



MailMatrix-Stream: Cloud Enhanced Bulk Email Dispatch System

Project Architecture Overview:

- Data Ingestion:** Amazon S3 stores CSV files that trigger events upon file upload or deletion. Amazon EventBridge handles the event triggering, which activates the Lambda function.
- Processing:** AWS Lambda processes the incoming data by parsing the CSV, and performs email content personalization using pre-defined templates.
- Email Dispatch:** Amazon SES handles the dispatch of personalized emails to the recipients listed in the CSV files.
- Monitoring & Alerts:** AWS CloudWatch monitors the performance and logs of the Lambda function, and if any failures occur, SNS sends notifications via email or SMS.
- Security & Permissions:** AWS IAM manages the necessary roles and permissions for Lambda to interact with services like SES, S3, and CloudWatch.