



NEA .NET  
User Group  
(Resistencia/Corrientes)  
Argentina



# Language Studio para Chatbots con IA





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# Agenda

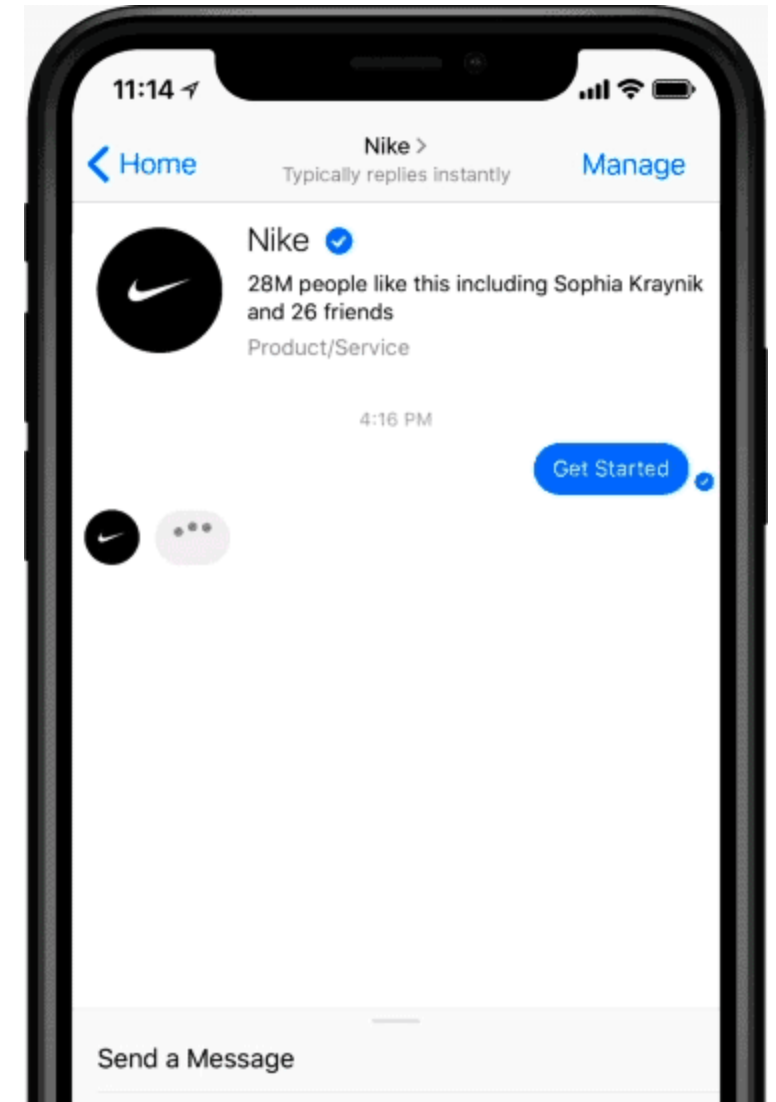
- Chatbots
- Azure
- Language Studio
- CLU (Conversational Understanding Language)
- QNA Maker (Custom Question Answering)
- Azure Bot, Botframework, Whatsapp

# Chatbots



# ¿Que es un chatbot?

Un chatbot es un programa de inteligencia artificial que simula una conversación con usuarios humanos, principalmente a través de texto o voz.



# ¿Como funcionan?



# ¿Como funcionan?



Me gustaría ordenar una pizza muzzarella



Intent: **PedirPizza**



Entity:

- **Pizza**
- **Muzzarella**

# Ventajas

- Disponibilidad 24/7
- Respuestas rápidas y precisas
- Mejora en la experiencia del cliente

# Usos

- Bancario
- Medicina
- Energía
- Comercio
- Etc...



Azure



## Servicios populares gratuitos durante 12 meses

↓ [Ver todos los servicios](#)

## Más de 55 servicios adicionales que siempre son gratuitos

↓ [Ver todos los servicios](#)

## Comenzar con un crédito de Azure de 200 USD

↓ [Dispondrás de 30 días para usarlo, además de los servicios gratuitos](#)

12 meses



### Azure Virtual Machines —Windows

750 horas cada una de máquinas virtuales ampliables B1, B2pts v2 (basadas en Arm) y B2ats v2 (basadas en AMD)

12 meses



### Azure Virtual Machines —Linux

750 horas cada una de máquinas virtuales ampliables B1, B2pts v2 (basadas en Arm) y B2ats v2 (basadas en AMD)

Siempre



### Azure SQL Database

100 000 segundos vCore de uso sin servidor de base de datos SQL al mes con 32 GB de almacenamiento

12 meses



### Azure Blob Storage

5 GB de almacenamiento con redundancia local (LRS) en bloques de acceso frecuente, con 20 000 operaciones de lectura y 10 000 de escritura

Siempre



### Azure App Service

1 hora al día de 10 aplicaciones web, móviles o de API con 1 GB de almacenamiento

# Para estudiantes

## Crear soluciones en la nube gratis con Azure for Students

Usa el correo electrónico de tu universidad o centro educativo para registrarte y renovar cada año que seas estudiante.

Empezar gratis

Más información acerca de los requisitos

Comenzar con  
un crédito de  
Azure de  
100 USD

No se requiere  
tarjeta de  
crédito

<https://azure.microsoft.com/es-es/free/students>





# Language Studio

# Language Studio


[Language Studio](#) es un conjunto de herramientas basadas en interfaz de usuario que le permiten explorar, compilar e integrar características de Lenguaje de Azure AI en las aplicaciones.








<https://learn.microsoft.com/es-es/azure/ai-services/language-service/language-studio>






# Welcome to Language Studio

## Recent custom projects you've worked on

[+ Create new](#) 

Name 	Type 	Last updated  
 <a href="#">PizzaBot</a>	Conversational language understanding	about 21 hours
 <a href="#">PizzaBot-QnA</a>	Custom question answering	about 22 hours
 <a href="#">View all projects</a>		

 [Featured](#) [Extract information](#) [Classify text](#) [Understand questions and conversational language](#) [Summarize text](#) [Translate text](#)

Retrieve the most appropriate answer to questions using question answering (CQA) or classify intents and extract entities for conversational utterances using conversational language understanding (CLU). Use orchestration workflow to create one project that routes queries between multiple CQA and CLU projects. [Learn more about understanding conversational language.](#)



### Answer questions

Use the prebuilt question answering API to get answers to questions over unstructured text.

[Try it out](#)

### Custom question answering

*Next generation of QnAMaker*

Customize the list of questions and answers extracted from your content corpus to provide a conversational experience that suits your needs.

[Open Custom question answering](#)

### Conversational language understanding

*Next generation of LUIS*

Classify utterances into intents and extract information with entities to build natural language into apps, bots, and IoT devices.

[Open Conversational language understanding](#)

### Orchestration workflow

Connect and orchestrate CLU, Custom question answering & LUIS projects together in one single project.


[Open Orchestration workflow](#)









# CLU (Conversational Understanding Language)

# Welcome to Language Studio

## Recent custom projects you've worked on

[+ Create new](#) 

Name 	Type 	Last updated 
 <a href="#">PizzaBot</a>	Conversational language understanding	1 day
 <a href="#">PizzaBot-QnA</a>	Custom question answering	1 day

 [View all projects](#)

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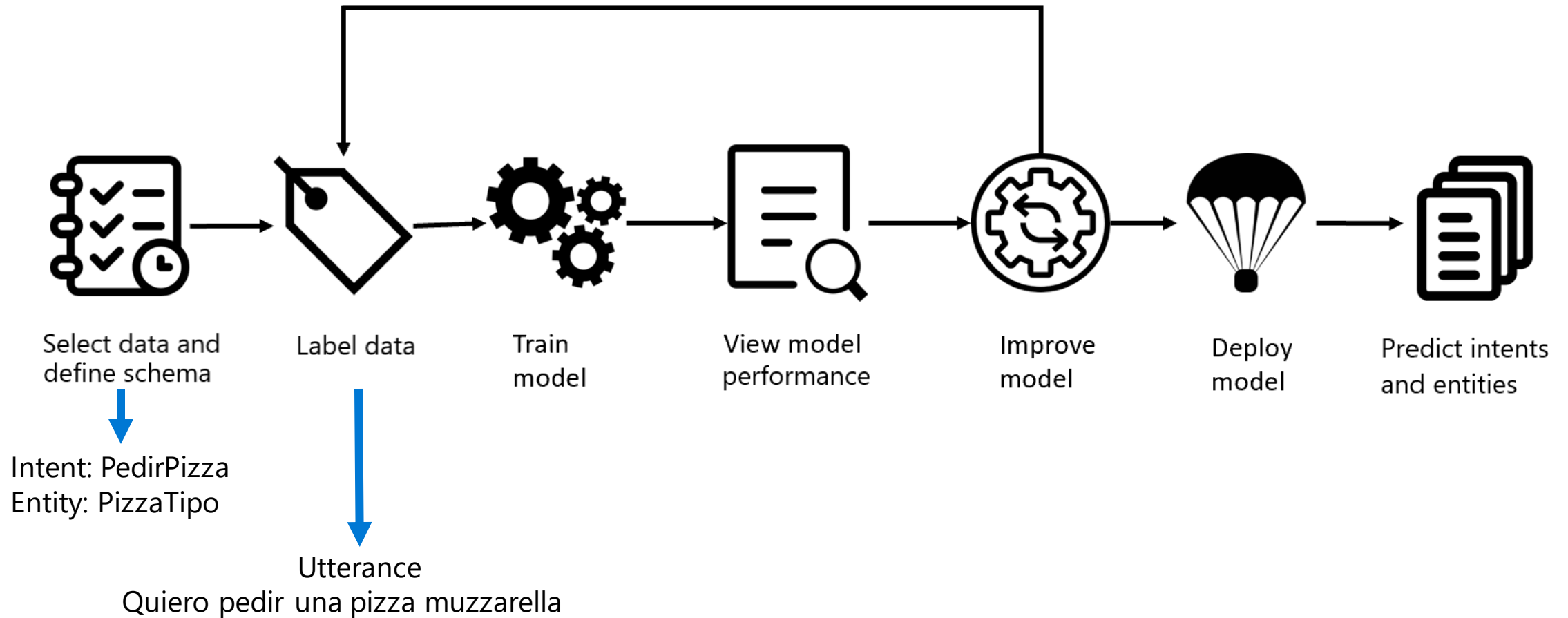
# CLU (Conversational Understanding Language)

Servicio basado en la nube que aplica inteligencia artificial para reconocimiento del lenguaje natural.

- Simple de usar y aplicar en desarrollos de software
- No se requiere experiencia previa en IA



# Ciclo de vida del desarrollo de un proyecto CLU



# CLU (Conversational Understanding Language)

<<

Language Studio

Projects

PizzaBot

Schema definition

Data labeling

Training jobs

Model performance (Preview)

Deploying a model

Testing deployments

Project settings

Language Studio > Conversational Language Understanding projects > PizzaBot - Data labeling

Data labeling ✓ Saved

To add an utterance, first select an intent that your user intends to accomplish. Then provide an example of what they'd say in that situation and label the information to extract as entities. After labeling the utterances, you'll be ready to create a model with this data in [Training](#).

For example, for an intent of Order Pizza, an utterance might be "I'd like to get a large pizza." The word "large" might then be labeled as a Pizza Size entity.

Training set Testing set

Save changes Upload utterance file Suggest utterances Move to Edit Delete Accept all Reject all

Filtered by: Intent: PedirPizza X

We'll use these utterances to create your conversation model during training. A separate set of utterances can test the performance of your model. [Learn more about splitting data between training and testing sets.](#)

Intent Utterance

Select intent Write your example utterance and press enter

0/500

PedirPizza pizza muza  
Pi...

PedirPizza pizza con solo queso  
Piz...

PedirPizza pizza por favor

Activity pane


Make sure to label any entities in your utterances that won't get recognized by the entity's prebuilt or list components.

Labels Distribution

+ Add entity

PizzaTipo (3) LEARNED LIST

# CLU (Conversational Understanding Language)

 Run the test

Deployment name

production



Enter your own text, or upload a text document

 Clear text box

Dame una pizza de jamon

23/500

Intent

Top intent

PedirPizza

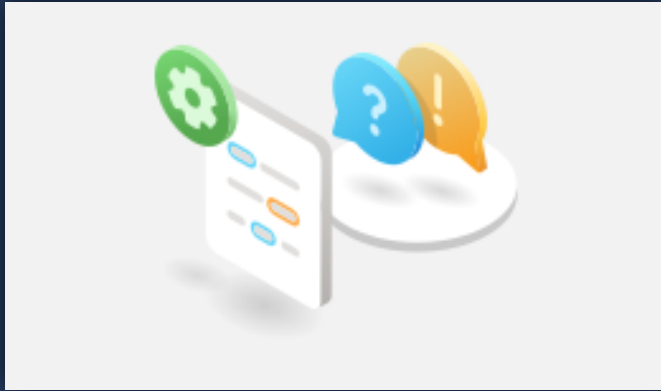
Confidence: 100.00%

Entities

PizzaTipo

jamon


Confidence: 100.00%








# QNA Maker (Custom Question Answering)

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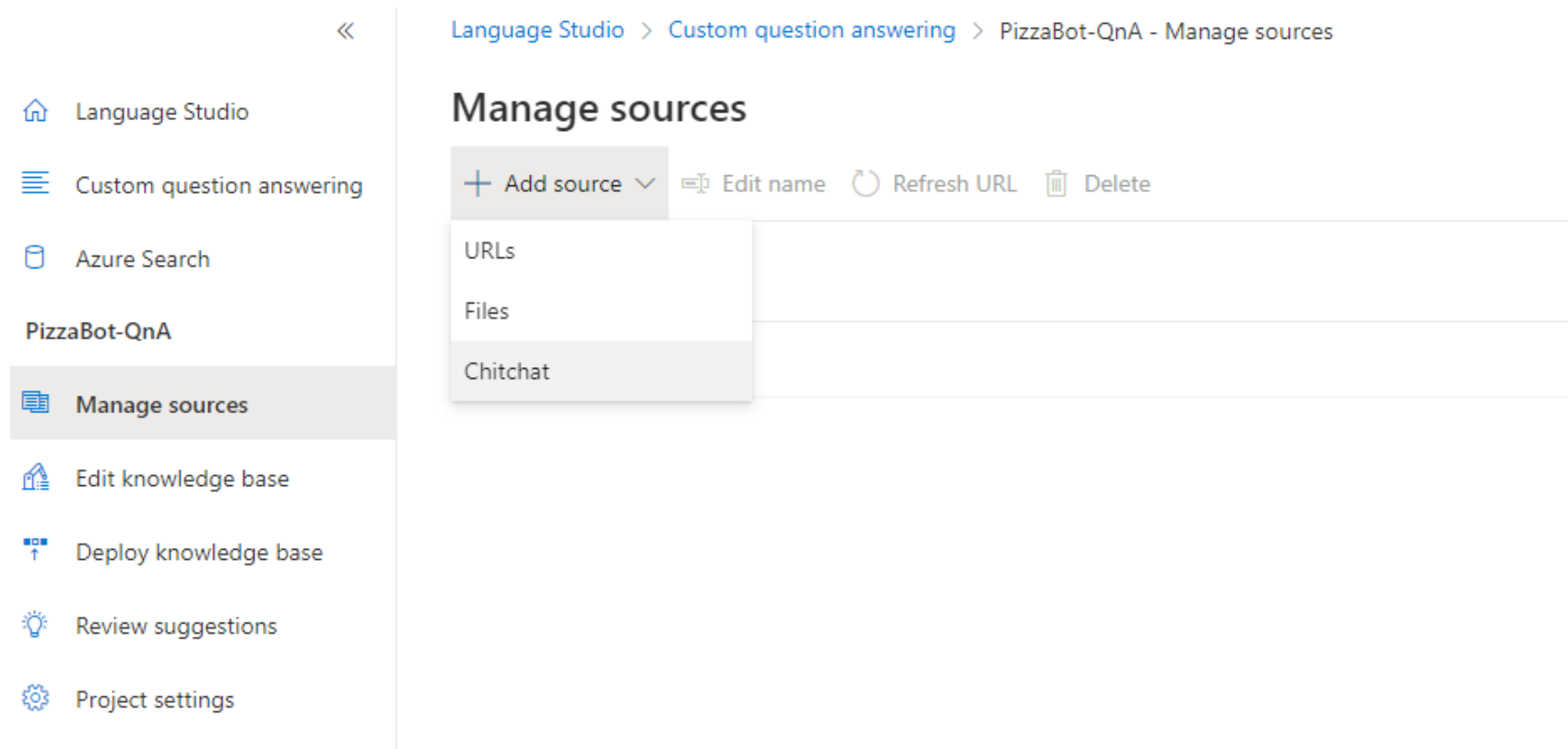
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[Open Orchestration workflow](#)

# QNA Maker (Custom Question Answering)

Se usa para buscar respuestas adecuadas a partir de la entrada del cliente o de un proyecto.



The screenshot displays the 'Manage sources' page within the Language Studio application. The left-hand navigation pane includes links to 'Language Studio', 'Custom question answering', 'Azure Search', 'PizzaBot-QnA', 'Manage sources' (which is the active page), 'Edit knowledge base', 'Deploy knowledge base', 'Review suggestions', and 'Project settings'. The main content area features a breadcrumb trail: 'Language Studio > Custom question answering > PizzaBot-QnA - Manage sources'. Below the breadcrumb is the title 'Manage sources'. A toolbar contains the following actions: '+ Add source' (with a dropdown menu open showing 'URLs', 'Files', and 'Chitchat'), 'Edit name', 'Refresh URL', and 'Delete'. The table below the toolbar is currently empty, with three visible rows.

# QNA Maker (Custom Question Answering)

>>

Language Studio > Custom question answering > PizzaBot-QnA - Edit knowledge base

<<

Question answer pairs (3)

Synonyms (0)

+

🧪

🗑️

⌵

💾

🔄

⌵

✕

☰

☰

🔍

Search pairs

Que trae la pizza de jamon y morrones

🔗 1

Trae Jamon, Morrones, Queso, Oregano, Salsa, Aceitunas verdes

Que trae la pizza hawaiana

🔗 1

Trae Rodajas de Ananá, Queso, Salsa, Oregano y Aceitunas Verdes

Horario de atención

🔗 1

La pizzería botsito está abierta de Lunes a Viernes de 20hs hasta las 2hs. Y los sabad...

Edit knowledge base

0 unstructured sources and 1 structured sources. [View sources](#)

Que trae la pizza de jamon y morrones

📄 Source: Editorial

✎

✓ 📄 Answer

✎ Edit answer

Trae Jamon, Morrones, Queso, Oregano, Salsa, Aceitunas verdes

✓ 🗨️ Alternate questions (1)

Add an alternate question when there are multiple ways the same question can be asked. Alternate questions should be as semantically dissimilar as possible and should not exceed 10 alternate que

+ Add alternate question

★ Que trae la pizza de jamon y morrones

✓ 🗨️ Follow up prompts (0)

Use follow up prompts to connect question answer pairs for multi-turn conversation. This connection allows the client application to provide a top answer and provides more questions for the user t

pair by selecting view context tree.

+ Add follow up prompt

✓ 🏷️ Metadata (1)

Metadata tags are used to let the client application narrow down the results of a user query. For example, "where is parking located" can have a different answer if the location of the restaurant bran

Redmond.

+ Add metadata

system\_metadata\_qna\_edited\_manually: true ✕

Test

✕

Response options

☐ Include short answer response ⓘ

☐ Use deployed knowledge base ⓘ

[Show advanced options](#)

🔄 Clear

que es la hawaiana

Inspect

Trae Rodajas de Ananá, Queso, Salsa, Oregano y Aceitunas Verdes

Type your message and press enter

➤



# Cuando usar Custom Question Answering

- Cuando la información es estática
- Cuando se desea proporcionar la misma respuesta a una pregunta
- Cuando se quiere administrar una conversación del bot que incluya información estática



# Bot Framework

## AzureBot

## Whatsapp

# Azure Bot

Recurso de Azure proporciona un entorno de desarrollo integrado para la creación de bots.

## Botframework

Es una suite completa para construir y desplegar bots usando el recurso "Azure Bot".

**5-minute quick start to create your bot**



Azure


















C#



Node.js

# Integración

	Alexa	Alexa Channel
	Communication Services - Chat	Communication Services - Chat Channel
	Direct Line Speech	Direct Line Speech Channel
	Email	O365 Email Channel
	Facebook	Support for Text Messaging via Facebook
	GroupMe	GroupMe Channel
	LINE	Support for LINE Channel
	Microsoft 365	Enable message extensions in Outlook, and Microsoft 365 apps
	Microsoft Teams	Microsoft Teams Channel
	Omnichannel	Omnichannel Channel
	Outlook	Outlook Channel
	Skype	Skype Channel
	Slack	Slack Channel
	Telegram	Telegram Channel
	Twilio (SMS)	Support for Text Messaging via Twilio



# Muchas Gracias!