

Topic 6

Overview of Bot Platforms

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Learning Outcomes

- ❑ Understand major chatbot platforms
- ❑ Explain the process of choosing a good bot platform
- ❑ Explain major use cases of chatbots

Major Chatbot Platforms

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Top Chatbot Platforms

Tech giants such as Google, IBM, Microsoft, Amazon, and Facebook are investing in conversational AI that enables developers to build chatbots easily. These AI-powered chatbots can automate various routine tasks such as sending emails, troubleshooting, searching for information on search engines



Google Dialogflow

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Google Dialogflow

Dialogflow, formerly api.ai, is a chatbot development platform acquired by Google in 2016. Under Google ownership, its was renamed as Dialogflow.

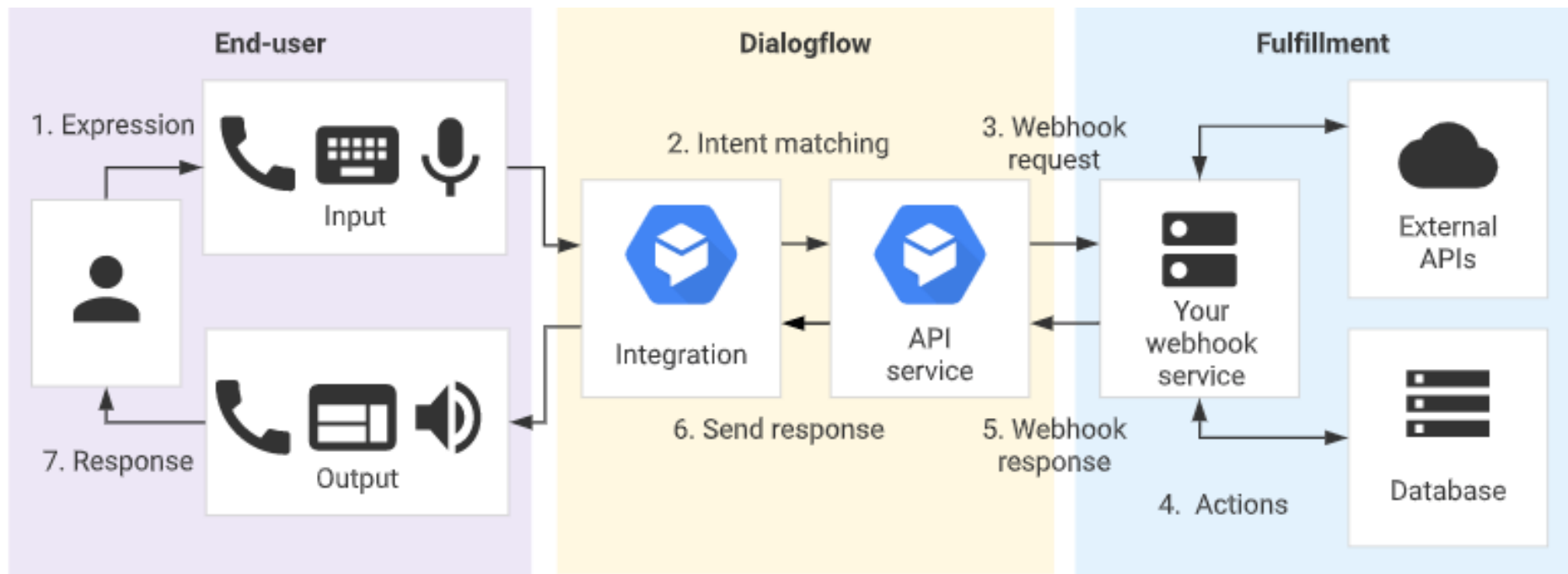
Dialogflow is a platform that can be used in designing conversational ai interactions such as chatbot, voice assistant, and virtual assistants, which are integrated with different conversational platforms, especially Google Assistant.

Dialogflow Use Case

Main platforms that are compatible with Dialogflow are listed below:

- Slack
- Twitter
- Twilio
- Skype
- Telegram
- Facebook Messenger
- Amazon Alexa

How does Google Dialogflow work?



Lab 2 – First taste of Google DialogFlow (create an agent)

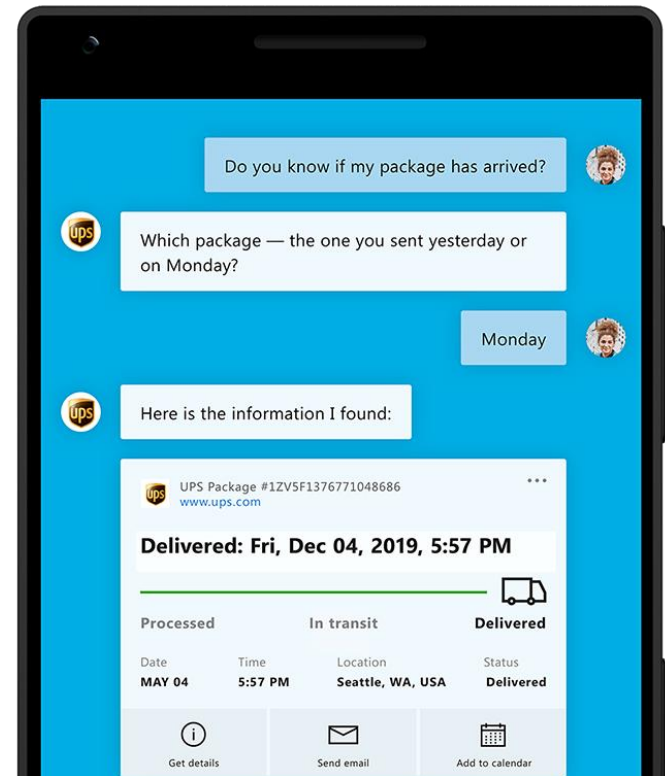
Microsoft Azure Bot

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Microsoft Chatbot Platform

Build conversational AI experiences for your organization

Microsoft Azure Bot Service enables us to build intelligent, enterprise-grade bots with ownership and control of the data. Begin with a simple Q&A bot or build a sophisticated virtual assistant.



What is Microsoft Azure Bot Framework

A platform for building, connecting, testing and deploying powerful and intelligent bots



Open Source



Connect across platform with the flip of a switch

Microsoft Language Understanding Intelligent Service (LUIS)

Applications in LUIS are centered on domain-specific topic or are content related.

Model deployment to HTTP endpoint is a one-click operation, which makes it very easy to deploy.

LUIS supports multiple languages, such as English, French, Italian, German, Spanish, Brazilian, Japanese and Chinese.

Microsoft Power Virtual Agents

Easily create own chatbots

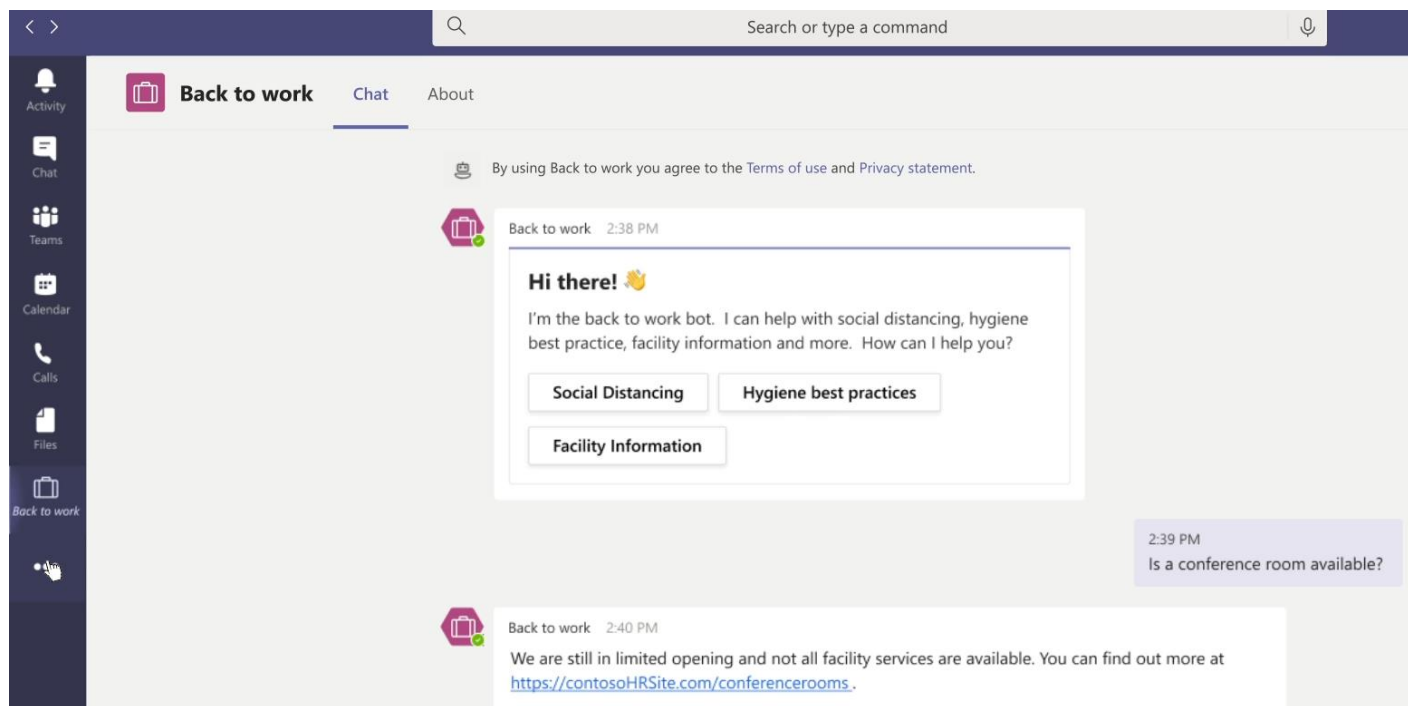
Create and manage powerful chatbots—**without the need for code** or AI expertise—with an easy-to-use graphical interface.

Build smarter bots

Get suggestions on which **topics** to build, create rich, **personalized** conversations using natural language understanding and entity extraction, and monitor and improve your chatbots performance using AI and data-driven insights.

Microsoft Power Virtual Agents – Use Case

Transform how business engages with employees. Give them the tools to easily build chatbots and quickly automate frequently asked questions and common business processes - within Microsoft Teams.



Amazon Lex Bot

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Amazon Lex

A service for building conversational interfaces using voice and text

Amazon Lex - Features

- Text and speech language understanding: powered by the same technology and Alexa
- Deployment to chat services
- Designed for builders: efficient and intuitive tools to build conversations, and scale automatically.
- Versioning and alias support.
- Enterprise SaaS connectors: connect to enterprise systems

Amazon: Text and Speech Language Understanding

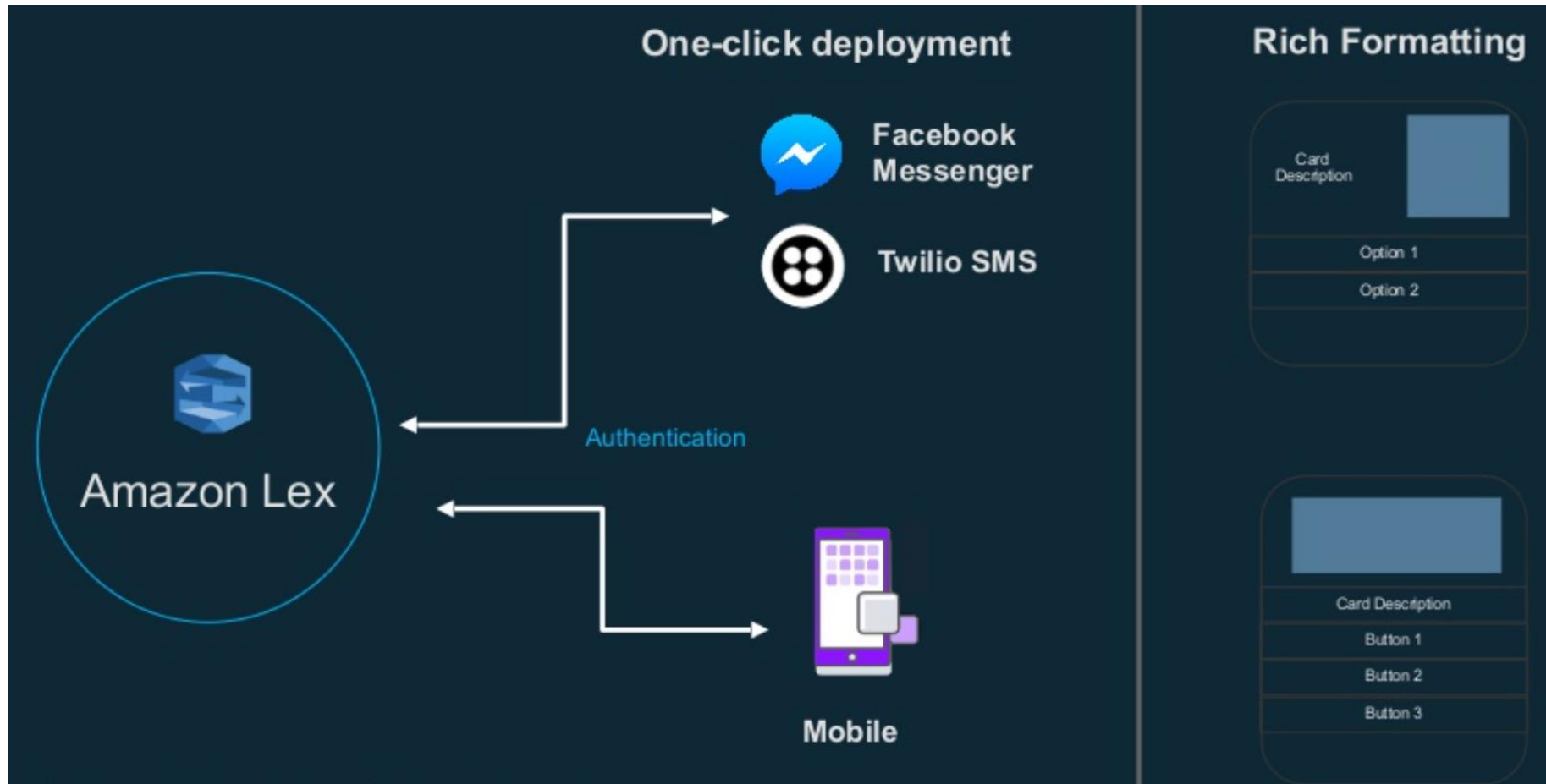
Speech
Recognition



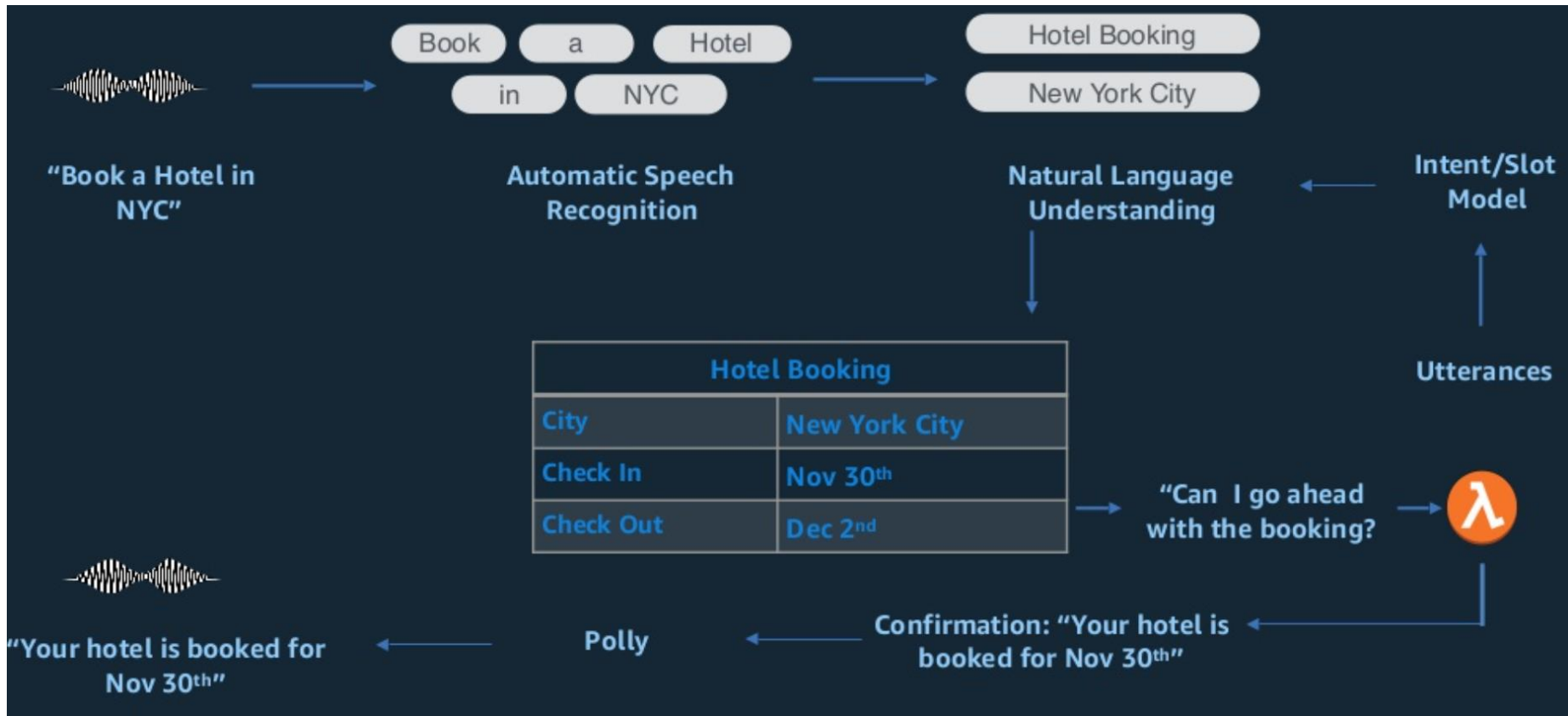
Natural Language
Understanding

Power by Deep Learning technology

Amazon: Deployment to Chat Services



Amazon: “Book A Hotel”



Amazon Lex Pricing

	<u>Text</u>	<u>Speech</u>
Price per 1000 requests	\$0.75	\$4.00
Free Tier* (requests per month)	10,000	5,000

Speech Recognition consumes more computing power than text understanding, therefore much more expensive

Facebook Messenger

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Facebook Chatbot

Facebook launches chat bots on Messenger during F8 2016

Since then 10K+ developers have built chat bots on FB.



FB Messenger Features

Chatting with a bot is similar to chatting with a Facebook user

A bot can send:

- Text and images
- Structured Messages

Facebook: Text Messages

Your yearly subscription will expire on January 1st, 2017.

Your order has been placed. If there is anything else we can help you with please let us know.

Hi David, I'll send you weather forecasts every day.

What location you would like weather forecasts for?

Simple text is the foundation of any experience on Messenger, and is one of the most important tools to create a conversational experience.

Facebook: Structured Messages


- Button Template – Present simple text with options
- Generic Template – Allows for an image, title, subtitle, description and buttons. Supports multiple bubbles per message and display them as a horizontal list like a carousel.

Please select an option:

Option 1

Option 2

Option 3



Classic White T-Shirt
Soft white cotton t-shirt is back in style

View Item

Bookmark Item

Facebook Bot: Approval Process

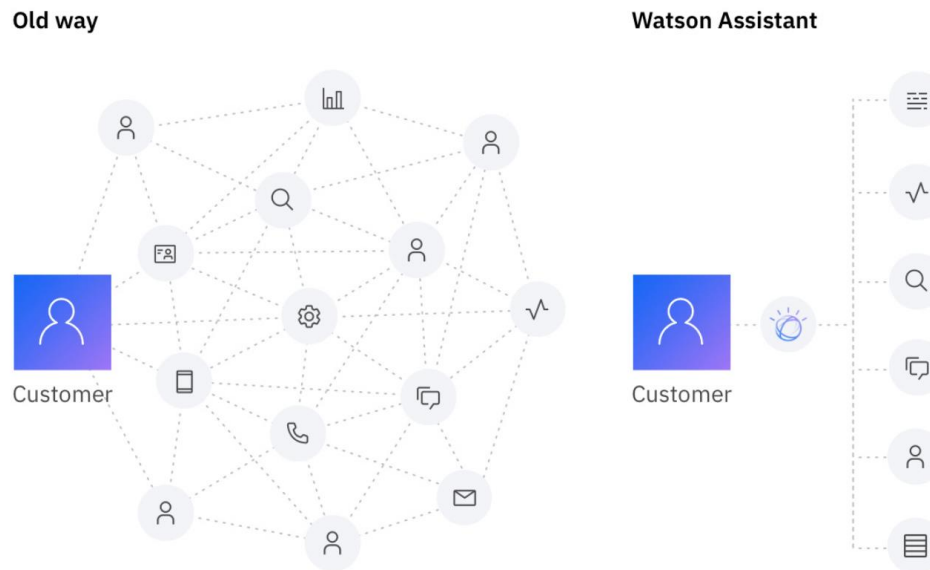
- ❑ Facebook has a strict bot approval process
- ❑ Follow the Platform Policy section on Messenger
- ❑ What users need to provide:
 - Page use to test the bot. Make sure the bot is properly connected and functional, otherwise the submission will be rejected.
 - Descriptions and screenshots of how we use the Send/Receive API to communicate with people.

IBM Watson Assistant

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What is Watson Assistant

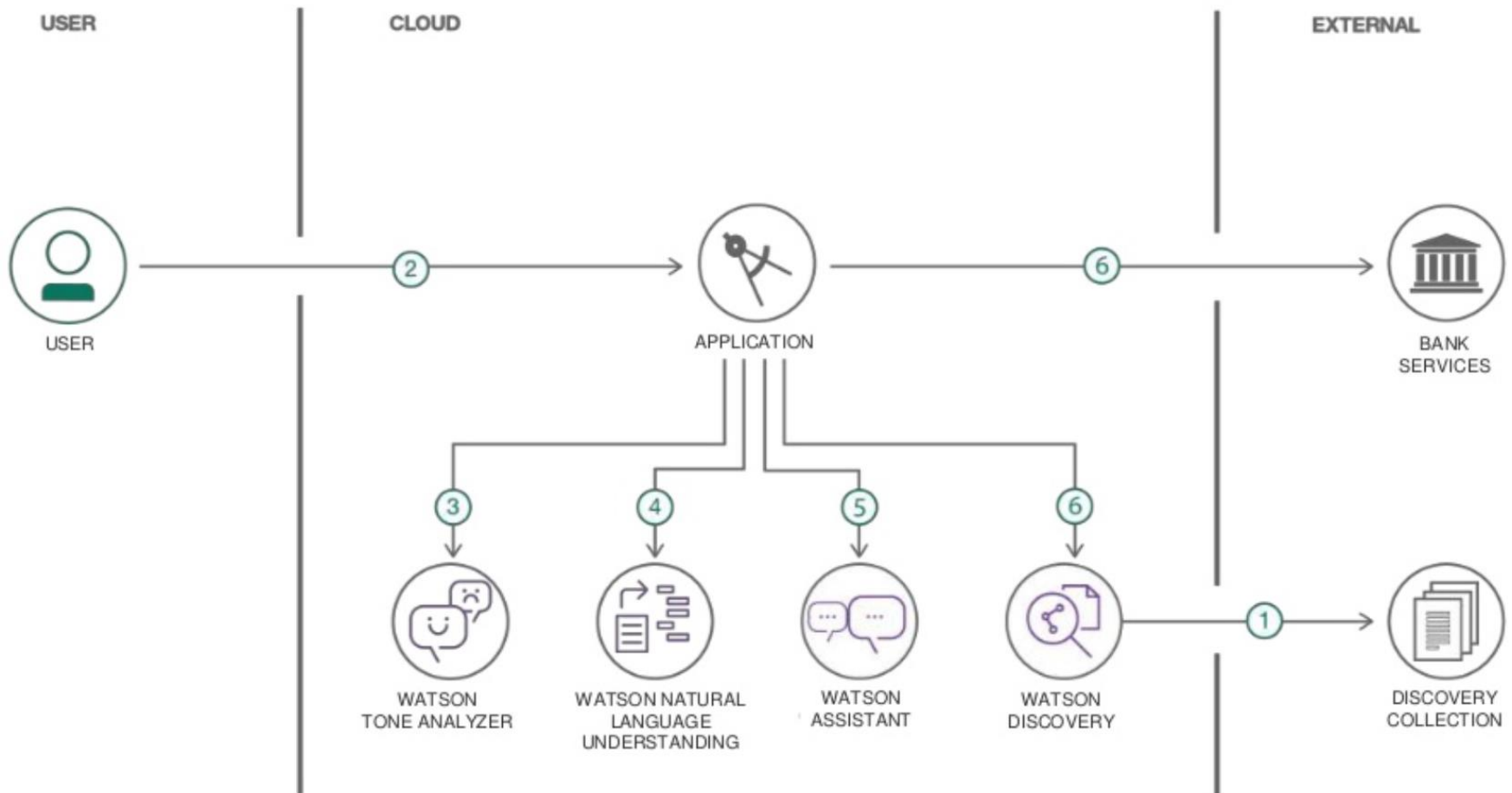
- Watson Assistant is an AI assistant for business.
- Watson Assistant is an offering for building conversational interface into any application, device, or channel.



Why Watson Assistant

- Most chatbots try to mimic human interactions, which can frustrate users when a misunderstanding arises.
- Watson Assistant does more than mimicking. It knows when to search for an answer from a knowledge base, when to ask for clarity, and when to direct you to a human.
- Watson Assistant can be run on any cloud – allowing businesses to bring AI to their data and apps wherever they are.

Watson Assistant Architecture



Choose the right Chatbot Platform

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Identify the Right Use Cases

- The first question to consider: why do you need a chatbot, and what is the use case for using the chatbot.
- As the platforms differ in features, pricing, and integrations. The chatbots will also vary significantly between B2B or B2C use cases.

Integrations

- It is vital to have the right chatbot integrations in place to get the finest results out of your chatbot platform.
- You want to be able to log into Salesforce or Hubspot and see the leads generated by the chatbot with full context of the conversation.
- Ensure the chosen platform can integrate seamlessly with the existing marketing workflow.

Natural Language & AI Capabilities

- The conversation is one of the most critical components that make chatbots so intriguing for the customers.
- Consider a platform which supports NLP and has AI capabilities for you to expand your use case and chatbot's capabilities.

Training

- Select a chatbot platform with the capacity to train the chatbot to make it smarter.
- Organizations need a human-independent chatbot solution that supports continuous learning and gets smarter with every conversation using machine learning and semantic modelling.

Chatbot – Major Use Cases

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Chatbot Dramatically Improves Customer Service

There are two important reasons to make a chatbot an effective customer service agent for business:

- **Customer prefer texting:** Customers naturally prefer text communication. According to research, 66% of customers try to use self-service first.
- **Chatbot is Instant & 24/7:** Chatbot never takes break, sleeps or goes offline. Therefore, businesses can provide 24/7 customer support.

Two types of chatbots

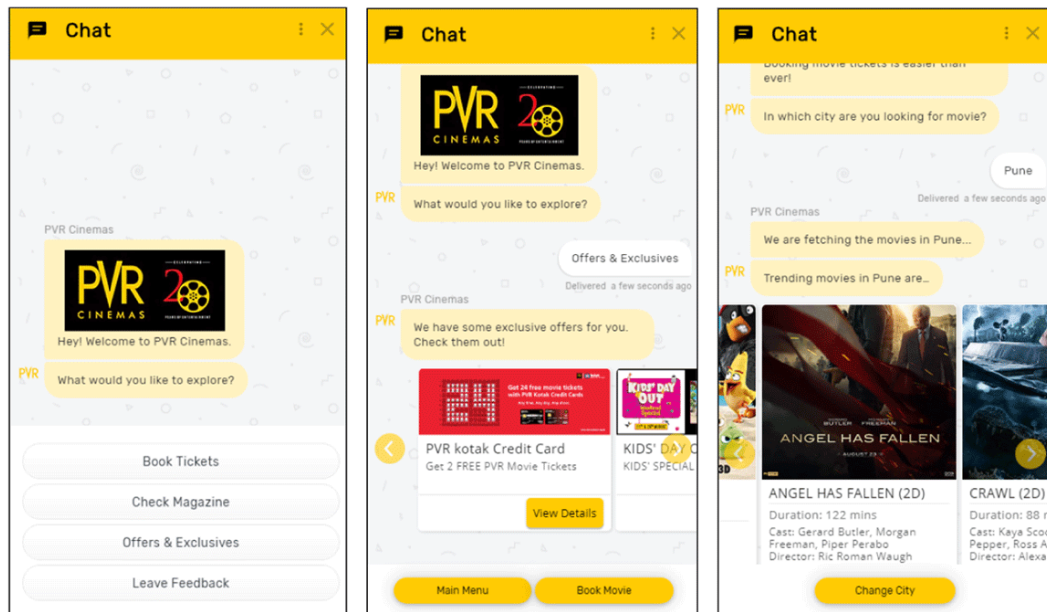
Transactional Chatbot: pre-designed to provide customer with a fixed set of options. The chatbot will guide them through the whole process by providing more options until their problem has been solved. These chatbots are good for restaurants, online delivery, and banks who know **common solutions** in advance.

Conversational Chatbot: designed to understand and respond to a conversation in a **natural, human-like manner**. These chatbots are used by businesses with advanced SaaS tools, as well as B2B companies providing enterprise solutions and online social platforms.

Use Cases – Tickets Booking

Deploy a chatbot on the movie website to answer basic questions, they can be:

- Which movies are playing today?
- Can I get a refund for my ticket?
- Which seats are available?



Use Cases – Collect Feedback

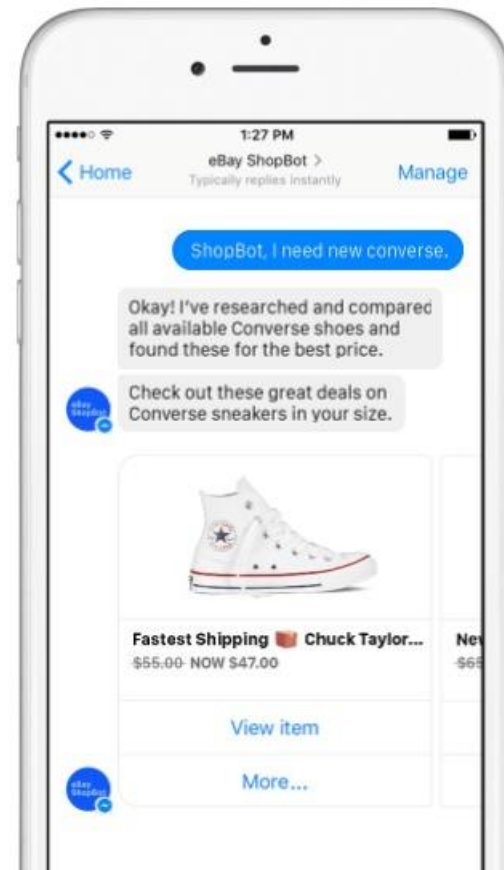
Company deploys chatbots to conduct surveys for these reasons:

- high level of engagement leads to higher completion rates.
- Chatbot makes conducting surveys more efficient.

The image shows a chatbot survey interface. On the left, a yellow sidebar contains a progress list with the following items: Introduction, About you, About your buses (highlighted with a red circle), Overall Service, Your experience, Overall rating CXFO scale, and Completed. The main chat area on the right shows a conversation with a bus icon. The chatbot asks: "Thanks - will you tell me your age?". The user responds: "Female". The chatbot then asks: "4 - 25-34". The user responds: "Great - I am not going to ask you for any personal information at all.". The chatbot then asks: "Firstly when you think about all your experiences with us at Dublin Bus, how likely are you to recommend us to friends or family?". Below the chat area is a rating scale from 1 to 10, with "Not at all likely" at the left and "Extremely likely" at the right. A pink circle is positioned over the number 1.

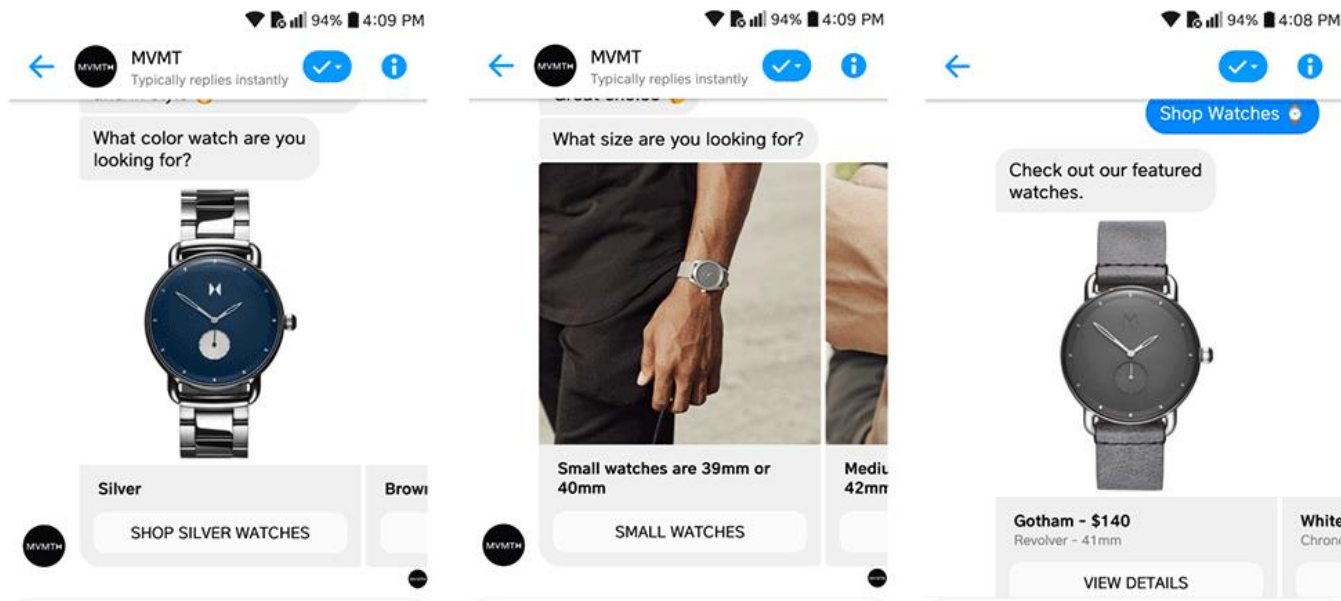
Use Cases – Generate Leads with Sales Approach

- A sales chatbot is designed to ask sales-oriented questions to the potential customers and guide them to and through the checkout process.
- It can also provide personalized services throughout the purchase process.



Use Cases – Promote New Products

With chatbots, companies can introduce their products and services by providing a tailored experience to visitors using chatbots. The chatbots can ask what types of products the visitor prefers and give **highly relevant options**. In this way, the company can **make more sales**.



Summary

- Chatbots have become more of a necessity than a good-to-have luxury for businesses.
- There is a wide range of AI chatbot platforms available to help business develop suitable chatbots to help them attract and retain customers.
- When choosing the right chatbot platform, one must look at all the pros and cons, use cases, conduct additional research, then make decisions.