

our experiences:



EMA

EPM's Robotic assistant.

epm[®]

Derechos de autor de imagen© EPM, 2022. DNN Corp y/o sus proveedores.
Todos los derechos reservados.



➤ Ema, more than a virtual assistant, is part of the organization's digital customer service strategy, facilitating the automation of different business processes.

Client:

EPM- Medellin Public Company

Industry:

Utilities

Country:

Colombia

Project Category:

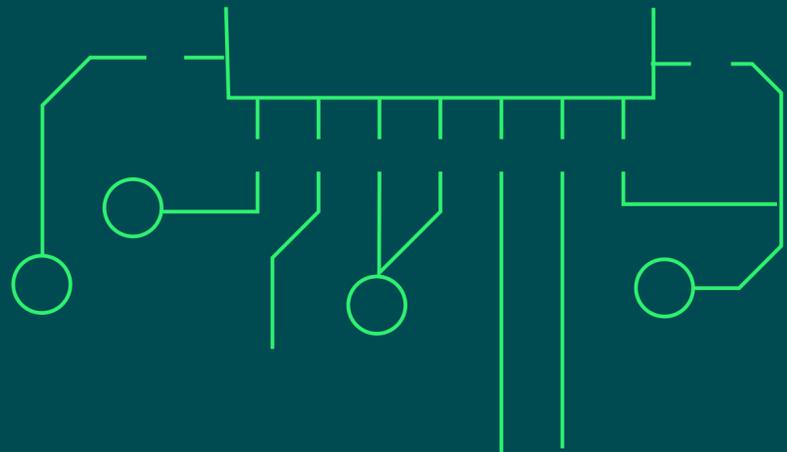
Humanoid robot-Digital services
cognitive services-Azure API management-App
services- Application Insight- Conversational UX.



➤ Artificial Intelligence to serve EPM's customers and users.

EPM has stood out for articulating its innovation efforts for the benefit of the community and optimizing its processes through the use of technology. Ensuring adequate customer service is an important pillar of its strategy. Therefore, the organization works in the constant pursuit of solutions that make life easier for its users.

03



The pandemic brought with it new challenges for customer service. **Traditional physical** channels started to face challenges in order to meet users' requirements in a prompt and timely basis.

04

For these reasons, the organization was motivated to generate a multi-platform customer service strategy called **EMA**.



EMA is composed by different services such as:

- > Web Chatbot
- > Ema WhatsApp
- > PhoneBot
- > Robotic assistant

Enabling
self-management
options available
on a **daily basis**

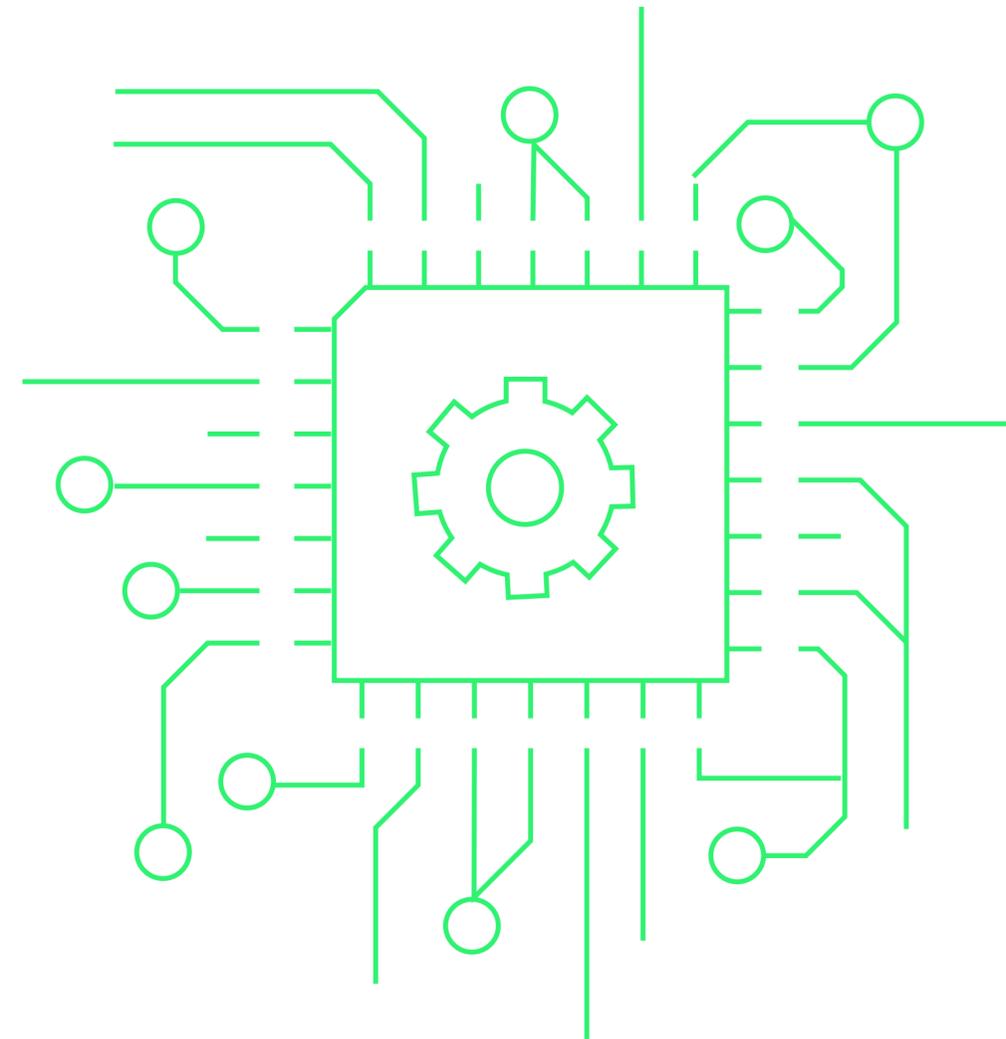
24/7
365

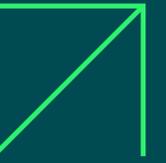
Ema – Robotic assistant

05

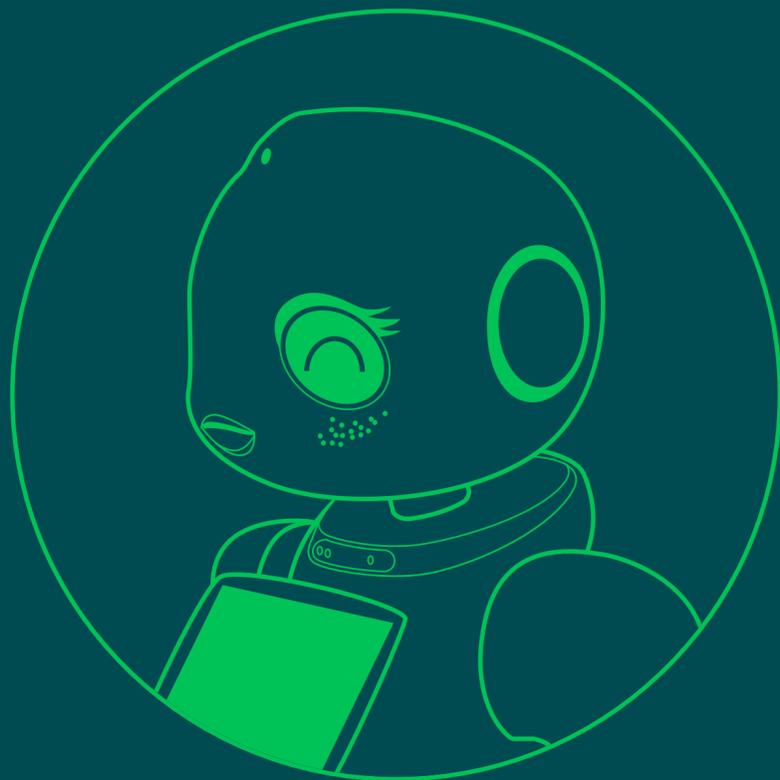


At Ceiba, along with EPM, we implemented a physical customer service solution through a humanoid that integrates with a native Cloud application, that in turn has integrating layers with the organization's core systems and cognitive services.





- The robotic assistant is made up of modules that interact with each other in a synchronous manner relying on Azure Cloud services.

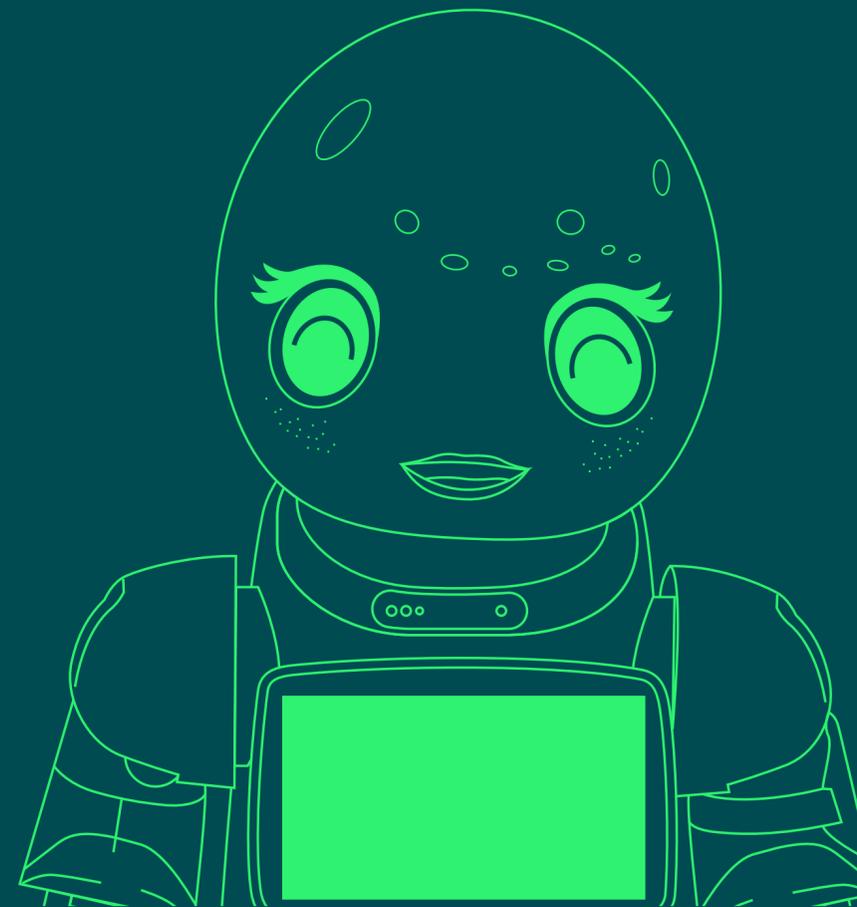


- To ensure an exceptional user experience, Ema was trained to align her personality with EPM's brand values. Her language, movements and expressions were designed to generate closeness and trust with the organization's users and customers. This was achieved by applying conversational UX principles.



Ema currently serves and guides customers and users in their transactions through the following business processes:

- Customer recognition
- Balance inquiries
- Invoices sent by e-mail or SMS
- Coupon generation to make payments
- Consumption variation queries



- Consultation of payable value and due date
- Company's general information and useful information for customers (Articulated Life Units (ALU) consultation, payment facilities, how to efficiently use utilities, COVID-19 relief measures, among others)



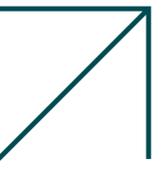
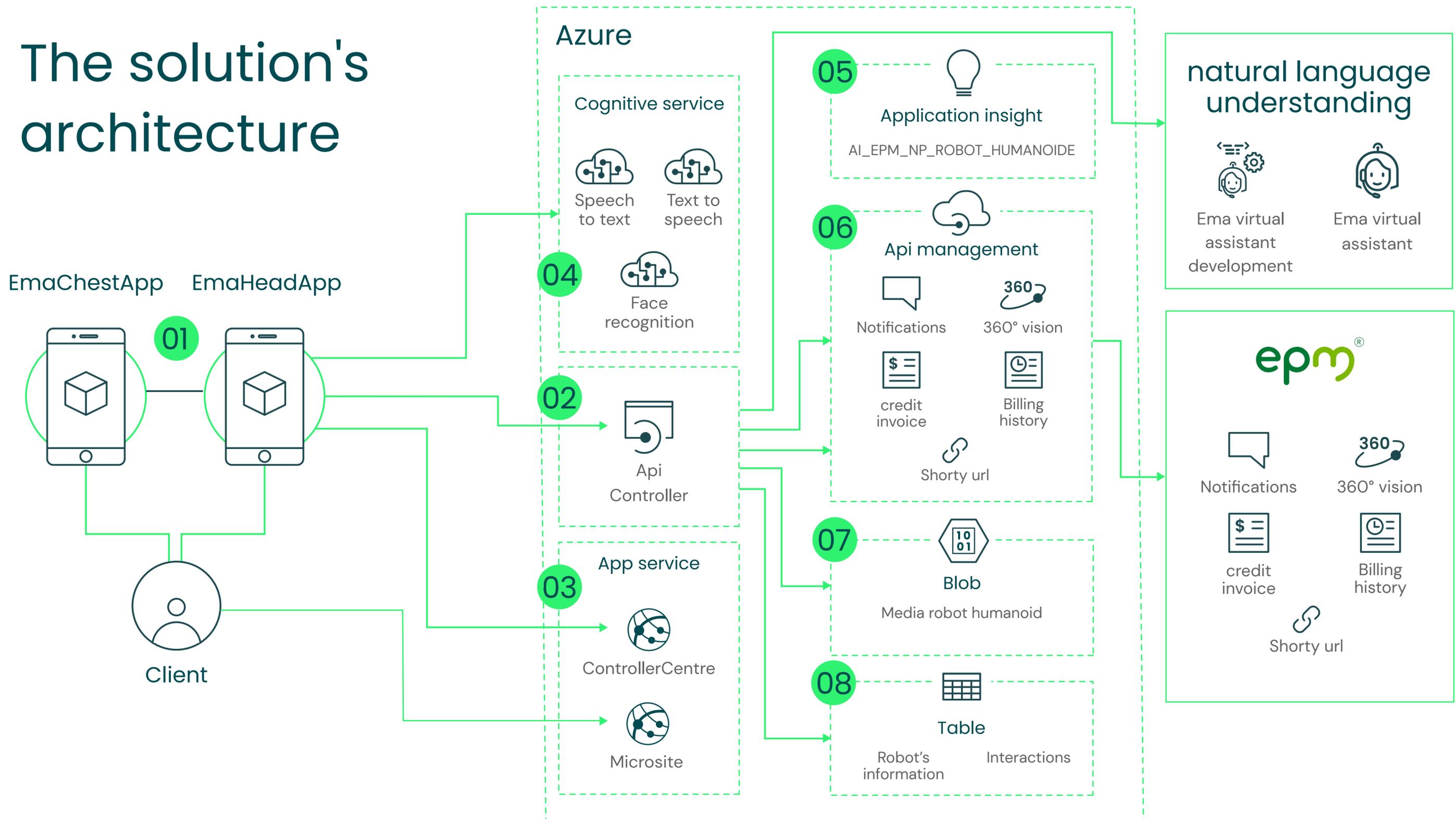
With EMA Humanoid, EPM, with the support of Ceiba, takes a step towards a service channel that reduces congestion in their offices, while generating an impact on the adoption of 4IR technologies, promoting an image of a public utilities' company that is modern. In addition to materializing benefits in:

- Quick answers to Frequently Asked Questions
- 24*7*365 Assistance
- Reduction on customer services costs
- Reduced waiting times
- Specialization by subject

09



> The solution's architecture



> The solution's architecture

01 EmaChestApp y EmaHeadApp

Android applications deployed into the humanoid for robot control and communication through API Rest deployed in the API.

02 API

Responsible for containing the "Controller" application developed in Node.js, which oversees the business logic and interactions with the humanoid.

03 App Service

It consists of an invoice information microsite and a control center to monitor the humanoid, both implemented with the Angular framework.

04 Cognitive Services

These services are consumed to perform speech/text translation, facial recognition and feelings analysis using Android applications.

05 Application Insights

Used to monitor the API.

06 API management

Features related to the access control of the company's applications.

07 Blob storage

Stores multimedia files that are used by the humanoid.

08 Table Storage

Database storage container for the transcripts of humanoid interactions and the list of the humanoids with their respective information.



