5 Challenges to Government IT Modernization:
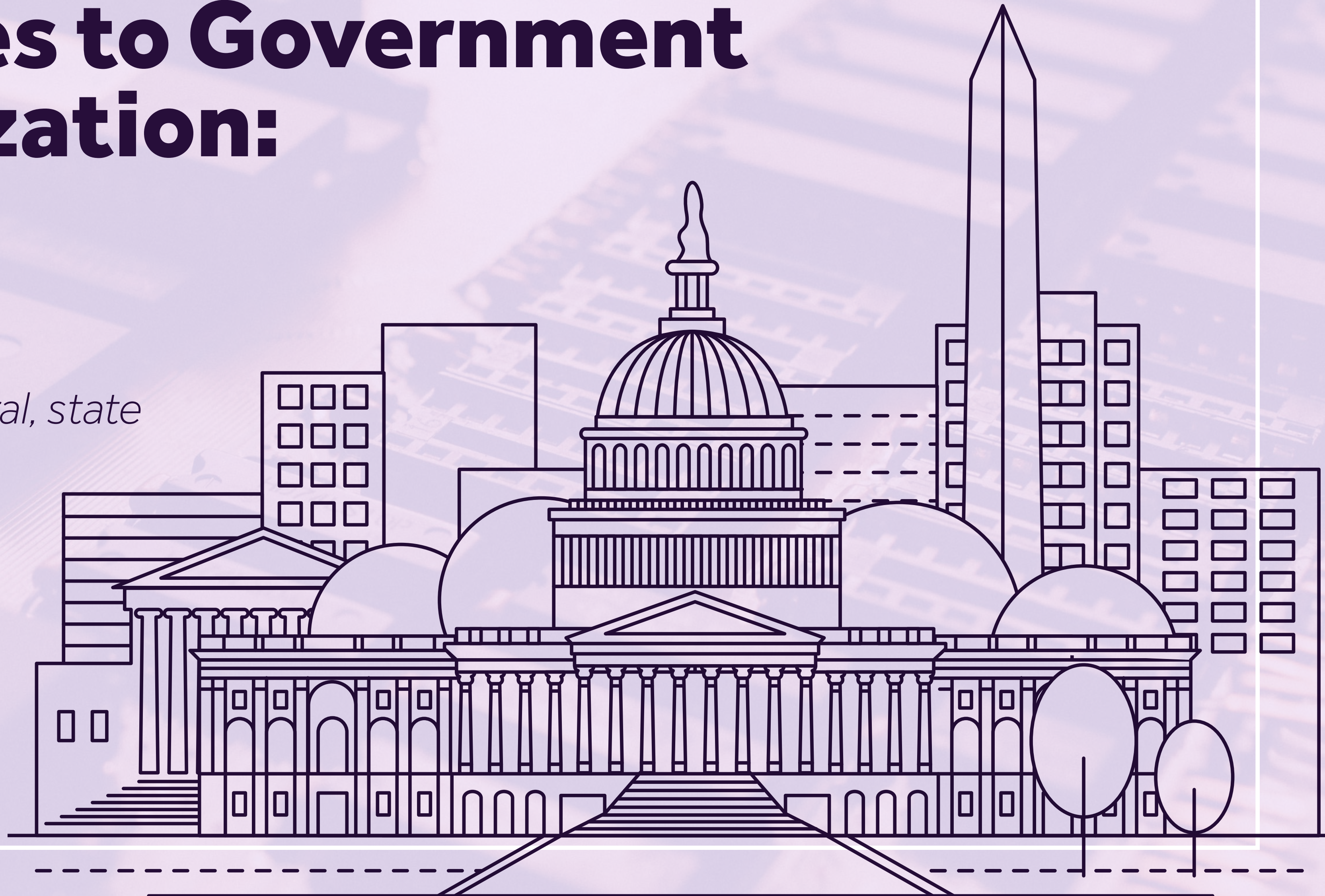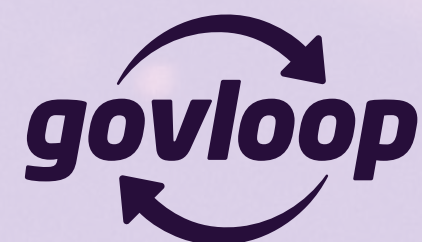
In Brief

Quick tips & facts about IT modernization across federal, state and local governments

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Executive Summary

Information technology (IT) modernization can revolutionize efficiency, convenience and effectiveness for all users. That's why government agencies and departments at the federal, state and local levels are eager to take advantage of all IT modernization has to offer. The move away from legacy systems and toward more innovative forms of technology continues to be a top priority for the Office of Personnel Management — and the rest of government.

Government is well beyond the point of recognizing that IT modernization is a must. It is no longer a question of if but when and how. In this in brief, we will examine the latest in government IT modernization, five common challenges and how agencies at all levels are navigating them.

What's Hot in IT Mod Now

MGT ACT Becomes Law:

On Dec. 12, 2017, President Trump signed the Modernizing Government Technology (MGT) Act into law as part of the 2018 National Defense Authorization Act. The law creates working capital funds for IT projects for federal agencies and a central modernization fund housed by the General Services Administration. To access those funds, agencies will have to submit proposals to a Technology Modernization Board and agree to pay back that money within five years.

White House Releases Final IT Modernization Report:

On Dec. 13, 2017, the White House's American Technology Council released its final "Report to the President on Federal IT Modernization," highlighting the current and envisioned state of federal IT along with specific recommendations to jumpstart modernization efforts. The report focuses on two primary recommendations: network modernization and consolidation and shared services.

What's Hot in IT Mod Now

State CIO's Top 10 Priorities for 2018:

In November 2017, the National Association of CIOs released its top 10 strategies, management processes and solutions for 2018. The top four are security and risk management, cloud services, consolidation and optimization, and digital government.

Today, state and local governments are burdened with the growing cost and risk of aging technologies. CIOs and IT leaders are using emerging IT services and deployment models to modernize legacy applications, improve organizational performance and make progress toward digital transformation.

A main way that IT shops are modernizing is by implementing cloud technologies. According to recent reports, about half of state and local agencies had integrated cloud into their strategies as of 2017 because of benefits of cloud-driven IT modernization such as regular and undisruptive upgrades, mobility for caseworkers and citizens, and easier-to-use services.

IT Modernization by the Numbers

Federal IT

$7.3b is the amount by which spending devoted to development, modernization and enhancement activities has declined since 2010.

28 federal IT systems are at least 25 years old and at least 11 are 35 years old.

1 in 4 federal IT managers have developed a business case around renewing or replacing existing applications.

State & Local IT

2/3 of IT decision-makers revealed they are still using manual processes to gather information to solve problems.

53% of public-sector IT decision-makers feel their organization does not have end-to-end visibility across IT systems. This leads to operational inefficiencies and waste.

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

Overly Complex IT Governance

THE PROBLEM

With an overabundance of data centers, networks, servers and storage, IT structures in government tend to be overly complex. The sprawl of disparate systems makes it difficult for IT to function effectively and inhibits informed decision-making by IT leaders. When IT is overly complex, proper IT governance becomes nearly impossible.

HOW TO ADDRESS IT

1. Create business goals and plan accordingly for IT governance. Determine what decisions need to be governed across the organization and by whom.

2. Architect solutions and define control and requirements.

3. Build by starting with a framework that industry experts have already created and that other agencies have successfully used.

Washington State Implements Technology Business Management Framework

TBM is a set of best practices for running IT like a business. The primary goal of TBM is to empower IT and business leaders to have data-driven discussions about cost and value of IT to best support business goals. The largest public-sector TBM implementation to date is in the Evergreen State: Washington. By implementing TBM, the state improved IT spending data, increased accountability and made a better case for IT modernization with 100 percent compliance for state agencies. Additionally, cost pool data was rolled up for statewide IT spend and IT tower data was provided for 44 state agencies with annual IT spend greater than $250,000.

Costly Legacy Technology

THE PROBLEM

Costly, aging systems are a major barrier to modernization. Nearly 80 percent of agencies' IT budgets goes toward operating and maintaining obsolete systems, leaving few resources for investment in systems development and enhancement.

HOW TO ADDRESS IT

1. Take advantage of cloud platforms and a hybrid approach. By using a cloud platform, agencies can enhance and augment – rather than replace – their existing systems.

2. Partner outside your organization and use shared services.

3. Start small with pilot programs or by moving a few services to the cloud.

Los Angeles Modernized 311 Service Request System

In early 2017, Los Angeles replaced the antiquated architecture of the 311 service center with MyLA311. This three-year modernization project, led by the mayor's office and the city's Information Technology Agency, involved consolidating four key service management systems into one integrated repository where residents and city departments could access all requests and status updates.

Data Center Sprawl

THE PROBLEM

Eight years after the creation of the Data Center Consolidation and Optimization Initiative, agencies still struggle to get a handle on their data centers and on-premises storage systems. In the federal government alone, about 11,700 data centers still need to be consolidated.

HOW TO ADDRESS IT

1. Commit to organization and communication. Choose a project and management structure that will guide the organization through the process.

2. Streamline the environment by consolidating the source and destination environments early in the migration process.

3. Virtualize by migrating physical servers to virtual machines and consolidate them onto fewer physical servers.

USDA Consolidates to Revamp IT

USDA is working with the White House Office of American Innovation to revamp its IT operations model to increase efficiency in serving its customers. USDA aims to consolidate end-user services and data centers from 39 to one and a backup.

Lack of Talent for IT Workforce

THE PROBLEM

Challenges to recruitment include perfecting position descriptions (PD). The current library of IT PDs is full of descriptions that are either too obsolete or don't reflect the skills needed for today's workforce. Additionally, because the hiring process takes so long in government, many agencies lose qualified applicants to the private sector.

HOW TO ADDRESS IT

1. Empower the next generation of technology leaders through special internships or fellowship programs that offer travel stipends or other incentives.

2. Host opportunities for innovation-whether it's an innovation lab, coding boot camp or national bug bounty.

3. Go straight to the source of innovation by getting your agency to host hiring fairs out in the community.

Health & Human Services Hosts IT Hiring Fair

The Health and Human Services Department's CIO used an unconventional approach for hiring in government: on-the-spot offers during a job fair. The CIO's team made initial offers during a two-day hiring fair in Montgomery County, Maryland, in November 2017. The event brought together more than 1,800 job seekers from 40 states and hiring managers from 33 federal agencies, including five from the intelligence community.

Poor IT Change & Disaster Management

THE PROBLEM

Too often, modernization efforts fail because end users didn't accept them. In fact, only 29 percent of agencies have established an application modernization change management team. That's why CIOs, senior IT managers and senior leaders must consistently demonstrate their commitment to IT modernization programs.

HOW TO ADDRESS IT

1. Build a clear roadmap. Define the compelling reason for why the change was needed, including current limitations and how they are affecting performance.

2. Organize and staff the project. Create a solid management team by thoughtfully filling each of the leadership roles.

3. Incorporate standards and automate. In developing a business-minded IT environment, you need to create reports to monitor the quality of your agency's or department's services.

Social Security Administration Uses Agile Development to Help Teams Modernize

In early 2017, the SSA used Agile development to transform its Disability Case Processing System (DCPS) into a modernized, cost-effective and user-friendly IT platform. By deploying in the cloud and using Agile methods, IT professionals on the project could better connect with the state disability determination organizations they were trying to serve. Additionally, the team was co-located together to improve communications and enable them to swiftly adapt to the newer software.

Conclusion

Although the challenge of modernizing in a lean government landscape seems daunting, it is possible. Your agency can navigate through any one of these common IT modernization challenges:

1. Overly complex IT governance
2. Costly legacy technology
3. Data center sprawl
4. Lack of a talent pipeline for the IT workforce
5. Poor IT change and disaster management

Thank you to DLT Solutions and Veritas for their support of this valuable resource for public sector professionals.

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