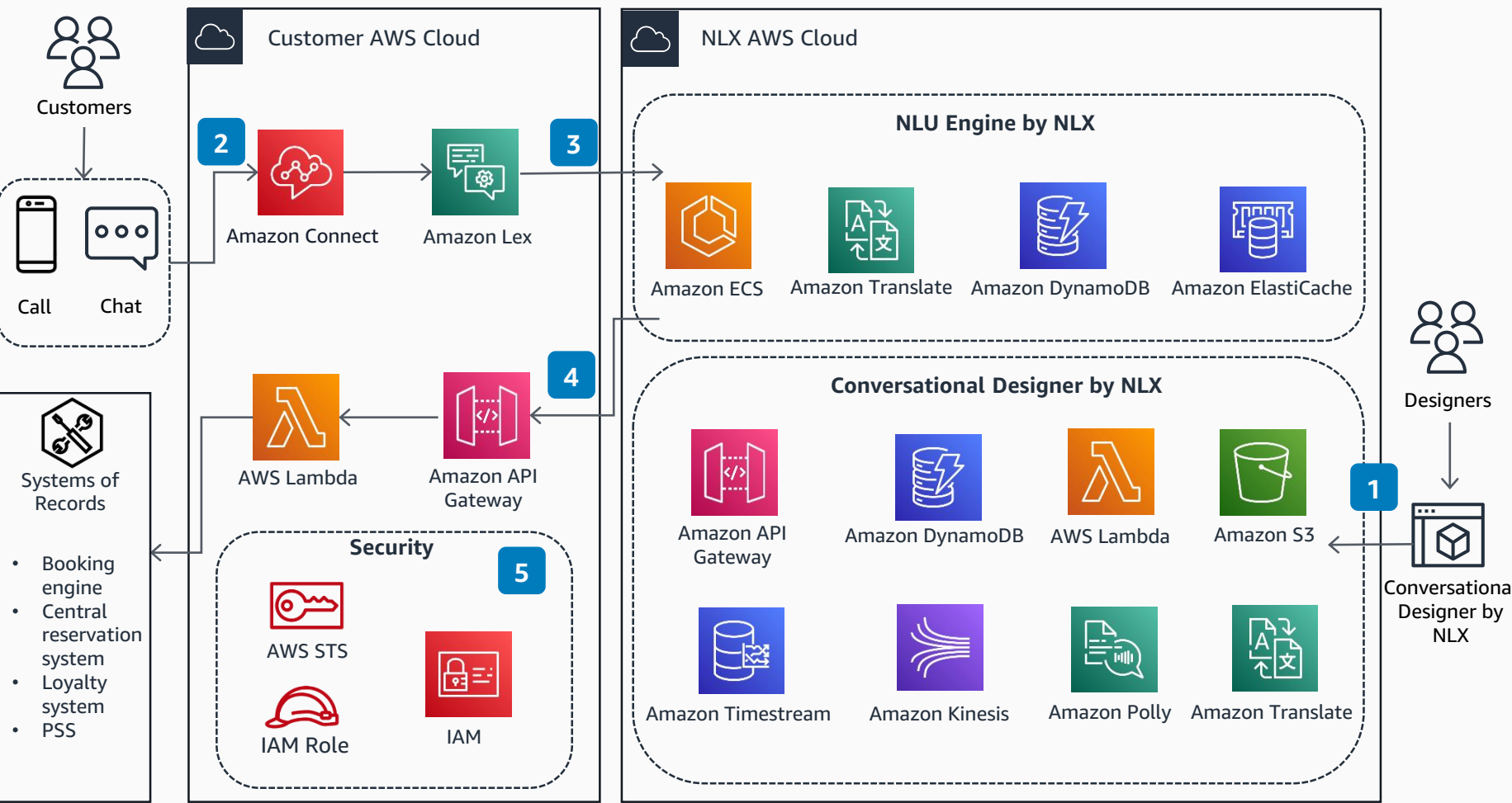


Guidance for Personalized Experiences with NLX

Conversational AI on AWS

This reference architecture helps airlines and hotels deliver a secure, integrated experience for booking and managing travel.



1 Configure your conversation AI workflow with the Conversational Designer by NLX, which is built using **Amazon Simple Storage Service (Amazon S3)**, **Amazon API Gateway**, **Amazon DynamoDB**, and **AWS Lambda** functions. **Amazon Kinesis** performs real-time analytics, and **Amazon Timestream** stores timeseries data generated during conversations. **Amazon Translate** and **Amazon Polly** support conversational designs.

2 Customer calls are directed to **Amazon Connect**, and the call progresses through a contact flow. **Amazon Lex** supports intelligent conversational chatbots to automate responses for a high volume of user contacts without compromising the customer's experience.

3 Customer requests are sent to NLX's natural language understanding (NLU) engine, which is built using **Amazon Elastic Container Service (Amazon ECS)**, **Amazon DynamoDB**, **Amazon Translate**, and **Amazon ElastiCache**. The scalable engine is built to analyze input text and determine the meaning behind the customer request. It is scalable, which helps minimize response times and makes it resilient against failure.

4 Use an **API Gateway** and **Lambda** integration to create HTTPS-based API requests to access the data from the systems of records, such as a booking engine, central reservation system, loyalty system, and PSS.

5 Use **AWS Identity and Access Management (IAM)** and **AWS Security Token Service (AWS STS)** to create roles and temporary tokens that securely authorize access to various services.