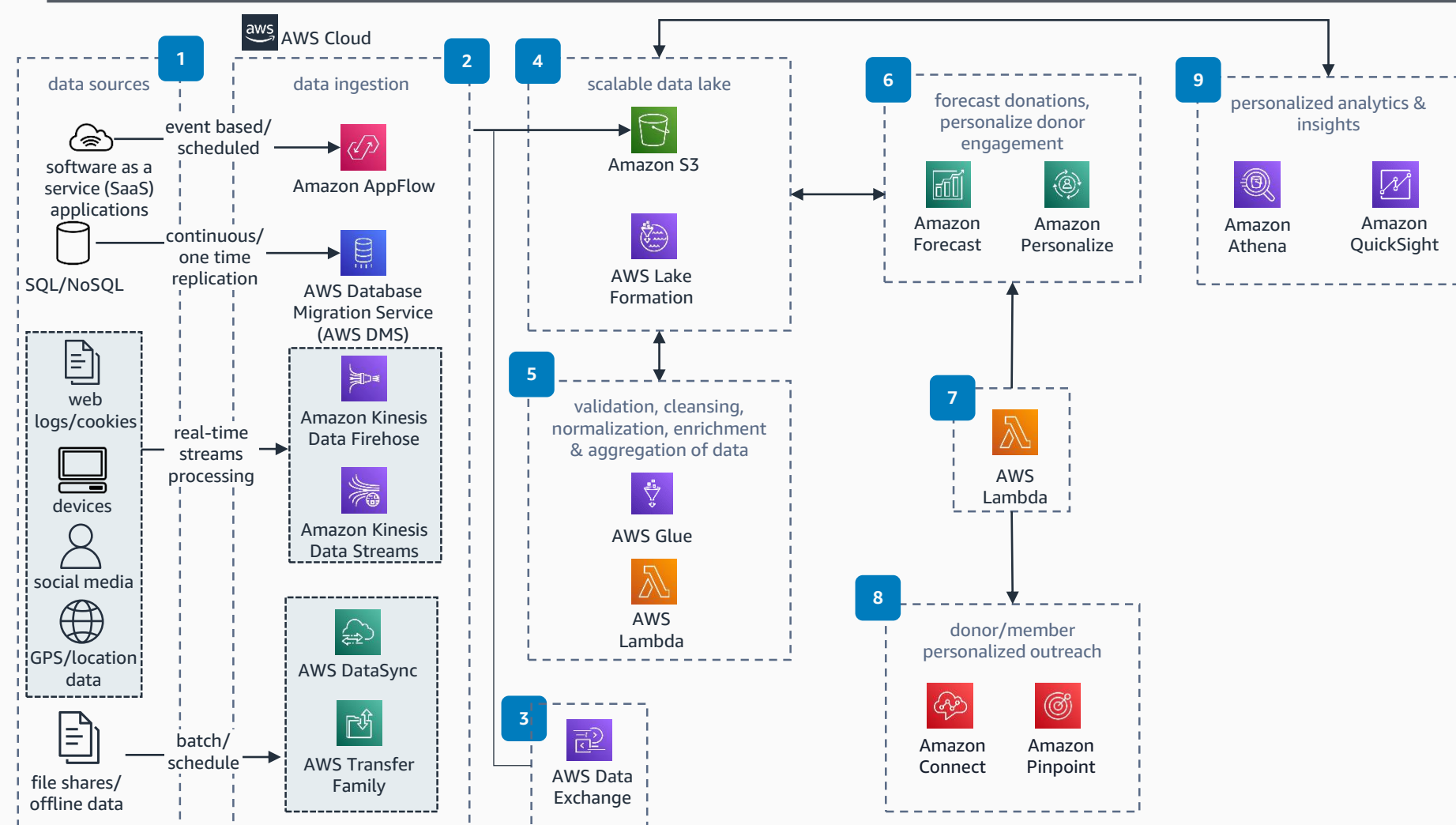


# Guidance for Donor Personalized Engagement on AWS

This architecture blueprint shows how non-profit customers can capture donor/member data from multiple sources, combine the data, leverage AWS artificial intelligence/machine learning (AI/ML) services to perform data analysis, and generate a personalized outreach to donors/members.



- 1 Data is collected from multiple sources: Online (web activity coming from websites, social media platforms, emails, and online campaigns), and offline: (purchase history and subscriptions – primarily CRM and third-party data).
- 2 Based on the data source, **AWS DMS**, **AWS DataSync**, **Amazon Kinesis**, and **Amazon AppFlow** are used to ingest the data into a data lake in AWS.
- 3 **AWS Data Exchange** could be used to augment the donor/member data with third-party data sets.
- 4 **AWS Lake Formation** is used to build the scalable data lake, and **Amazon Simple Storage Service (Amazon S3)** is used for its storage. **AWS Lake Formation** is also used to enable unified governance to centrally manage security, access control (table, row and column level security), and audit trails. **AWS Lake Formation** also enables automatic schema discovery and conversion to required format.
- 5 **AWS Glue** is used to extract, transform, catalog, and ingest data across multiple data stores. **AWS Lambda** is used for enrichment and validation.
- 6 AWS ML services like **Amazon Personalize** and **Amazon Forecast** process the enriched data sets in **Amazon S3**. **Amazon Personalize** can be used to build an outreach channel personalization model. The output will contain data on recommendations for right donation amount, frequency, cause, and the outreach channel.
- 7 **AWS Lambda** is used to extract personalized data sets and forecasted donations from **Amazon Personalize** and **Forecast**.
- 8 **Amazon Connect** is used to make personalized outbound calls to donors/members based on the generated data. **Amazon Pinpoint** is used to create campaigns and perform personalized outreaches via SMS and email to donors/members based on the data generated by **Amazon Personalize** and **Forecast**.
- 9 **Amazon QuickSight** provides ML-powered business intelligence visualizations and dashboards that show key metrics such as donation impacts, fundraising goals achievement, and more. **Amazon Athena** enables interactive querying, analyzing, and processing capabilities.



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AWS Reference Architecture