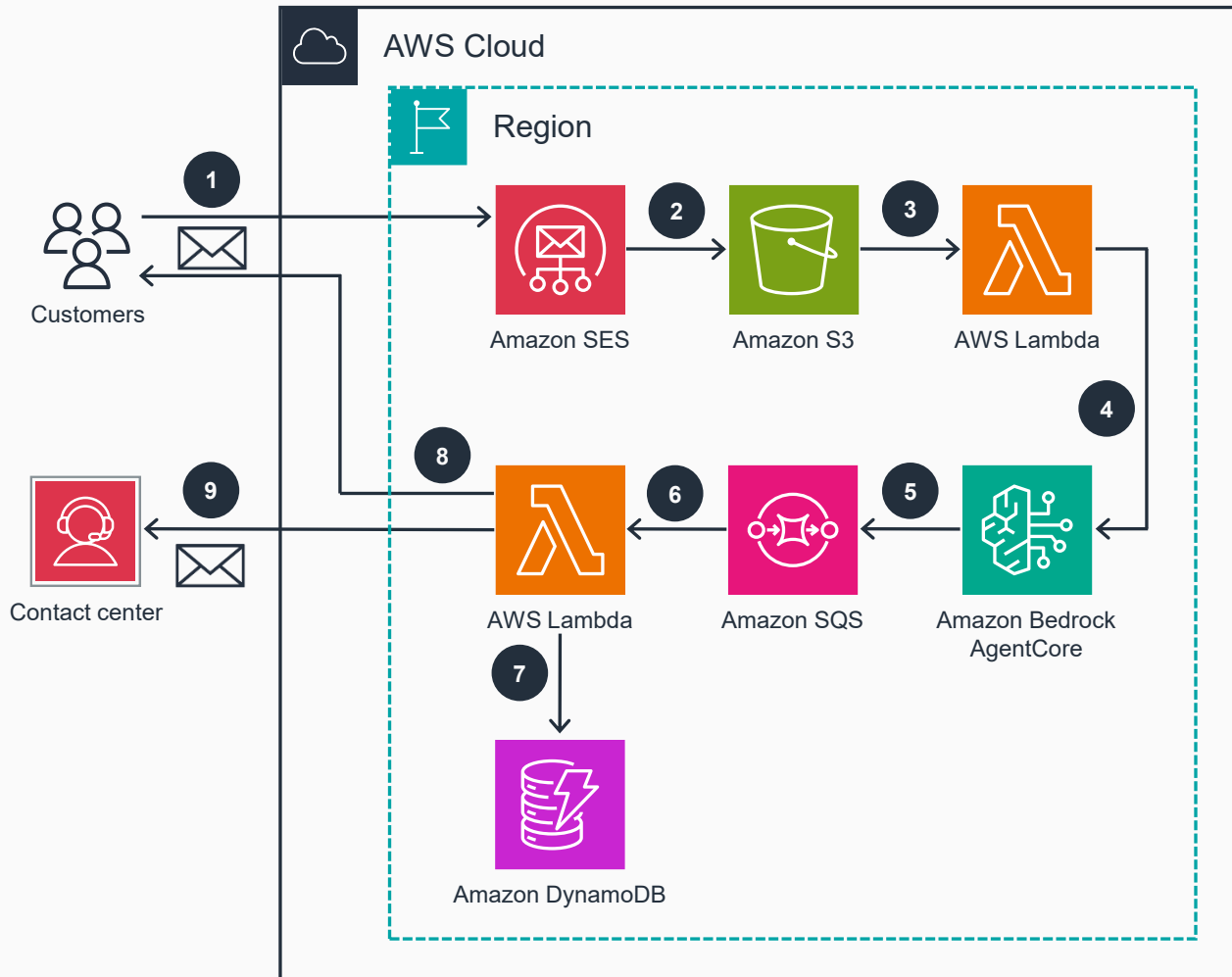


# Guidance for Agentic complaint management on AWS

This architecture diagram illustrates how to effectively support an Agentic complaint management system on AWS, leveraging AI agents that can autonomously process, analyze, and respond to customer complaints with minimal human intervention.



- 1 The execution flow begins when a customer sends a complaint to the domain that is registered in **Amazon Simple Email Service (Amazon SES)**.
- 2 The received email is stored in **Amazon Simple Storage Service (Amazon S3)** for later processing.
- 3 An email writing to the **Amazon S3** bucket, triggers the execution of the email processing **AWS Lambda** function.
- 4 That **AWS Lambda** function retrieves the email content and constructs an input payload for invoking the **Amazon Bedrock AgentCore** runtime, which provides a secure, serverless environment purpose-built for deploying and scaling AI agents.
- 5 The **Amazon Bedrock AgentCore** runtime processes the complaint using multiple specialized AI agents that analyze the complaint text and generate an appropriate response. The runtime then sends the result to an **Amazon Simple Queue (Amazon SQS)** queue.
- 6 When new messages arrive in the **Amazon SQS** queue, a message-processing **AWS Lambda** function is invoked.
- 7 That **AWS Lambda** function persists the **Amazon Bedrock AgentCore** runtime invocation result in an **Amazon DynamoDB** table.
- 8 Additionally, the same **AWS Lambda** function sends an email response to the customer's original email address. This response includes the analysis and resolution steps generated by the Agentic application.
- 9 Finally, if the Agentic application determines that the complaint should be escalated based on predefined criteria, the message-processing **AWS Lambda** function forwards the complaint details along with the AI analysis to a contact center human agent through an API integration.

