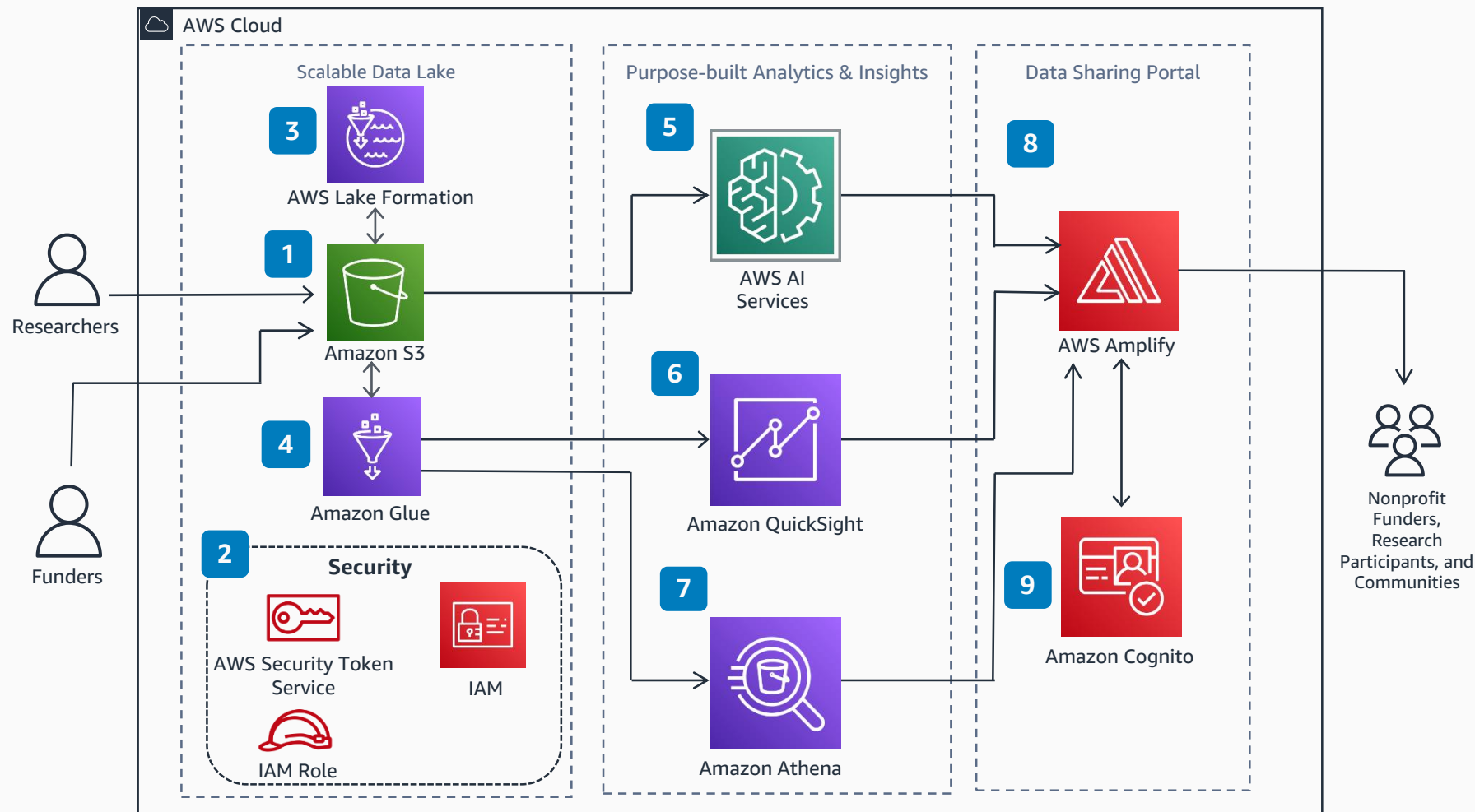


# Guidance for Data Sharing for Nonprofit Funders, Research Participants, and Communities on AWS

This architecture enables nonprofits research institutes to build a modern data sharing portal that drives collaboration, transparency, and compliance.



- 1** Nonprofit researchers upload their data to **Amazon Simple Storage Service (Amazon S3)**. You can give project funders permission to upload other datasets from previous projects to **Amazon S3**.
- 2** **AWS Identity and Access Management (IAM)** creates roles and tokens to securely authorize access to **Amazon S3**. You can securely configure the **Amazon S3** uploader client app to make it easier for researchers to use.
- 3** **AWS Lake Formation** simplifies management and governance of your scalable data lake using **Amazon S3** as the underlying storage. **Lake Formation** enables access controls (for row-, column-, and table-level security), audit trails, and automatic schema discovery.
- 4** **AWS Glue** extracts, transforms, catalogs, and ingests data across multiple data stores.
- 5** Researchers can give **Amazon SageMaker** or **AWS Artificial Intelligence (AI) services** access to data in the S3 data lake in order to build, train, and deploy machine learning (ML) models or enrich data sets with AI.
- 6** Researchers can use **Amazon QuickSight** to create visualizations and dashboards for their analysis or to share data insights with funders, research participants, and communities.
- 7** **Amazon Athena** provides an interactive SQL style query engine that you can use on the data lake.
- 8** Researchers can build and deploy a data sharing portal using **AWS Amplify**, a managed service for building, deploying, and hosting a static website. This service provides libraries to simplify permissions management. Researchers can embed **QuickSight** dashboards and display results from **SageMaker** models or **Athena** queries on their website so funders, research participants, and communities can gauge findings from the research.
- 9** **Amazon Cognito** simplifies log-in and permission management to restrict who can view the data sharing portal and what access they have.

