# Creating a Volunteer Coordination Communication Template with Twilio

Our team aimed to reduce the barriers to deploying cloud communications solutions to help people impacted by large-scale disasters by creating application templates that leverage Twilio technology and demonstrate immediate value to stakeholders. We conducted user research with disaster response organizations to identify promising template concepts, then developed a template to help volunteer coordinators field inquiries via multiple channels, resolve common questions using an AI-enabled chatbot, and efficiently handle more complex interactions using Twilio's programmable contact center platform. The template will be released as an open-source code sample on Twilio's CodeExchange site and featured as a blog post on Twilio's corporate web.

Disaster Relief Overview

The Center for Disaster Philanthropy defines the disaster life cycle to be a continuous process including four phases: Response, Reconstruction, Preparation, and Resilience. In user discussions, we found that while each organization provides unique services, most require the same basic preparation work, such as training. As such, we decided focusing on the preparedness phase would provide the largest audience for our template.
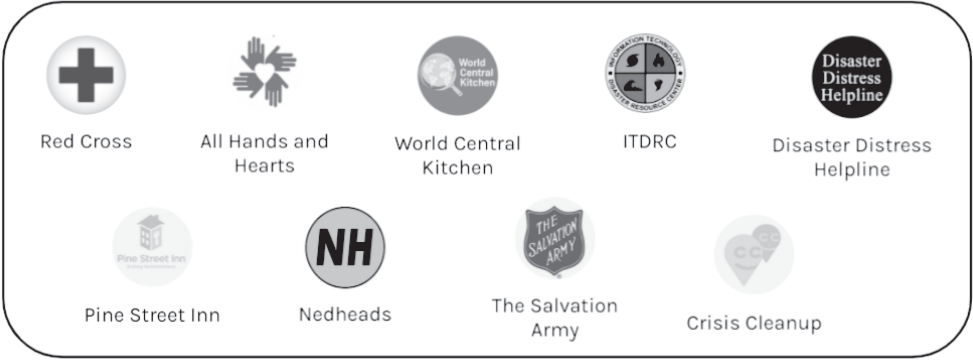

DISASTER LIFE CYCLE
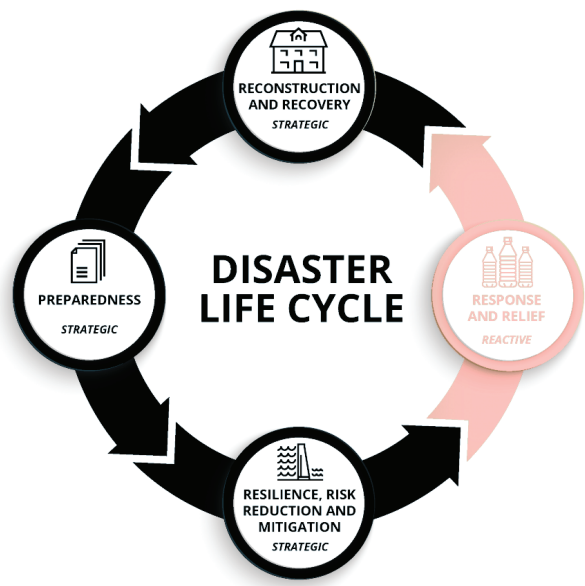
Main Insight

Volunteers are what drives most disaster response. Volunteers come with a variety of technological skills and comfortability with a majority being older, retired adults. This puts great importance on the need to make resources accessible for lower tech users. Currently, volunteers reach out to coordinators on a case by case basis when they have questions or concerns. Common channels of communication are phone calls or emails, and response is dependent on coordinator availability.

Organizations

Below are the organizations we spoke to throughout this process, distilling their experiences into insights and ideas, which we then took back to them for feedback and codesign.

Red Cross · All Hands and Hearts · World Central Kitchen · ITDRC · Disaster Distress Helpline · Pine Street Inn · Nedheads · The Salvation Army · Crisis Cleanup
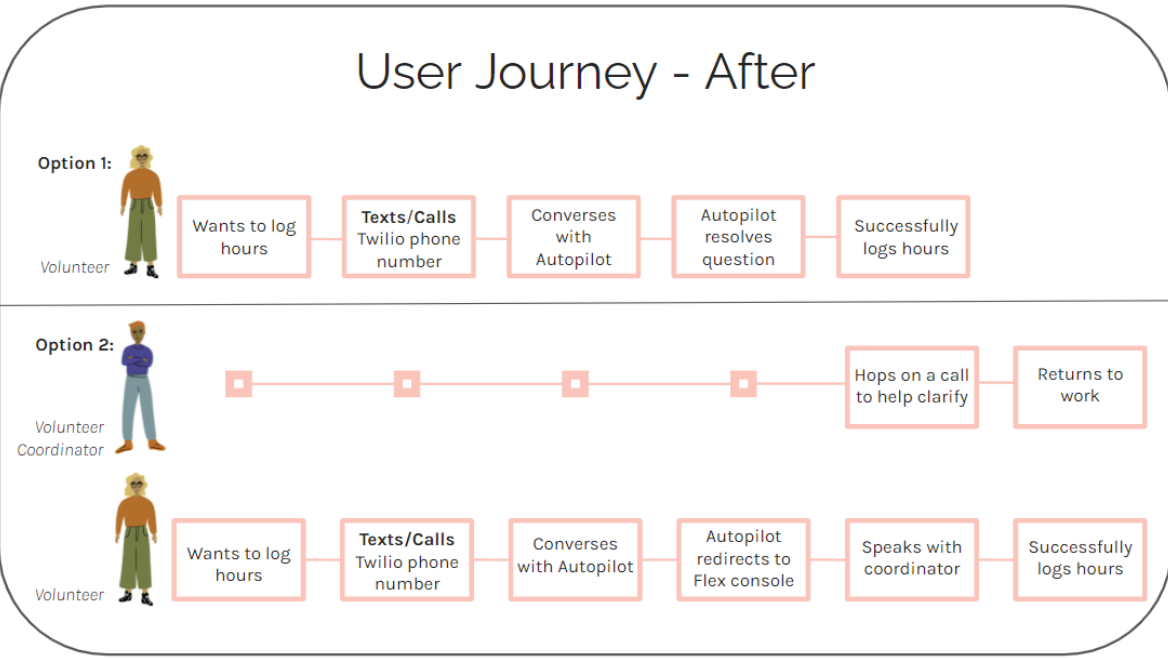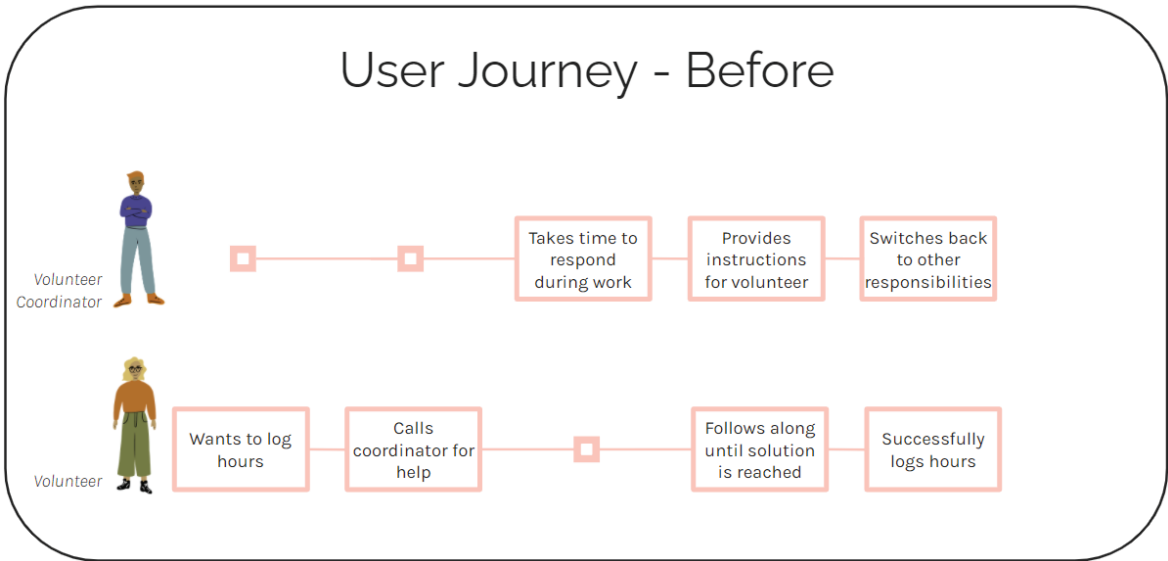
Personas

Based on our user interviews, we developed the personas below to describe the different groups that exist in the relief organization workspace. These personas were used to inform our design decisions as well as illustrate the current dynamics in the disaster relief workspace and the dynamics we expect after the deployment of our application template.

Coordinator Carl
" I often feel distracted from my work by many basic questions I already answer in the original email."

Carl's Goals:
Organize efficient responses
Prepare and empower volunteers
Use his time well

Volunteer Vicky
" I'm just trying my best to remember what I should do to help when my community needs me."

Vicky's Goals:
Understand and execute tasks
Easily access provided resources
Connect with the organization

Developer Dave
" When I look at products, I think about their release timelines and impact on organization familiarity."

Dave's Goals:
Support volunteer coordinators
Utilize technical skills
Quickly deploy new systems

User Journey

Below is a representation of a use case for our template, and how we foresee it affecting the current interactions between a volunteer and coordinator. The primary notable difference is that in many cases, the coordinator can be completely eliminated from the journey of a volunteer asking a very basic question. This means the coordinator will lose substantially less time by not needing to provide the same answers to many individual volunteers. However, as seen in Option 2, if our chatbot is unable to provide the correct answer to Volunteer Vicky, she is still able to connect with Coordinator Carl from the same call. This guarantees that Vicky will be getting the support she needs, either through the chatbot or through Carl as needed.

User Journey - Before

Volunteer Coordinator → Takes time to respond during work → Provides instructions for volunteer → Switches back to other responsibilities

Volunteer → Wants to log hours → Calls coordinator for help → Follows along until solution is reached → Successfully logs hours

User Journey - After

Option 1:
Volunteer → Wants to log hours → Texts/Calls Twilio phone number → Converses with Autopilot → Autopilot resolves question → Successfully logs hours

Option 2:
Volunteer Coordinator → Hops on a call to help clarify → Returns to work

Volunteer → Wants to log hours → Texts/Calls Twilio phone number → Converses with Autopilot → Autopilot redirects to Flex console → Speaks with coordinator → Successfully logs hours

"If we support people in understanding, setting, and delivering on expectations, that generally results in strong volunteer engagement." - Isa, All Hands & Hearts
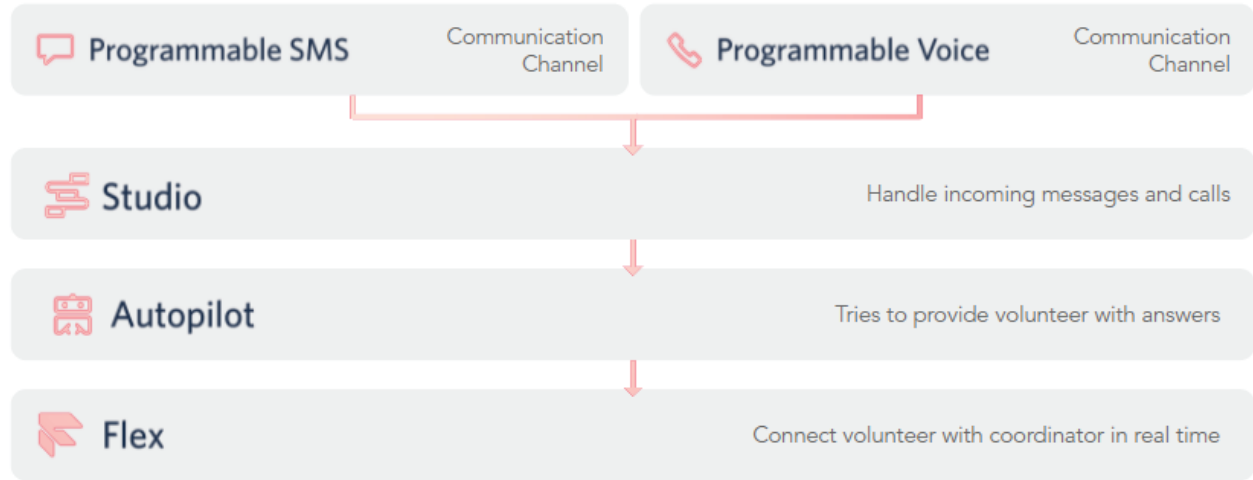
Process

Our year-long process to create this template included many steps to make sure our ideas were founded in user insights and pain points. We began with extensive research and user interviews with relief organizations where we could then synthesize important insights and begin brainstorming ideas. We then worked more with organizations to get feedback and codesign so we could refine our ideas down to one central template that we could flush out and develop.

Our Process

EXPLORE · DEFINE · IDEATE · CODESIGN · DEVELOP
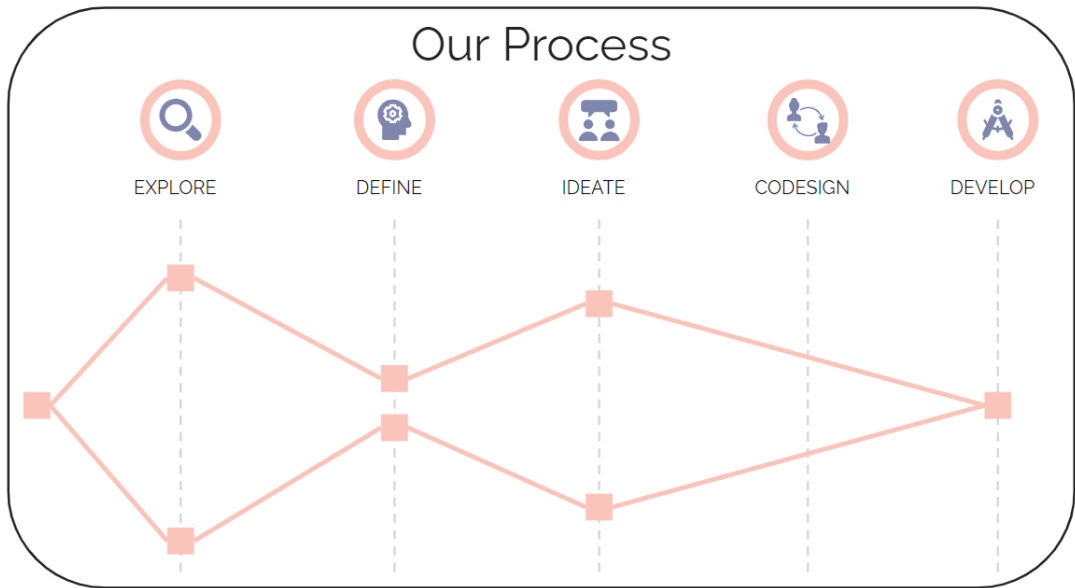
Solution

We created a template that utilizes a combination of Twilio products to readily answer volunteer questions when asked through either SMS or voice communications.

Programmable SMS	Communication Channel
Programmable Voice	Communication Channel
Studio	Handle incoming messages and calls
Autopilot	Tries to provide volunteer with answers
Flex	Connect volunteer with coordinator in real time

At the center of the template is a Twilio Autopilot chatbot that uses natural language processing to quickly and fluidly answer questions. We pretrained the bot on common questions asked by volunteers across many organizations to make the bot applicable to a broad audience out of the box. We also designated placeholders in the chatbot so the coordinator can easily add, remove, and modify tasks to their liking. If needed, the chatbot has capabilities to redirect to a volunteer coordinator to give volunteers a fallback option if questions aren't answered.

1 Assistant · **21** Tasks · **363** Samples
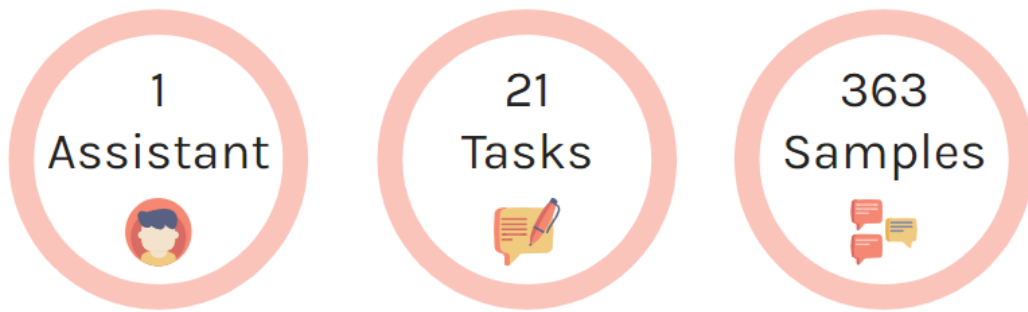
Quick Deploy and Blog Post

Our project is compatible with Twilio's new Quick Deploy Feature. Many users noted time was a constraint in deploying- this feature allows them to launch our product with the click of a button and no code.

We wrote a blog post companion piece to be published on Twilio's developer blog. It introduces our template and puts it in context while also providing the steps to get started. We wrote this piece with the citizen developer persona in mind. Our goal was to demonstrate a particular application of Twilio products in hopes that others could see how it can be applicable to their needs.