Using Whatsapp and Twilio to Increase Adoption of Covid-19 Vaccines for All Americans









U.S. DIGITAL SERVICE

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Overview:

Throughout the COVID-19 pandemic, the CDC served as a critical source for information about prevention and vaccination and has been instrumental in developing and distributing guidance on how to best protect yourself and others from Covid-19. In addition, the CDC has worked with state and local health departments to ensure that they have the resources they need to respond effectively to the Pandemic. As a result of the CDC's efforts, the United States has been better equipped to weather the Pandemic than many other countries.

Challenge:

COVID-19 vaccines were approved and announced in late 2020, and released to the general public in February 2021. While the CDC had partnered with the United States Digital Service (USDS) and Maximus to build a SMS communications solution to share accurate vaccine information, the Spanish-speaking community was getting vaccinated at a lower rate than other communities.

Solution:

Vision Point Systems (VPS) joined the project to better inform the Spanish-speaking community about the COVID-19 vaccines through building a WhatsApp solution that is scalable, interactive, and always up to date. This app succeeded in reaching more Americans and increasing the vaccination rate.

Customer Spotlight: Centers for Disease Control and Prevention (CDC) In February 2021, the COVID-19 vaccine became available for widespread distribution.

After nearly a year of isolation throughout the COVID-19 pandemic, the general American population finally had hope for a near future where they could feel safer going about their lives.

However, by early March, only 19% U.S. adults had at least one dose of a COVID-19 vaccination shot. This was significantly below the estimated 70% immunity rate needed to fight off the novel coronavirus.



To increase vaccinations, the United States Digital Service (USDS), the White House technology unit, and the CDC worked together to provide vaccine communication through easily accessible, trusted, and multilingual communications systems.

The CDC and USDS brought Twilio and Maximus on board in April 2021 to team up and build a fully staffed remote contact center, as well as multilingual SMS vaccine-finders, GETVAX (438829) for English speakers and VACUNA (822862) for Spanish speakers.

The success of the communication channels set up by Twilio and Maximus helped make the vaccine more accessible to Americans, but the CDC uncovered a new challenge: Spanish-speaking communities had lower vaccination rates than other communities.

In June 2021, VPS joined Twilio and Maximus to help tackle this challenge and create a partnership to increase vaccine accessibility for all Americans. Using Twilio to Drive Vaccination Adoption Twilio was a natural choice for communicating vaccination information and locations to Americans, as it provides excellent customizability, and has capabilities for interactive bulk messaging for both WhatsApp and SMS.

The existing SMS solution was missing a significant user base. The CDC, Twilio, and Maximus recognized that to reach as many Americans as possible, they would have to expand beyond SMS to WhatsApp.

WhatsApp has a high penetration rate with the United States Hispanic community. With 52% of the US Hispanic population being WhatsApp users, WhatsApp was a necessary platform to reach this community with vaccine information. Vew Char

My QR Code

Edit Home Scree

share App

Enter VPS: A Need for Twilio Expertise and Customization

VisionPointSystems SOFTWARE ENGINEERING The CDC and Maximus knew that the Spanish-speaking population could be better served through WhatsApp communications. However, they realized that they were in need of an additional partner that brought strong Twilio expertise and the ability to create a unique, custom solution that could adapt to the constantly changing needs of public health priorities during uncertain times.

Not only did the new WhatsApp solution need to replicate the existing SMS functionality, but it also had to be scalable and secure and built in a manner that can handle future iterations or needs.



VPS was a clear fit for the CDC's project to continue driving vaccine adoption for a variety of reasons:

- Twilio partner since 2013
- Deep Twilio knowledge and experience
- A consultative approach
- An understanding of how to drive maximum impact while working through compliance requirements
- Knowledge of scalability and integrations to set the foundation for future optimizations



Advancing Vaccine Adoption through a Custom WhatsApp Twilio Application Maximus contracted with Vision Point Systems to build a Spanish language WhatsApp application powered by Twilio to serve the Spanish-speaking population.

As a result, VPS joined the initiative to help educate and vaccinate Americans against COVID-19 in June 2021. VPS came on to the project to replicate the functionality of SMS using WhatsApp to better reach the Spanish speaking population.

There were three major needs that VPS had to meet in a short period of time:

- Replicate SMS functionality via WhatsApp
- Create better access to vaccine information through WhatsApp
- Build mass notification framework through SMS and WhatsApp that could serve millions of American citizens



"The biggest challenge we faced when developing the Vaccines.gov messaging service was understanding that this service was intended to reach an extremely large audience. We had to guarantee that the service was scalable, maintainable, and easily adjustable. With such a large outreach, a system that did not deliver information in a timely manner would not be effective.

Additionally, as new information continued to be announced week to week, we needed to be ready to adjust our messaging content at any moment to be sure we were providing the most up to date and accurate information that we had available to us."



Alexio Chavez, Lead Developer at VPS

With aggressive vaccination goals, VPS wasted no time getting to work and building the WhatsApp application.

VPS took on a consultative approach to ensure all needs were addressed while understanding the following:

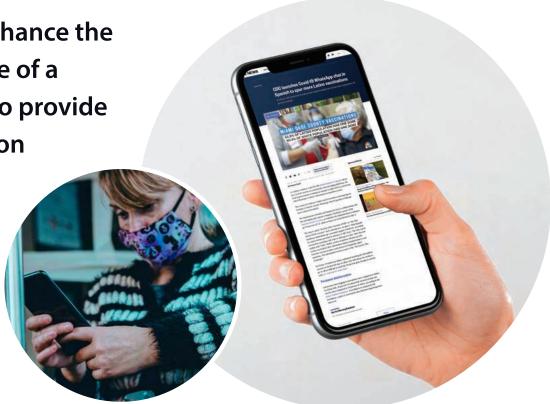
- The SMS project and the needs of such a large audience
- The rapidly changing information about COVID-19 and vaccines
- Future scalability options



VPS then employed its Twilio expertise and created a custom WhatsApp application geared towards the Spanish-speaking community, providing information about vaccine locations and clarifying accessibility of vaccines for individuals without insurance, identification, or immigration paperwork.

Moreover, VPS took the opportunity to enhance the capabilities using WhatsApp to allow more of a "chatbot" experience. This chatbot helps to provide better access to FAQs and other information about the vaccine.

The WhatsApp chat, named "Mi Chat Sobre Vacunas COVID" (My chat about COVID vaccines), went live on June 21, 2021.



Citizens can access the chat by clicking a link or scanning a QR code. After replying to the chat with "hola" (Hello), citizens are presented with a menu that offers:

- Nearby vaccination sites
- Transportation information to/from vaccine locations



Creating Mass Notifications via Twilio to Inform and Vaccinate Citizens



The CDC additionally needed a method to push out new and important information about vaccine availability and guidance. Maximus and VPS again teamed up to build a framework for mass notifications through SMS and Whatsapp that would be capable of serving millions of citizens.

The mass notification framework had to be developed to serve as much of the population as possible. However, serving a mass audience brings many challenges. Moreover, the framework had to be set up with proper opt-in and opt-out procedures while being compliant with telecommunications and privacy laws.

With these challenges in mind, VPS built a technically sophisticated system to allow the notification system to work at a massive scale and support millions of subscribers. The public now had a space to sign up to receive notifications for when CDC sends important announcements like child vaccine availability or booster recommendations. Vaccine Mass Communications Protect and Inform Americans In a project where time and lives were of the essence, VPS brought speed, expertise, and quality.

Thanks to VPS's innovative efforts, and a top-tier team with Maximus, the CDC, and the USDS, the public can now receive the most recent, verified vaccine information straight from the CDC as it is released.

Making vaccine information reliable, up-to-date, and easily accessible for all populations in the United States is a vital factor in keeping Americans healthy. VPS' partnership with Maximus and the CDC drove accurate and relevant vaccine communications to enable a bright future.



The numbers of Americans informed speak for themselves

184,000+

SMS messages were sent and received between April and November 2021 using the Twilio System 82,301+

unique users are active on the WhatsApp platform that was built to reach the Spanish-speaking population in the U.S. **106,594**

SMS messages were sent and received about this crucial information after the booster guidance was changed in November 2021 and the booster was recommended to all As a result of the SMS/WhatsApp two-way communications, the CDC and USDS are now able to capture information about questions asked by the public about the vaccine. This provides critical information for future campaigns to drive vaccine awareness and addresses the questions and concerns of Americans.

While the app is built, the partnership continues. VPS looks forward to building additional customizations and add-ons for the various communication methods that the CDC and USDS employ to encourage vaccines. "Vision Point Systems is proud and honored to be part of the team supporting the SMS and Whatsapp communications channels for the Centers for Disease Control and Prevention's Vaccines.gov program through our partnership with Maximus Federal and Twilio.

Throughout our corporate history, we have supported customers with mission critical solutions that ensure the safety and well-being of the general public, and this has served as a catalyst for the development of internal processes, systems, and support infrastructure to provide maximum uptime of our customers' critical systems. Moreover, the humanitarian nature of this type of work gives us a deep personal sense of fulfillment. Our involvement with Vaccines.gov is an experience our team members will remember for the rest of our lives."

- Yong Lee, Founder & CEO at VPS



