



CENTER FOR
DIGITAL
GOVERNMENT

Government CIO Playbook

Connected in Purpose

Simplification paves the
way for innovation



Volume 4



Introduction

To leverage the benefits of the latest digital services, governments must examine their current applications and infrastructure to eradicate bottlenecks, reduce in-house IT assets and reallocate resources toward constituents.

This playbook — the fourth in our series — offers government CIOs strategies to simplify their technology environments and pave the way for future innovations.

“Simplification is a true superpower for all of us,” says Accela CTO Renato Mascardo. “Making the IT landscape simpler and manageable is everyone’s responsibility.”

Continue reading for valuable insights from a CIO roundtable organized by the Center for Digital Government (CDG), Accela and Microsoft.

The Challenge

The list of challenges facing state and local government CIOs is familiar and daunting: improving digital services and user experiences for

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— Dustin Haisler, Chief Strategy and Innovation Officer, Center for Digital Government

residents and government employees, complying with data protection and privacy mandates, upskilling and augmenting staff, modernizing identity and access management, and strengthening cybersecurity. At the same time, governments must simplify their technology environments due to several factors, including:

- Huge numbers of existing applications, often duplicated across agencies or departments or deployed as “shadow IT” during the pandemic. For example, El Dorado County, California, supports 254 applications, which reduces the county’s capacity to introduce new tools, says IT Director Tonya Digiorno.
- Extremely complex technology stacks, which may include everything from legacy systems written in COBOL to more recent applications that depend on multiple other databases and systems.
- The accelerating pace of software and system updates to protect against cybersecurity threats.

- The looming federal funding cliff. Jurisdictions used one-time COVID relief dollars to shift workloads and projects to contractors. These tasks will fall back to internal IT staff when those funding streams dry up.

“We can’t kick the can down the road anymore on our technology infrastructure challenges,” says Dustin Haisler, CDG chief strategy and innovation officer. “We need to accelerate our modernization efforts.”

Agencies need to assess existing systems with an eye toward eliminating bottlenecks and adopting new technology platforms that simplify and standardize application environments.

The first step — and perhaps the greatest challenge — is tackling the existing technology stack. “Secretly, we’re all hoarders at heart,” Mascardo says. “We have to embrace minimalism to free ourselves from some of the things we manage.”

About the Series

This playbook is volume four in a series designed to help state and local government CIOs navigate evolving issues and meet new challenges. Previous playbooks explored the importance of [strengthening stakeholder relationships and trust](#), how [CIOs are transforming their organizations to work across the enterprise](#), and [critical post-pandemic technology trends](#).

Strategies and Solutions

Simplifying the tech stack is both a cultural shift and a technical challenge. CIOs need to win acceptance for change within their own departments and across lines of business and constituents.

"If you're modernizing without change management, it's going to be an uphill battle," says Digiorno.

Strategies for technology simplification include:

1 Define the landscape. Inventory your applications, systems and dependencies. Determine internal staff and vendor responsibilities. Review existing contracts. Once you understand all the pieces, you can identify the architectures, applications and services that create the greatest barriers.

2 Engage business units and end users. IT leaders need to strengthen their relationships with business units to understand user needs. "IT is called on to be on the leading edge for everything, but it's a difficult position when you're not at the table," says Marcus Mathis, IT analyst for the San Diego County Department of Environmental Health and Quality. "You need to have constant conversations."

Strategies for strengthening communication and alignment depend on the structure of the IT organization — some are federated, while others are consolidated or have authority over technology decisions across agencies and departments. Roundtable participants suggested three potential approaches:

- **Develop or expand project management capacity.** In Hamilton County, Indiana, IT Director Chris Mertens created a project management office staffed by business analysts. "Our analysts work with end users to identify what they need," Mertens says, "so users aren't tempted to go out on their own and find a solution that doesn't fit in our environment."



"When we allow our business users to work in silos and we're not there to help them, we miss opportunities for integration. We need to see where those connectors are."

— Tonya Digiorno, IT Director, El Dorado County, California

- **Create enterprise governance structures.** El Dorado County established an IT governance committee and subcommittees to oversee technology deployments. The governance structure gives the county's IT department the final say on technology purchasing decisions.

- **Involve business units in development.** Zhenzhen Sun, CIO for the Texas Higher Education Coordinating Board, created an innovation team to help business users understand and evaluate new technologies. The team develops and shares prototypes with stakeholders and end users to demonstrate what's available, she says.

Regardless of approach, it's essential to strengthen relationships with end users. "When we allow our businesses to work in silos and we're not there to help them, we miss opportunities for integration," says Digiorno. "We need to see where those connectors are."

3 Define simplification. This definition should meet your organizational needs and acknowledge the realities of existing IT infrastructure. This high-level

leadership vision can serve as a powerful lens for the decisions that follow.

4 Use an "outward in" model to develop a roadmap. Start with services for internal and external constituents. Identify critical applications that support these services and determine their availability and performance requirements. "If we start with the end user, it lends itself to focusing on creating intelligent experiences for constituents and anytime/anywhere environments for our workers," says former Delaware CIO James Collins, who is now general manager of state and local government for Microsoft.

Work backward from the end user to the existing infrastructure and applications to identify gaps and priorities for modernization. "That is key to the prioritization and decision-making around how you're going to simplify," says former New York City CIO Samir Saini, who is now director of government sales enablement and operations for Microsoft.

5 Develop a cloud strategy focused on simplification. Move toward a portfolio of cloud-based services that address

technical debt while reducing your in-house IT footprint, including:

- Software-as-a-service applications that dramatically accelerate modernization efforts and add new functions to public-facing services.
- Cloud-based platforms that simplify and standardize application environments. A platform approach helps eliminate duplicative services and creates common tools, procedures and data stores that reduce staff workload. Platforms also provide low/no-code development tools that let in-house staff update existing applications and create new ones.
- Managed application services where IT partners provide day-to-day application support to reduce workflow bottlenecks. "Requests and change orders always land on the same overworked people on the internal team," says Collins. "The right partners can supplement internal experts so you can actually scale and get things done."

As part of a comprehensive cloud strategy, these models can accelerate the pace of change and reduce staff dependencies, allowing internal teams to focus on streamlining business

processes and developing innovative offerings within common platforms. "If you can get more of your team members working in one application, it's easier to adapt," says Tim Davis, CIO for the Lee County Tax Collector in Florida.

CIOs can use cloud services to develop their own roadmap based on business objectives. "Everyone is on a different journey to the cloud," Mascardo says. "Focus on the things that are going to get you there faster."

6 Prioritize modernization efforts that support key business outcomes. Most agencies will maintain hybrid IT environments as they migrate applications and services to the cloud. Define your organization's key business outcomes and create a roadmap that prioritizes improvements to systems that support them.

7 Identify internal levers to accelerate progress. As you strengthen your relationships with business units, you can create policies to address internal resistance to change:

- Leverage end-of-life as an accelerant. San Diego CIO Jonathan Behnke created five-year roadmaps to alert city departments when critical business systems are reaching

the end of their useful life and help them develop replacement strategies. "It gives the business side plenty of time to plan," he says.

- Develop IT governance policies that require an enterprise approach to technology decisions. Although technology in Alameda County, California, is federated among departments, the county implemented a policy requiring the IT department to approve all technology purchases to make sure solutions aren't duplicative and can be integrated with existing systems, says assistant CIO Sybil Gurney. IT departments should also review vendor contracts to make sure systems are adequately supported.
- Assess risk to win support and funding. In San Diego, IT staff assign existing applications risk scores based on the National Institute of Standards and Technology (NIST) risk management framework. During the annual budget process, Behnke meets with the city council to discuss applications with the highest potential risk. "All of the highest-risk applications we've brought into those sessions have been funded for replacement," he says.
- Share ownership of technology decisions. Whether framed as performance management, IT governance or business relationships, stakeholder participation in technology decisions is critical. "Decisions get made differently with that kind of model in place," Digiorno says.

8 Set measurable goals around simplification. Key performance indicators (KPIs) should emphasize the goals of simplifying your IT environment and reducing in-house IT footprint. These goals can be evaluated quarterly or annually.

Looking Forward

The pace of change continues to accelerate, opening new opportunities



for agencies to simplify their technology environments.

Rapidly developing technologies such as artificial intelligence and machine learning (AI/ML) offer innovative ways to streamline workflows and improve services. For example, AI-powered generative code can be layered on top of legacy applications to drive new features and capabilities. "We're seeing that area light up," Collins says, noting this approach can yield significant productivity gains.

Simplified systems built on modern cloud technology also position agencies to deliver better, more personalized digital services within existing resource constraints. These solutions will derive AI-powered data insights from common applications and data stores and let agencies dynamically shift workflows and cybersecurity tactics in response to changing needs.

"This is an opportunity for CIOs to reimagine the work they're doing,"

Collins says. "It may be a while before you get to use some of these tools, but you should start thinking now."

Amid these changes, IT and business leaders must work together to make sure modernization roadmaps stay centered on simplification and meeting constituent expectations. "All this lets you focus on more important things to help the constituent," Mertens says.

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