



Public Health Department Tracks COVID-19 Spread with Deloitte and Amazon Connect Solution

A U.S. state's department of health and human services was engaged in contact monitoring to track the spread of COVID-19 infections. Deloitte helped the department coordinate and amplify the efforts of thousands of medical volunteers with a solution using Amazon Connect call center capabilities.

Tackling the COVID-19 pandemic required all hands-on deck, and in one U.S. state, the Department of Health and Human Services turned to medical professionals for help in a contact tracing initiative. The program was intended to help limit the spread of infections by alerting residents when they had contact with a COVID-19 patient. After an initial call, the individuals were contacted again periodically to monitor whether they developed an infection, and if they did, that data informed further contact tracing and was sent to the state's existing Outbreak Management Solution (OMS) to create an investigation case.

When the state asked for volunteers with medical doctorates, medical education, or public health

experience to staff the program, it was overwhelmed by the response. Thousands of volunteers signed-up to help. This presented a new challenge. There was no system in place to accommodate so many participants monitoring such a vast number of residents. The volunteers were spread across the state, and due to public health restrictions, placing so many people in a physical call center was as unsafe as it was infeasible.

Initially, volunteers used personal cell phones and simple spreadsheets updated manually to track calls, but this disjointed approach inhibited effectiveness. The state needed a uniform tool to monitor residents, and it had little time to stand-up a solution to reach the necessary capacity. Lives were at stake.

Answering the call for a public health emergency

The state required call center capability to connect with hundreds of thousands of residents and easily feed that data to the OMS to help with broader pandemic monitoring and treatment. Deloitte moved fast to answer the call. The solution was a combination of multi-channel engagement, an intuitive and simple user interface, and a call center campaign management tool.

Two external facing user interfaces were built on Salesforce Service Cloud software to facilitate data ingestion, and these were integrated with the Amazon Connect call center solution and the Amazon Pinpoint communications service. Contacts were imported from the OMS, and each contact began with a manual monitoring call facilitated via Amazon Connect, in which the volunteer recorded preliminary symptomology information. Volunteers read from customized, dynamic scripts, and monitoring data was then returned to the OMS.



Automated queuing logic built into the solution ordered contacts with the highest risk (e.g., those in assisted living) for priority contact. On the call, the potentially exposed person was given the option to continue with manual monitoring through the phone using Amazon Connect or opt into automated monitoring using text messages via Amazon Pinpoint, where they could answer survey questions and submit the information for processing. This catered to citizen preference, but just as important, it helped reduce the number of manual calls made by the contact tracing volunteers, expanding their capacity and allowing them to focus on more complicated inquiries.



Addressing a complex challenge at scale

The preliminary solution was deployed in one week, and the simple, user-oriented design allowed the first volunteers to begin using it immediately after launch. Ongoing design, development, testing, and implementation expanded the solution in subsequent releases. Taking this agile approach, Deloitte stood up a support team quickly without diverting already-strained internal resources or adding staff for a program with a finite duration.

The result: nearly 3,000 volunteers across the state monitored more than 670,000 contacts since the solution was deployed. Each one of these contacts helped contribute to the nationwide effort to stop the pandemic's spread. And the solution only improves over time. By using the advanced analytics and natural language processing capabilities of Amazon Connect, Deloitte helped the state generate insights about common questions and contact drivers. This enabled continuous improvement of the resources and self-service tools available to people contacted.

Looking ahead to future needs

As the COVID-19 pandemic subsided, the usage of the contact tracing solution reduced with plans to retire the solution in December, but the concepts used in Deloitte's solution such as text messaging continue to be used by the state to expand capacity across a variety of public needs. Today, iterations of the application are used as part of campaign management by several state agencies, providing automated outreach to inform residents of local opportunities and benefits, such as child tax credits or food assistance.

The enduring value of this solution is not just that it is a sophisticated integration of federally compliant Salesforce and Amazon Connect capabilities. With Deloitte's domain expertise in compliance, risk, and legal matters, as well as the breadth of our experience across industries and sectors, we can rapidly develop and deploy solutions for challenges today and for whatever the future holds.



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