

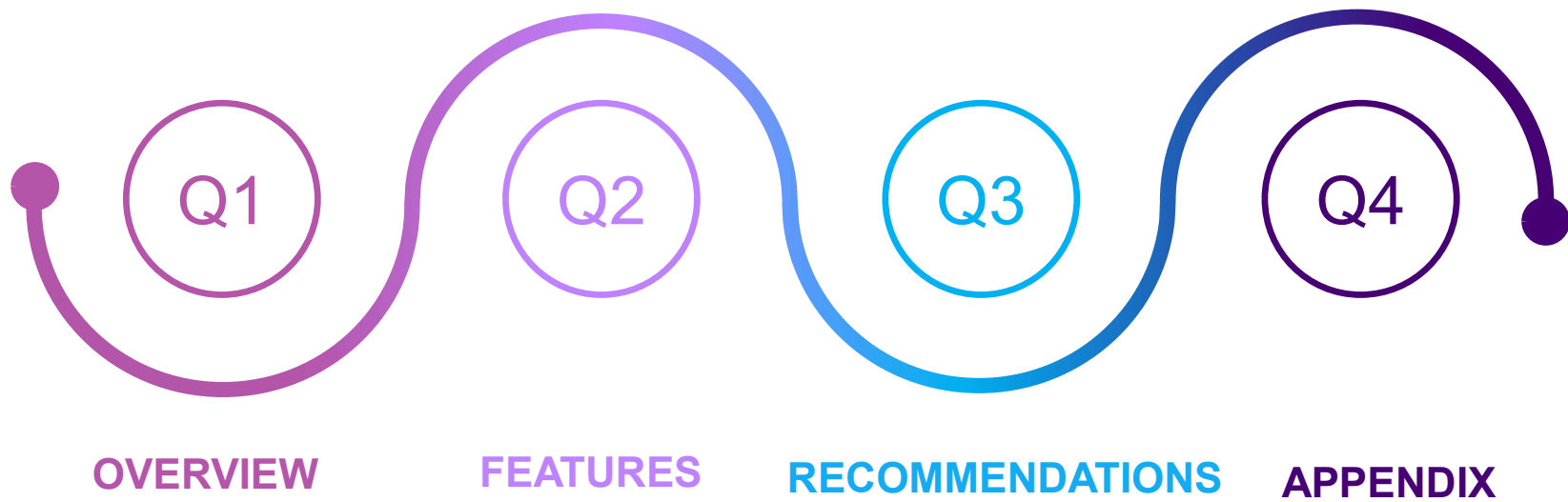
# Amazon Lex Version Migration

Ultimate upgrade for the next generation features.

Let There Be Change



# AGENDA



# OVERVIEW

## WHAT IS

- Lex is a fully managed artificial intelligence (AI) service with advanced natural language models to design, build, test, and deploy conversational interfaces in applications.
- It is an AWS service for building conversational interfaces using voice and text.
- It uses natural language understanding (NLU) and automatic speech recognition (ASR) to provide lifelike user experiences.
- It manages the dialogue and dynamically adjusts the responses in the conversation.

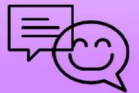
## Lex V1



## WHAT'S NEW !

- The new Amazon Lex V2 has been entirely refactored to let developers develop, update and manage their chatbots better
- New features like Visual Conversation Builder makes it easier to build, deploy, and manage bots with Lex V2 Console
- Lex V2 API follows a simplified information architecture where intent and slot types are scoped to a specific language.

## LEX V2



**Seamless  
deployment and  
scaling**



**Simplicity and  
Cost-  
effectiveness**

**Enhanced  
multilingual  
capability**



# FEATURES (1/3)

## Lex V2 – Add-on Features

- Custom Vocabulary, Runtime hints to slots
- Spell-by-word and spell-by-letter styles
- Introduction of new slot types
- Multiple value slots & Composite slots

Better Speech/Text  
recognition

Grammar Support

Multiple Input  
Types

- Configurable input types supports DTMF along with existing Audio and Text

- Barge-In
- Wait and Continue

Interruptions

- Supports Multiple languages in single BOT

Multi Language  
Support

Better Testing  
Experience

- Test window with Inspect and JSON input/output tabs

Simplified bot design

- Visual Conversation builder
- Automated Chat Bot Designer

Neural TTS

- Provides the most natural and human like TTS voice support

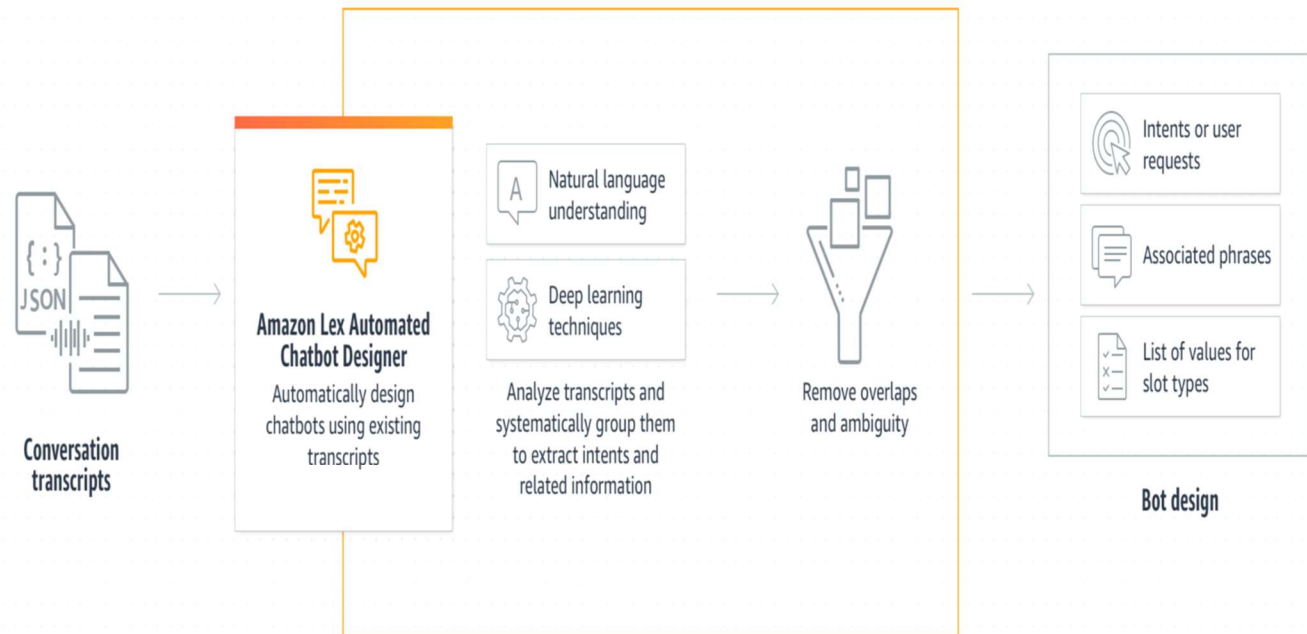
LEX V2



# FEATURES (2/3)

## Automated Chatbot Designer

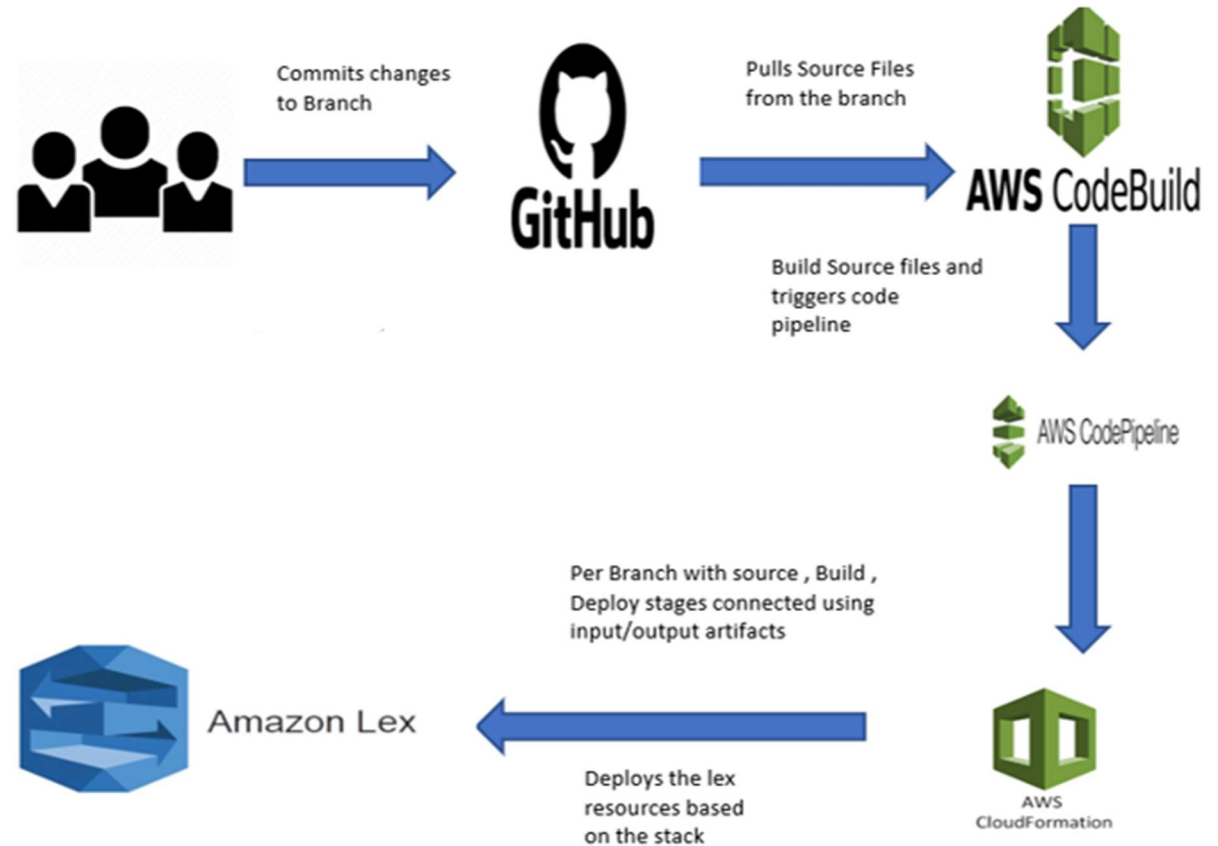
- Amazon Lex V2 provide a new feature called “Automated Chatbot Designer” that allows to create a bot with existing conversation transcripts in hours rather than weeks.
- It can analyze 1000s of lines of transcripts in a couple of hours using machine learning (ML) and provide an initial bot design with common intents and the information needed to fulfill them.
- That bot design can be iterated to deliver effective conversational experiences with additional prompts which is then built, tested, and deployed .



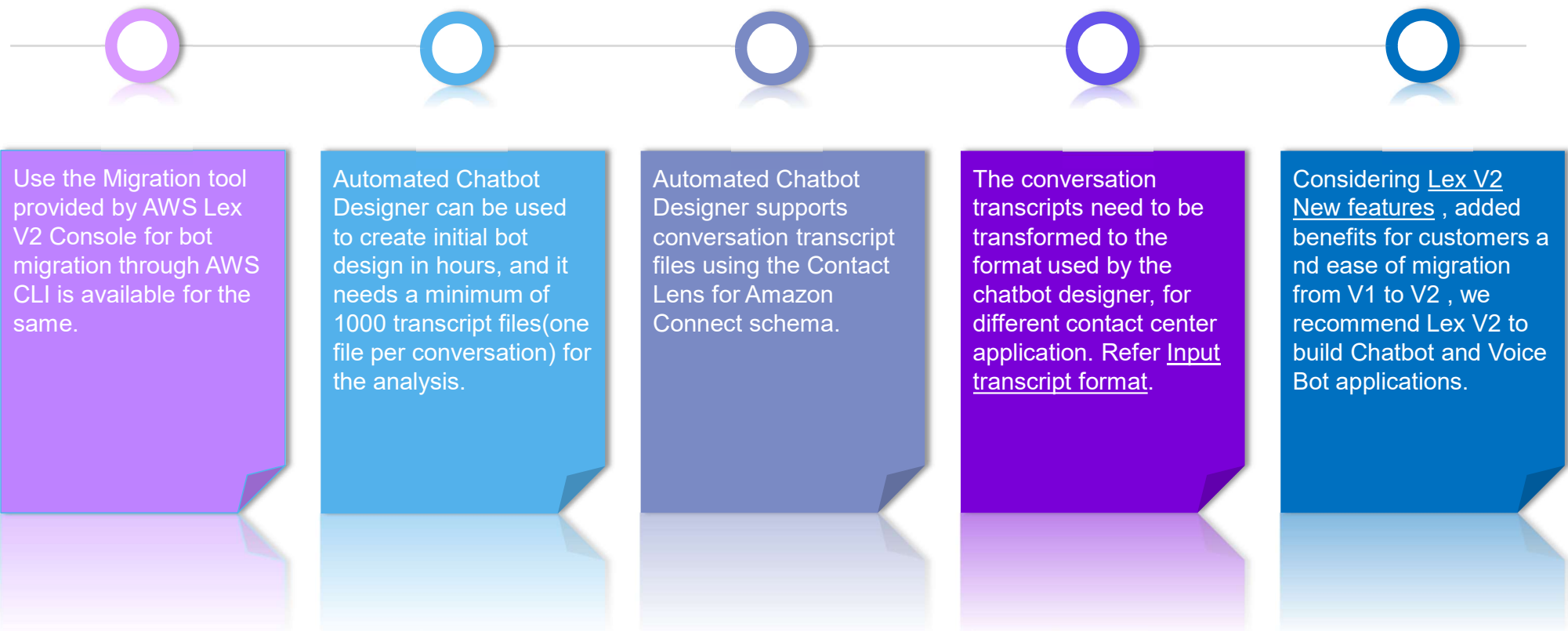
# FEATURES (3/3)

## CloudFormation Support

- Amazon Lex supports AWS CloudFormation, which helps us to provision resources like Bot, Bot Version, Bot Alias, and Resource Policy quickly and consistently and manage them through their lifecycles.
- These templates describe the resources that a user want to provision in their AWS CloudFormation stacks.
- These templates will be deployed as a DevOps pipeline within AWS leveraging various tools and services like GitHub, Code Build, Code Deploy and Code Pipeline



# RECOMMENDATIONS





# KEY CONTACTS



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# APPENDIX - USE CASES

## Call Center Bots

Apply ASR and NLU to manage and can replace agents for tasks like changing passwords, checking balances, booking appointments, etc.

## Informational Bots

Bots for everyday consumer requests like current events, weather updates, sports scores, etc.

## Application Bots

Build powerful interfaces to mobile and PC applications like book tickets, order food , manage bank accounts, etc.

## Enterprise Bots

Streamline enterprise work activities and improve efficiencies like check sales data, customer status, marketing performance, etc.



# APPENDIX - BENEFITS



**No deep learning expertise required** - Basic conversation flow is sufficient to create a bot



**Reduces manual effort and time** - Automated Chatbot Designer reduces manual effort in conversation design by analyzing 1000s of lines of transcripts in a couple of hours using machine learning (ML)



**Expedite initial conversation design** automatically that can then be refined to launch conversational experiences faster.



**Improves customer experience** - Automated Chatbot Designer helps the bot to understand customers better by minimizing ambiguity between intents, adding well defined and well separated intents to avoid frustration.



**Automated deployment** of bot and its associated resources are easy with Lex V2 as it supports AWS CloudFormation whereas V1 supports custom resources deployment



# THANK YOU

