AWS re:Invent

NOV. 29 – DEC. 3, 2021 | LAS VEGAS, NV

FSI311

Your blueprint for financial services data lake migrations

Jeremiah O'Connor (He/His)
Solutions Architect
AWS

Priyanka Chaudhary (She/Her)
Data Architect, Data Lake
AWS

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Agenda

Presentation: Introduction to data lake and migration core concepts; ~15 minutes

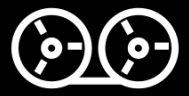
Interactive whiteboarding session: Open discussion on data lake migration patterns and best practices for financial service organizations; ~45 minutes

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Financial institutions collect massive amounts of data



90% of data worldwide has been generated in the last two years



2.2 million terabytes of new data is created every day



Financial institutions collect structured, semi-structured, and unstructured data

1. Axis Corporate, Understanding Big Data in Financial Services https://axiscorporate.com/us/infographic/understanding-big-data-in-financial-services-infographic/

aws

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

What is a data lake?

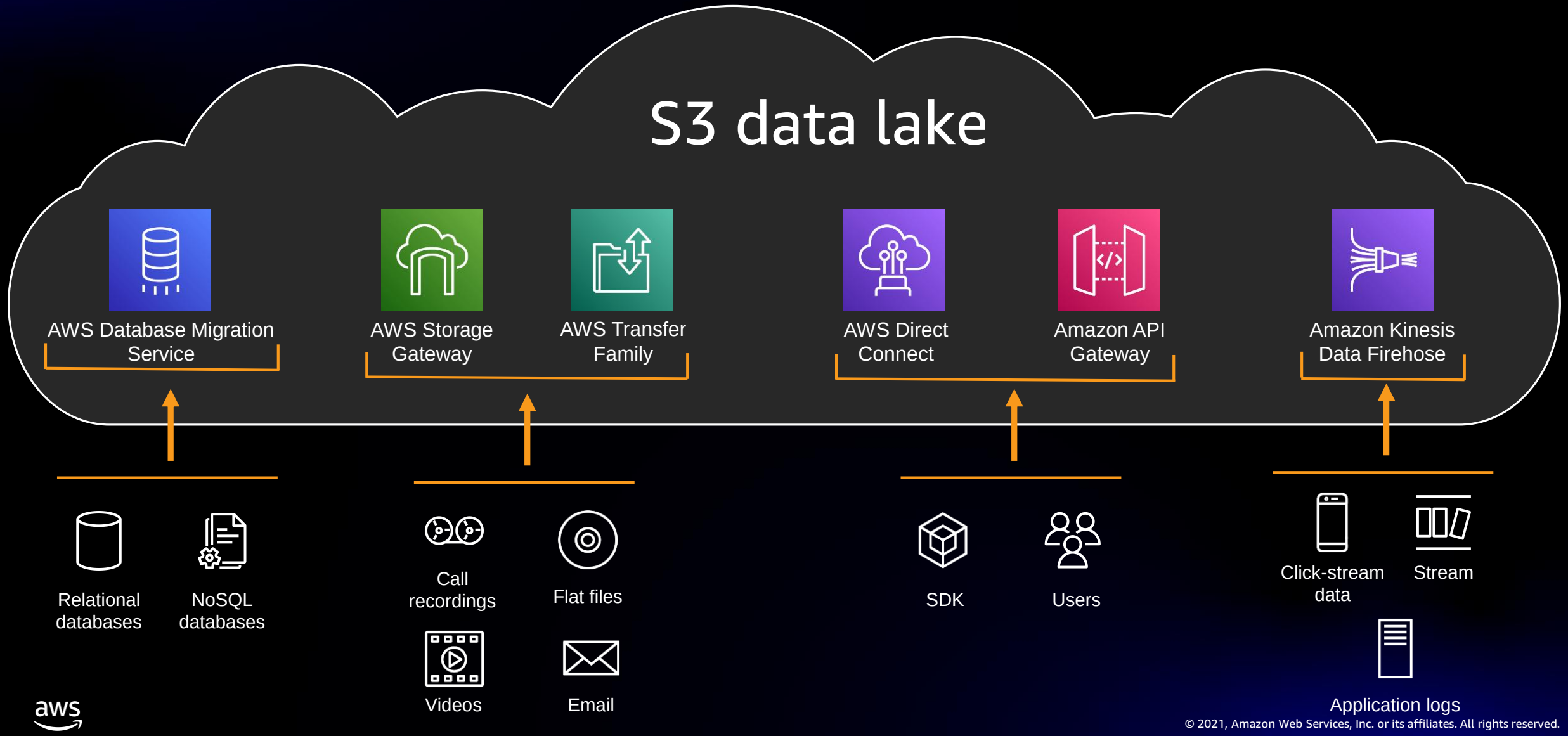
A data lake is a centralized repository where you can store all of your data, structured, semi-structured, and unstructured, at any scale

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

What types of data can be migrated to a data lake?

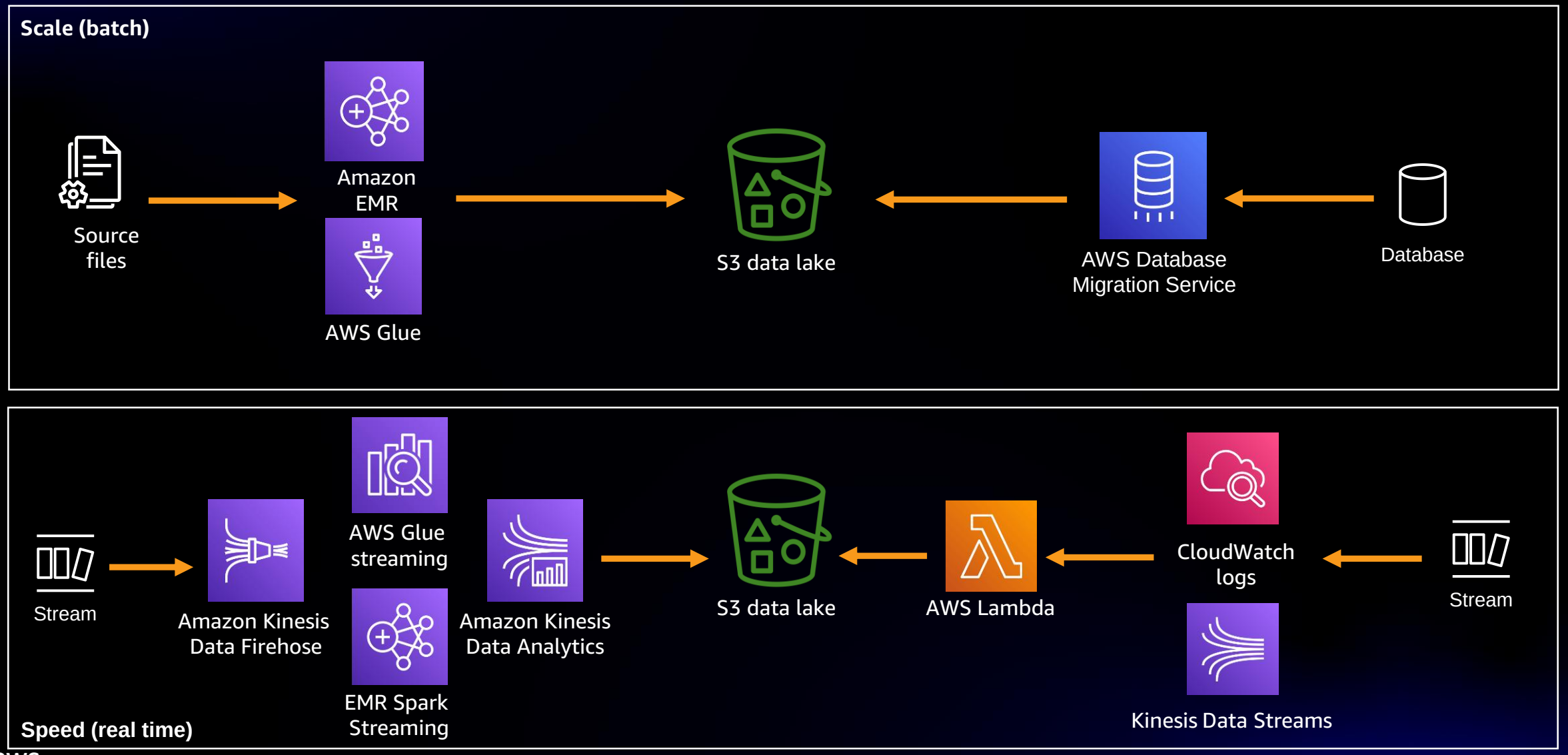
© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

All types of data can be migrated



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Migration methods



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Data lake value chain



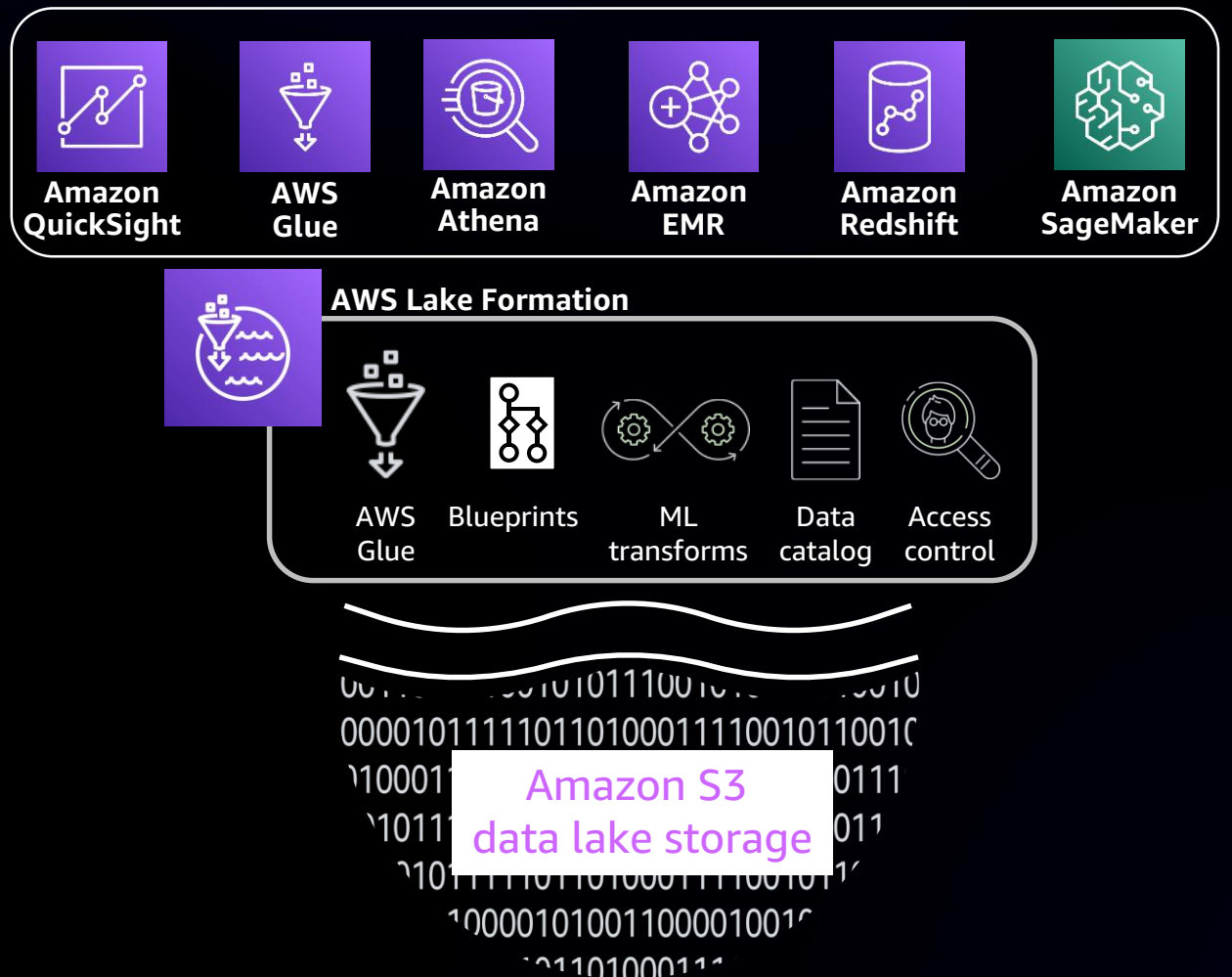
INGESTION → STORE → CATALOG → SHARE → ANALYZE

DATA GOVERNANCE

- Ownership
- Data quality
- Data lineage
- Operational excellence
- Security
- Data privacy

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Build and manage a secure data lake using AWS Lake Formation



Comprehensive set of integrated tools enables every user equally

Centralized management of **fine-grained permissions** empowers security officers

Simplified **ingest and cleaning** enable data engineers to build faster

Cost-effective, durable storage with global replication capabilities

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

How lake formation works



1. Register your Amazon S3 storage locations for your data lake



2. Create databases that catalog your underlying data

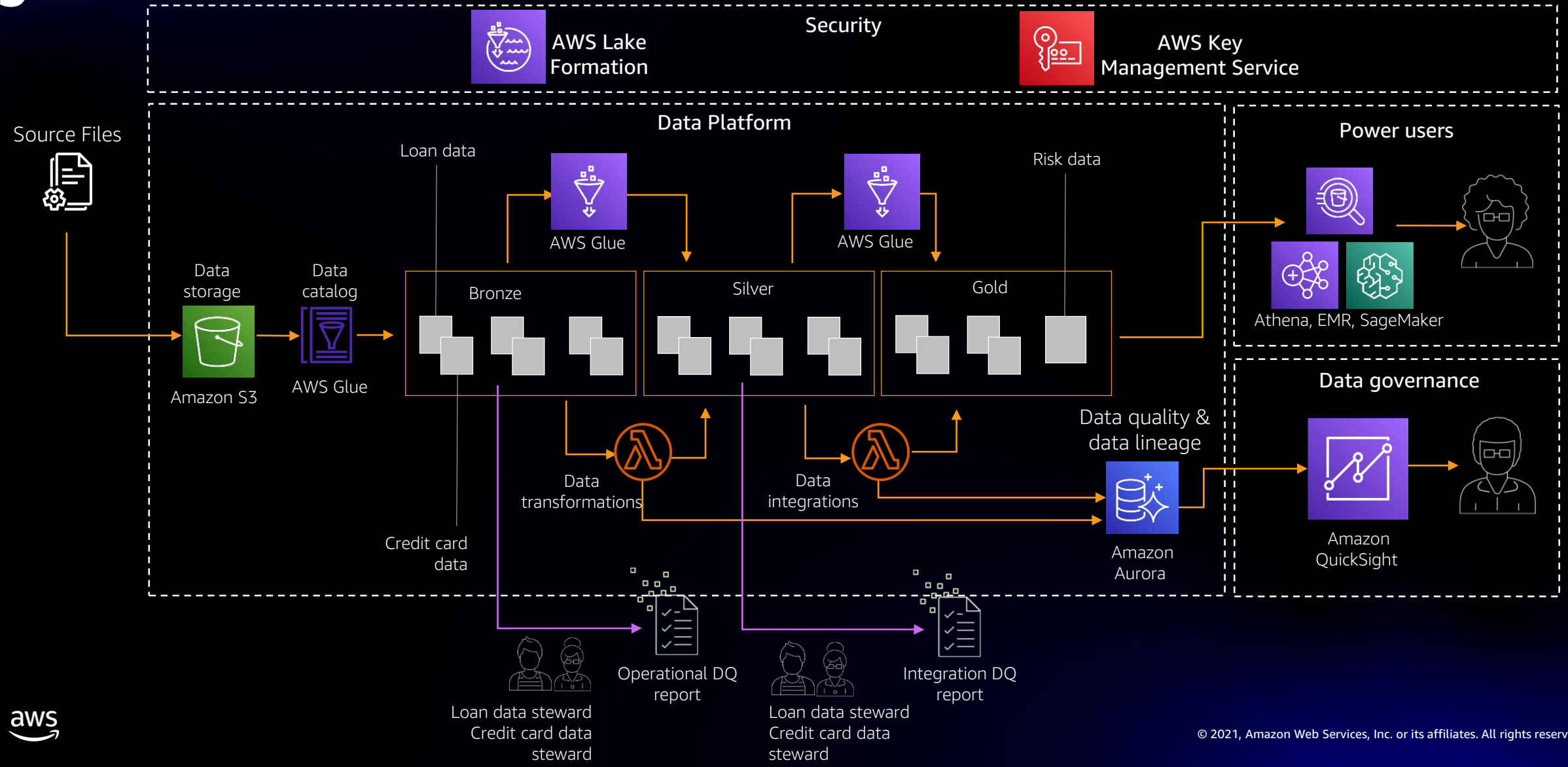


3. Grant permissions to IAM users, IAM roles, or active directory users

aws

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Reference data lake architecture with security and governance



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Whiteboarding session

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Call to Action

AWS Data Lab

Come with an idea, leave with a solution.

Reach out to your AWS account manager or solutions architect to get started. If you do not have an AWS account team, please contact Sales.

AWS Lake Formation Workshop

https://lakeformation.workshop.aws/

AWS Online Tech Talk

Check out a deep dive into FSI data lakes Tech Talk on YouTube



© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Thank you!

Jeremiah O'Connor

Priyanka Chaudhary

© 2021, Amazon Web Services, Inc. or its affiliates. All rights reserved.