Modernization in State and Local Government

Executive Summary

Today, state and local chief information officers and IT leaders must leverage emerging IT services and deployment models to modernize legacy applications, improve organizational performance and backend office services, make progress toward digital transformation and help improve the lives of the citizens they serve.

To do this, cloud technology, upgrading legacy IT systems and consolidation remain top of mind for CIOs at the state and local levels. This is especially important given that state and local governments face challenges with budget constraints and staff changes. In addition to these economic pressures, state and local governments face growing citizen expectations and demands.

In their quest to improve IT systems and service delivery while sustaining core mission activities, many CIOs are taking a closer look at how they can use smart technology choices to lower operating costs, increase efficiency in back-office functions, expand citizen relationships and ensure continued vitality into the future.

For employees in state and local government, IT modernization means more efficiently performing the functions that support agency missions, such as workflows, human resources, expenses and more. State and local IT leaders will need to harness cloud and IT modernization strategies that continuously evolve, and align IT with ever-shifting strategies and missions.

In the following pages of this GovLoop e-book, we offer practical tips to improve modernization – particularly in the areas of human resources (HR) and financial management – from government experts who are leading successful efforts at their organizations. We focus on these two areas because back-office functions like these – which impact both citizens and internal employees – are critical to a sound government department or agency.

We also explore the context of why modernization of HR and financial management technology is critical for state and local governments, interview thought leaders who are making a difference in this field and offer tips and actionable items you can implement at your organization.

State & Local IT Modernization at a Glance

What impact can IT modernization have on state and local governments? How are they faring in their modernization efforts? These stats will help set the context for why IT modernization is more important than ever for state and local governments.

A recent survey shows that the top four IT priorities for state government are:

🔒 **Cybersecurity**

🔗 **Shared Services**

☁️ **Cloud Computing**

👥 **IT Staffing**

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State governments received the **lowest satisfaction rating** of any industry, a 6.2 out of 10.

88%
of state financial executives indicated that their organization's culture created a challenge for digital transformation.

64%
of all respondents revealed they are still using manual processes to gather information to solve problems.

4.5%
City and state governments will spend about 4.5 percent more on IT in 2019 than the previous year.

44%
of IT leaders cited insufficient IT resources (budget and personnel) as the biggest risk to their organization or agency in the next year.

Over 70% of State CIOs indicated major parts of their roles included:

- **Driving innovation or modernization of programs**
- **Stabilizing operations**
- **Proactively identifying and removing obstacles to improve the delivery of projects and services**

27%
of NASCIO 2018 survey respondents have concerns over their abilities to deliver highly specialized IT needs of various state agencies or departments.

48% of state and local government leaders are looking to the cloud to reduce costs.

78% of county governments had less than 20% of their systems and apps in the cloud.

41% of state CIOs say they have a cloud migration strategy in place.

17% is the average growth per year in government use of public cloud services forecasted through 2021.

600 monthly cloud purchase orders were made by state and local governments in 2017, up from 150 in 2012.

"Our philosophy for service delivery-driven government is that technology is a means, not an end."

Susanna Ronalds-Hannon
Project Manager, Boston's Department of Innovation & Technology

The 'Why' of Modernization for State and Local Governments

Even as everything around us modernizes at a seemingly rapid pace, a surprising amount of critical state and local government work still depends on IT systems that date back decades. Reliance on this sort of obsolete technology can open government agencies to everything from cybersecurity threats to lack of efficiency to an inability to provide citizens the functions and services they need and want.

Today, state and local government agencies realize they must be able to provide more for their citizens, particularly when it comes to making services and resources more accessible via the internet. According to Deloitte, **73 percent of state and local government officials believe their organizations are behind the private sector in terms of offering digital services.** This comes at a time when citizen demand for online services is higher than ever.

In order to provide citizens the functions they deserve and demand and government employees with modern tools and systems that make their jobs easier, state and local governments need to streamline operations, improve productivity and reduce costs. And they need a system that can support a variety of departments, procedures and regulations – all while improving how they interact with their data.

But currently many of these procedures for back-office functions – from necessary signatures to onboarding to processing expenses – are manual or served on legacy infrastructure that doesn't provide the critical user experience, efficiencies and holistic view of data necessary for a modern government.

That's where IT modernization comes in.

IT modernization is the continuous evolution of an organization's existing application infrastructure software, with the goal of aligning IT with the organization's ever-shifting business strategies. Government IT modernization programs often cover the upgrade, integration or replacement of legacy applications. This is usually driven by factors such as rising maintenance or operations costs, lack of skills and a need for organizational agility.

Whether through cloud, more sophisticated data analytics and/or artificial intelligence mechanisms, IT modernization can be deployed in a number of ways, so long as the organization becomes more efficient and effective.

In particular, IT modernization is more critical than ever in two areas for state and local government: human resources and financial management. Modernizing these areas will be critical to helping your agency prepare for the future by delivering predictable costs, an optimized workforce, better efficiency and deeper insights.

Let's take a closer look at how IT modernization impacts both human resources and financial management in state and local government.

IT Modernization & Human Resources

Sweeping changes are reshaping the government workplace and workforce – and even the work itself. Emphasis is shifting toward smarter HR decisions and employee retainment and engagement in the face of a future retirement boom.

As a result, it has become more important than ever for state and local government HR to streamline processes, empower workers, collaborate across the organization and align teams with strategic initiatives.

Organizations should be able to rely on their systems to guide them through these changes, but legacy on-premise systems are inflexible, and third-party, bolt-on solutions require complex and costly integrations while offering limited functionality.

Technology has fundamentally changed HR aside from day-to-day duties. Traditional checkbox employee reviews are becoming a thing of the past as agencies leverage technology to create fluid succession plans, identify top performers and provide instant feedback on employee performance.

By modernizing their HR systems and IT, HR managers and leaders can markedly cut down on inefficient processes for performance evaluations, filling positions and training employees. Specifically, moving to modern cloud-based solutions and away from paper processes and manual work will help agencies organize, manage, staff and develop an effective and efficient workforce.

Human resources is a people-centered endeavor. Nevertheless, technology has a critical role to play in the future of government HR. As agencies' workforces retire and budgets shrink, government HR professionals will need robust tools to make them more effective and efficient in hiring and training the next wave of top talent.

Moving HR talent management and employee workforce programs and technology to automated and cloud-based systems represents one easy and effective way to improve employee engagement and efficiencies.

IT Modernization & Financial Management

Digital technologies are enabling improvements in a number of financial services, including revenue collection, auditing, cash management, fund investment and even claims management, according to a report and survey from the National Association of State Auditors, Comptrollers and Treasurers.

"Improving cost efficiency and automation are the primary objectives of digital transformation," the report states. "Finance agencies' digital strategies are primarily aimed at improving cost efficiencies by automating key operational processes. Digital technologies have most significantly helped organizations attain this objective in more transaction-focused activities such as revenue collection, auditing, payments, and cost management. The vast majority (nearly 88 percent) of respondents say their digital strategy is directed at increasing efficiency, and creating or accessing valuable information or insight to improve decision making."

But too many of today's financial IT infrastructure are outdated and manual. Traditional solutions often address core financial functions across multiple and disparate systems, making it challenging to deliver insight to frontline managers and impossible to assess financial performance in real time and plan for the future.

Moving to the cloud and shared services can help state and local agencies unify their siloed IT solutions and fully harness the benefits of modernization for finance and expense needs. A modern-day cloud-based platform – meaning software that is hosted in the cloud and accessible from anywhere, not necessarily just in one office or location – can do everything from plan, budget and forecast to ensure fiscal health to improve efficiency and transparency with automation and real-time results.

Denver's HR Director Achieves 85% Reduction in Paper Through Modernization

Human resources departments on the state and local levels face the challenges of acquiring talent and driving engagement across agencies. **Karen Niparko** is the chief HR executive for the city and county of Denver, Colorado, and she talked to GovLoop about factors that facilitate her role in HR.

NIPARKO: I think the most pressing thing for Denver, and I think this applies to many other municipalities and counties as well, is the extreme competition for talent in the job marketplace. For us in Denver, unemployment is extremely low; it's between 2 and 3%. So really low unemployment is contributing to a very strong economy in Denver, but also a very strong job marketplace, such that it is really a candidates' market here in Denver.

We all have the current workforce that we want to retain. But now we've got to start focusing more on the future workforce and what they're looking for, what matters to them and what will cause them to contribute to the best of their ability. I think the biggest challenge that we all have is the competitive marketplace for talent.

So what exactly does modernization in terms of developing a workforce that people want to be in mean to your department?

Modernization is important for pretty much everything we do and for everything anyone does because you really can't be spending a lot for programs and policies, your structures and innovations. You've got to constantly be changing and be aware of what's important

to not only your employees but also to candidates who are looking to you as a potential employer. So being more modern, more progressive, is appealing to that future workforce, what they value and what matters to them.

The millennial generation is the largest generation in the workforce, and they're going to be followed by Gen Zs, who are looking for very different things from their work environment, from the companies they work for, the culture, their own growth and things like that. They're looking for very different things than the boomer generation, for example, and the boomers are retiring here at a pretty high rate right now. Modernization requires that our HR organization take a look at everything we're now doing, and strive to innovate. Innovation is a big part of modernization.

So how have you begun IT modernization in particular, and what are your short- and long-term goals?

One of the most significant innovations and forward-thinking movements that we have made in the city of Denver is our acquisition or purchase of Workday as our enterprise resource planning (ERP) system for the city. It is also our HR system. So it is the primary tool of the HR organization. Workday is one of the more leading-edge, more modern software

packages out there, particularly as it pertains to the employee. It is very workflow-driven, so it's very hands-on for leaders and employees. Users start transactions, they enter their own data. A lot of the systems of the past didn't have workflow and a lot of the administrative work came to HR.

In the HR department in Denver, we've reduced about 85% of the paper we were processing in the past, an ERP system. It offers mobile capability, so you don't need to be at a desktop, or even a laptop, to access the system; you can access it from your mobile device or your tablet and start some of these transactions and look up data. The user interface is very easy for employees and leaders to use.

How much operational efficiency would you say you currently have, and how would you improve it?

Well, we're always improving it. The goal is to continue to improve and create more opportunities for automation and less manual paperwork. For us in particular, as an HR organization, moving to a modern platform provided us a lot more capability, access to data and simpler processes. Now we need to be more concerned about security roles, because everything is accessed online.

In what ways are you working to improve security across all your IT solutions?

Since our ERP platform is automated and it does workflow capabilities, one of the first things you need to do is determine what your security roles are going to be and what positions with HR are going to have certain security roles. A leader should have access to employee data within their organization, not necessarily everybody in the city. You have to be clear on your organizational structure and who needs access to what information. Through that process, you can define what those security roles are.

How much legacy IT do you currently operate on, and are you taking any steps to address legacy infrastructure?

When Denver made the decision to modernize and move to an enterprise application, we decided to also say that we're going to utilize the modules and capability of the platform and minimize using other legacy applications or software packages. Our general approach has been to limit reliance on legacy structures. We've archived our legacy HR system, just in case we need to go back and look at some of that data, but we don't maintain it anymore.

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How Modern Cloud Systems Support Organizational Transformation

An interview with Sherry Amos, Managing Director, Education and Government Industry Strategy at Workday

The future of government services requires bold thinking. In the next 30 years population and workforce demographics are going to significantly change, with the number of Americans age 65 and over doubling in size. As more baby boomers retire, the millennial generation will replace many of these experienced workers, comprising nearly half of the U.S. labor force by 2020.

These profound changes are driving government leaders to think critically and innovatively about the future of their services. Government leaders at all levels must think strategically about how they can attract millennials, including investments in up-to-date technologies like cloud computing that will modernize their back office functions.

To learn how modern cloud systems support organizational transformation objectives in government workforce management, and how unified data across financial and human capital management systems improve analytics and managerial decision, GovLoop spoke with Sherry Amos, Managing Director, Education and Government Industry Strategy at Workday, an enterprise cloud for finance, HR, and planning.

"We are seeing a wave in state and local government of moving to cloud technology," Amos explained. "Of course, it's for cost savings, data center consolidation and more, but many organizations want to modernize their back office and administrative solutions, too."

Amos noted that many government leaders are looking to the HR function as a strategic one, which hadn't always been the case. The administrative systems in use today by most government agencies were designed and implemented years, if not decades, ago. Due to the rigidity of these now

"Governmental organizations must start to think about how their future workforce will align with future changes in services."

outdated technologies, they've been forced to cobble together disparate systems to address their evolving administrative needs. These costly, inflexible, and siloed systems cannot keep up with the rate of change facing the public sector.

"In the past, HR IT systems were not thought of holistically," she said. "So more functions were sort of patched on. But today, all these functions need to work together and be in one place and that's where cloud comes in."

Amos also pointed out that it's critical for governments to have unified data across financial and human capital management systems improve analytics and managerial decision making for their employees and their citizens.

Workday addresses these issues. Its platform unifies financials, human capital management, payroll, grants, and analytics to bring an entire entity together under one modern, agile, easy-to-use system—all delivered in the cloud. It supports government's mission for greater efficiency in administrative processes and offers unprecedented insight into the management of programs and services, enabling transformative organizational growth.

"Workday offers the power of one," Amos said. "All of our systems are in one architecture. We provides a single, actionable view of your government entity, from financials to the people in your workforce."

Takeaway: **Modern cloud systems today support organizational transformation objectives in state and local government workforce management.**

Maryland's Environmental Service Director Embraces Modernization

The Maryland Environmental Service (MES) operates on the mission to protect and improve the environment by taking an innovative edge to problem-solving. **Michael Harris**, Chief Financial Officer of MES, addressed the financial aspect of modernizing at the agency in an interview with GovLoop. The one factor he kept emphasizing? Educating employees.

HARRIS: I would say greater efficiency. We're an independent state agency and we were established as a not-for-profit for the state of Maryland. We have over 800 team members, and over 1,000 projects across Maryland and the Mid-Atlantic region. We don't receive dedicated funding from the state; rather, we have to generate our own revenue to support the services we provide to our clients and partners. So we have to operate with the same fiscal efficiency as a private sector enterprise, even as we maintain a public sector commitment to enhance the environment.

What exactly does private sector efficiency entail for your department?

We have to make sure we have enough revenue to support our day-to-day operations and the back office that supports these projects, as well as the big picture of enhancing the environment, especially within the state of Maryland.

What does modernization mean to your department?

It means greater efficiency and greater precision, and working with the information

we collect from our team members from every location in a timelier manner. We have many team members; they work in multiple sites and they bill their time with multiple accounts. For example, we have wastewater treatment plant operators who spend their time at plants with multiple clients. How we collect the timesheet information, procurement requests, invoices and other financial data is something that we are consistently trying to collect with greater efficiency.

How have you begun modernizing, and what are your short-term and long-term goals, especially with something like maybe cloud services or incorporating emerging technologies into the workplace?

I think your timing is great with this question. We're currently implementing Workday, which we began to implement last September, and we're scheduled to complete implementation by the spring of this year. A modern ERP platform will help us automate many functions like collecting timesheets that are done, in some cases now, manually. So the short-term goal is to finish that implementation, which will be completed, or projected to be completed by June 30, and we'll start our new fiscal year in the new system.

Long-term as we implement the modernization, we have to provide our team members with training and equipment. We feel that the key is investment in our team members, so that they can use those technologies efficiently. Long-term we also plan on continuing to provide resources for education, so that our team can use those tools effectively.

What are some operational needs that you've identified that you can talk about?

We currently have, and we offer, many forms of training throughout the organization, especially when it comes to developing our workforce. We have a lot of team members that take advantage of that. Always operationally, there are things you can improve, especially from a software standpoint. Being in accounting, and dealing with different accounting software, when you get the latest thing, you think it's the best thing, and then six months from now, another thing will come out that you think is better.

So we're constantly looking at different tools to add to what we already have. A modern ERP platform is a great example of that. We rolled that out, and Workday is constantly improving, so twice a year they'll offer us updates and different downloads that highlight improved operations or efficiencies within their program. We'll be able to utilize that.

How are you working to improve security across your IT solutions?

We have strong security measures in place already, but one of the keys is education. We send emails regularly, we put up posters and we take other measures to remind our team members about safe IT and email practices. We educate them about phishing techniques and how to recognize attachments that are meant to be predatory. Generally we get them to recognize that the more they use safe practices online, the better off we'll be.

What is the biggest challenge you've faced with regards to modernization?

In any organization, when you try to implement change, it's always difficult. I don't think that the challenges we face are any different from other public organizations. Training our team members is always the biggest challenge when attempting to modernize. We have so many projects in different sites, that it comes to trying to figure out where we need to be in a way that makes better use of our time for our teammates and our trainers. It makes things a little more difficult that we're spread out across the state. It's a challenge to make sure that everyone is prepared to ensure that all of the practice improvements are followed. Fortunately, we have a talented, motivated team and they embrace these types of challenges.

Conclusion & Next Steps

Before agencies dive into the next phase of their cloud journey, they must rethink the way they have traditionally approached ERP implementation and procurement. Here are suggestions to improve cloud-based ERP deployments and modernize your backend solutions in a way that will encourage sustainability.

- **The scalability and adaptability of cloud technology allows agencies to make the most of their ERPs, but those benefits can only be achieved if the right system is acquired to provide that flexibility.**
One-size-fits-all approaches in which standard security and contracting language is applied to every aspect of an acquisition can impede successful evaluation and selection of ERPs.

- **For many agencies, a broad and templated contract will prevent them from acquiring the best solution to meet their specific needs.**
Overly strict security requirements may prevent necessary information-sharing or block best-of-breed solutions from consideration.

- **Take a holistic approach that balances risk with other considerations.**
You must understand the full scope of your agency's requirements and apply those to your contract.

- **Write requests for proposal** in a way that allows evaluation of industry standards for security as alternatives to industry-specific standards. Consider working directly with procurement officers to review contracting terms and conditions that have not been modernized for cloud procurement.

- **Consider ERP platforms that are highly configurable to meet needs as they evolve.**
With the right platform for modernization, agencies can take an incremental approach to building out their ERP's functionality. Users can configure the tool over time, expanding new functionality to new environments in the cloud.

- **Ensure security** but also ensure user acceptability and enable things like embedded analytics and reporting.

- **For agencies to pursue this incremental approach and deploy the right cloud-based ERP, they have to think outside of traditional procurement paradigms.**
In many instances, a trusted third-party vendor can help agencies understand their unique requirements and how to implement them in procurement.

- **For organizations moving to the cloud, the next step is migrating business-central systems like enterprise resource planning to new environments.**
But success will only be achieved if government selects the right partners to move forward.

Thank you to Workday for their support of this valuable resource for public sector professionals.

About GovLoop

GovLoop's mission is to inspire public sector professionals by serving as the knowledge network for government. GovLoop connects more than 300,000 members, fostering cross-government collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to the public sector.

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