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*NASCIO 2019 State IT Recognition Awards  
Digital Government: Government to Citizen*

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## Arizona Department of Economic Security **SNAP Chatbot**

**Title:** Arizona Department of Economic Security - SNAP Chatbot  
**Category:** Digital Government: Government to Citizen  
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## **EXECUTIVE SUMMARY**

### Problem Statement:

The Department of Economic Security (DES) has many lines of business that rely on complex eligibility rules to determine what services citizens qualify for. Often, field office workers are asked questions requiring extensive research and necessitates them navigating through massive amounts of online documentation. That online documentation consists of the Cash & Nutrition Assistance Program (CNAP) Manual - a 1,700 page digital manual covering policies for two public assistance programs. This is magnified by: the high turnover of this particular position type, new hires not having institutional expertise, and a lack of consistency concerning questions escalated to management. This causes the citizen/customer to spend an exorbitant amount of time within the DES offices, slow movement of caseloads, and reduced quality of services provided. In addition, due to the complexity of the eligibility requirements for programs, it is difficult for citizens/customers to maneuver through the information provided on the DES websites to mitigate office visits.

Strategy: DES partnered with a vendor to utilize Microsoft Cognitive Services and their Azure platform, Microsoft AI and LUIS. After process mapping and a complete discovery phase with the DES Divisions of Benefits and Medical Eligibility (DBME) Policy Manual Subject Matter Experts (SMEs) and Program Service Evaluators (PSEs) and their supervisors, there was a thorough vetting of the design and implementation using the most frequently asked questions.

Goal: Utilize Artificial Intelligence (AI) "Chatbots" to increase timeliness and quality of critical DES services.

## **CONCEPT**

Use AI "Chatbots" to increase timeliness and quality of critical DES services. Initially, focus on policies for eligibility determination in DBME. Conversational AI for DBME will carry out interactive conversations that communicate knowledge, answer questions or walk through a process using human language. Begin with most frequently asked questions and scale solution over time by using analytics.

Project Key Information: The chatbot was given the name SEAN, which stands for "Service Evaluator Answers Now". SEAN delivers a common language virtual assistant to PSEs to use in searching for policy information in the CNAP Manual. The CNAP Manual has been used by over 2,500 state merit staff at all levels in DBME in interviewing clients for SNAP and TANF benefit applications. The vendor was sourced for development and implementation of a chat-bot AI that state merit employees could use to interface with the CNAP manual in natural language. SEAN is able to be accessed via multiple paths: Skype for Business and as a web-based app, plus there is a shortcut to SEAN on every state worker desktop. SEAN can 'scrub' through the CNAP Manual in approximately 23 minutes and can pick up any

changes made. This process allows the scrub to be run after any changes are completed, which results in all interactions being current and linking to the updates. SEAN's intent is to improve the service experience for our citizens and employees. This is a scalable enterprise platform with a future roadmap for improving other client/self-service use cases. The solution supports Arizona's cloud first policy and IT innovation to deliver more services online.

## **SIGNIFICANCE**

The project is part of a Digital Transformation at DES and an enterprise solution to an issue that most agencies in the state face in some way: the complexity and size of "manuals" like the CNAP make them difficult to interact with and source information from. Any search engine requires a person to ask the right question to get a response that could be of value in making a decision on an eligibility case.

## **IMPACT**

Provide better citizen experience by answering questions quickly and accurately throughout the 160 DES Offices consisting of 1,700+ PSEs. This will reduce the number of office visits of frustrated citizens, increase the speed of answers to any remaining questions and therefore reduce the average wait time for citizens without the need to add more people. It will also improve the accuracy of decision determination and the overall time to determination. These can be measured by increasing "First Time Completion Rate" by 2% and reducing "Weighted Average Interview Time" by two minutes. Satisfaction can be measured by requesting whether the response was helpful. This project impacts 1.2 million citizens receiving services through these programs.