

2022 NASCIO Award Submission
State of Tennessee: Department of Finance & Administration
Strategic Technology Solutions Division

The State of Tennessee's
Department of Human Services Call Center Transformation



NASCIO Award Category: Information Communications Technology Innovations

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Background

On January 27, 2020, the federal government declared a public health emergency due to the worldwide COVID-19 pandemic. Shortly thereafter, the U.S. Department of Education issued guidance and regulations, recommending school closures related to the pandemic. Following Center for Disease Control (CDC) guidelines, Tennesseans stayed at home and many businesses closed down. This was a difficult time for many, and the need for public services and government assistance greatly increased across the board.

With social distancing precautions in place in Tennessee due to the COVID-19 pandemic, the Tennessee Department of Human Services (TN DHS) was tasked with many new responsibilities during the height of the pandemic, such as distributing emergency federal funds to eligible individuals, children, and families in Tennessee (ex: Pandemic Electronic Benefit Transfer, Emergency funds, Families First school lunches, new TANF/SNAP recipients, etc.). This was a new challenge for the state and its citizens to navigate, and each new responsibility seemed to have an abbreviated timeframe associated. This was also the first time TN DHS had to take on such large-scale emergency benefits administration.

Problem

DHS call centers and staff were already overtaxed with work relating to the recovery from local natural disasters, and then the emerging national pandemic placed even more pressure on their shoulders. Accordingly, the Department experienced a drastic influx of citizens reaching out for assistance with existing programs and interest in developing programs. As call volumes continued to rise, it became obvious that legacy DHS call center platform was not keeping up. In fact, volume was so great during this time that incoming calls to the DHS call centers were resulting in hour+ long hold times or call were going directly to busy signals. The legacy Cisco Unified Contact Center Enterprise (UCCE) platform that served the DHS call center units, was simply being overrun with volume (see Fig A).

TN DHS Call Center Volume

DHS Call Center Unit:	Pre-COVID CALL VOLUME (monthly avg)	Post-COVID CALL VOLUME (monthly avg)	% change
Family Assistance Service Center	56,500	130,000	130.08%
Appeals and Hearings	4650	6247	34.34%
Accent Help Desk	527	424	-19.54%
Adult Protective Services	2201	4092	85.91%
Child Care (Fiscal)	744	472	-36.56%
Child Support	435	6029	1285.98%
TCSES Help Desk	31	71	129.03%
Overall	65,088	147,335	12636.00%



Fig A: TN DHS Call Center Volume

DHS knew they needed to upgrade their static legacy platform to improve call center operations, and fast! They partnered with enterprise IT support and project management expertise from Strategic Technology Solutions (STS) – the state’s centralized IT organization.

Following an emergency procurement process, Accenture was selected as the vendor partner that would provide modernization guidance and contracted staff to supplement the DHS Call Centers with the greatest need. An example of such need is there TN DHS Family Services Call Center, where a team of Accenture agents, supervisors, operations managers, and training leads quickly set up a contact center solution on Amazon Connect to help handle the surge in P-EBT inquiries. Accenture focused their support for TN DHS in three categories: initial call center staffing support, technology automation, and the overall modernization process (see Figure B).

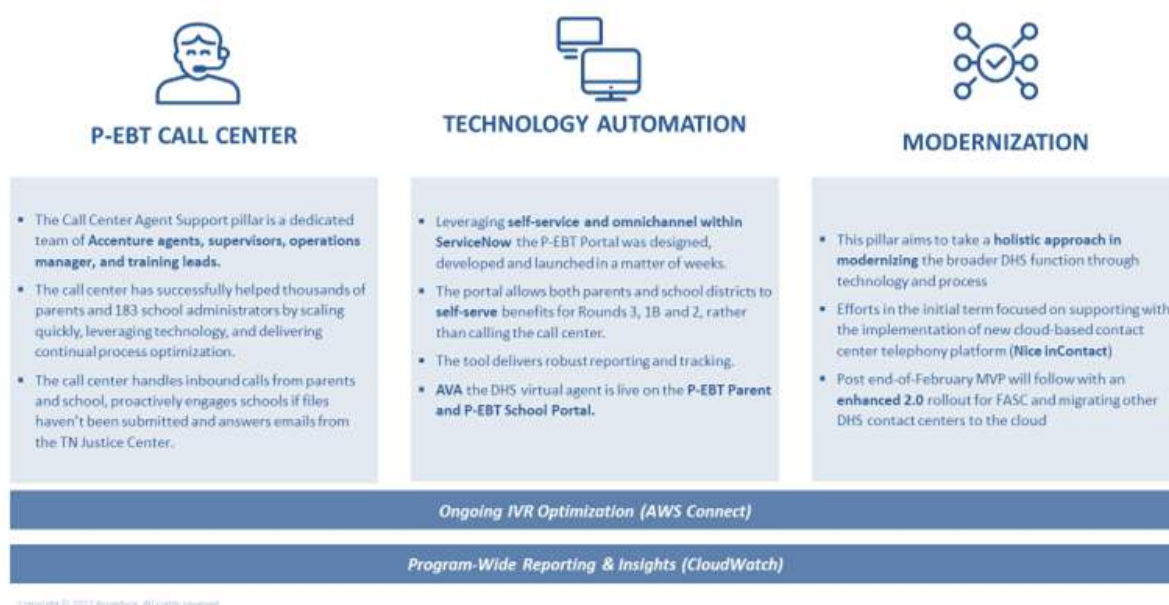


Fig B: Accenture TN DHS Support Summary, 2020-2021

DHS business sponsors, STS technical specialists, and Accenture subject-matter-experts worked together to plan and implement the modernization of the legacy call center platform. Members from these three groups made up the call center modernization project team. This public-private collaboration that involved both business and IT units was essential to the success of the project.

Immediate Solution

The project team worked with the business owner of each DHS Call Center unit to make ensure they met all shifting business and customer-service needs. After reviewing requirements and stakeholder input, the project team then determined that converting the legacy call center platform to an enterprise cloud-based platform would meet the needs of both the Department and the citizens best. The project team not only planned to upgrade, but also ensure the new platform was hosted securely in the Cloud. By doing so, they would be able to incorporate several new features which facilitate enhanced call routing, IVR messaging, and statistical tracking of call types and volumes. The project team understood the conversion to a cloud-based platform would take some time to implement properly, and they recommended continuing to partner with Accenture in additional areas such as designing self-service portals, improving FAQ systems, and adding a virtual assistant to TN.gov. For example, more extensive work was done to create a P-EBT Parent Portal in March of 2021 that greatly increased self-service capability, empowering parents who had been seeking information

through calls to the Family Assistance Call Center. Instead of waiting on a live DHS agent to answer their Family Assistance questions, guardians were able to log-in and search through the eligibility and appeal information themselves. Accenture also integrated their virtual assistant, AVA, within Amazon Connect to the state's ServiceNow to provide secure, self-service capabilities. AVA boasts AI-powered chatbot technology that uses natural language understanding to address common DHS queries and service requests. AVA was added to DHS websites on TN.gov and to applicable self-service portals. This allowed citizens to easily ask questions on the channel of their choice and receive immediate responses without having to wait for a live DHS agent on the phone. Within two days of the TN.gov virtual assistant go-live, AVA and the system FAQs began handling more than 82% of the accumulated DHS call volume.

These enhancements made DHS support more readily available to citizens and took pressure off the call centers so that the project team could focus on migration and implementation efforts.

Long-Term Solution & Impact

NICE inContact was selected as the new platform for the DHS Call Center Modernization project. NICE inContact is a cloud-hosted call center provider that is FedRAMP approved and recognized as a market leader by Gartner and many others. This platform was selected for its ability to handle increased volume, while also providing expanded functionality with minimal loss of calls. Project implementation included:

- The project team completed the data clean-up and the development work required to migrate to the new NICE inContact solution.
- An important component of the new platform was that it be integrated well with existing DHS business applications (where applicable) and the service enhancements that Accenture was providing the State with. The project team completed integration with the State's IT service management system (ServiceNow), all applicable DHS self-service portals, and AVA -- the TN.gov Virtual Assistant.
- The team customized the interactive voice response (IVR) system for each DHS Call Center, balancing operational efficiencies with customer experience. They visually designed and tested the IVR to provide many self-service features in multiple scenarios.
- To ensure service levels would be measured accurately, the project team leveraged Amazon Connect to capture improved insights and metrics on caller intent, issues, and resolutions.

The DHS Call Center Modernization project had a large impact on both the Department of Human Services and the citizens of Tennessee. The technical development and enhancement efforts of this project resulted in a dynamic, long-term solution that provides excellent DHS call center support:

- Both call center agents and callers have reported they find the new system easier to use.
- STS IT can now increase ports rapidly and easily, even during times of large call volume.
- DHS can immediately connect callers with the right agents and boost productivity while enabling quick first contact resolution.
- Citizens now experience less hold time on calls, do not get busy signals when dialing in, and receive faster answers to their questions.

Strategic Alignment

This successful project implementation resulted in the conversion and retirement of a legacy platform, and the adoption of a fully upgraded contact center telephony platform which is secured in the Cloud. Both accomplishments align with STS Enterprise Strategic Initiatives (see Fig C).



Figure C: STS Strategic Mind Map, 2021

The five 2021-2022 IT initiatives were selected to improve enterprise effectiveness and efficiencies for the State: *Infrastructure and Modernization*, *Cloud-Readiness and Adoption*, *Cybersecurity*, *Business Process Automation*, and *Enterprise Data Analytics*. These STS initiatives consider the various business and mission strategies across Tennessee’s 23 Executive Branch Departments and are designed to enhance and enable those strategies. Projects like the DHS Call Center Modernization project fall within the *Infrastructure and Modernization Initiative*. This initiative necessitates improved effectiveness, create fiscal efficiencies, and provide the right level of security to our state systems and data. It is important to note that although categorized as infrastructure and Modernization, the efforts and outcomes the DHS Call Center Modernization project also contributed to additional enterprise strategic initiatives such as *Cybersecurity* and *Cloud-Readiness* (see Figure D).

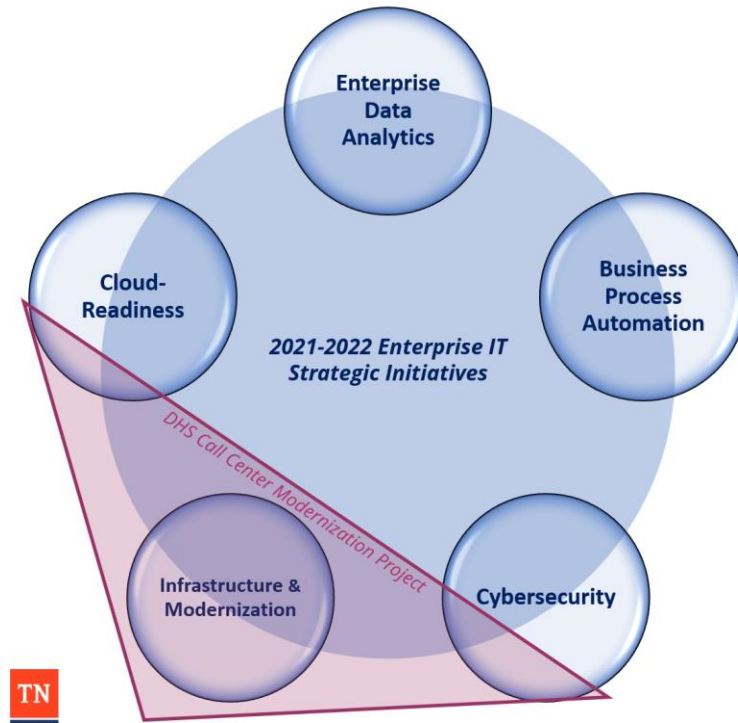


Figure D: Enterprise Strategic Alignment Map for DHS Call Center Modernization

The NICE inContact platform leverages cloud-based call center software. Cloud based software helps contact centers improve the cost and quality of the customer experience through streamlined technologies designed with the customer (or citizen) in mind. The cloud-based NICE inContact system is more flexible than the legacy on-premise CISCO system ever was, which required large capital expenditures, ongoing hardware upgrades, and expensive maintenance. Nice inContact accurately forecasts workloads, monitors agents' performance, and tracks key metrics with real-time reporting. Cloud based contact center solutions like this one can provide substantial cost savings, streamlined IT and simple scalability with less up-front investment than that of in-house development.

As other foundational modernization projects like this one are being completed with Cloud – STS has noticed that a fundamental shift in service delivery is beginning to occur across the State of Tennessee thanks to the investment in innovative technologies. STS has identified many benefits to this shift, such as:

- Reduction in the amount of physical infrastructure needed to support Departments
- Removal of many artificial barriers to collaboration both between and within Departments
- Decrease in risk for cybersecurity threat events
- Creation of a model technology environment within the public-sector

Conclusion

Although this project was a heavy lift for the Department of Human Services and Strategic Technology Solutions, especially during times of such uncertainty -- upgrading the DHS Call Center platform has proven to be what was best for the State of Tennessee, providing its citizens a much-deserved boost in customer service and improved user experience. Whether during times of emergency or during status-quo, the Department of Human Services is now equipped to handle rapid volume influx and adapt to demand in real-time. The solution can be applied to other Divisions or Departments, requiring minimal customization and economies of scale for expansion. The cloud-based contact center telephony platform levered by STS and DHS has positioned the State of Tennessee as a leader in information communications technology.

The screenshot displays the Tennessee Department of Human Services website. At the top, the TN logo and 'Department of Human Services' are visible, along with a search bar and navigation menu. A large banner for the 'DHS Customer Experience Survey' features the text 'WE WANT TO HEAR FROM YOU' written on a whiteboard. Below the banner, a 'DHS Virtual Agent' chat window is open, with a message from 'AVA' and a list of service options: SNAP, TANF or P-EBT; Child Support; Child Care Services; VR; and Summer Food Program. The chat input field at the bottom says 'Please type your question here'.