

CDC Solves Text Illness Monitoring for COVID-19 Using MicroAutomation's OmniMonitor™.

Background

As the nation's health protection agency, the United States Centers for Disease Control and Prevention (CDC) saves lives and protects people from health threats. To accomplish their mission, CDC conducts critical science and as a result provides health information that protects the US against expensive and dangerous health threats. It is also their mission to respond on behalf of public health when these situations arise.

The mission of the CDC is to protect America from health, safety, and security threats whether diseases start at home or abroad, are chronic or acute, curable, or preventable, or human error or deliberate attack.



Challenge

With the exponential spread of COVID-19 rapidly infecting the US population, the CDC was challenged with tracking and monitoring the spread of the disease in the US. Contact Tracing is an important tool used by public health officials to anticipate and prevent the spread of COVID-19. When new cases of COVID-19 are identified, disease investigators work quickly to make sure the case is isolated and then identify and quarantine close contacts, monitoring those contacts for symptoms of the disease for 14 days or ongoing.

Manual methods of monitoring individuals are inefficient and expensive. Collecting data about the spread of the disease is

cumbersome and takes focus away from other priorities. The CDC needed an application that allows for texting capability to a defined population for ongoing monitoring both nationally and internationally.

It was anticipated that Text Illness Monitoring (T.I.M.) could provide a quick and effortless way to engage and monitor employees and citizens during a disease outbreak. Participants in the program would need to be contacted daily to determine if they are symptomatic or asymptomatic. For those exhibiting symptoms, notifications would need to be automatically generated to alert CDC or state/local health department personnel.

Solution

MicroAutomation was engaged by the CDC as a partner and advisor to design and seamlessly implement an automated health monitoring solution through a text platform. The solution needed to support the tracking and monitoring of the COVID-19 outbreak as well as future pandemics.

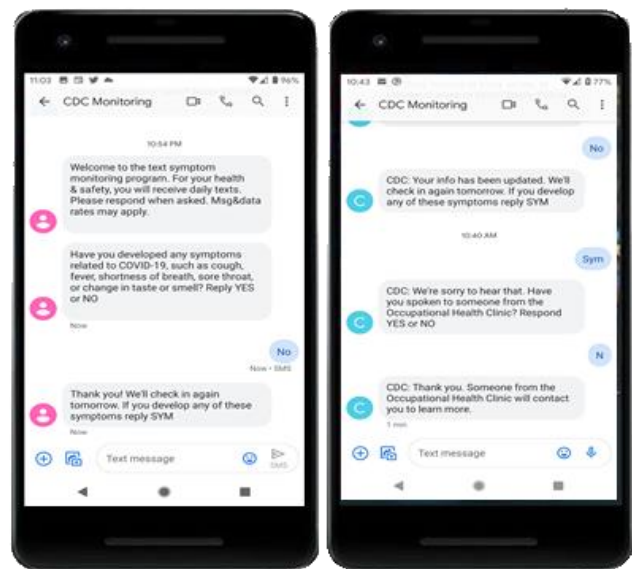
MicroAutomation was able to seamlessly configure and swiftly enable its OmniEngage Software as a Service (SaaS) offering to meet the requirements. The OmniMonitor product, part of the robust OmniEngage product suite, is designed as an automated participant engagement solution for private and public enterprises wishing to do their own monitoring. OmniMonitor supports ongoing, proactive engagement and data capture using voice, text, and social media for multi-agency campaigns.

OmniMonitor increases performance rates when capturing closed- and open-ended responses, as well as scaled ratings, all validated within expected ranges or choices. It includes:

- Both campaign-based as well as participant-specific queries
- Dynamic response-based interaction flows

- Participant-centric design with support for both interactive text (SMS) and voice (phone) engagement
- Contact based on recipient's location/time zone including international locations
- Multi-language support
- Automated reminders for non-response
- Alerts and escalations for symptoms and/or non-reporting.
- Simple to manage for administrators, easy to use for participants
- Personalization capability for interactions with participants
- Reporting and dashboards to quickly analyze, report and take action as needed

MicroAutomation's OmniMonitor product (branded as Text Illness Monitoring 2 (TIM2) by the CDC) was easily able to be scaled to support the CDC and additional Government and State agencies as well as localities. OmniMonitor's hierarchical design allows TIM2 to support multi-level agencies (such as state and local health departments) where data collected by individual agencies can be rolled up to provide aggregated summaries of collected data.




response and highly usable interface allows for higher completion rates and more conclusive, immediate results, allowing the CDC to monitor illness and outbreaks in real time. In addition, the automated proactive nature of the application drives high response rates, allowing administrators to focus on the individuals who need attention, rather than chasing down data. The powerful collection, timestamping and reporting functions allow for easy to produce contact tracing both proactively, and retrospectively.

Results

A high performance touchless public health monitoring system enabled through automation efficiency, and an effortless user experience.

The CDC currently uses its new TIM2 platform (aka OmniMonitor) to monitor CDC employees for infections during outbreaks of diseases. Employees are automatically monitored daily for symptoms for 14 days, or ongoing. The CDC has also utilized TIM2 to easily track and monitor employee health as they are deployed and return from duty. Alerts are automatically generated for those participants that exhibit symptoms.

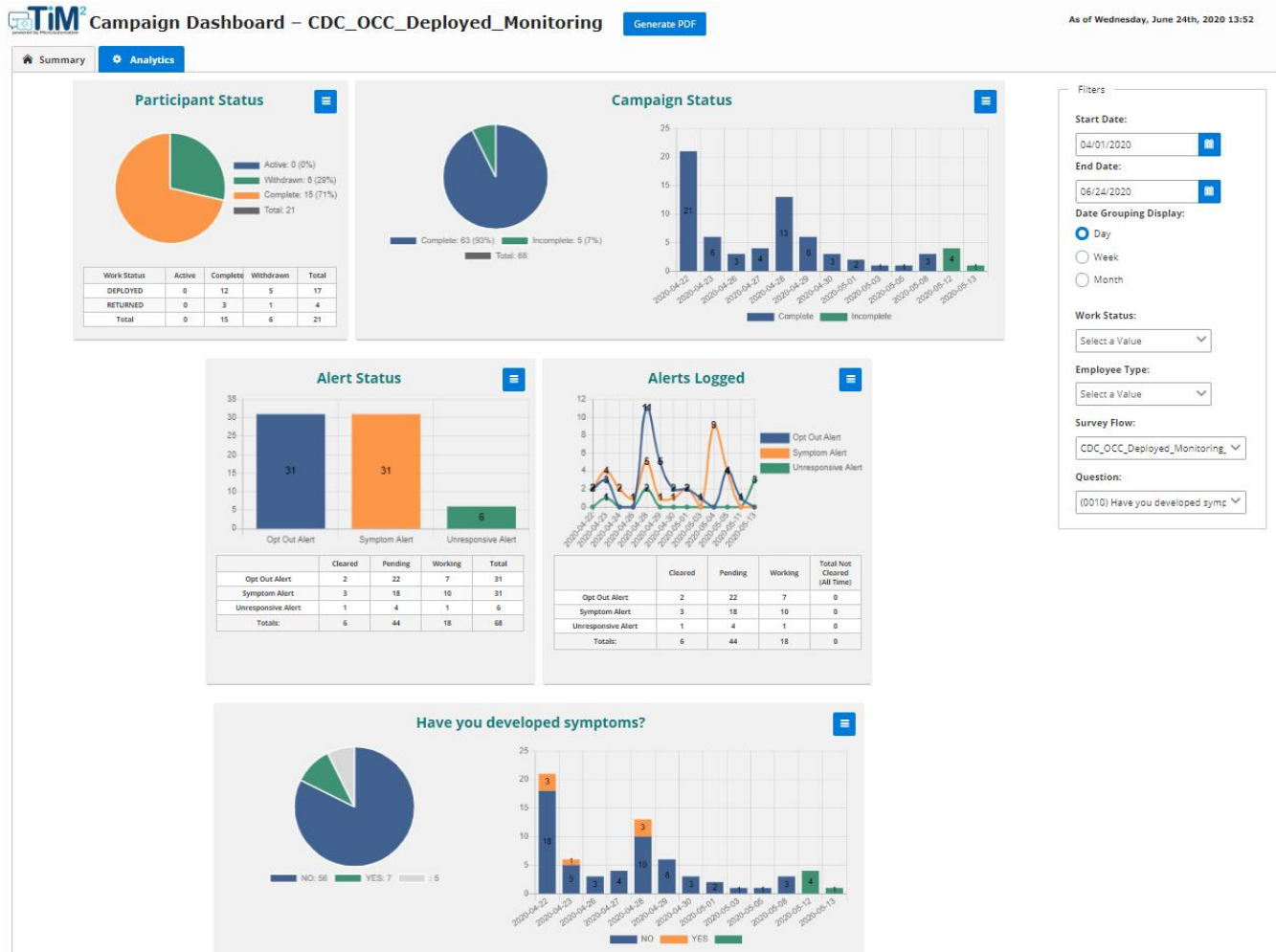
The ability to increase or decrease detailed monitoring based upon quarantine periods, geographies, and outbreaks makes the system effortless to use and administer for campaign directors. The initial solution was so successful for internal use that the CDC has made the solution available to other Government and State agencies, as well as localities, to

 Participant Activity Report 05/01/2020 - 05/12/2020					
Participant: James Smith [10]					
CDC OCC Deployed - Daily		Session Date/Time: Friday May 8, 2020 4:09:09 PM		Duration: 0:00 Status: I	
Question ID	Question	Response	Raw Response	Response Time	
0010	Have you developed symptoms?			5/8/2020 4:09:09 PM	
CDC OCC Deployed - Daily		Session Date/Time: Friday May 8, 2020 4:07:39 PM		Duration: 0:00 Status: I	
Question ID	Question	Response	Raw Response	Response Time	
0010	Have you developed symptoms?			5/8/2020 4:07:39 PM	
Returned from Deployment		Session Date/Time: Friday May 8, 2020 3:54:43 PM		Duration: 0:07 Status: C	
Question ID	Question	Response	Raw Response	Response Time	
KEYWORD	KEYWORD	RET	Ret	5/8/2020 3:54:43 PM	
0110	Select timezone	EST	1	5/8/2020 3:54:49 PM	
Symptoms Reported		Session Date/Time: Friday May 8, 2020 3:54:17 PM		Duration: 0:07 Status: C	
Question ID	Question	Response	Raw Response	Response Time	
KEYWORD	KEYWORD	SYM	Sym	5/8/2020 3:54:17 PM	
0100	Spoken to health clinic?	NO	No	5/8/2020 3:54:24 PM	
ALERT SYM		Symptom Alert		Alert Date/Time: 5/08/2020 3:54:17 PM	
Status: Pending				Last Updated: 5/08/2020 3:54:17 PM	
Notes:				Updated By: SYSTEM	
CDC OCC Deployed - Daily		Session Date/Time: Friday May 8, 2020 3:52:39 PM		Duration: 0:56 Status: C	
Question ID	Question	Response	Raw Response	Response Time	
0010	Have you developed symptoms?	NO	No	5/8/2020 3:52:22 PM	
0310	Select timezone	EST	1	5/8/2020 3:53:34 PM	
Symptoms Reported		Session Date/Time: Friday May 8, 2020 11:13:09 AM		Duration: 0:47 Status: C	
Question ID	Question	Response	Raw Response	Response Time	
KEYWORD	KEYWORD	SYM	sym	5/8/2020 11:13:09 AM	
0100	Spoken to health clinic?	YES	y	5/8/2020 11:13:42 AM	
0210	Enter clinician name	dr Smith	dr Smith	5/8/2020 11:13:56 AM	
ALERT SYM		Symptom Alert		Alert Date/Time: 5/08/2020 11:13:09 AM	
Status: Working				Last Updated: 5/08/2020 6:35:21 PM	
Notes:				Updated By: admin	
Returned from Deployment		Session Date/Time: Friday May 8, 2020 11:11:39 AM		Duration: 0:14 Status: C	
Question ID	Question	Response	Raw Response	Response Time	
KEYWORD	KEYWORD	RET	return	5/8/2020 11:11:39 AM	
0110	Select timezone	EST	1	5/8/2020 11:11:53 AM	

The effortless experience for administrators who are required to set up the campaigns, collect the data and provide reporting allows for fast, easy and cost-effective illness monitoring. The simple no training required, touchless

monitor not only employees, but also citizens who may have been exposed. Currently, the solution is in use by over 200 states, localities, and Government agencies. Alerts for participants indicating symptoms, not responding, or opting out of the monitoring program are immediately sent via e-mail to designated health officials. Campaign statistics are

available in a dashboard which supports an interactive capability where filters and date ranges can be applied to analyze, aggregate, or drill down the collected data as necessary. Results may be produced in report form and automatically distributed via e-mail to authorized personnel at pre-determined times.



About MicroAutomation

MicroAutomation is the expert in automation efficiency with a promise to reduce operational costs while increasing effortless experiences. The team of expert advisors and automation software engineers at MicroAutomation provide a broad range of professional services and products. MicroAutomation solutions are based on creating an effortless user experience through Speech-enabled Interactive Voice Response (IVR), text monitoring, improving live agent efficiency utilizing Computer Telephony Integration (CTI), and providing analytics tools to report, manage and refine each solution to maximize the overall performance of your contact center needs.

MicroAutomation also offers contact center products and professional services including:

- The Award Winning OmniEngage™ Product Suite
- Complete solution design
- Tested and proven user experience protocols
- Configurable and custom application development
- Turnkey implementation
- Comprehensive customer support
- Customized training solutions to enable team success
- GSA Advantage IT Schedule: GS-35F-0419L

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