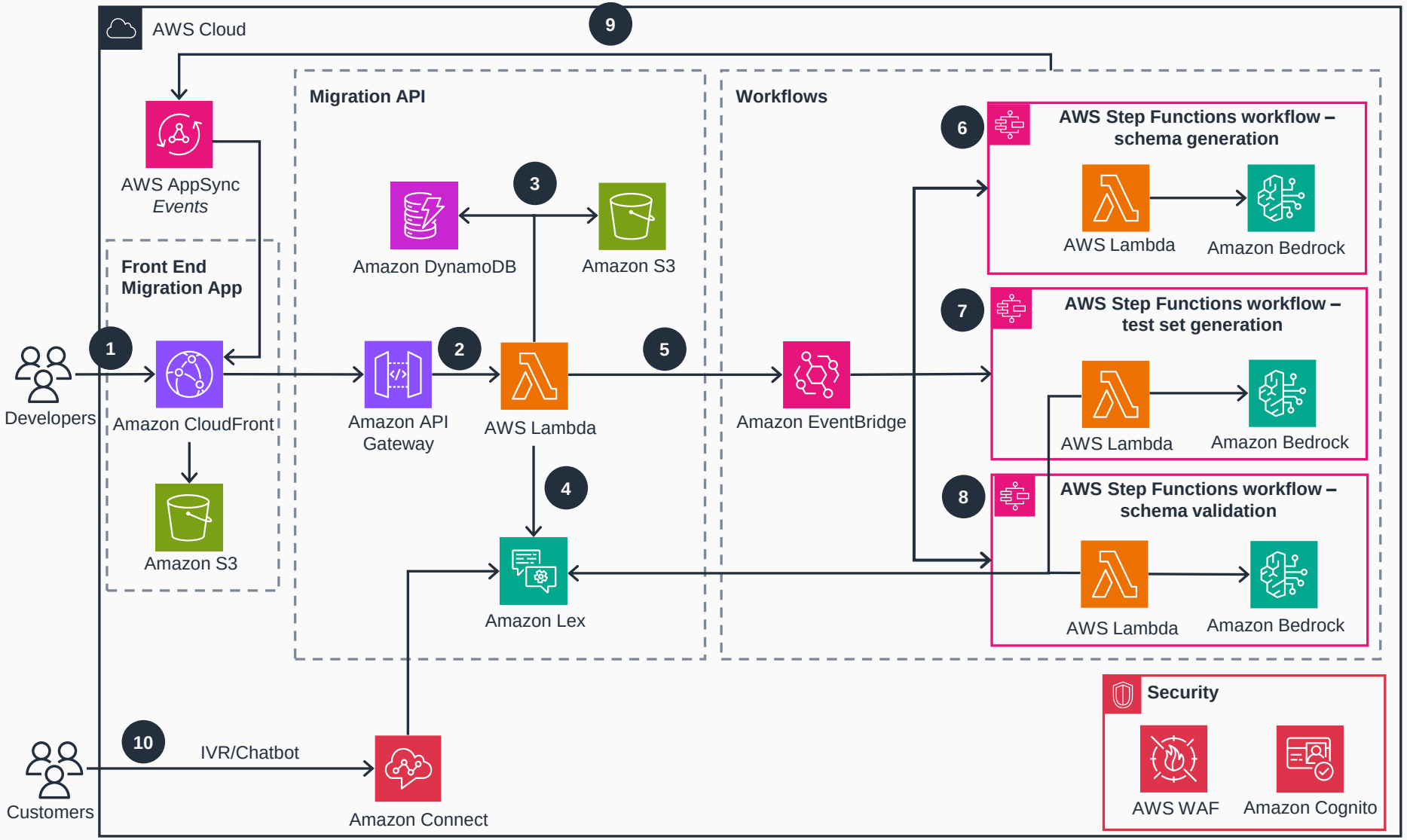
Guidance for IVR Migration to Amazon Connect Using Generative AI on AWS

This architecture diagram shows how to effectively migrate legacy IVR specifications to Amazon Lex and Amazon Connect.



1. Access the migration tool's React web application through **Amazon CloudFront**, secured by **Amazon Cognito** and **AWS WAF**.
2. Initiate bot creation by uploading source specification files through the web application, which triggers **Amazon API Gateway** and **AWS Lambda**.
3. Store migration metadata and configuration settings in **Amazon DynamoDB**. Store migration files and generated bot definitions in **Amazon S3**.
4. The migration API creates the bot and bot locale in **Amazon Lex**.
5. **AWS Lambda** sends a message to **Amazon EventBridge**, triggering **AWS Step Functions** workflows.
6. The schema generation workflow generates the **Amazon Lex** resource definition from the source specification file using **Amazon Bedrock**.
7. The test set generation workflow generates the test set from the source specification file using **Amazon Bedrock** and uploads it to **Amazon Lex**.
8. The schema validation workflow uses generated schema definitions to validate **Amazon Lex** resource creation. It implements a continuous improvement cycle by incorporating validation error messages and tests execution results to iteratively refine the schema specifications.
9. Live status updates are streamed using **AWS AppSync Events** real-time WebSocket connections, providing immediate visibility into each stage of the workflow's progression.
10. Access the migrated chatbot and IVR functionality through **Amazon Connect**.

Reviewed for technical accuracy July 8, 2025

AWS Reference Architecture