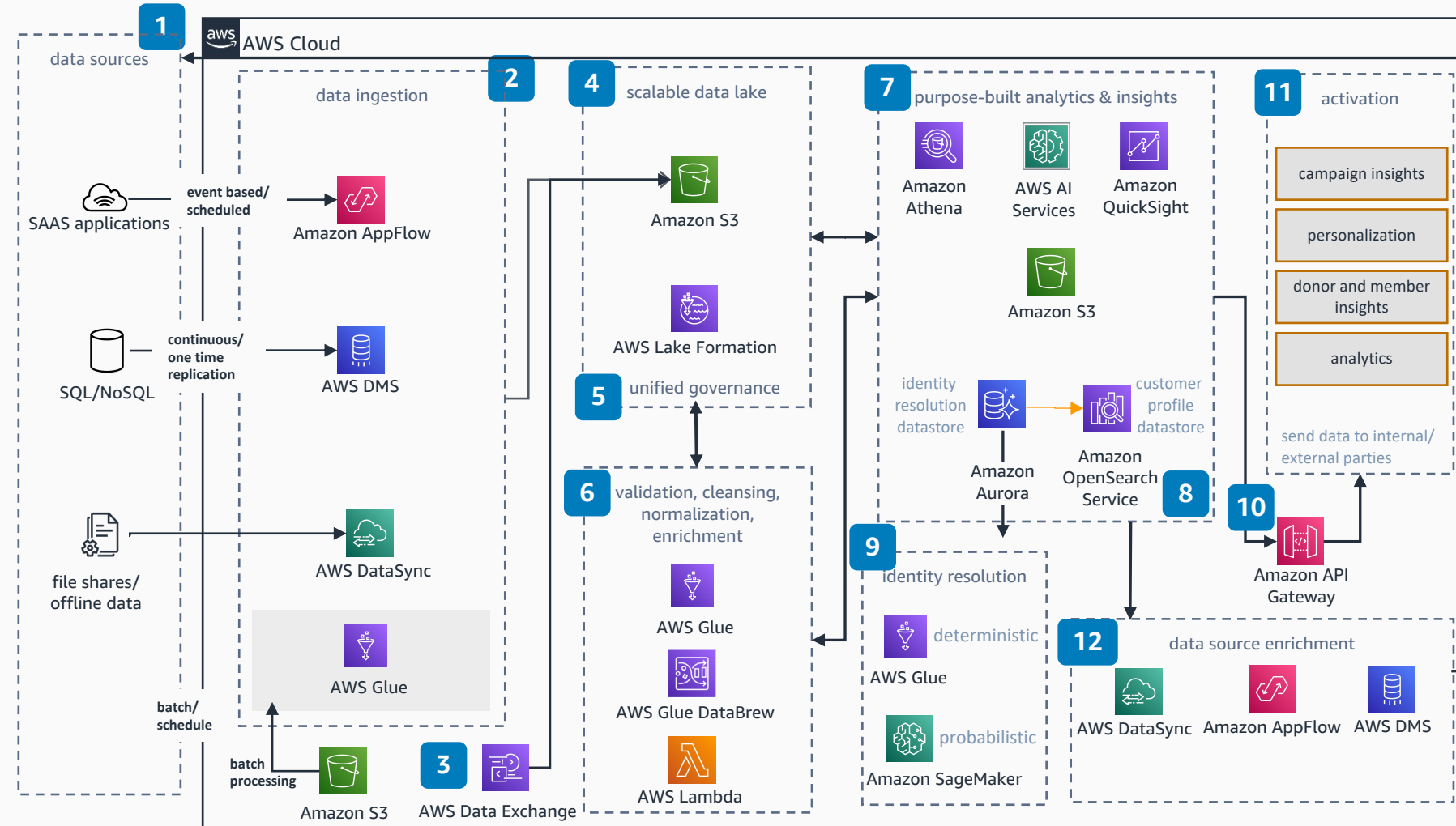


# Guidance for Donor/Members Data Analytics on AWS

This guidance demonstrates how nonprofits can build a single system of record for donor/member data from multiple disparate sources and build dashboards for donor and member trends leveraging AWS Data Lake and AI/ML services.



- 1** Donor and member data is collected from multiple data sources across the enterprise and software as a service (SaaS) applications. Data from fundraising and campaign management tools, registries, and subscriptions – primarily CRM and third party data – can also be collected.
- 2** Based on the type of data source, **AWS Database Migration Service (AWS DMS)**, **AWS DataSync**, and **Amazon AppFlow** are used to ingest the donor/member data into a data lake in AWS.
- 3** **AWS Data Exchange** can be optionally used for integrating third-party data such as taxpayer status, high net worth status, and propensity to donate data into the data lake.
- 4** **AWS Lake Formation** is used to build the scalable data lake for non-profits, and **Amazon Simple Storage Service (Amazon S3)** is used for data lake storage.
- 5** **AWS Lake Formation** is also used to enable unified governance to centrally manage security, access control (table, row, column level security), and audit trails based on non-profits' needs. It also enables automatic schema discovery and conversion to the required format.
- 6** **AWS Glue** is used to extract, transform, catalog, and ingest data across multiple data stores. **AWS Glue DataBrew** can be used for visual data preparation such as donor insights. **AWS Lambda** can be used for enrichment and validation.
- 7** **Amazon QuickSight** provides machine learning (ML)-powered business intelligence, such as donor/member dashboards. **Amazon SageMaker** and AWS AI services can be used to build, train, and deploy ML models, and add intelligence to applications. **Amazon Athena** enables interactive querying, analyzing, and processing capabilities.
- 8** Unified donor/member profile information is stored into **Amazon OpenSearch Service**.
- 9** Build a single donor/member profile view with the help of identity resolution data coming from **Amazon Aurora**.
- 10** **API Gateway** providing exposing APIs as **microservices**
- 11** Send the unified customer data for activation.
- 12** Enrich the data sources. Based on destination type, **AWS DMS**, **AWS AppFlow**, and **AWS DataSync** can be used to export.