
AWS
re:Invent
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ENT204-R

Drive new business insights with SAP on AWS

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Agenda

Why is data important?

What have we heard from customers?

SAP extraction patterns

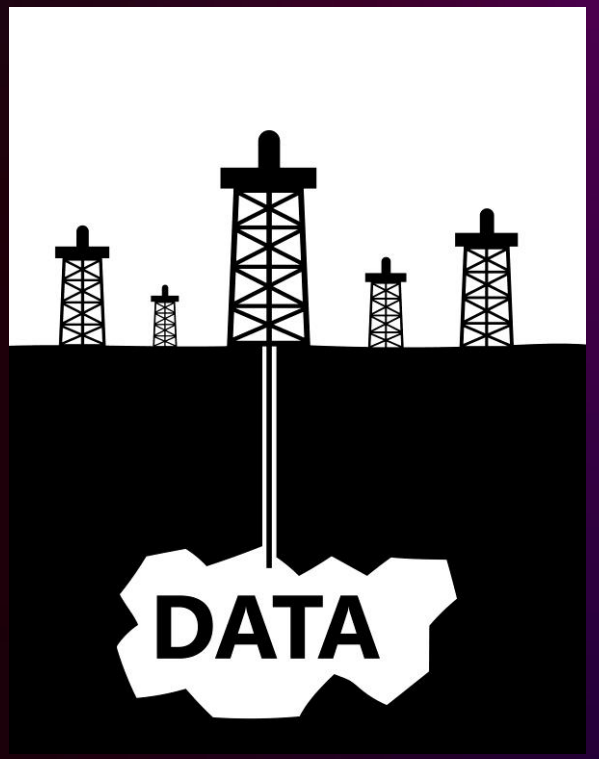
How to start your journey?

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Data is a strategic asset for every organization

"A few years ago, no one was even talking about **data science**; now, **data science is central** to initiatives in strategic planning, supply chain management, and manufacturing operations."

Elizabeth Gonzales
Invista



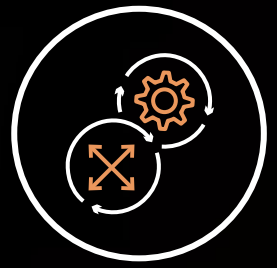
"Just about **everything** goes through an **SAP system**, so if you want to develop anything in the business world, sooner or later you will touch SAP at some level."

Thomas Grassl
Vice President of Developer Relations, SAP

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Delivering new business insights

HARNESS THE POWER OF SAP ON AWS WITH ANALYTICS, AI, & ML



Unleash new business insights with AI & ML



Accelerate from overnight processing to near real time



Build innovative solutions and experiment with new business models



Simplify regulatory and audit compliance

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New business insights from data

LEVERAGE AWS ANALYTICS AND MACHINE LEARNING SERVICES

Accelerate innovation



Data silos created multiple versions of the truth leading to more time spent working the data rather than analyzing it

AWS analytics unlocked company data allowing **innovative, personalized customer offerings**

Learn more

Increase supply chain efficiency



Poor forecasting of inventory requirements due to data silos - inventory, maintenance data, and equipment information

An AWS data lake allowed Invista to **reduce inventory cost and increase supply chain efficiency**

Learn more

Detect and respond to business risks



Unplanned equipment outages resulted in costlier repairs and impacts to production for Georgia-Pacific

An advanced AWS-based analytics solution allowed GP to **improved asset utilization and equipment safety**

Learn more

Grow new revenue streams



The generation of large volumes of data in different systems meant difficulty in analyzing information, and making decisions

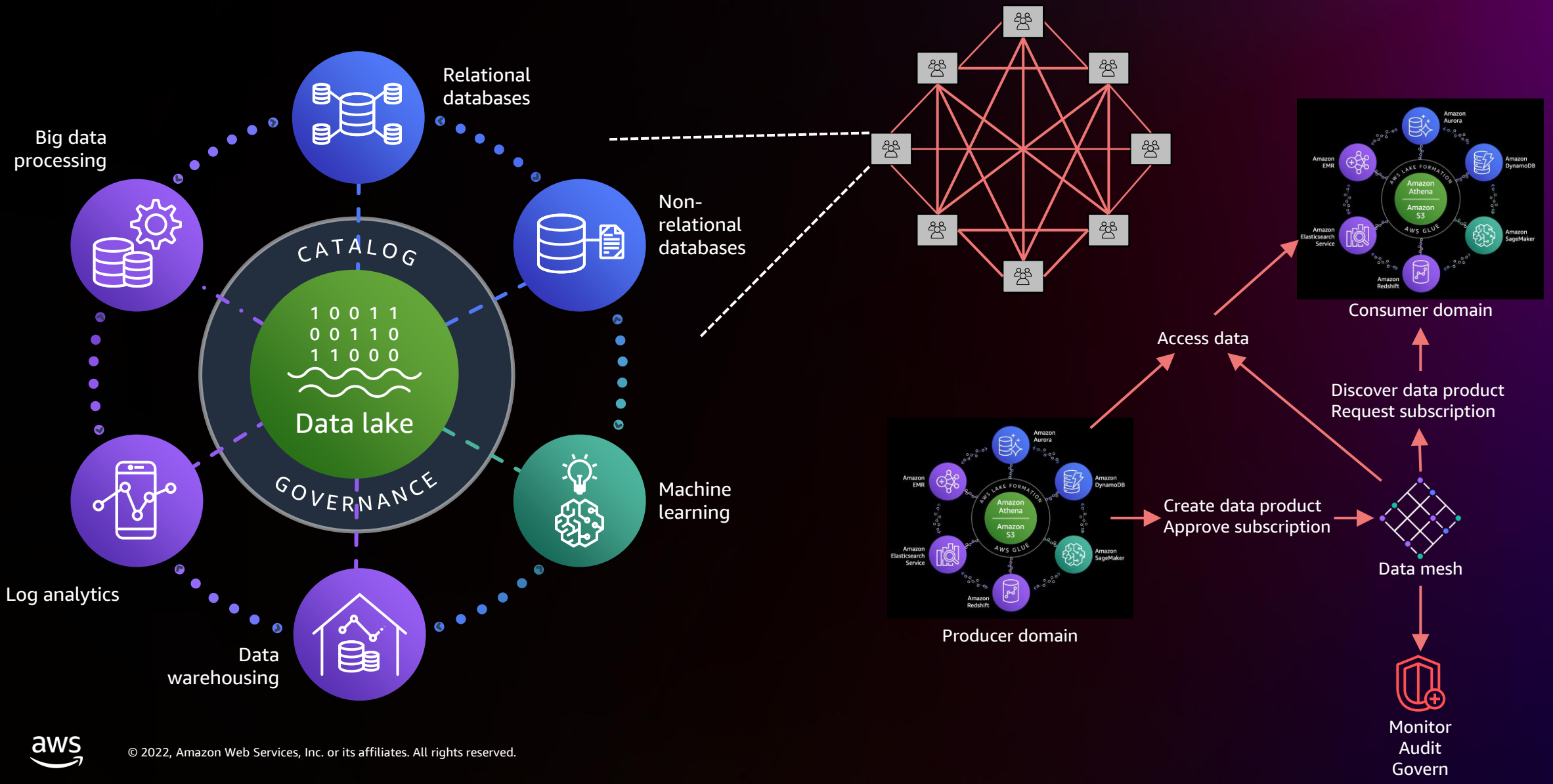
Using AWS analytics and ML services helped create **customized value propositions to customers** and an **increase in revenue**

Learn more

aws

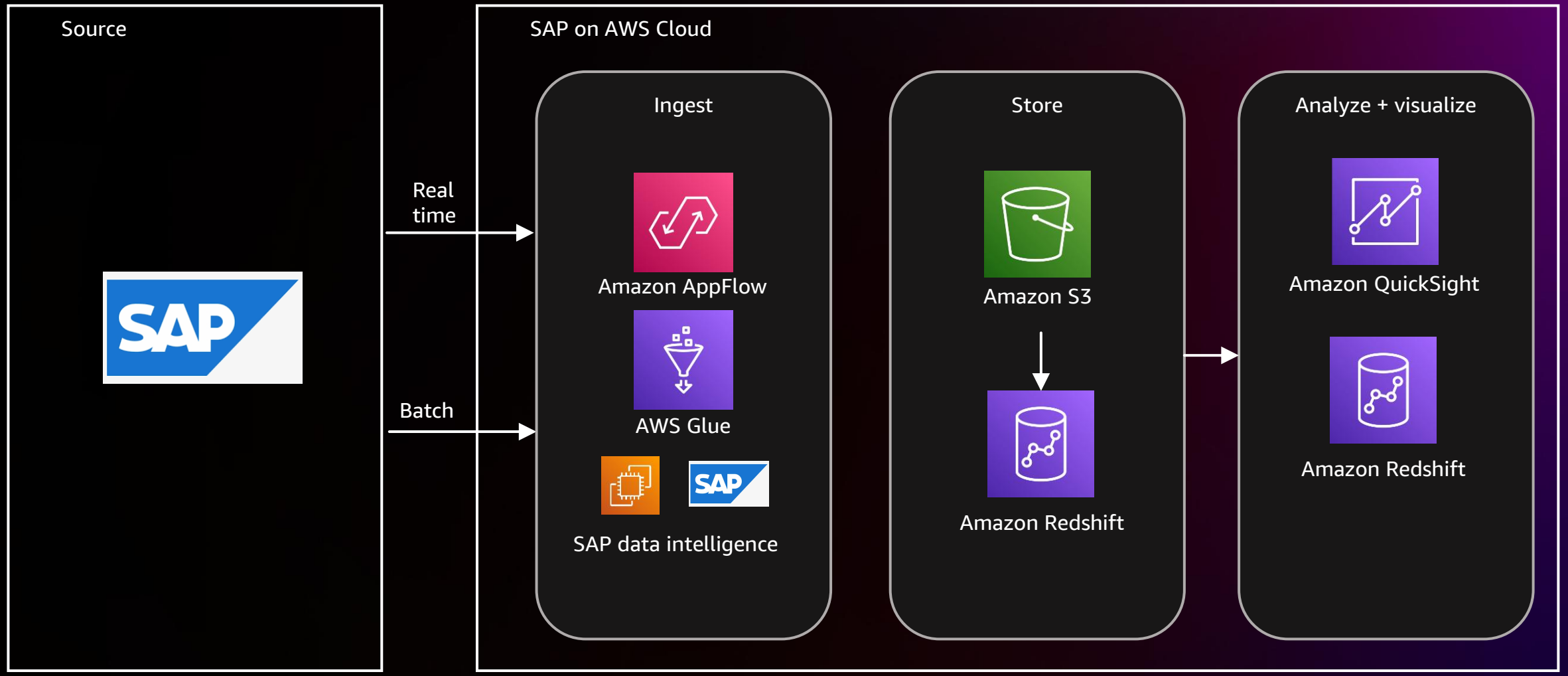
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Modern data architecture and data domains



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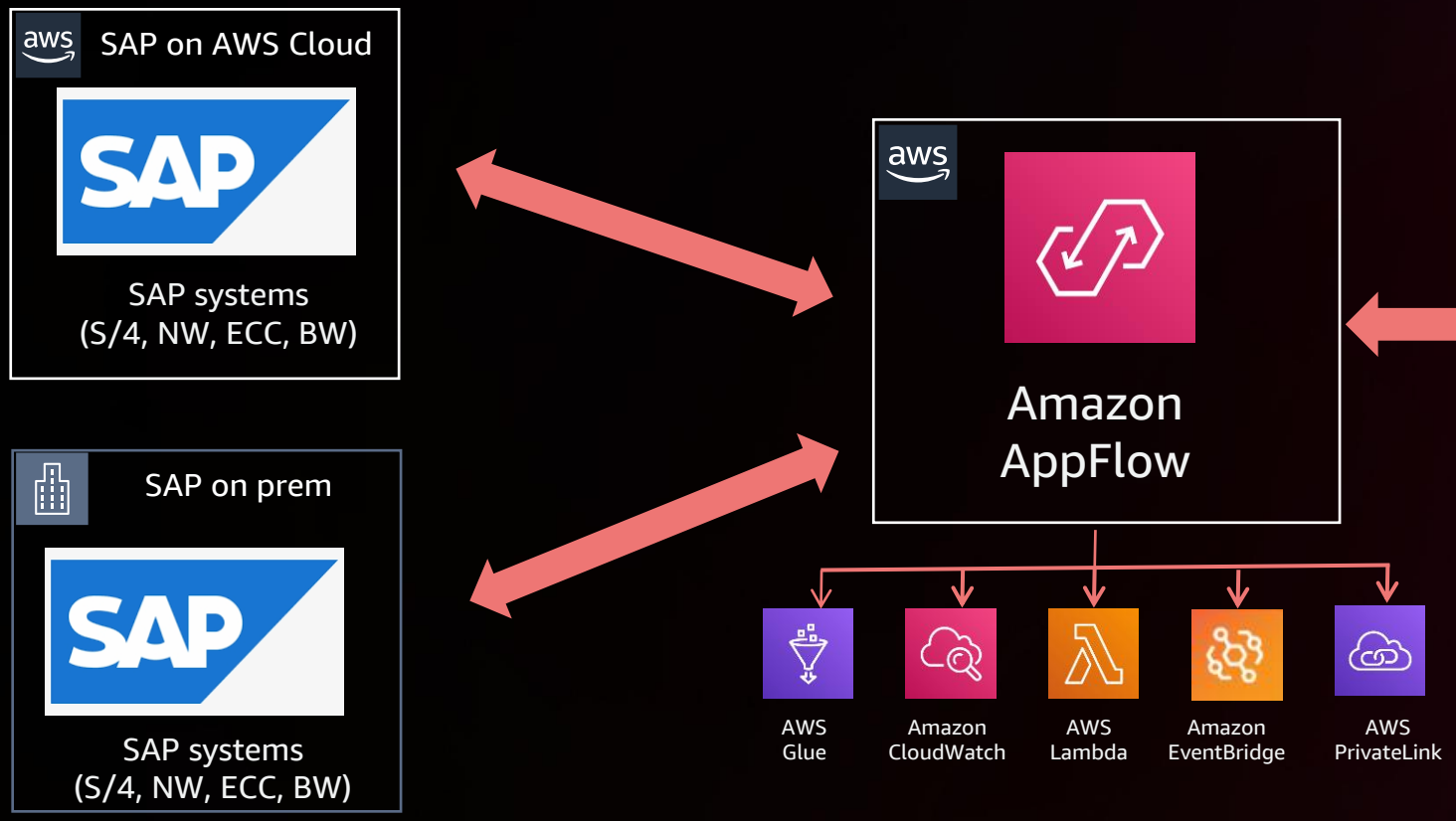
SAP data and business logic extraction

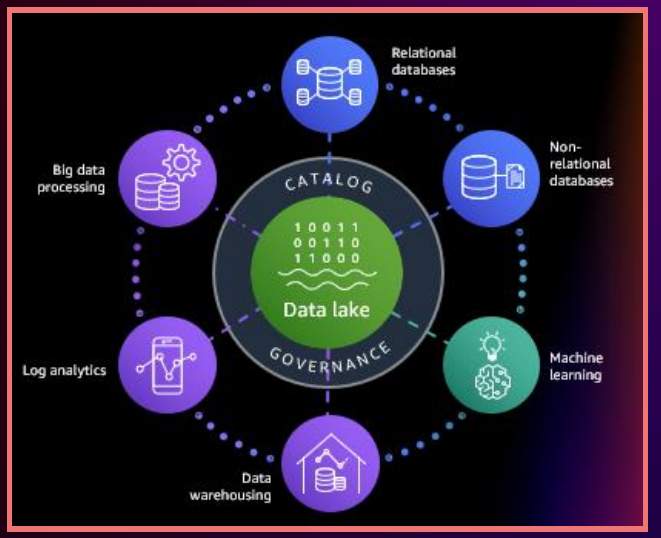


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Amazon AppFlow builds CDC integration by invoking 5+ AWS services

AMAZON APPFLOW DOES ALL THIS UNDER THE HOOD, BEHIND ITS NEAT INTERFACE, TO MAKE DATA FLOW



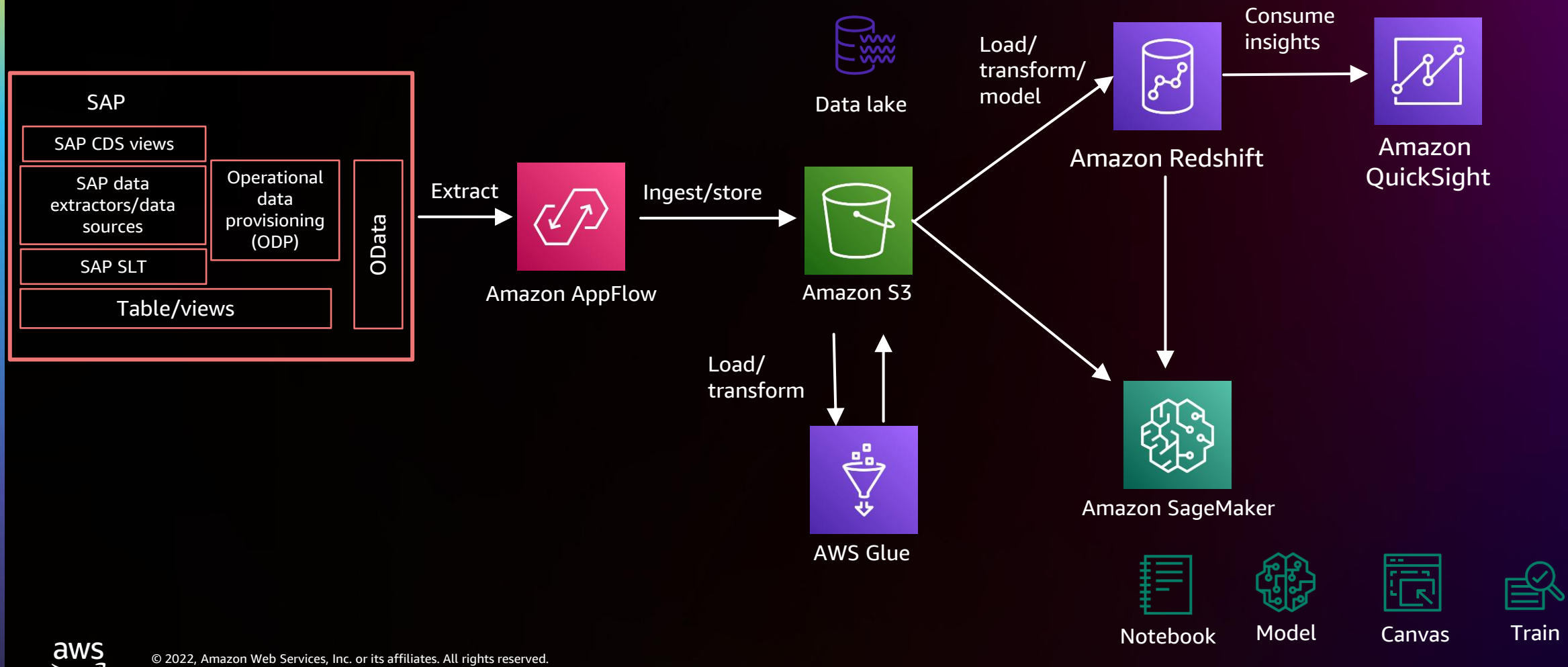


Modern
data architecture

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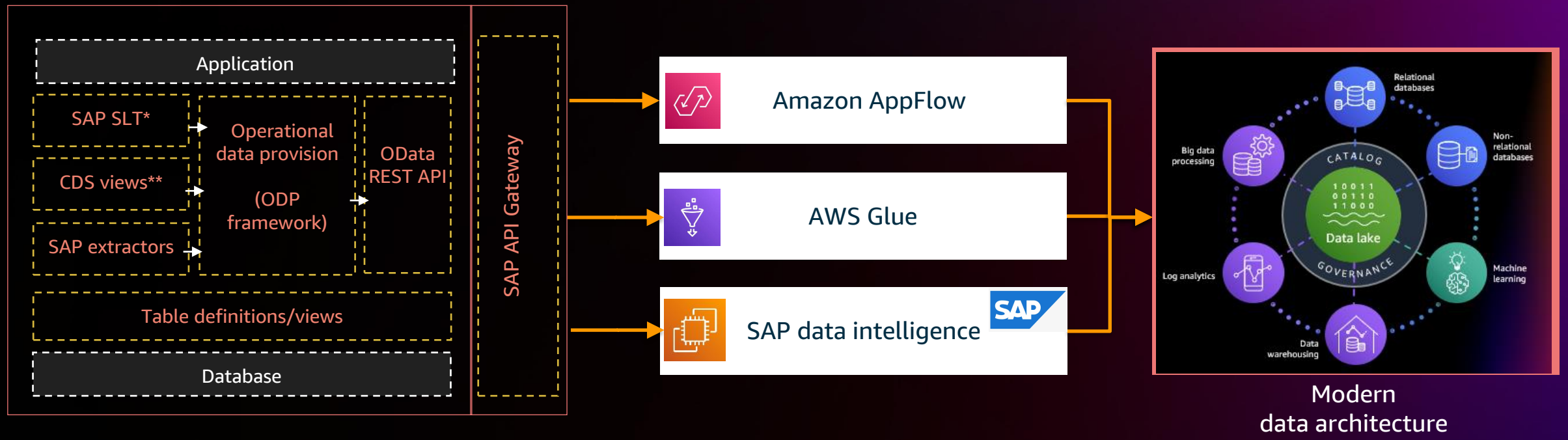
High-level AWS architecture

GUIDANCE FOR SAP ON AWS LAKE HOUSE TO COMBINE SAP AND NON-SAP DATA



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SAP data and business logic extraction



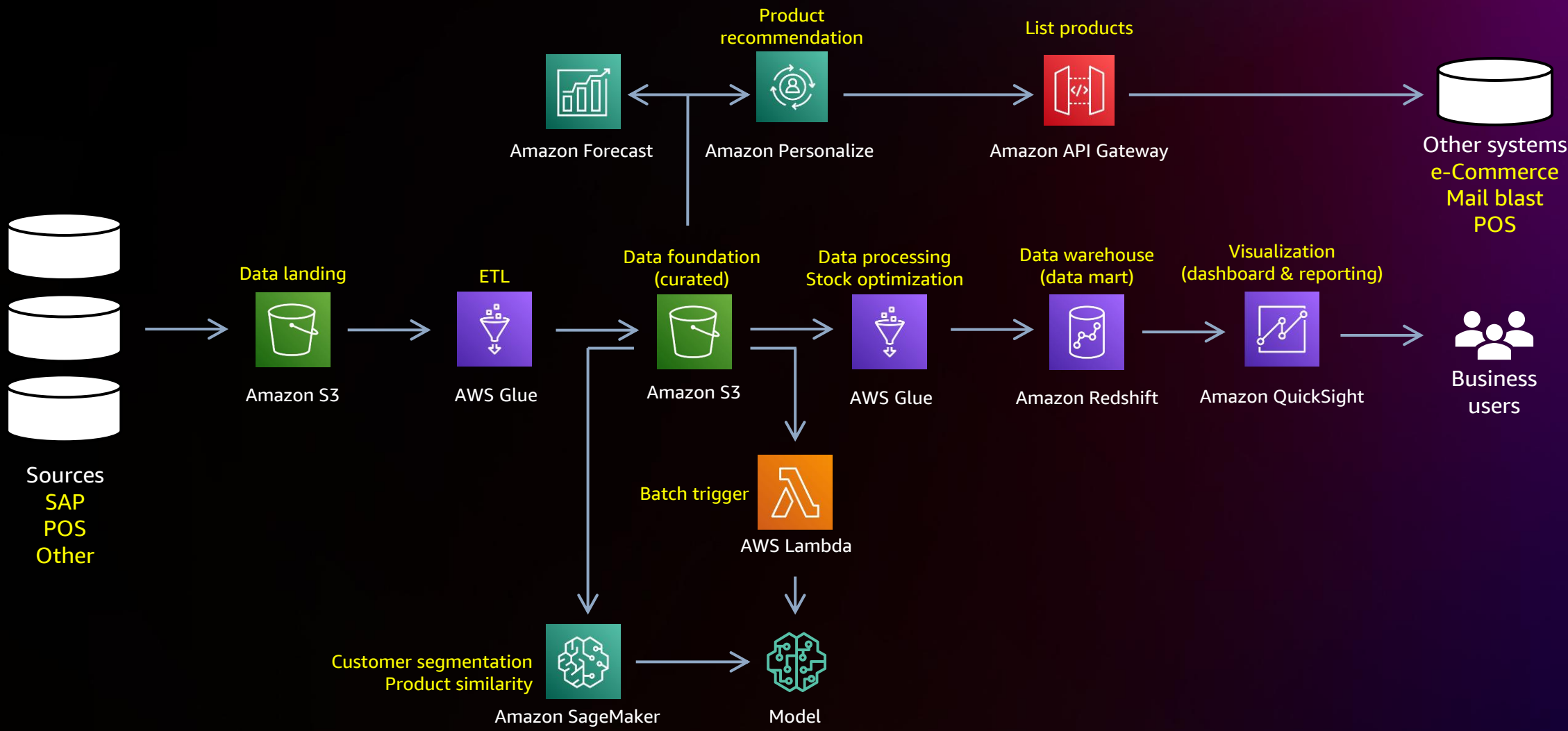
Modern data architecture

- Flexible data orchestration
- Retain application level context
- Leverage SAP extractors with pre-built business logic for faster time to value

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Reference slide/architecture

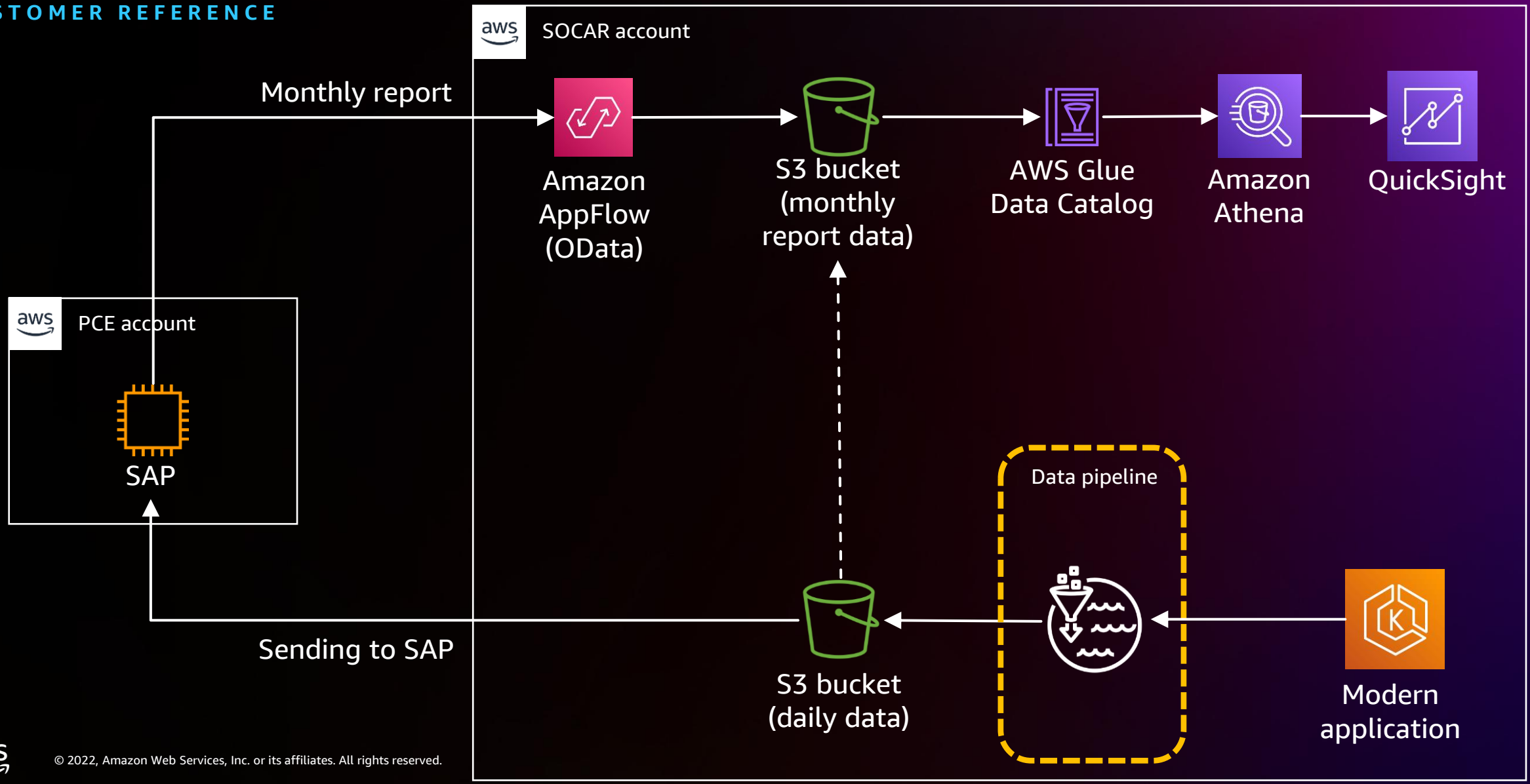
CUSTOMER REFERENCE



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SOCAR/architecture

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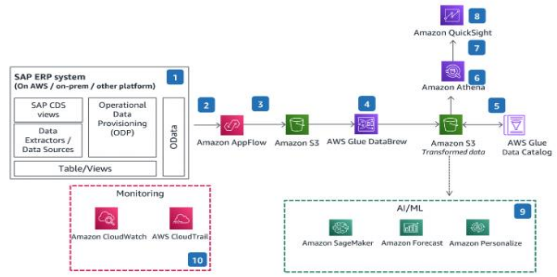


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AWS SAP business insights solution guidance

Architecture Diagram

Download the architecture diagram PDF



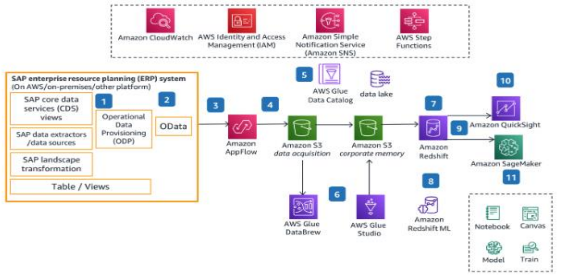
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Step 1
Configure OData service for extraction from SAP system (such as a sales order).

[Guidance for DataLake with SAP and non-SAP data on AWS]

Architecture Diagram

Download the architecture diagram PDF



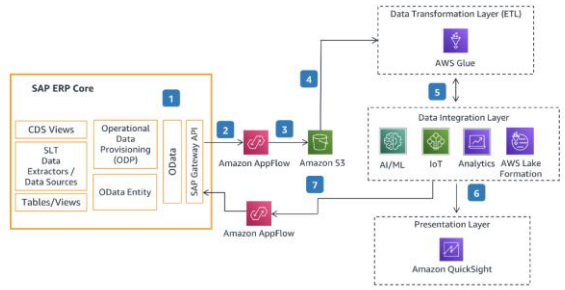
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Step 1
Configure (or activate) the data source in your SAP system (for example, activate SAP extractors).

[Guidance for Data Warehousing Complementing SAP Solutions on AWS]

Architecture Diagram

Download the architecture diagram PDF



Step 1
Configure OData service for extraction SAP system (such as, Sales Order). Extract is possible from ODP or OData Data Entities.

[Guidance for Data Integration & Management to/from SAP on AWS]

Architecture Diagram

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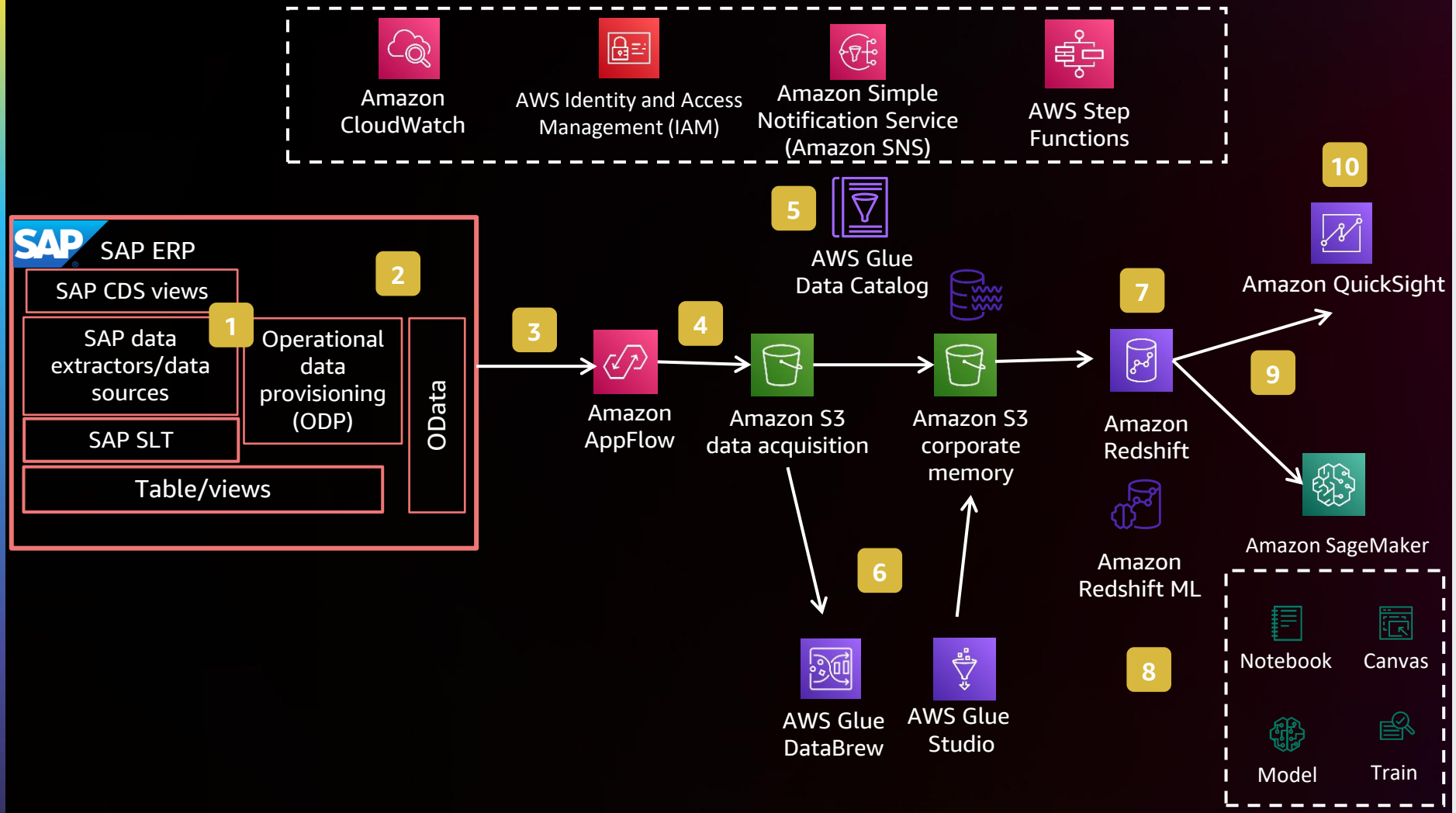
Step 1
Identify and configure (or activate) the data sources. Transfer from SAP application to AWS services. Then configure the Operating Data Provisioning (ODP) for extraction in the SAP Gateway of your SAP system.

[Guidance for Data Compliance and Retention for SAP on AWS]

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Cloud data warehouse on AWS with SAP data

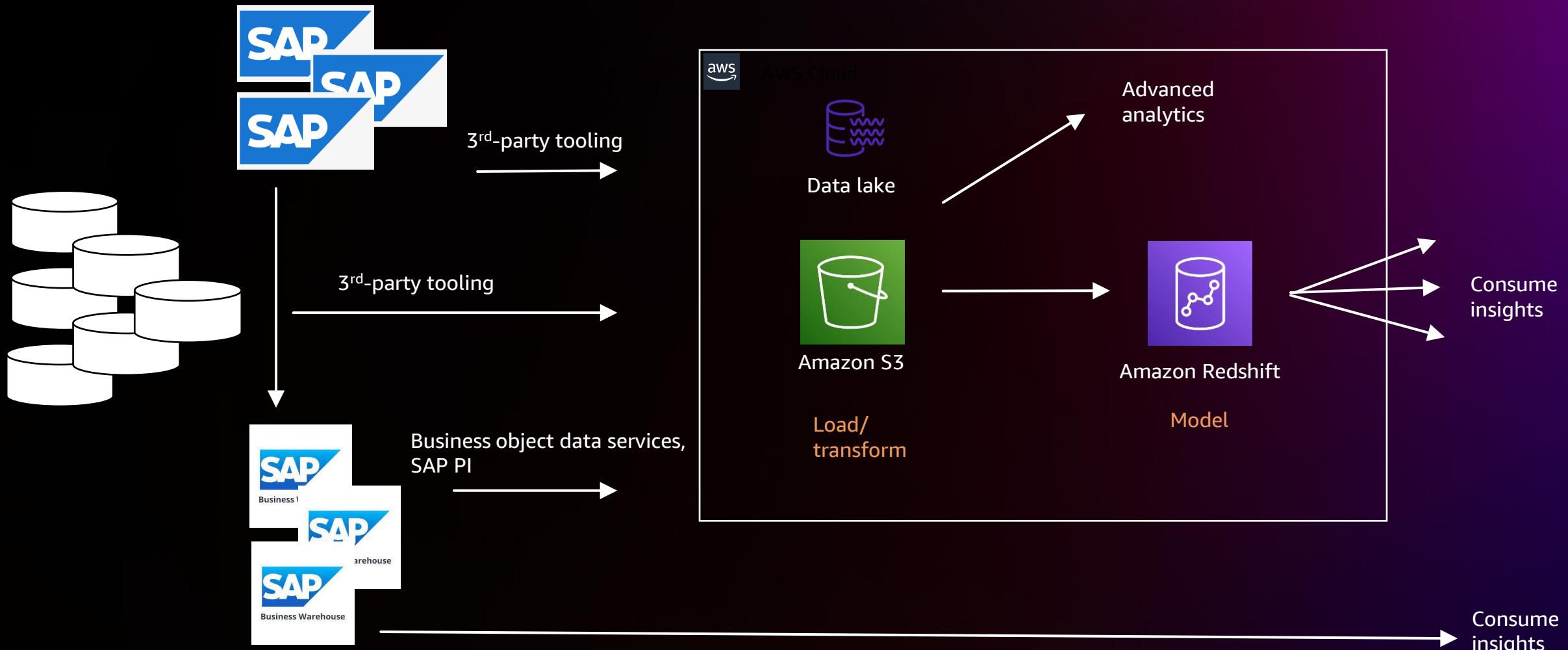
This reference architecture is showing how to build a cloud data warehouse using SAP data on AWS, by extracting data from SAP via OData protocol. The data warehouse can be used to model and combine your SAP data with that of other sources loaded into your data warehouse. The in-built machine learning in Amazon Redshift can be utilized to drive further insight, or data can be consumed by other purpose-built services for AI/ML or data visualization purposes



1. Configure (or activate) data source in your SAP system (for example, activate SAP extractors)
2. Configure ODP for extraction in the SAP gateway of your SAP system
3. Create the OData system connection from Amazon AppFlow to your SAP source system. This can be over PrivateLink for SAP on AWS/connect with AWS via VPN/direct connect, or over the internet
4. In Amazon AppFlow, create the Flow using the SAP source created in step 3. Run the flow to extract data from SAP and save to an S3 bucket
5. Use the AWS Glue crawler, create a data catalog entry with metadata for the extracted SAP data in your S3 bucket
6. Utilize AWS Glue DataBrew and/or AWS Glue Studio jobs to cleanse and optimize the format of your SAP data, then save the transformed data into another S3 bucket
7. Load data into Amazon Redshift through simple 'COPY' commands. Model the data with other non-SAP sources in your data warehouse.
8. Build SQL-based machine learning models to drive insight from your data
9. Create the dataset in QuickSight with Amazon Redshift as your datasource
10. Create a dashboard to visualize the business data as per requirements. Utilize inbuilt ML and insight features to help enable speed to insight
11. With Amazon SageMaker, build and train machine learning models

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High-level architecture



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Thank you!

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