# Architectural Solution for AWS Lex Cold Start Issue

## Business Case:

Amazon LexBot Cold Start Issue

## Problem:

An Internal Server Error occurs when a customer attempts to access the Amazon Connect chatbot after a long period of inactivity (standby).

## Proposed Solution:

Implement a Lambda function that runs on a scheduled basis using Amazon EventBridge to prevent the LexBot from entering a cold start state.  
  
The Lambda function should:  
• Retrieve all Lex bot details.  
• Invoke each bot by calling the RecognizeTextCommand API.

### Minimum Information Required to Invoke the API:

• BotId  
• BotAliasId  
• Locale  
• Intent Name  
• Slot  
• Text

If multiple Lex bots need to be invoked, their configuration details can be stored in AWS Systems Manager Parameter Store as a String parameter.

## IAM Configuration:

Create the following IAM permissions for the Lambda execution role:

1. Action: ssm:GetParameter  
 Resource:  
 - arn:aws:ssm:\*:\*:parameter/<name>  
  
2. Action: lex:RecognizeText  
 Resource:  
 - arn:aws:lex:\*:\*:bot-alias/\*