

Attunix Case Study

City of Corona enables its citizens to find answers online using Attunix chatbot built on Microsoft technologies



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Simplifying the citizen experience with chatbots

Like many cities across the United States, the City of Corona, California receives a considerable number of phone calls each month from its citizens, who are calling with a variety of questions. More often than not, however, the questions are common ones that consume a considerable amount of staff time to answer individually for each caller.

To address this situation, the City wanted to modernize and amplify its ability to respond to citizen questions on its website, so the City's Deputy Chief Information Officer Kyle Edgeworth, contacted Microsoft partner and technology provider Attunix to build a proof of concept (POC) of a chatbot.

"The challenge was to create efficiency while making it faster and easier for citizens to get the answers they seek," said Justin Billig, application modernization lead at Attunix. "We started by holding scoping sessions with the City to understand what they were trying to accomplish. It's important to us to understand the organization's business requirements and see those requirements from the perspective of the end user. We then pull the technology and the platform together to devise a solution that meets the needs of the situation. From this we were able to effectively recommend a solution."

From the scoping sessions, Attunix learned that the specific goals for the project were to simplify the citizen experience, reduce the costs of fielding common requests by phone, improve response time to citizen questions, and increase adoption of the many services available on its website. The City also wanted to collate all questions into a knowledge base that could be updated with answers on an ongoing basis.

Attunix SmartBot utilizes multiple Microsoft technologies

For the POC, Attunix employed the Attunix SmartBot – a customized chatbot experience that utilizes multiple Microsoft technologies to quickly and easily link people and information. "The intent of the chatbot was to introduce a level of automation that would enable citizens to more easily find answers to their questions and reduce the volume of incoming phone calls—many of which involved questions that were answered online," Billig said. "Reducing these calls would allow staff to refocus their time toward addressing more critical requests to be more responsive to the needs of its citizens."

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– Justin Billig, Application Modernization Lead, Attunix



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Billig said Microsoft technologies were integral to the success of the project: "Attunix was able to deliver this solution quickly on the Microsoft technology stack. We've done a number of projects using Bot technology and Cognitive Services, so we have a good handle on this process," Billig said. "We chose the Microsoft Bot Framework because of all of the prebuilt solutions that come out of the box that are easy to deploy. We are able to set it up quickly without a lot of coding."

One key Microsoft technology Attunix used for the project was QnA Maker, a Microsoft Azure offering that allows users to build, train and publish a simple question and answer bot based on FAQ URLs, structured documents, product manuals or editorial content. Other Microsoft technologies used included the Microsoft Bot Framework, Text Analytics, Azure SQL, Cognitive Services, Address Search, Bing Search, and Bing Text Analytics.

Billig explained how the Attunix SmartBot works: "When a citizen has a question, they go to the bot service on the website and type in their question. This goes to the QnA Maker, and to the text analytics piece to determine what the person is trying to say. It then logs into the City of Corona website database to search for the answer. If it isn't there, the bot figures out the keywords from what the user is asking and does a keyword search on Bing and pulls results back to the site."

Rolling out the chatbot solution to other cities

The POC was a success, and the City of Corona has engaged Attunix to expand the scope of the chatbot project. In phase two, website visitors will be able to request to talk to a user using an interface through Skype for Business. The question will be passed to an available person who will respond through the Bot framework.

"With the success of the City of Corona chatbot, Attunix is now rolling out this solution to other cities," said Brian O'Donnell, managing principal at Attunix. "Governments are steadily embracing an Open Government perspective—making data accessible to citizens. They're looking to model transparency and demonstrate vision," O'Donnell said.

According to O'Donnell, the key to success is the Attunix team's focus on user experience: "The Attunix team was brought in to technically create a solution, but also to think about it from the end user's perspective. A bot is only effective if you can put yourself in the end user's position—it's just an expression of the user trying to find information. At the end of the chatbot experience, the user should be left with specific information that gives them the best answer to address their needs. It's that positive experience that leaves people feeling that the organization understands their needs and respects their time."