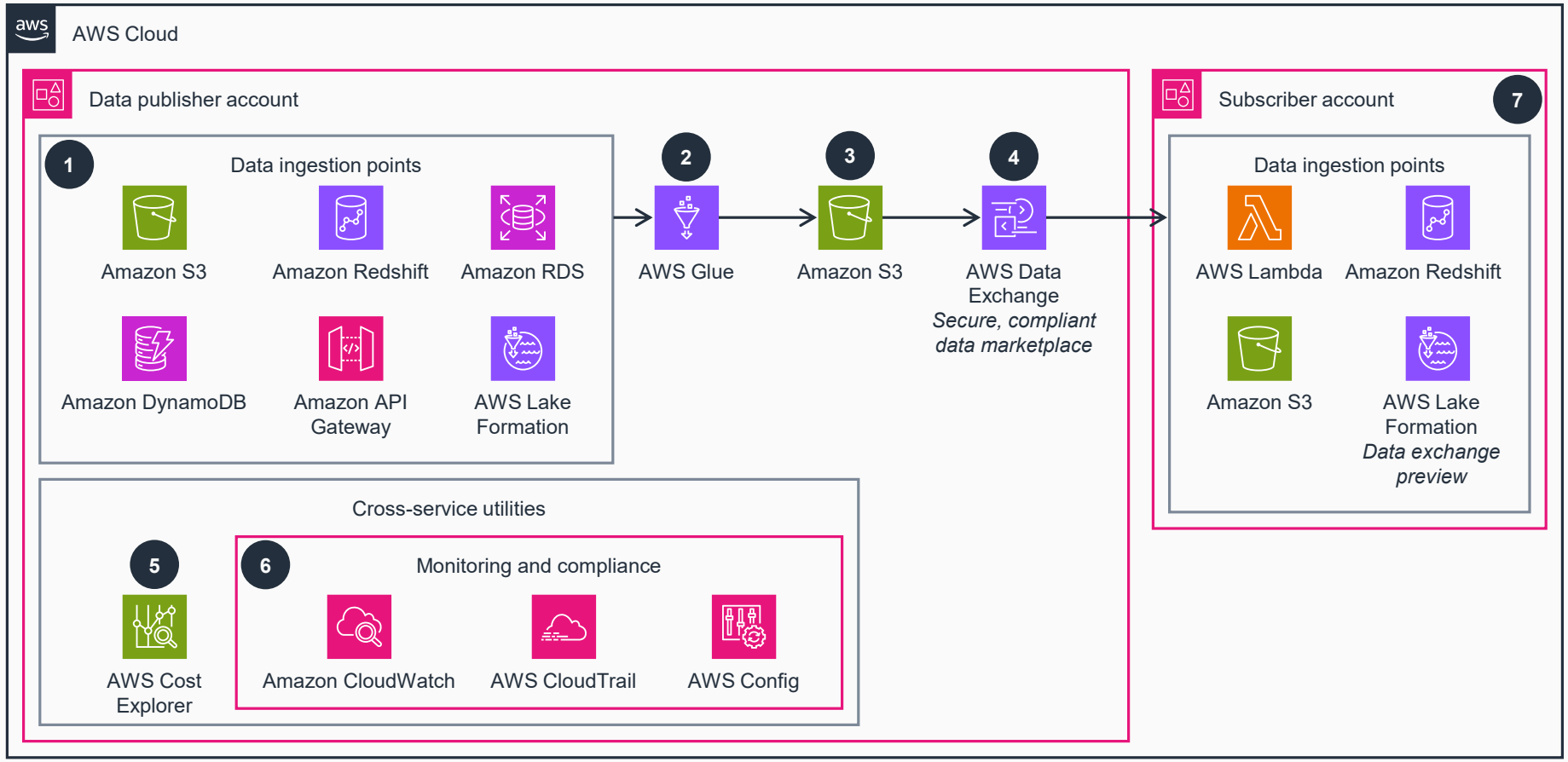
# Guidance for Research Data Monetization on AWS

This architecture diagram shows how you can improve data monetization with other AWS customers.




1. This is the entry point into the AWS environment. Ingest data from relational databases like **Amazon Relational Database Service (Amazon RDS)**, object stores like **Amazon Simple Storage Service (Amazon S3)**, NoSQL stores like **Amazon DynamoDB**, data lakes through **AWS Lake Formation**, or external APIs through **Amazon API Gateway**. **AWS Lambda** functions can be used for custom ingestion logic.

2. **AWS Glue** serves as the extract, transform, load (ETL) engine. It will automate the cumbersome process of data preparation, transformation, and schema evolution, readying your data for analytics.

3. After ETL, data is securely stored in an **Amazon S3** bucket and is encrypted at rest and in transit. **AWS Identity and Access Management (IAM)** policies will be configured for granular access control.

4. **AWS Data Exchange** serves as a secure marketplace for data products. List the data on **AWS Marketplace**, where subscribers can find and purchase access to it. Once a subscription is active, **AWS Data Exchange** handles the secure and compliant delivery of data to the subscriber's chosen AWS services.

5. **AWS Cost Explorer** helps monitor and optimize operational costs. It provides insights into spending patterns and can help identify cost-saving opportunities.

6. **Amazon CloudWatch** offers near real-time monitoring, **AWS CloudTrail** provides an audit log for governance, and **AWS Config** facilitates compliance with your organizational policies. Together, they form a robust framework for operational oversight.

7. Once subscribers have accessed data through **AWS Marketplace**, they can route it to a variety of AWS services that best fit their use case. This could be **Lambda** for near real-time processing, **Amazon S3** for storage, **Amazon Redshift** for analytics, or their own data lakes by means of **Lake Formation**.

*Reviewed for technical accuracy November 3, 2023*



**AWS Reference Architecture**