An Enterprise Approach to Connected Government

Introduction

Governments have long sought to meet constituents where they are with digital information, services and processes. Despite significant progress, agencies are still addressing technology and integration gaps to meet rapidly growing constituent expectations.

Agencies grapple with disparate systems and solutions that prevent streamlined workflows and data aggregation. Constituents want seamless, integrated payment options for digital services. And digital equity remains a work in progress for many governments and their constituents.

"Everybody wants an Amazon-like experience," says Tamara Dukes, vice president of strategy and growth for Tyler Technologies' NIC Division. "About seven years ago, we took a hard look in the mirror and realized that alongside our government partners we've done a great job of digitizing these silos — but that's not enough."

As CIOs assess modernization priorities, their goal is to move from limitations to results. Overcoming technical debt, burdensome outdated systems and digital services gaps requires foundational technology tools that provide seamless delivery of services and a common constituent experience across the enterprise. This paper outlines strategies CIOs and other decision-makers can follow to better meet constituent needs while increasing organizational ROI through data-driven, efficient operations.

Shifts in Digital Government

While agencies have come a long way, ongoing barriers threaten the continued growth of new solutions to meet constituent needs.

In many states, a shift to federated IT models has led to agencies and departments developing and deploying their own digital services.

"While most states started out with centralized solutions, departments often have their own budgets and IT staff, which has resulted in disparate solutions," Dukes says. "For example, many states have told us they have no idea how many payment processors they have." The multiplicity of standalone payment solutions requires CIOs to ensure each method is compliant with PCI and other regulations. "We're seeing that pendulum swing back to enterprise payment processing because they've got to minimize the risk," Dukes says.

Beyond the payment situation, siloed applications, solution providers and application development environments contribute to a more complex environment. This impacts agencies' ability to effectively safeguard systems and data against rapidly evolving cybersecurity threats.

For constituents, the most visible result of these trends is the lack of a unified digital experience. Constituents often have inconsistent experiences when interacting with different services or departments. "There's a true divide between agencies: the haves and the have-nots," Dukes says. "DMVs have fantastic solutions, but then you have other departments rocking a 1999 website."

A Unified Experience

The roadmap for overcoming these ongoing challenges has been understood for years. "One of the things we've been emphasizing is there should be a single constituent experience," says Teri Takai, senior vice president of the Center for Digital Government (CDG). "CIOs are finding a much greater need to integrate across government."

To do so, technology leaders need to address specific gaps in their

enterprise infrastructure, including the following components:

■ **Central identity and authentication.** Systems that allow constituents to log in once to access multiple services improve the user experience. Behind the scenes, they also allow governments to collect the information they need to get a holistic view of each constituent — from driver's licenses and personal property taxes to professional licenses and other fees. "It's still a challenging thing to do, but we're getting there," Dukes says.

■ **Digital equity.** Making digital services accessible to all constituents involves ensuring that government sites and services can be accessed on mobile devices and in multiple languages. But true digital equity also requires governments to simplify the processes and the language involved in doing business with them. "We've got to get rid of acronyms and complicated instructions," Dukes says. "Our research consistently shows that people believe government is too confusing and needs to be simplified."

■ **Customer support.** Many governments stood up chatbots during the pandemic to meet unprecedented demand for services. But to meet constituent expectations shaped by their experiences with the private sector, chatbots and other support tools need to leverage artificial intelligence to mature and improve. This will allow individuals to more quickly get the answers and information they need, Dukes says.

■ **Resiliency.** While some governments used cloud services to rapidly implement individual services during the pandemic, others struggled to meet demand for services like unemployment benefits. Going forward, governments need an agile enterprise strategy so that any service they offer can respond to unexpected changes in demand or policy without overwhelming systems.

In Virginia, Scaling to Serve Resident Needs

When the pandemic hit, Virginia turned to cloud-based solutions to respond to the dramatic spike in unemployment claims and rent relief. NIC helped the commonwealth deploy a mobile unemployment claim solution — which was used by 75% of those who filed for unemployment insurance — and an integrated call center to process the remaining applications. All told, more than 11 million claims were processed. Constituents could use a mobile app to check on the status of their claim and file ongoing weekly claims. The same mobile portal helped manage claims to the Virginia Rent Relief Program, which disbursed nearly $1 billion in payments between 2020 and 2022 to help residents remain in their homes.

An enterprise approach allows CIOs and other leaders to clear technological hurdles in an agile and scalable way.

CIOs should consider an enterprise approach to modernization, matching unique agency needs with a portfolio of capabilities.

"Having a common toolset for everybody is the most efficient and scalable solution," Dukes says. "That's where the enterprise approach comes in."

The Enterprise Approach to Government Experience

An enterprise approach allows CIOs and other leaders to clear technological hurdles in an agile and scalable way. Moreover, adopting an enterprise approach doesn't involve replacing every existing system and starting from scratch.

"This is not about building out unique bespoke applications, but bringing the pieces together," Takai says.

A scalable enterprise strategy can integrate existing solutions and add the building blocks required to create the foundation for new

services. This strategy can simplify system management, eliminate security risks, and connect siloed departments and agencies. By taking an enterprise approach, "you're not trying to deal with multiple technologies," Takai says. "APIs bring the technologies together in a way that allows you to build a public-facing digital experience, provide consistent security across digital services and share data among disparate applications because they've been integrated."

Access Indiana: One Login, 98 Systems

Need to schedule an appointment to renew your driver's license? Check the status of a state tax refund or result of a COVID-19 test? Register to vote?

In Indiana, residents can access 98 services through a single login and password at Access Indiana.[1] There are nearly as many platforms and systems behind all these services across different departments and agencies. To deal with this complexity, Access Indiana leverages industry standard protocols to integrate systems ranging from NIC solutions to those powered by Salesforce, PeopleSoft and Microsoft platforms, as well as numerous custom solutions developed by individual agencies.

A Roadmap for Government

Governments should assess their current services and solutions across disparate agencies — applications, payment providers and the underlying infrastructure. They should also evaluate the current constituent experience to understand where gaps exist and prioritize new services. Before moving forward, agencies should consider the critical components required for an enterprise approach, each of which builds on the ones before it to deliver an integrated constituent experience:

- **Foundation.** The core of an enterprise solution is a flexible, scalable platform with an administrative interface allowing governments to integrate existing technologies with the enterprise-level components that follow.

- **Identity.** Enterprise solutions should integrate a new or existing identity and access management solution across multiple applications and services. This component improves the user experience by providing a single login and helps governments track constituent use across multiple departments and services.

- **Payments.** As with identity, a common payment solution integrated across multiple applications and services improves the user experience by allowing constituents to save payment details for multiple services. An integrated enterprise solution also simplifies compliance and management for governments while helping them understand constituent interactions across multiple departments and services.

- **Constituent engagement.** Software that brings together information from common identity and payment solutions can help governments build what Dukes calls a "third level of identity" — a comprehensive profile of constituent interactions with government that, in turn, helps simplify front-end and backend processes.

- **Data and analytics.** Applications that generate insights from the comprehensive profiles mentioned above can provide data on how constituents use government services, helping identify gaps and areas for improvement.

- **Low/no-code development.** Addressing service gaps can be done more quickly and cost effectively with technology that allows government employees without programming experience to develop digital services. "With just a few hours of training, government agencies can build websites and services without any help from IT," Dukes says. Low/no-code systems also help with challenges in recruiting and retaining IT talent by providing tools and processes that can be replicated across multiple agencies and departments, saving both time and money.

Each of these pieces of the puzzle is essential to deploying an enterprise system. With a foundational core capable of

integrating solutions and scaling across multiple agencies and services, governments can bring together existing systems — such as cloud applications or an existing identity or payment solution — and adopt the remaining ones from multiple providers. Cooperative purchasing agreements that bring together multiple vendors simplify the integration of components.

With an enterprise solution in place, CIOs can improve the constituent experience by using the low/no-code environment on an agency-by-agency basis to tackle low-hanging fruit — "getting the easy stuff done and getting every single form online," Dukes says. The foundation also provides the opportunity to think bigger. "You have the building blocks to build creative solutions to more complex problems," she says.

Critical Connections

With an enterprise platform, constituents no longer need to navigate a wide range of service experiences, interfaces and approaches to get things done. Instead, they'll be able to log in once — from any device, anywhere — and do everything from pay their water bill to renew their driver's license. For governments, the platform provides an opportunity to deliver services more efficiently and securely, without the challenges of managing and integrating siloed systems across agencies and departments.

CIOs will have to utilize a collaborative, consultative leadership style to drive the use of the common building blocks of enterprise technology among agencies. Gaining buy-in involves evangelism and illustrating the benefits of the enterprise approach. Essentially, technology leaders should offer agencies the "easy button," Dukes says.

"I start almost all of my conversations about what has changed and what hasn't changed in terms of digital government," she says. "A solid foundation that everyone can use simplifies the challenges going forward."

This piece was written and produced by the Government Technology Content Studio, with information and input from NIC.

Tennessee Uses Low Code to Modernize Case Management

For decades, the Tennessee Office of Inspector General relied on a combination of physical case files, spreadsheets and emails to track and manage its civil and criminal cases. These approaches were not only outdated but also scattered across disparate and siloed systems.

The office used a low-code platform developed by Tyler Technologies to develop and implement a civil and criminal tracking system within nine months, bringing together data from multiple legacy systems — as well as spreadsheets and paper files — into one readily accessible platform.[2]

1. in.gov/access/
2. For more, see https://www.tylertech.com/resources/resource-downloads/issue-brief-low-code-high-impact

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