



Data Fabrics

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The Evolution of the Data Landscape

First DBMS

First RDBMS

More RDBMS

Object DBMS & Object RDBMS
Open Source RDBMS

NoSQL Databases,
DW Appliances

"Big Data", Cloud/Hybrid-Cloud,
In-Memory

1960

1970

1980

1990

2000

2010

Today

IDS
IMS

System R (SQL)
Ingres
Oracle

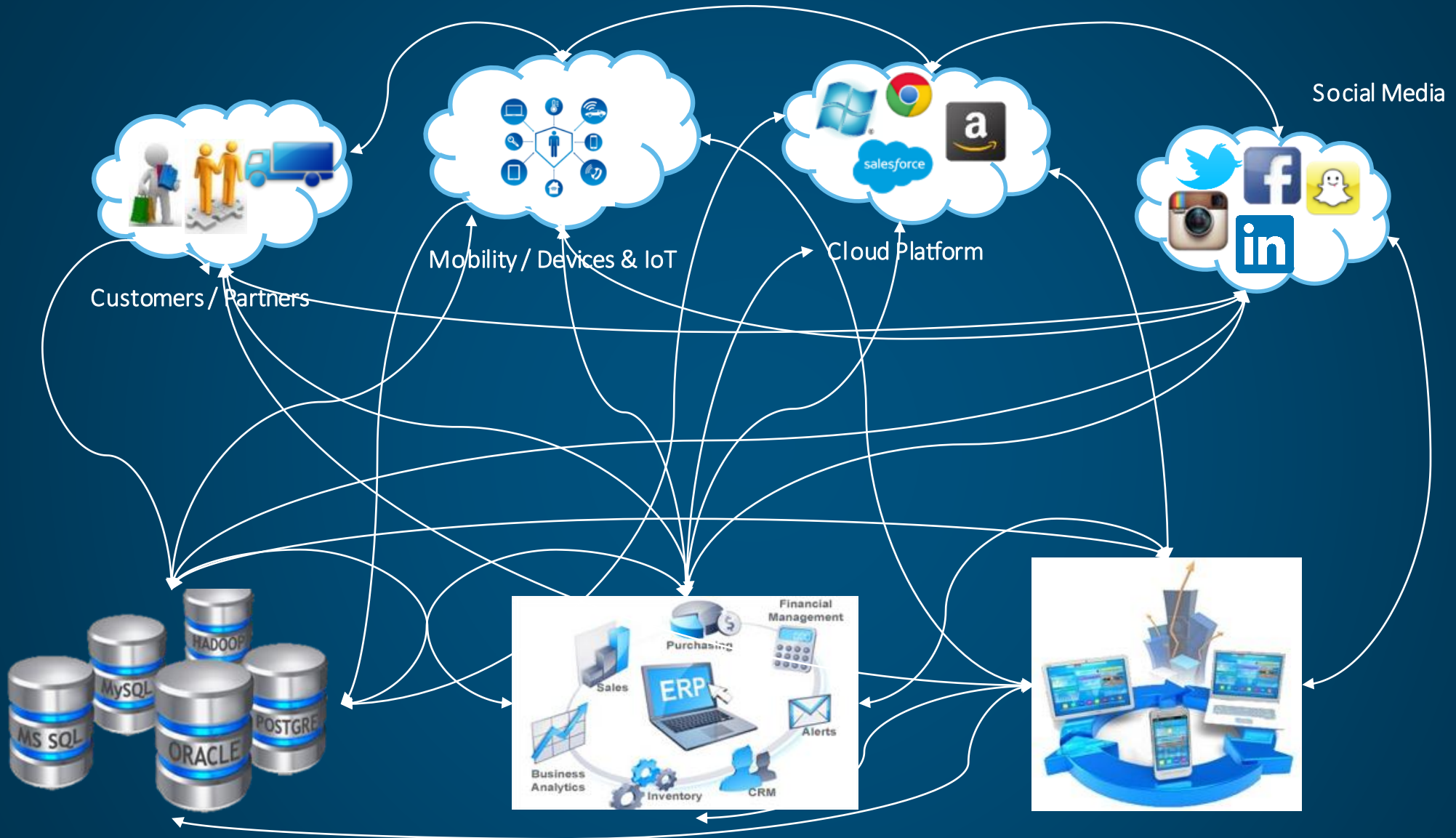
Informix
DB2
Sybase ASE
Teradata
Red Brick

JADE
InterSystems
Versant
Informix
DB2
Oracle
MS SQL Server
MySQL
PostgreSQL

Hadoop
Cloudera
MapR
MongoDB
Exadata
Netezza
HP Neoview
Greenplum

Hortonworks, Cloudera,
MapR, Snowflake, S3,
MariaDB, Amazon Redshift,
DynamoDB
DocumentDB, Amazon
Neptune, Amazon
Timestream, Oracle, DB2,
ArangoDB, MS Azure Sql
Server, PostgreSQL, MySQL,
Neo4J





An evolving Data Landscape introduces challenges

Skill shortage

Data inconsistencies

Duplicate Data

Data Latency

Data Protection/
Security

Data Silos

Moving Data
to the Cloud

Data Wrangling

What is a Data Fabric?

“Data Fabric is an **architecture** and **set of data services** that provide consistent capabilities across a choice of endpoints spanning on-premises and multiple cloud environments”

- NetApp

What is a Data Fabric?

“Data fabric is a combination of **architecture** and **technology** that is designed to ease the complexities of managing many different kinds of data, using multiple database management systems, and deployed across a variety of platforms”

- Eckerson Group

What is a **Big** Data Fabric?

“Big data fabric is an emerging platform which accelerates business insights “by automating ingestion, curation, discovery, preparation and integration from data silos”

- Forrester Research

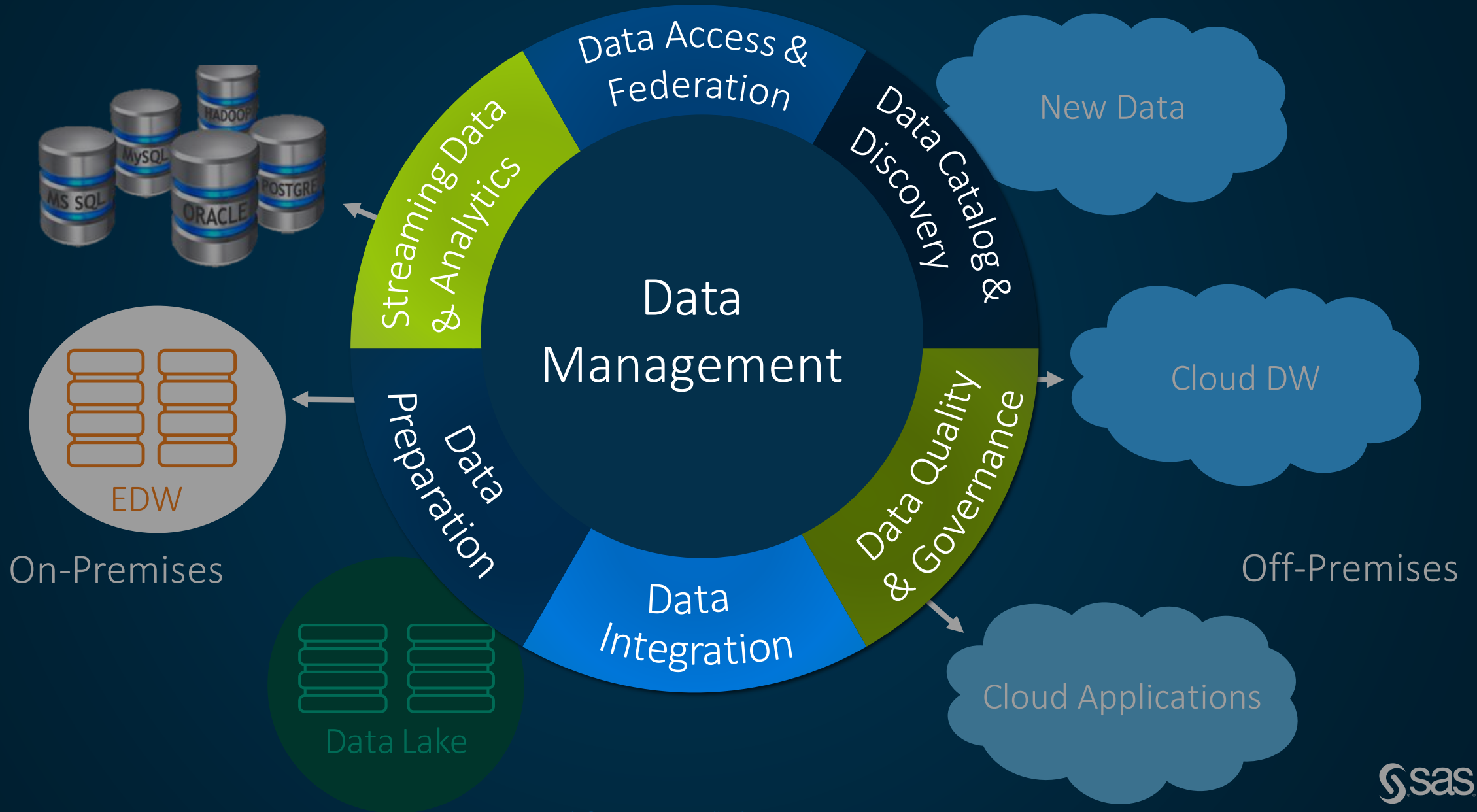
Why Data “Fabric”?

Fabrics are interconnected structures where multiple nodes appear as a single logical unit

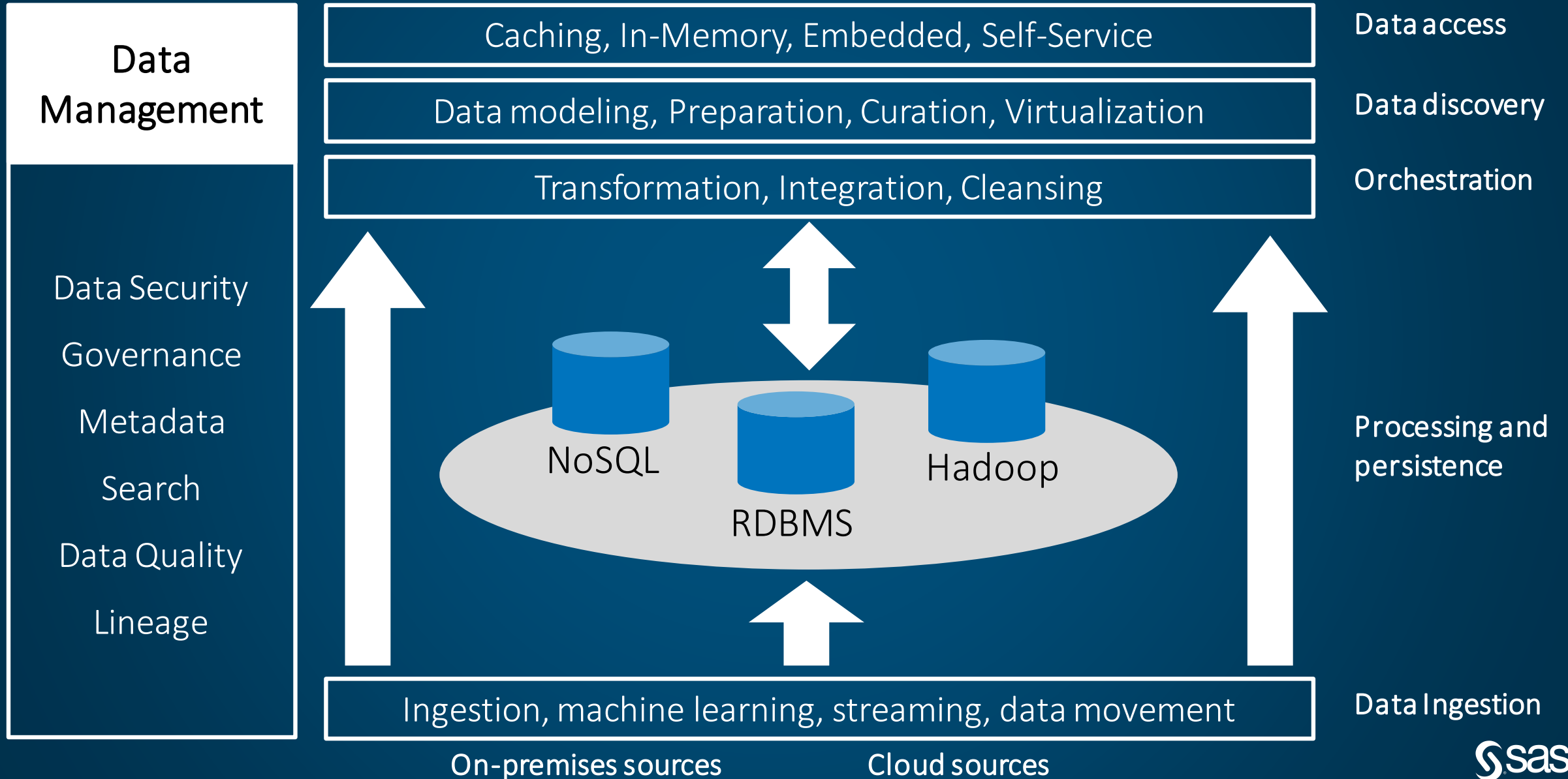
What makes up a Data Fabric?

1. Technology / Data Services
2. Architecture

Data Fabric



Forrester Data Fabric Reference Architecture



Data Scientists

Challenges

- Understanding what data is available
- Getting access
- Putting the data to use
 - Data preparation
 - Analytics
 - Decisioning
- Connected, always-on data

“Is this the best data available?”

Data Engineers

Challenges

- Modernize & simplify data infrastructure
- Optimize use of storage & compute
- Leverage new technologies
- Safe movement of data to the cloud

“We can make this run faster”

CIO and CDO

Challenges

- Simplify and Modernize Data infrastructure
- Protect the data
- Compliance
- Data Governance
- Reduce Infrastructure Costs

“Data is secure and protected”

HYPE

REALITY





Thank You

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