



Department of Human Services: AI-Powered Statewide Branch Services Desk (SBSD)

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EXECUTIVE SUMMARY

The State of Hawaii Department of Human Services (DHS) maintains a commitment to utilizing modern technology as a cornerstone for enhancing its ability to serve the community, particularly during periods of crisis and heightened demand. The DHS NavX team which is focused on custom technical solutions built on an AI-driven platform, balanced with people centered attention, to ensure adoption and integration. Working together DHS and the NavX team have established the Statewide Branch Services Desk (SBSD).

SBSD was an opportunity to integrate advanced technology into service delivery, which paved the way for streamlining several processes and maximizing efficiencies for not only DHS but for clients as well. Having a virtual agent available 24-hours a day, 7-days a week, meant clients could access information like never before. NavX developed a next generation AI customer experience search engine, that powers the virtual agent. Not only does this give clients easy and quick access to the information they are looking for, but this self-service approach also helps to optimize the call center workflow by decreasing the number of calls taken by human agents, which in turn gives them time to concentrate on more complex cases.

With SBSD in place, DHS is prepared to keep pace with growing service needs and deliver timely, effective assistance to clients and the community.

IDEA

In 2022, the State Department of Human Services set out to create the Statewide Branch Service Desk to leverage the experience and success of Safe Travels Hawaii. A similar service model would allow DHS to streamline disparate physical call center locations into one virtual statewide call center, enabling the department to better support clients. SBSD would be a combination of an AI-powered virtual agent, human agents, and a multitude of cutting-edge call center technology solutions such as AI chatbots, webforms, and customer relationship management (CRM) applications. Together these would offer clients a self-service option to easily retrieve information such as application status updates or answers to simple questions about benefits. In turn, the solution would maximize human agent availability to allow DHS eligibility workers to be more available to address clients that needed highly personalized support. Moreover, the technology solutions used by SBSD would also allow DHS to gather and analyze data critical to better understanding client needs. With the ability to deeply analyze data DHS could provide continuous and rapid improvement in customer service.

To make this a reality, DHS once again turned to the development team behind Safe Travels Hawaii, eWorld Enterprise Solutions (eWorldES), to leverage their flagship customer experience product known as NavX. With the help of eWorldES's NavX team, DHS was able to

design, build and implement SBSB. Employing large language model (LLM) driven AI models, NavX is focused on customized business and technical solutions for customer experience. NavX balances technology with human support and ensures solutions are rolled out with careful attention to the change organizations experience in adopting new technology. The key to making all this work was the long-standing business relationship DHS has with eWorldES building technical solutions that benefit the people of Hawaii.

IMPLEMENTATION

In recent years DHS has prioritized its effort to leverage technology to serve citizens promptly, efficiently, and with its mission in mind. The pandemic made this commitment even stronger, giving the department and clients a literal “crash course” of having urgent needs while lacking the technical tools to meet them. Having NavX create SBSB culminated what was already a priority for DHS while taking full advantage of the opportunity to push modernization even further.

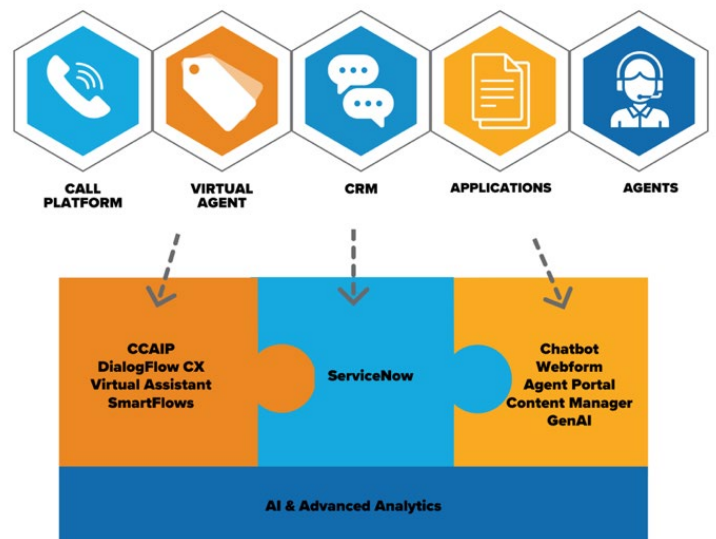
Modernize Approach Powered by AI

As a total solution, the establishment of SBSB presented a unique opportunity to integrate advanced technology into service delivery, which paved the way for streamlining DHS approach and enhancing overall efficiencies. Furthermore, leveraging data analytics enabled DHS to identify areas for improvement and develop optimized solutions to enhance the daily workflow. From a public-facing client perspective, SBSB could be seen as a modern approach to encourage self-sufficiency in providing services. SBSB has revolutionized the way DHS operates by leveraging generative AI technology and advanced analytics.

NavX designed and built SBSB using Customer Experience (CX) applications and tools that created the environment needed to seamlessly provide for clients. The core pieces of the SBSB total solution included:

- Google CCAIP
- DialogFlow CX
- Virtual Assistant
- SmartFlows
- ServiceNow
- ChatBot
- Webform
- Agent Portal
- Content Manager
- GenAI

Total Solution



The NavX team began by using an IVR phone system at DHS to gather data, which helped identify five tiers of tickets that required attention. The SBSB agents and the virtual agent could handle the lower tiers of concerns, which represented the bulk of issues received. Within six months, NavX utilized omni-channels and generative AI to simulate agent interactions, which replaced the IVR. The data generated from different conversational paths was used to inform the AI and teach it to provide accurate responses. A pilot was conducted with one processing center to test the new phone center solution, which included three parts, virtual agent, SBSB agents, and Eligibility Workers. The self-service virtual agent was designed to help clients obtain simple answers to their questions, while SBSB agents focused on Tier 1 and 2 issues. Eligibility Workers, along with Section Administrators and DHS Administrators, focused on Tiers 3-5, interviews, and other specialized matters. The success of this approach has demonstrated the power of AI technology and how it can be leveraged to create efficient and effective solutions that benefit various industries.

Virtual Agent

Along with the efficiencies described above for NavX, deploying applications such as DialogFlow CX that integrates with ServiceNow allowed SBSB to offer comprehensive customer experience for clients while internally managing service tickets for DHS.

At the same time, including ChatBot and Webform helped to ensure the virtual agent could “read or hear” voice deflection when clients called. This was critical to call center operations. Generative AI and data analytics. These applications also allow the client to respond to questions, submit forms, and other process steps without having to speak to an agent.

People Centered Attention

The NavX team worked alongside DHS Administrators to introduce SBSB to each processing center, starting with Pohulani as the pilot site. Making a change across the department took time and energy to focus on staff adopting this new process. The concept of having calls centralized into one statewide call center versus organized by district, and adding external SBSB agents, changed longstanding processes but also created a unified mindset across DHS. Leadership showed strong support which set the overall tone for Section Administrators, Eligibility Workers and others to have an open mind and consider the possibilities of streamlining these calls. It also afforded DHS staff the opportunity to voice their ideas and expertise, as SBSB was continuing to evolve.

For DHS clients across communities, implementing SBSB meant there were new access points for information that often led to quicker answers or solutions. Having modernized systems to offer social services, also seemed to signal a sense of value or investment by DHS, to respond quickly, efficiently, and effectively. Or at the very least, with less aggravation while mirroring technological advancements in our daily lives.

IMPACT

DHS has been amongst the first in the country to use an AI chatbot to enhance its service experience for clients while maintaining quality service and support standards. Through the innovative implementation of the SBSB platform, the impact DHS has made includes:

- Ensured uninterrupted service availability around the clock utilizing a virtual agent, significantly enhancing our responsiveness to client needs.
- Coordinated an estimated 1,200 calls per day, showcasing a notable increase in operational capacity.
- Implemented a client-centric approach by prioritizing calls based on interview appointments, ensuring efficient scheduling management.
- Enhanced human agent productivity by selectively escalating only 50% of calls necessitating personalized assistance.
- Expedited issue resolution by approximately 40%, demonstrating the department's commitment to swift problem-solving.
- Identified six common client personas, enabling personalized service delivery to meet diverse needs effectively.
- Managed a high volume of inbound calls during the Maui wildfire crises, handling more than 2,900 calls with urgency and trauma informed care.
- Achieved a 100% call answer rate by the virtual agent, offering uninterrupted support to clients around the clock.
- Realized a 30% reduction in escalated complaints through the implementation of updated procedural frameworks.
- Implemented a centralized ticketing system, resulting in a 40% reduction in complaint resolution time, optimizing operational efficiency.
- Leveraged the virtual agent to triage incoming inquiries, resulting in a 50% reduction in human agent escalations, streamlining resource allocation.

Agile Responsiveness in Crisis

At the start of SBSB, and having just recovered from a global pandemic, many leaders focused on emergency preparedness. Utilizing modern technology solutions offered by NavX meant that DHS can respond quickly and as needed, customize support services, and adapt based on new laws, policies, programs, and other unforeseen situations.

SBSB was critical for DHS to provide efficient and practical support to those affected by the Maui Fires in August 2023. In a matter of hours the department, supported by NavX, was situated to help those affected by this tragedy in a streamlined and specialized way that also reduced stressful service issues, which was valuable to many individuals. Having dedicated options for victims added to the DHS call center system gave them direct access to the

processes necessary to qualify for welfare and social services. Victims also could apply to receive Disaster Supplemental Nutrition Assistance Program (DSNAP), which provided qualifying families with additional resources for food. Over time, the virtual agent “learned” responses to increase efficiency specific to wildfire supports.

Consolidate Workstreams and Data

For human agents, there has been monumental improvements relating to workstreams. Starting with the Agent Portal, NavX developed a customized tool specifically to optimize the performance of DHS agents by streamlining multiple systems and mainframes into one platform to obtain client data. They no longer need to deal with the cumbersome and time-consuming process of having to toggle between fragmented systems. Overall, this also reduced chances for mistakes, and provided an integrated approach into the current web-based CRM tool that enhanced several capabilities such as enhanced security access. In turn, the Agent Portal drastically increased agent productivity by at least 25%.

SBSD equips human agents with informed details to help them better understand the client’s issue and in turn, provide the service they need. As an example, information in the SBSB dashboard can provide insights to an agent such as “*ClientA has called 3 times in the last week, was missing his XY form and seems agitated on this call,*” or “*ClientB also may qualify for AY services which he has not yet applied,*” offering a more personalized experience.

Another improvement because of SBSB has been the automation of redundant processes. Creating a “Fast Pass” expedited the renewal registration and streamlined the burden of repetitive reauthorization for SNAP (food stamps) and financial aid. Manually, it typically took 10 minutes for a worker to process an application, but by using robotic automation, that process now takes 30 - 40 seconds. The Fast Pass means applicants can submit materials 24-7 during non-business hours which eliminates some delays in receiving essential services.

Improved Customer Experience for Clients

Analytics and data collected through SBSB enables DHS to build a robust knowledge base that is important to both the virtual agent and the human agents, to provide customer service to clients. For virtual agents cultivating in-depth and on target automatic responses to client questions is essential. Utilizing DialogFlow CX as the base platform, NavX developed a next generation AI customer experience search engine, that allows the client to effectively search for information and ask common questions instead of having to speak to an agent. To respond, the infobot gives the client the benefits and services information automatically.

Not only does this give clients easy and quick access to the information they are looking for, but this self-service approach also helps to optimize the call center workflow by decreasing the number of “simple-question” calls taken by human agents, therefore freeing them up to take care of complex requests.

QUICK RESPONSE: MAUI WILDFIRE

In the past 10 years, our team has accumulated extensive experience in leveraging Customer Experience (CX) to fulfill our clients' needs. When the devastating Maui wildfire struck on Tuesday, August 8, 2023, it became evident that our clients, many of whom are state departments, would require our assistance in quickly deploying technology resources effectively.

As the news of the fires and the ensuing devastation unfolded, a profound sense of helplessness and duty to support our community emerged. Clients promptly began inquiring about potential solutions, anticipating the surge in demand for various services available to the victims. Their primary goal was to streamline the application process and minimize additional stress for those affected.

The scale of the wildfire was unprecedented in Hawai'i's history, with expected long-term impacts on both direct victims and the state's economy. Over 2,000 homes and 800 businesses, employing approximately 7,000 individuals, were destroyed, resulting in the tragic loss of 115 lives.

In response to this crisis, our team mobilized its expertise in CX and technology to assist clients in providing efficient and effective support to those affected by the wildfire. By leveraging our resources and working closely with state departments, we successfully facilitated seamless access to vital services and supported service providers during this challenging time. Together with our clients, we hope these solutions helped to alleviate some of the burdens on victims as well.

2,949

Total Inbound Calls - DHS-SBSD –
Wildfire Queue Total Inbound Calls

7,390

Total Inbound Calls - DLIR-UI Maui
Fire Call Center

OBJECTIVE

Quickly establish and implement a solution to help clients, state departments, address the influx of requests for services and supports from those impacted by the fires:

- **DLIR** - application and qualification to unemployment insurance benefits
- **DHS** – access and qualification to welfare and social services including the specially created Disaster Supplemental Nutrition Assistance Program (DSNAP), that provided qualifying families additional resources for food
- **DOH** – inquires on public health-related and response including mental/behavioral resources, unsafe drinking water, environmental and hazard concerns, and much more

HIGHLIGHTS

- Within 48-hours a dedicated queue was established, enabling our clients to better serve these victims
- Extended hours and days of service to manage influx
- Provided service in 5 languages (English, Mandarin, Cantonese, Tagalog and Japanese) that mirrored demographic of area

BENEFITS

- Quick and efficient. A workable solution that allowed them to be responsive to the community they serve.
- By September, claims of this nature had slowed down and by October the dedicated queue was identified as no longer necessary and closed. Any further inquiries were addressed by normal functions.

SOLUTIONS

- Google CCAIP Emergency queue (hotline) specific to victims
- Products such as ServiceNow, Ring Central & Zoom
- Webform
- Agents within call center (human powered)

Figure 1: Quick Response to Maui Wildfire