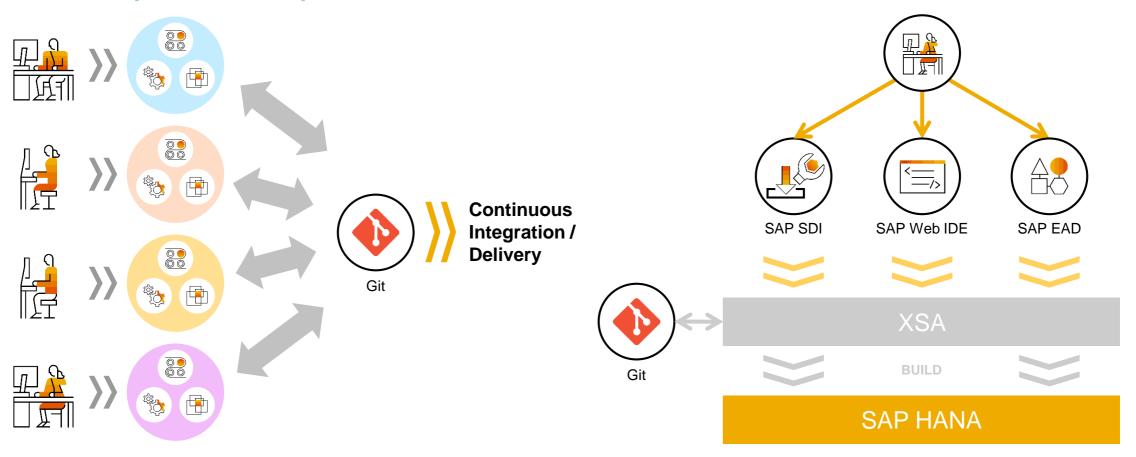


Modern DWH development



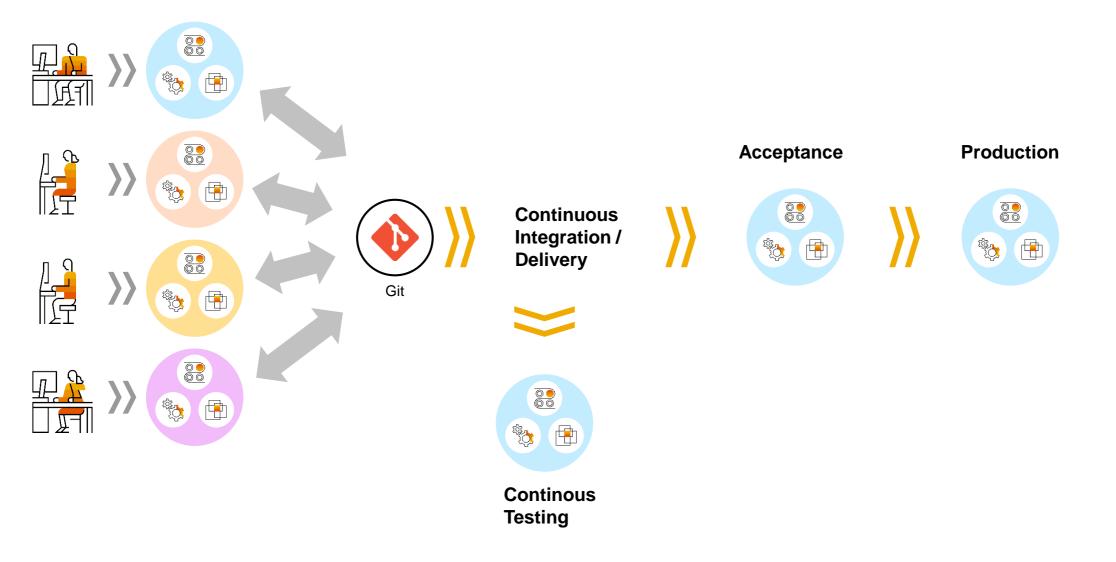
Developer and feature isolation enabling parallel development and test

Application development in the XSA environment



Continuous Testing, Integration & Delivery





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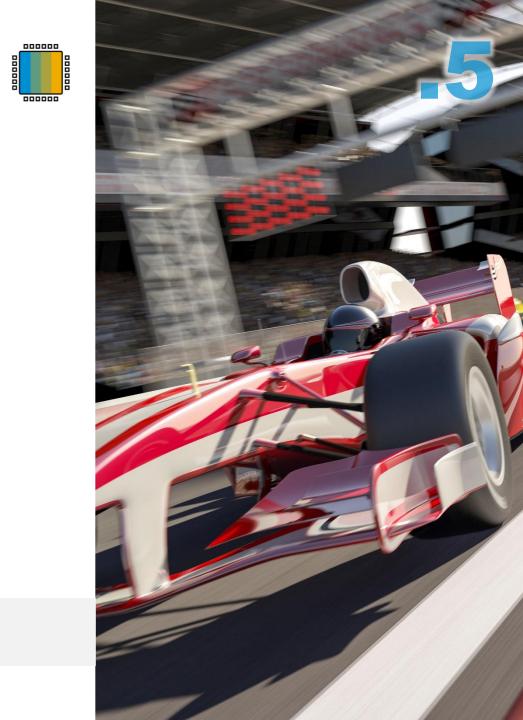
What does **Performance** mean?

Performance in terms of

- Good performance is expected even for complex analyses
- Query concurrency
- Self-optimizing views
- Reliability and system stability is mandatory



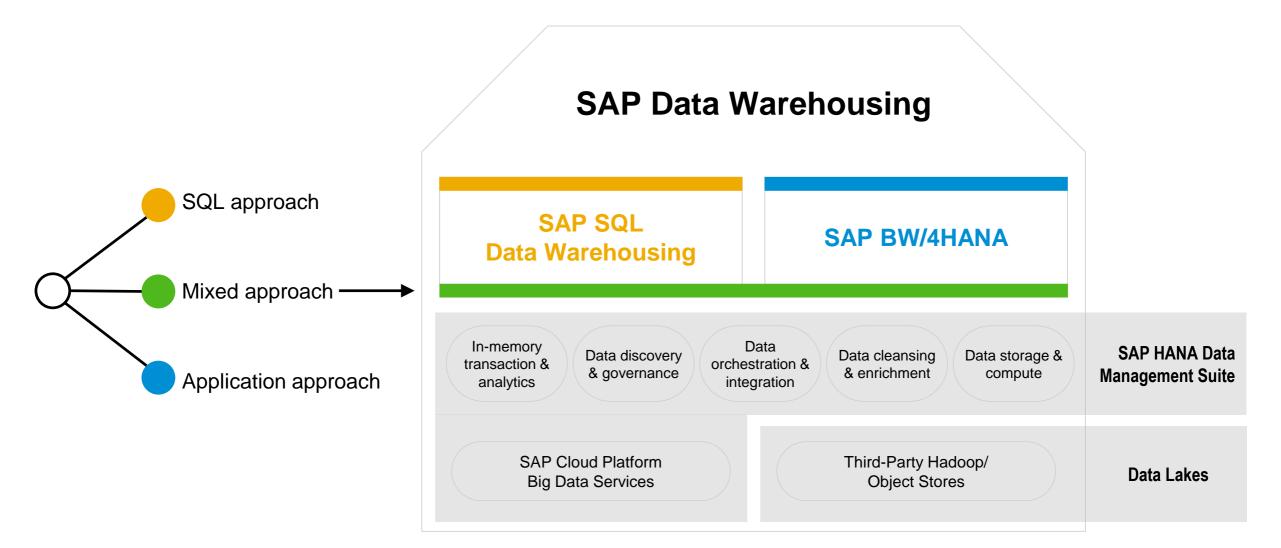




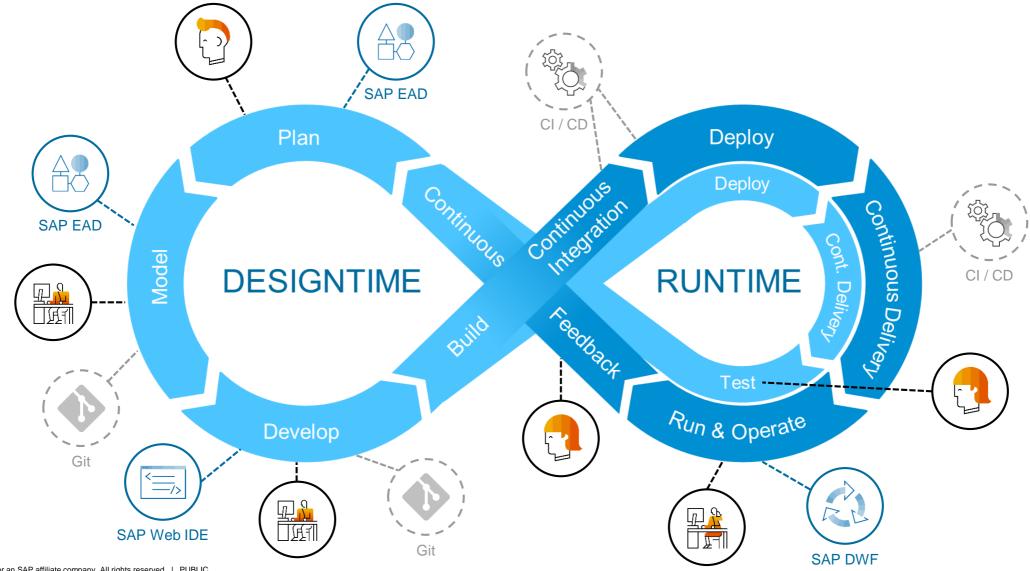
What can be a solution offering all of these

SAP SQL Data Warehousing can provide you all of that

The Three Approach-Strategy for Data Warehousing

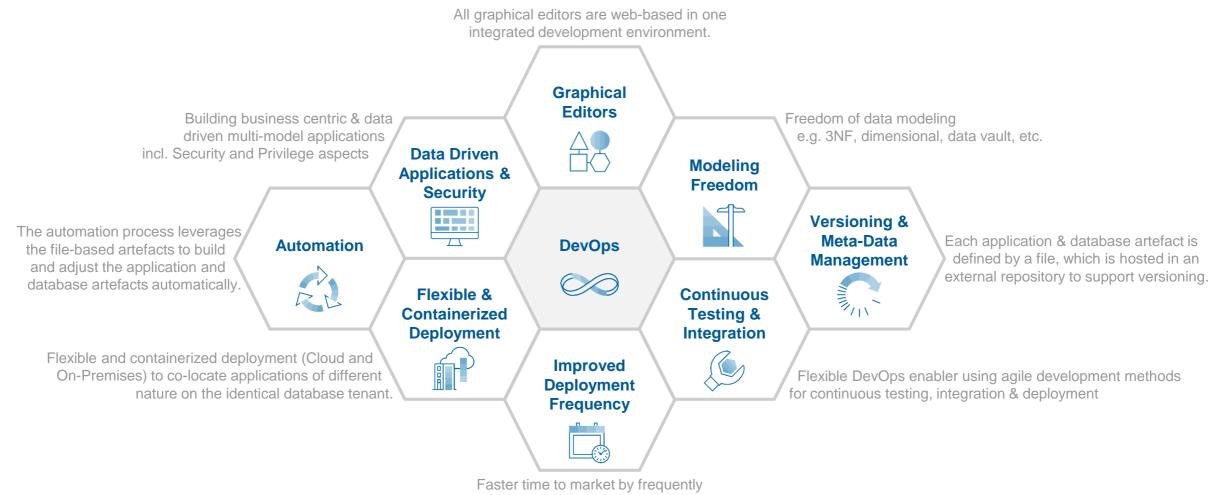


Building Agile & Data Driven Applications with SAP HDMS Toolset



Ρ

Why should you choose SAP SQL Data Warehousing using SAP HANA Data Management Suite



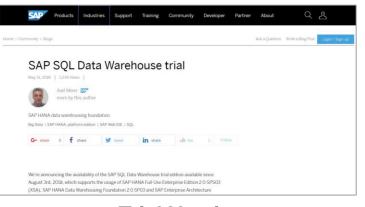
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More Information



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Landing Page https://blogs.sap.com/2017/12/19/sap-sqldata-warehousing-with-hana/



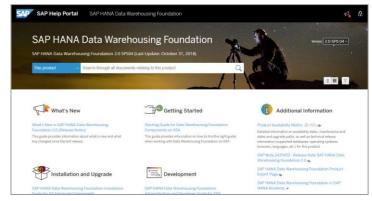
Trial Version https://blogs.sap.com/2018/05/31/sap-sqldata-warehouse-trial/

Image: Notice Nation Nation

Community Page https://www.sap.com/community/topics/sqldata-warehousing.html



SAP HANA Academy https://www.youtube.com/playlist?list=PLkzo9 20wKnVyWRlk3dLVj10l3MrA7UzMR



Documentation <u>https://help.sap.com/viewer/p/SAP_HANA_DA</u>

TA_WAREHOUSING_FOUNDATION



SAP Training HDW410

https://training.sap.com/course/hdw410-sap-sql-data-warehousing-classroom-016-at-de/

The Data Bits & Bites for Busy People

The **Data Bits & Bites** program is a <u>weekly series</u> 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: <u>https://webinars.sap.com/data-bits-bites-sap-2019/en/home</u>



For questions after this session, contact me at <u>klaus-peter.sauer@sap.com</u>.

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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

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

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



Presentation Materials

Access the slides from 2019 ASUG Annual Conference here: http://info.asug.com/2019-ac-slides

Thank you.

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