AWS re:Invent

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ENT306

Outcome-oriented analytics for SAP on AWS

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Today’s Speakers



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Agenda

Building Data Lakes on AWS

Extracting data from SAP systems

Why use Amazon AppFlow for SAP data extraction?

Workshop

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Everyone needs a data strategy

Data is more diverse



There is more data than people think

Managing data warehouses can **cost $20k annually/TB**

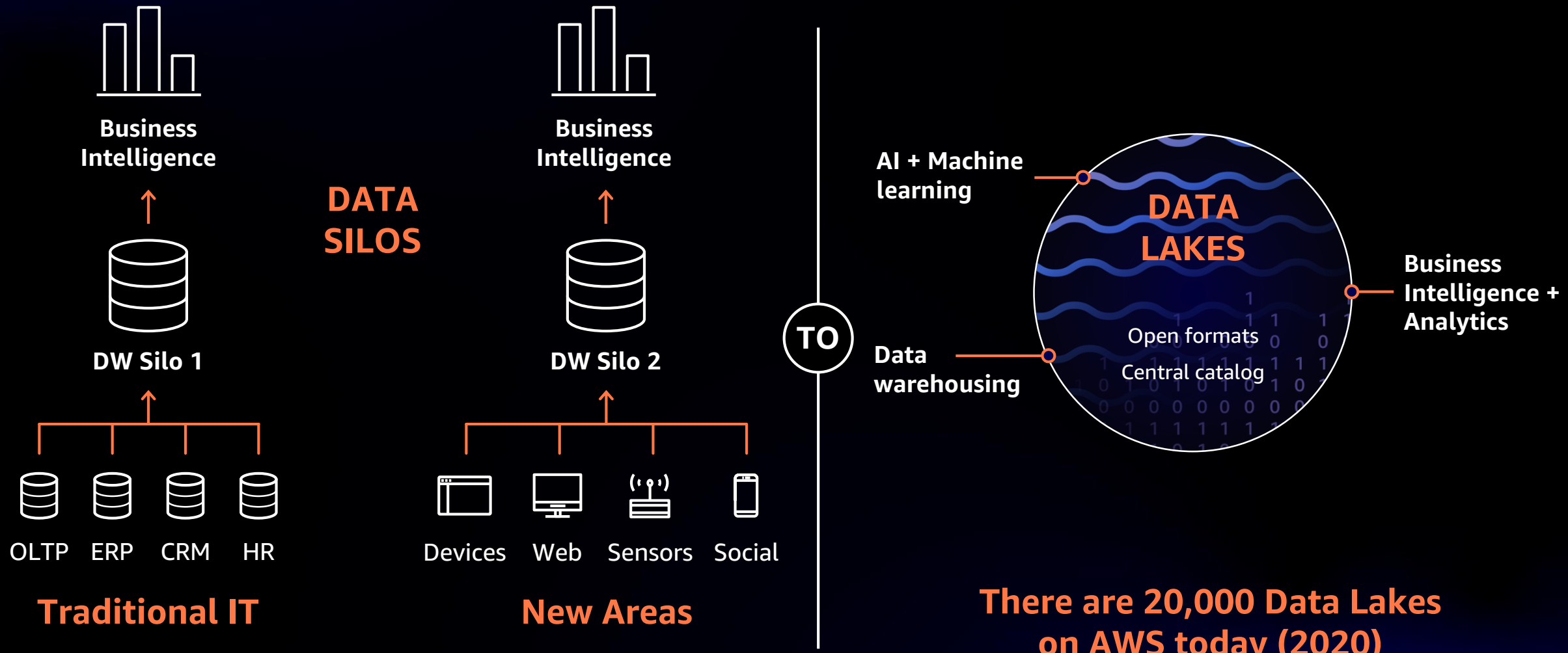
Data	Data platforms need to	
grows	live for	scale
>10x	**15**	**1,000x**
every 5 years	years	

*IDC, Data Age 2025: The Evolution of Data to Life-Critical: Don't Focus on Big Data, Focus on the Data That's Big, April 2017.

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The Data Silo Dilemma



There are 20,000 Data Lakes on AWS today (2020)

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How it works:

Build Data Lakes quickly

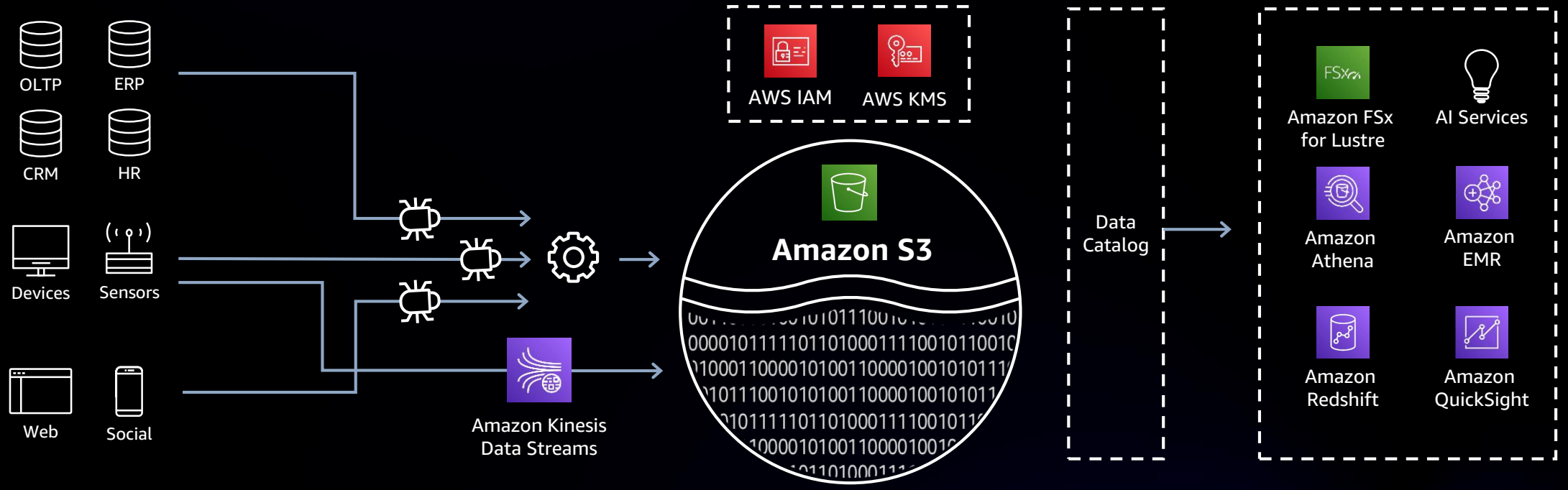
- Identify, crawl, and catalog sources
- Ingest and clean data
- Transform into optimal formats

Simplify security management

- Enforce encryption
- Define access policies
- Implement audit login

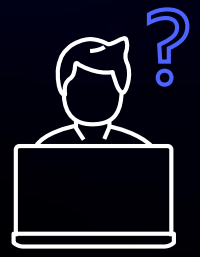
Enable self-service and combined analytics

- Analysts discover all data available for analysis from a single data catalog
- Use multiple analytics tools over the same data

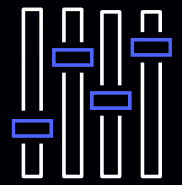


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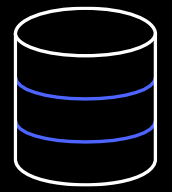
What to consider when integrating SAP Data



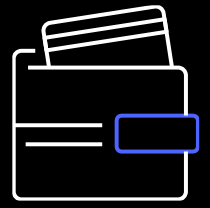
"What" and "why" before "how"



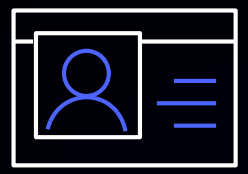
Volume and performance requirements



Data context



Buy versus build of the solution



License requirements

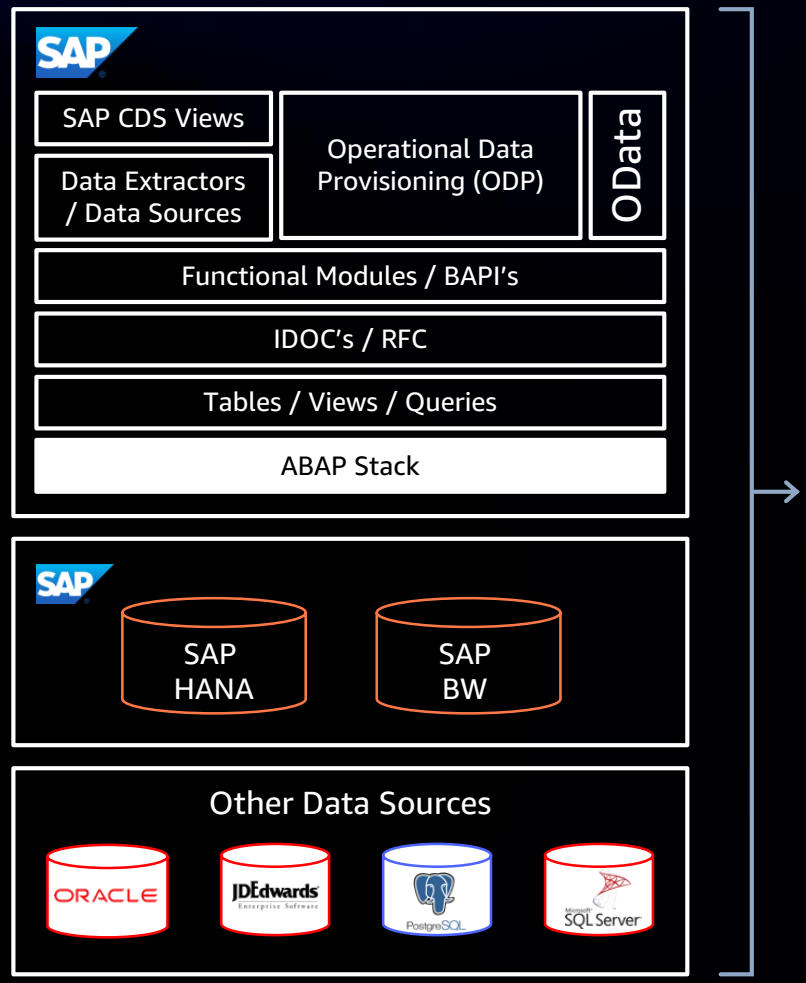


Total cost of ownership

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Data management methods for SAP ERP/BW



Data orchestration

- Retains SAP application level context
- Supports change data capture through operational data provisioning queues
- Less transformation work outside SAP
- Licensing cost for some offerings (e.g. SAP Data Intelligence)

Application level extractors

- Also retains SAP application level context
- No "out of the box" change data capture support
- Potential performance and license impact due to application-level access

Database level extractors

- Near real time replication through log based replication (very simple and common)
- Doesn't retain SAP application context; need to rebuild relationships between tables, etc.
- Need an enterprise DB license to adopt this approach.

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Data orchestration method extractors

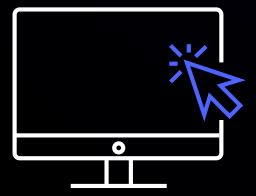


Key Considerations

- Retains application level context
- Table relationships, customizations and package configurations are retained
- Less transformation work outside SAP
- Support change data capture through operational data provisioning queues
- Supports extraction through micro-batches
- Additional development effort in case of AWS Glue/AWS Lambda
- Potential performance impacts due to application level access
- Additional licensing cost for SAP Data Intelligence

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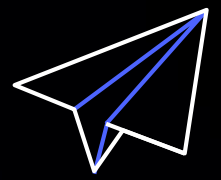
Key benefits of Amazon AppFlow



No Code / Pro Code Interface for different User Personas



Lower total cost of ownership



Speed & Agility



Security and Scalability

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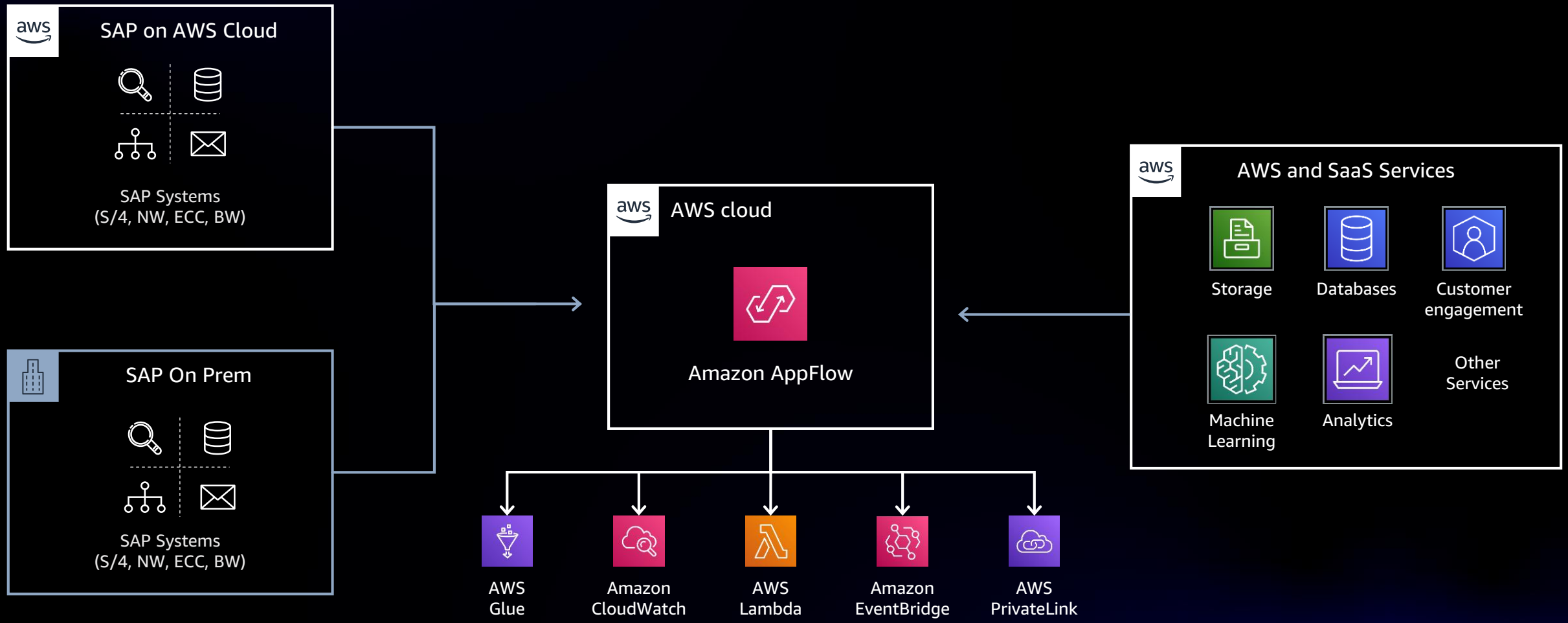
Bring Data from SAP into AWS

Use Amazon AppFlow to connect and run data flows from SAP using OData Services. Build your solution quickly via the Console, and scale out your configurations using APIs, CLI, or CloudFormation templates



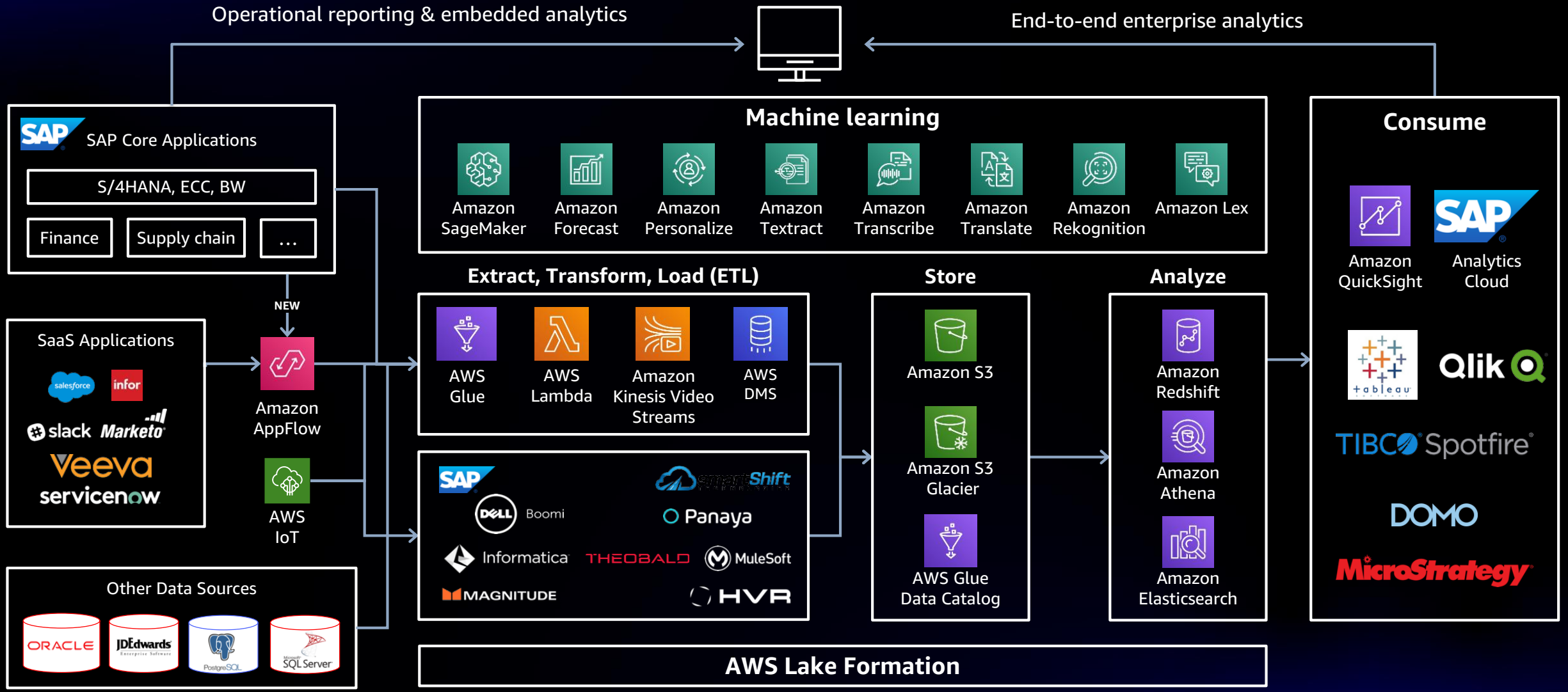
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AppFlow integration with 6+ AWS services



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Modern enterprise analytics with SAP data



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Workshop

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Objectives and Expected Outcome

The goal of this workshop is to get understanding of SAP data models and learn how to build a data lake with SAP data.

The components that will be used for this Lab are SAP S/4 2020 with demo sales order data, Amazon S3, Amazon AppFlow, Amazon Athena, AWS Glue DataBrew, and Amazon QuickSight.

Expected outcomes

1 | Extract SAP data with Amazon AppFlow

2 | Consume SAP business process data with native AWS Services

3 | Analyze data using dashboard functionality

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Workshop high level steps

1. Explore SAP Data using OData layer
2. Configure Amazon AppFlow with SAP S/4 Lab system
3. Run Flows to export the SAP data to Amazon S3
4. Prepare data with AWS Glue Crawler and S3 data set
5. Visualize Sales Orders in QuickSight Dashboard

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Lab setup

For accessing the workshop and instructions please navigate to URL

https://dashboard.eventengine.run

Please insert the Event Hash

WIFI
SSID: @reInventWorkshops
Password: Exper1ment21

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Thank you!

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