



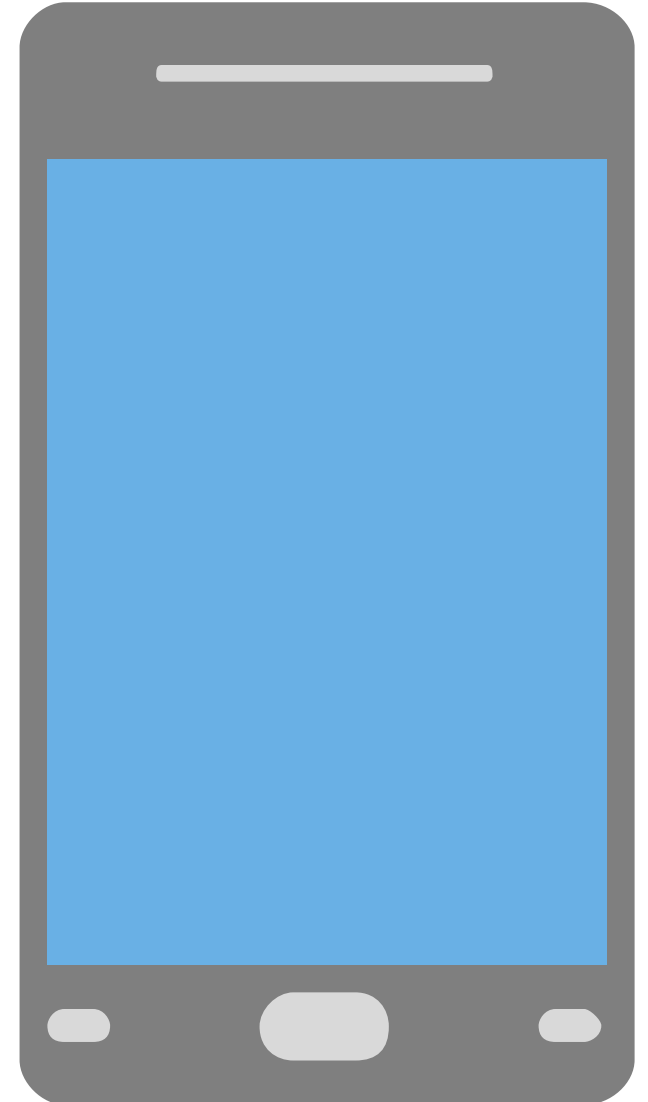
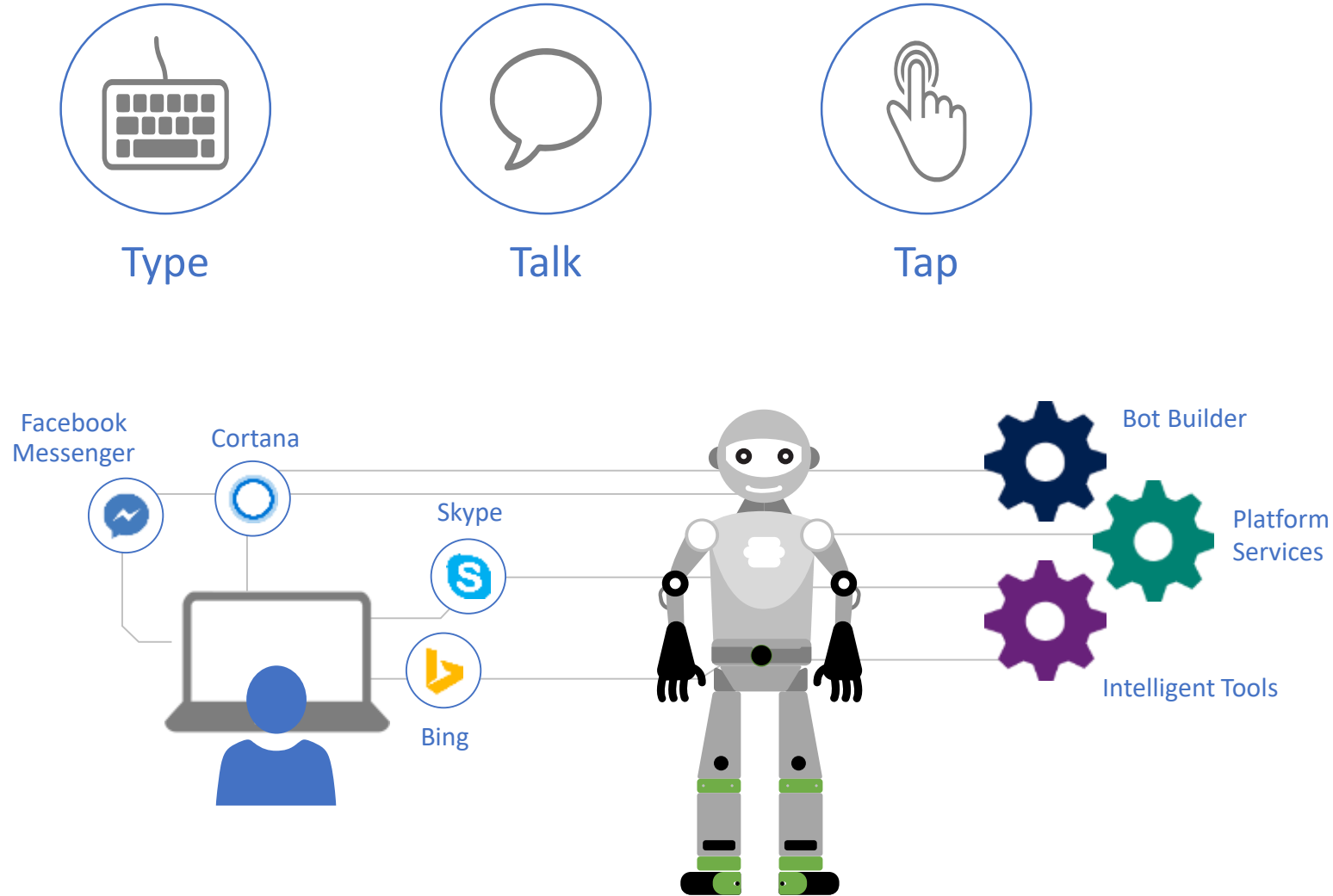
# Azure Bot Service

Intelligent Apps and Agents

# Bot Scenarios

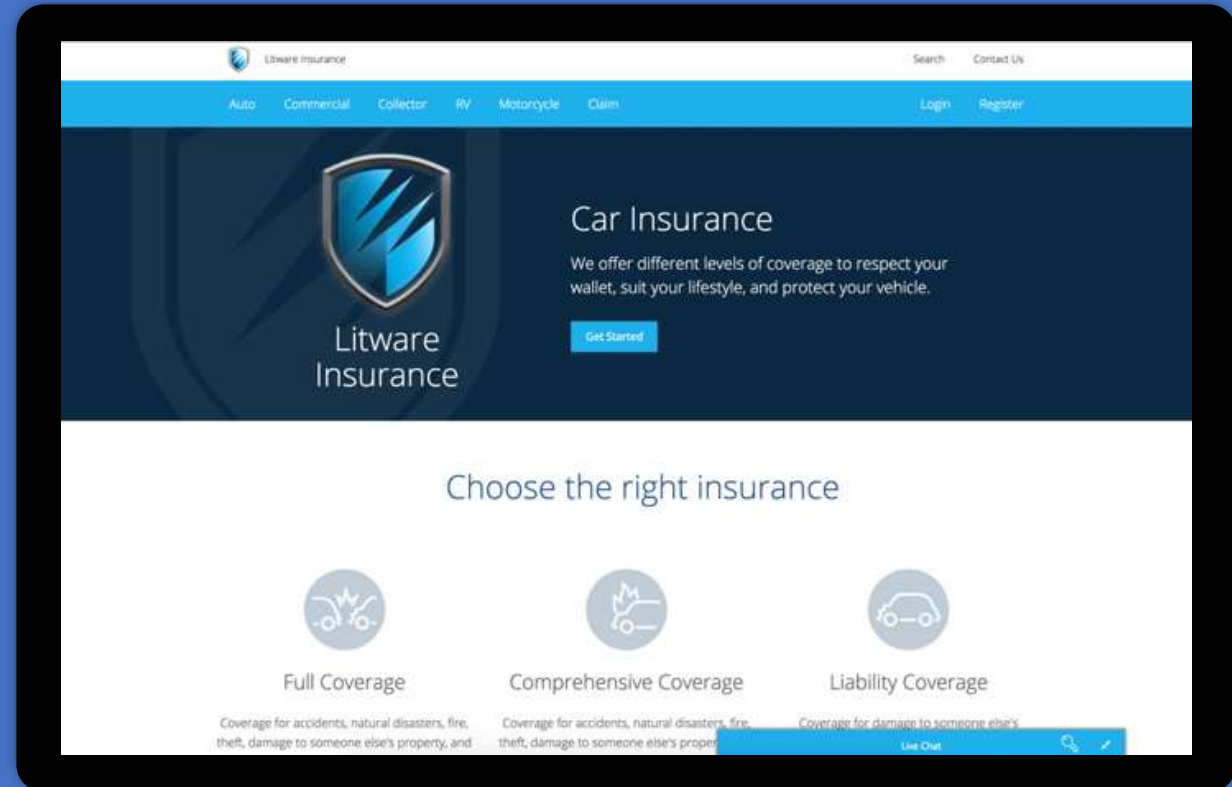
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# Why a Bot?

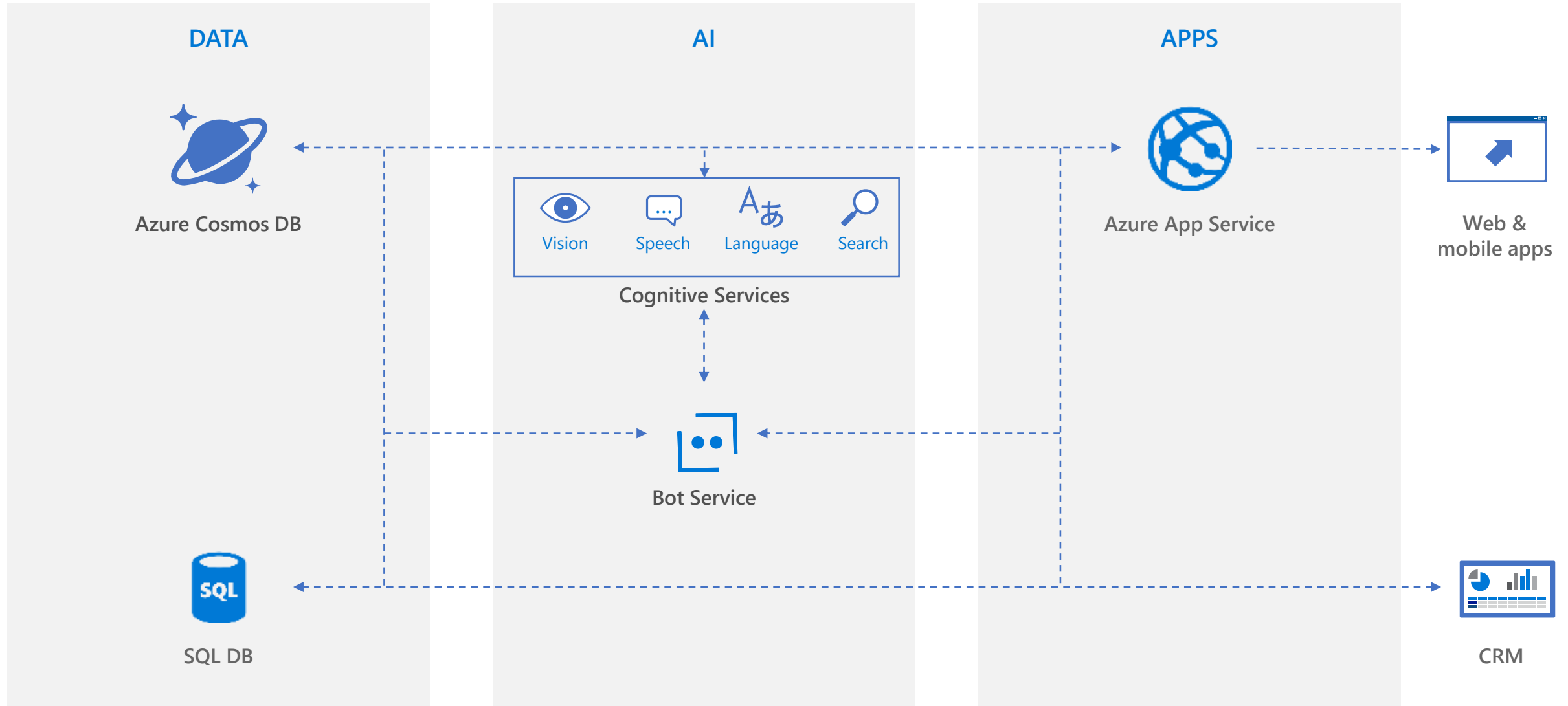


# Intelligent Apps & Agents Demo

Litware



# AI Apps & Agents: How the Demo was Built



# Why Now?



Artificial  
Intelligence

Machine Learning  
Natural Language  
Processing



Data

Volume of Data  
Need to extract  
“Insight”

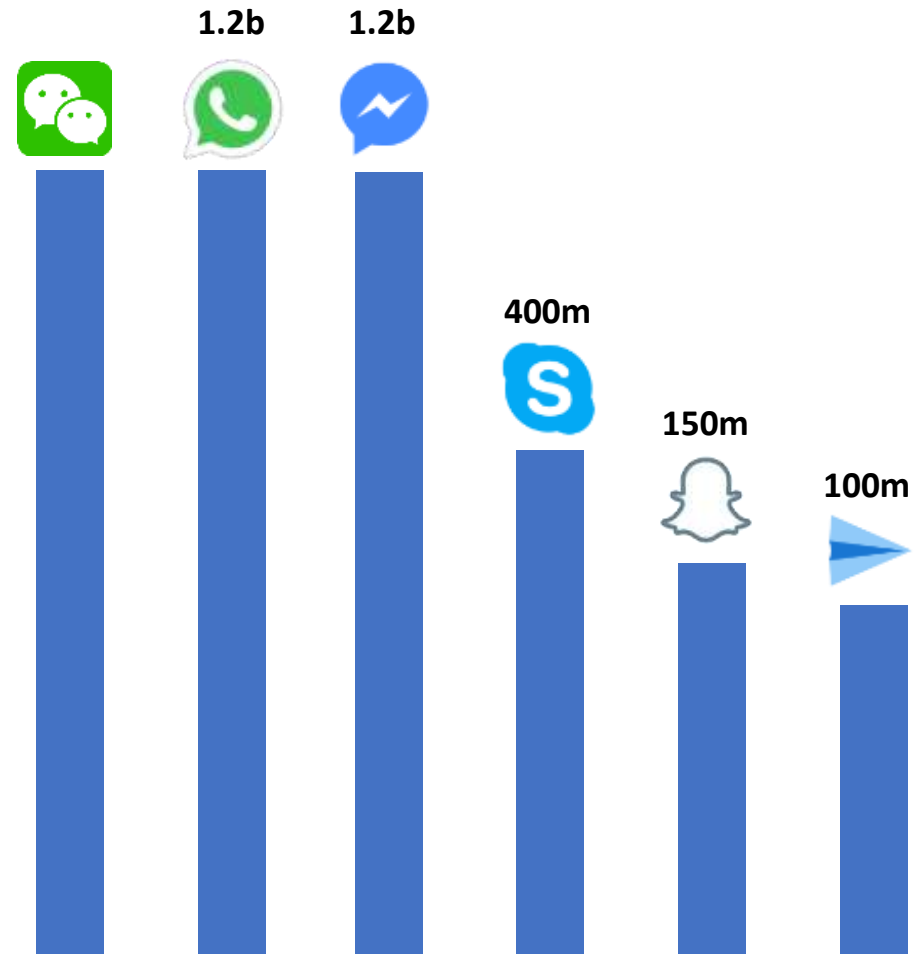


Conversational  
Platforms

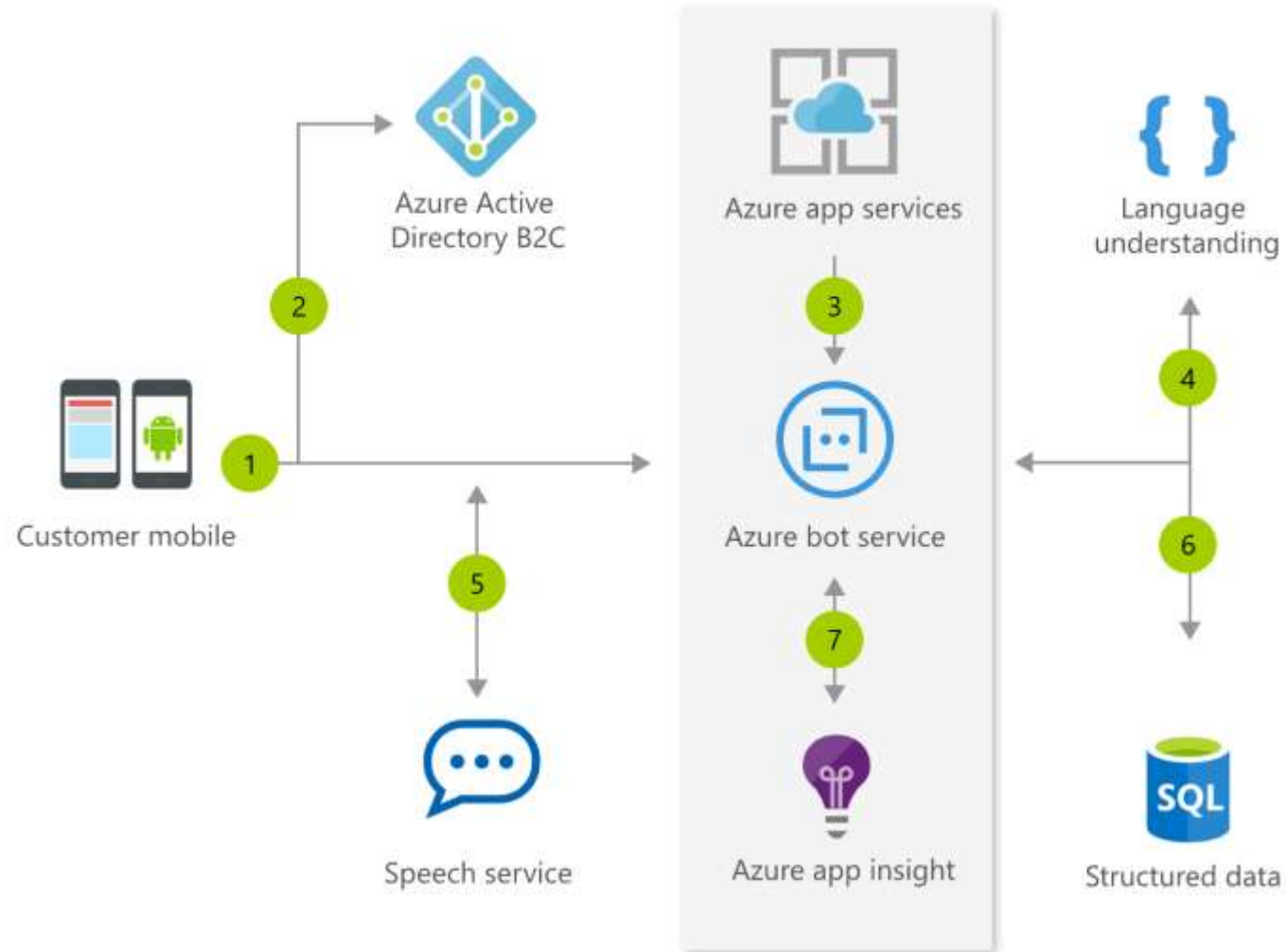
Conversational  
Platform  
Growth

>4 Billion

people use messaging and chat  
apps every day

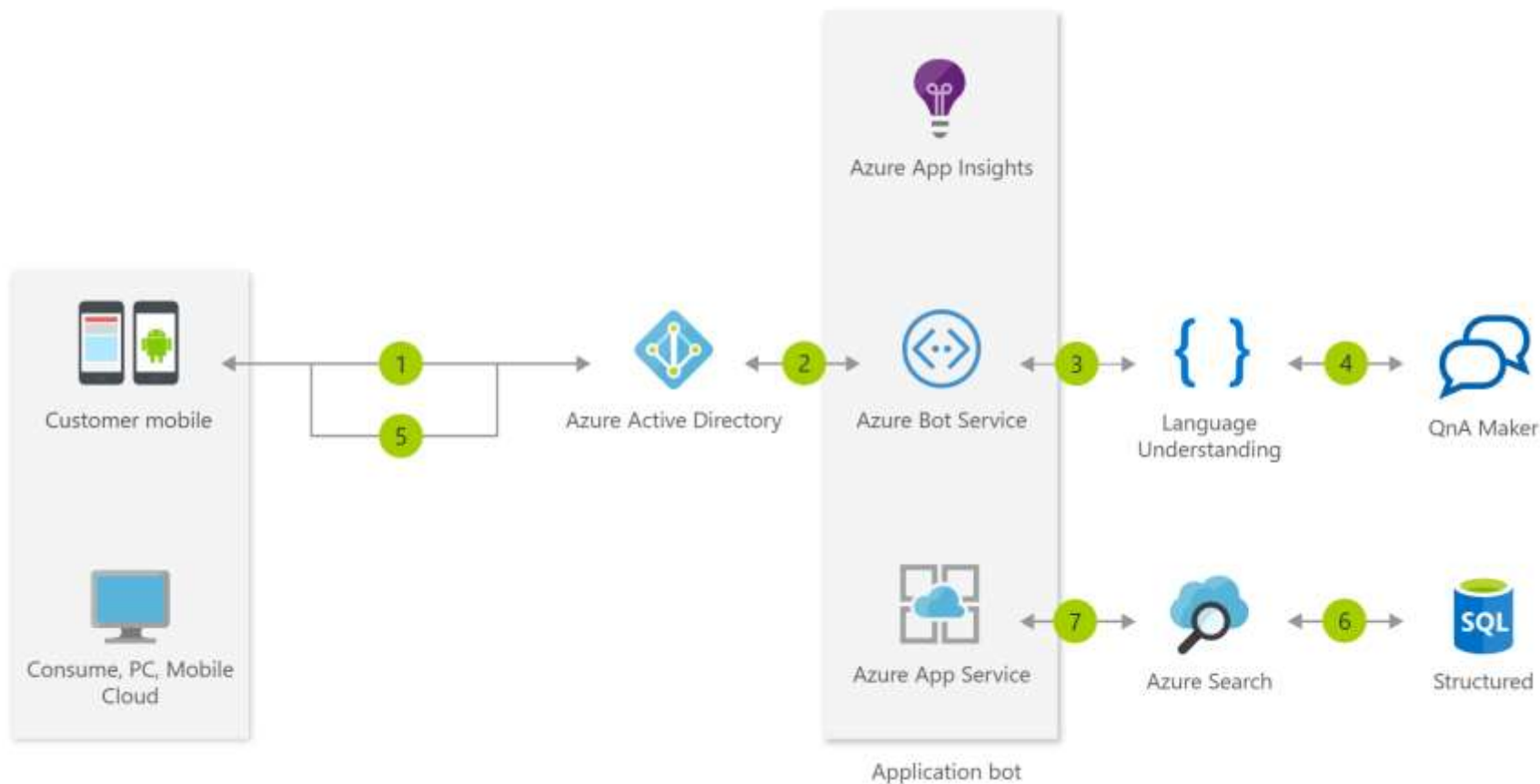


# Bot Scenarios – Commerce Chatbot

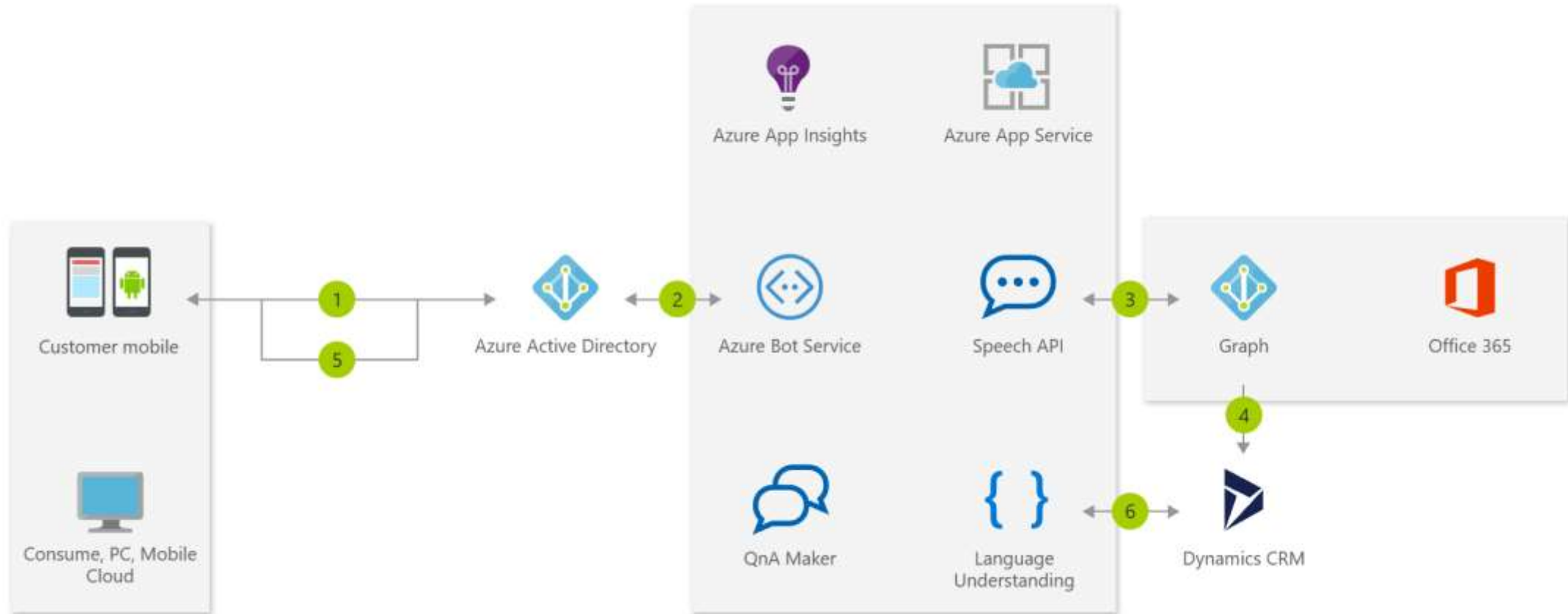




# Bot Scenarios – Information Chatbot



# Bot Scenarios – Enterprise Productivity Chatbot

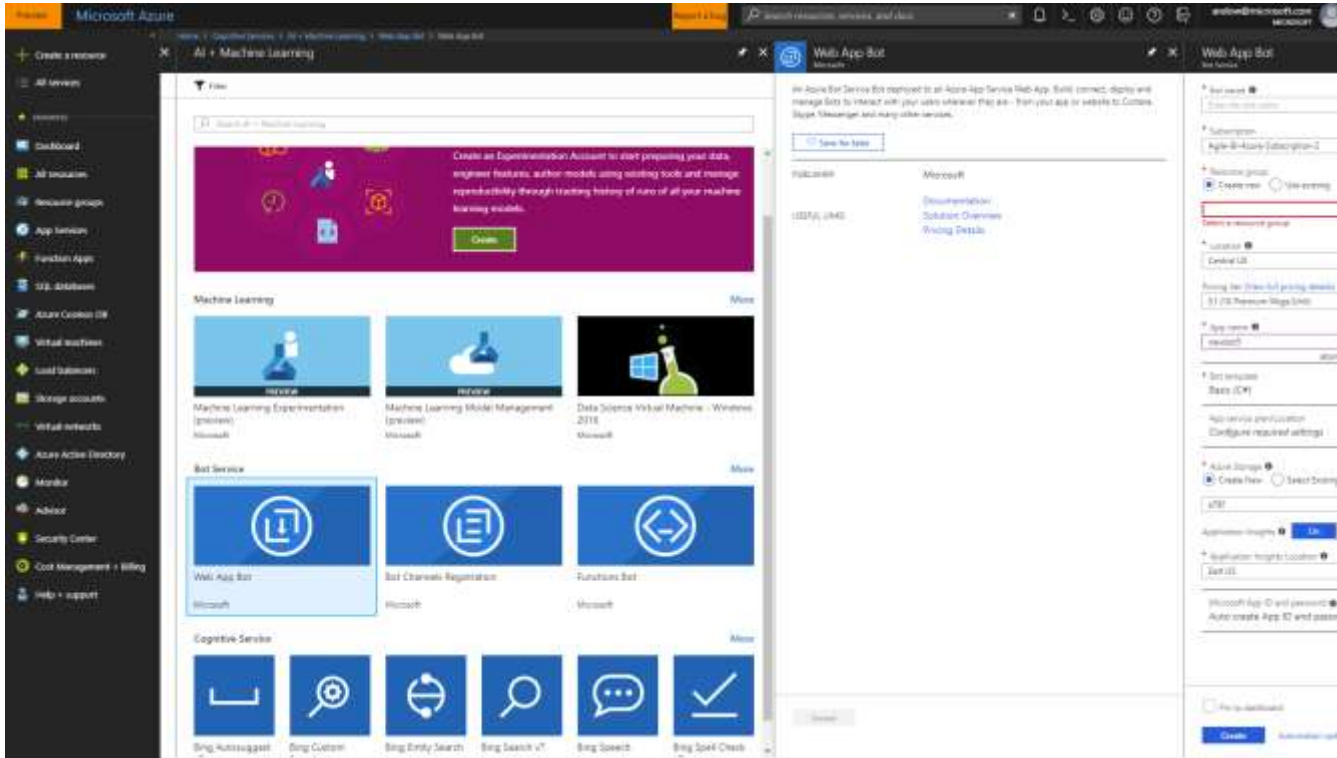


# Azure Bot Service

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Architecture

# Azure Bot Service



Integrated environment, purpose-built for bot development

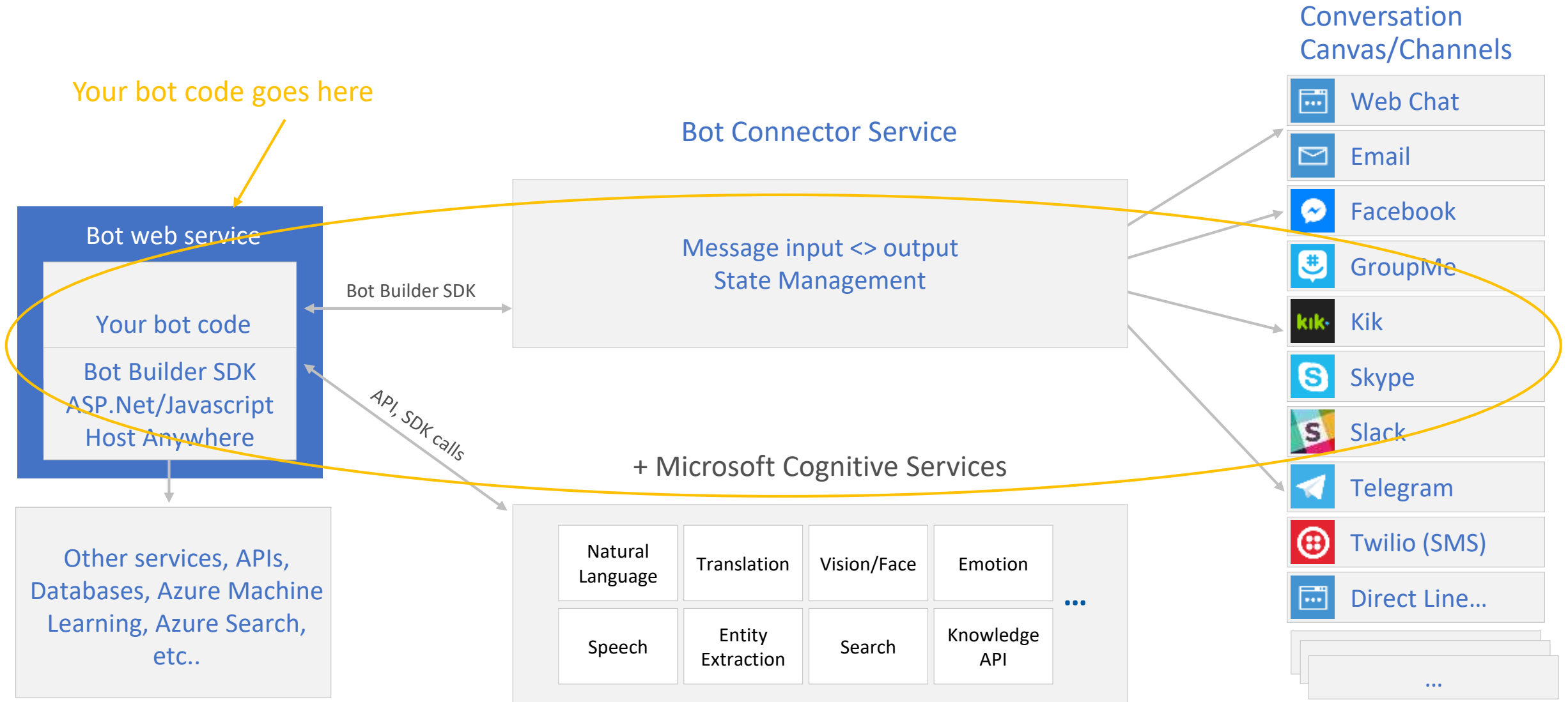
## Out-of-the-box templates to get started in seconds

Built on Bot Framework SDK with support for .NET and Node.js. Latest version = Bot Framework SDK v4

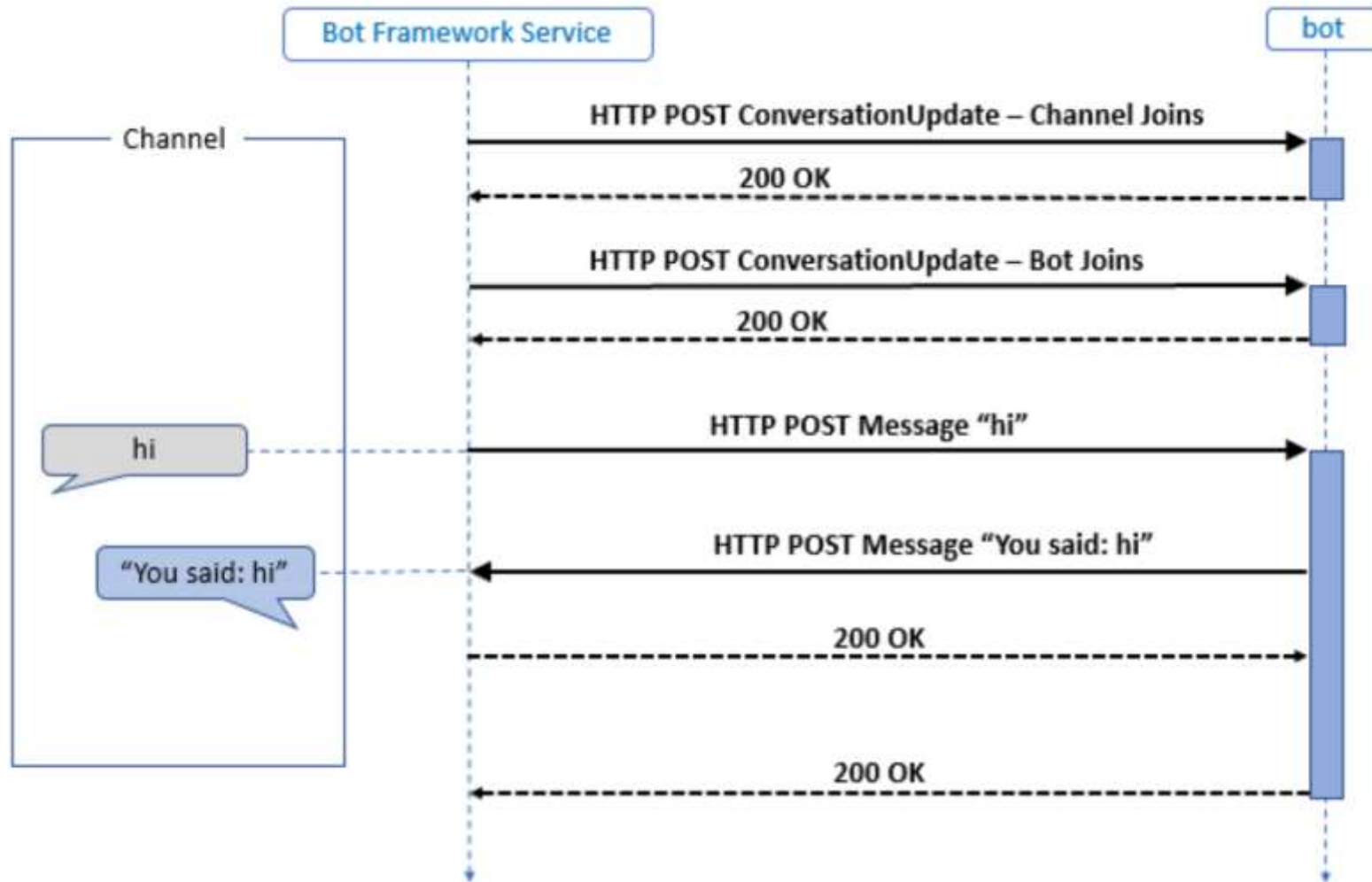
## Connected across multiple channels



# A Generic X-Ray of a Typical Bot



# A Generic X-Ray of a Typical Bot



# Azure Bot Service

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Development Process

# Key Concepts

## Managing State

- Allow bot to have more meaningful conversations
- Memory storage (testing), Azure Blob Storage, Azure Cosmos DB storage
- <https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-concept-state?view=azure-bot-service-4.0>

## Turns

- Incoming/Outgoing activity
- <https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-basics?view=azure-bot-service-4.0&tabs=cs#defining-a-turn>

## Dialogs

- Multi-layered, well-ordered conversations. Prompt, waterfall
- <https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-concept-dialog?view=azure-bot-service-4.0>

## Manage resources with a .bot file

- Recommended way to tie in with other services such as QnAMaker and LUIS
- <https://docs.microsoft.com/en-us/azure/bot-service/bot-file-basics?view=azure-bot-service-4.0>

## Rate Limiting

- Return Code: HTTP 429 (Too Many Requests)
- <https://docs.microsoft.com/en-us/azure/bot-service/bot-service-resources-bot-framework-faq?view=azure-bot-service-4.0#rate-limiting>

## Add media to messages

- Add images and video to your messages
- <https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-howto-add-media-attachments?view=azure-bot-service-4.0&tabs=csharp>



# Building conversational agents

## Step 1

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Choose your platform



## Step 2

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Quickly get started

VSIX and Yeoman templates

Scenario focused samples

Commerce chatbot

Information chatbot

Enterprise chatbot

## Step 3

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Deploy your bot

Azure Bot Service

On-premises hosting

Hybrid hosting

... you have a working bot!

# Lab: Create an Echo Bot

<https://docs.microsoft.com/en-us/azure/bot-service/bot-service-quickstart?view=azure-bot-service-4.0>

# Developer Resources

- SDK V4 Documentation (Recommended)
  - <https://docs.microsoft.com/en-us/dotnet/api/?term=Microsoft.Bot.Builder>
- REST API
  - <https://docs.microsoft.com/en-us/azure/bot-service/rest-api/bot-framework-rest-connector-api-reference?view=azure-bot-service-4.0>
- Bot Builder Samples
  - <https://github.com/Microsoft/BotBuilder-Samples>

# Appendix: Health Care Bot

<https://www.microsoft.com/en-us/research/project/health-bot/>

<https://docs.microsoft.com/en-us/HealthBot/quickstart-createyourfirstscenario>