With the spread of COVID-19 across the United States, the rapidly changing situation is disrupting life as we know it. From the State Capitol to 6th Street, the coronavirus has adversely impacted the citizens of Austin. To respond to citizens’ concerns, the City of Austin is partnering with prominent technology companies to assess, track, test and map the spread of COVID-19 in a quick, reliable and secure manner.

Together with Austin, NTT DATA is launching a new application running on a Salesforce platform that will rapidly deploy a self-service channel and secure portal to collect COVID-19 screening and intake information from citizens and healthcare workers throughout the city.

With the swipe of a finger or the click of a mouse residents of Austin will have access to a secure application to self-assess their condition. Based on their responses to questions about common symptoms of COVID-19, residents may be eligible to electronically schedule a test within a 15-minute window at one of five city-wide locations. Once a test is scheduled, residents will receive a one-time-use QR code to facilitate quick identification at the testing sites and then effectively track their test results through a secure portal.

The QR code allows citizens to safely take a test without leaving their vehicle, and they will be quickly notified when their test results are available for review on the secure portal.

Collecting anonymized survey and testing information on this secure portal will help the City of Austin understand the spread of COVID-19 in the community and respond accordingly. If necessary, the City of Austin will be able to rapidly create and revise the online questionnaire to gather new information regarding COVID-19. City employees analyze anonymized COVID-19 spread via reports, dashboards and heat maps to make evidence-based decisions as well as update the appropriate channels, including the media and the general public.
Fast, secure, easy to use

To effectively combat the spread of this disease, health and city officials need a secure turn-key application that makes monitoring, tracking and responding easier. The new application:

1. Creates, distributes and tracks surveys throughout the greater Austin metro area, covering citizens and first responders
2. Expediates scheduling and routing to nearby testing centers for secure COVID-19 testing and tracking using unique QR codes
3. Uses a scalable design so the solution can easily expand with the pandemic, if necessary
4. Leverages drag-and-drop functionality to avoid time, maintenance and other limitations of custom code creation
5. Has quick setup and configuration capabilities that can be adapted easily over time to assist in the fight against COVID-19
6. Includes heat mapping of anonymized data to identify high-risk areas and testing demands by facility to help assess capacity burdens for support functions such as hospital beds, nearby response personnel availability, etc.
7. Builds on a secure and proven platform already in use by federal, state and local government agencies as well as multiple healthcare entities
Flexible views for the relevant audience
For the application to be the most useful to the City of Austin, speed, accessibility and usability are critical. That is why the application provides multiple views.

Citizen view: Citizens complete an anonymous web-based survey via desktop computer, laptop, tablet or mobile phone to help screen whether the symptoms they are experiencing warrant COVID-19 testing. Completed surveys provide anonymized data for further analysis by City of Austin employees and health professionals. For citizens deemed in need of COVID-19 testing, an automatic scheduler quickly displays a time and a nearby center with available capacity, test kits and healthcare professionals. The citizen is then sent directions to the facility and a QR code that enables quick, secure and safe identity validation upon arrival at the testing site. This process assists the city in enabling high-risk candidates to quickly receive proper testing while reducing the strain on healthcare systems with lower risk individuals.

Field technician view: To continue to assist healthcare workers in the field, testing site personnel access a secure, mobile-first, web-based platform to scan and record incoming patients for quick and simple COVID-19 testing. The platform enables accurate test tracking throughout the process while adhering to applicable privacy and governmental regulations, such as the Health Insurance Portability and Accountability Act (HIPAA). It will also help reduce the risk to front-line healthcare workers and speed up the Austin’s ability to fight community spread.

City of Austin internal view: Internal city employees responding to the COVID-19 crisis will have access to anonymized incident reports, dashboards and heat maps to evaluate specific responses. Proactive, informed, data-based decisions will help determine whether revisions to Austin’s evidence-based responses are needed. This information can be easily and securely shared with other government entities, first responders and news outlets to provide a consistent and timely message that can then be communicated to those who need to know. Should COVID-19 reemerge at any time, the data collected now will aid in the City of Austin’s future response.

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Platform architecture and security
Time is of the essence in responding to this global pandemic, which is why NTT DATA selected the flexible Salesforce platform for the City of Austin. Using an existing architecture allows Austin to take advantage of a secure, proven, cloud-based platform that can be rapidly configured to meet the city’s changing response.

The solution provided for Austin will reside on the Salesforce Government Cloud, which is specifically tailored to help securely meet the needs of federal, state and local government entities. The Salesforce Government Cloud platform is engineered to enable clients’ solutions to be both FedRamp and HIPAA compliant; other platform certifications can be viewed on the Salesforce webpage. In addition, many key services from both NTT DATA and Salesforce include features and functionality that help clients meet HIPAA’s stringent privacy, security and data protection requirements. By working together, NTT DATA, Salesforce and our clients can create solutions that address the challenges of HIPAA compliance while protecting citizens by safeguarding their personal health data.

Future, foresight
It is difficult to predict where and how this deadly virus will impact the citizens of the City of Austin, Texas, and those around the world. NTT DATA is proactively looking at future versions of this application to help in the global response to COVID-19.

We are currently working with healthcare officials to add functionality that would help facilitate getting individuals back to work. The system is designed to be agile, and to allow for a variety of potential antibody testing mechanisms, supporting current as well as any future state or federal certification processes that would allow people to return to the workplace.

We believe that the application can be further expanded through social listening to manage the tracking and communication of publicly available information. Using digital media to identify relevant topics would drive public relations and citizen outreach, and leveraging Salesforce’s Social Studio platform would help to directly educate citizens as well as suppress rumors and misinformation. The publicly available information collected could then be used to create detailed reports for government officials, who would be able to provide a more complete picture of the crisis and better address the public’s concerns.