WHITE PAPER

APPLICATIONS SOFTWARE TECHNOLOGY LLC

Challenges with Digital Services:
Overcoming Challenges Requires Investment, Upskilling, and Partners

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AST

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1   CHALLENGE OVERVIEW

In today's digital age, state and local governments are facing myriad challenges related to digital transformation and modernization. These challenges include:

- Legacy IT infrastructure

- Siloed data

- Shortage of IT professionals

- Service expectations

Legacy IT Infrastructure

Many state and local governments are still using legacy IT infrastructure, which can make it difficult to provide efficient and effective services to citizens. For example, many governments still use paper-based processes for record-keeping and transactions, often requiring duplicative data entry, which can be time-consuming and error-prone. In addition, outdated IT infrastructure can be more vulnerable to security threats. Top threats include phishing attacks, ransomware, and insider threats. According to an article from GCN, almost half of the phishing attacks in 2022 were aimed at government employees, the FBI reports that government facilities were hit with 115 ransomware infections in 2022, and according to the Software Engineering Institute from Carnegie Mellon University insider threats target non-employee data, financial assets, and employee data. All these threats are compounded when the IT infrastructure is not up to current standards.

Siloed Data

Many state and local governments have siloed data, which means that data is stored in various systems and is not easily accessible to different departments. This can make it difficult to share information and make informed decisions. According to a recent study from Workday, only 2% of government leaders say their data is fully accessible, and 80% say that integrating siloed data is the most important factor in making better real-time decisions. Siloed data has several consequences including making it difficult to share information, increasing duplication of effort, and wasting resources. When governments do not have a full view of the data it impairs strategic decision making which has negative impacts on the

overall operations of the organization. Siloed data also makes it difficult to provide a seamless experience when providing digital services across agencies.

Shortage of IT Professionals

There is a shortage of skilled IT professionals, which can make it difficult for governments to hire the staff they need to manage their existing and new IT infrastructure. According to Governing, the number of job vacancies doubled in state and local governments since the pandemic began while the number of job applicants fell every year from 2016 to 2021. Another thing to watch for is government employees leaving their jobs. 52% of government employees are considering leaving their jobs according to a MissionSquare report. Adding to the shortage is the "silver tsunami" which according to American City & County will exacerbate the staffing shortage public sector organizations are already facing because 10,000 people cross into the 65 or older age category every day making them eligible for retirement. This creates a talent crisis at all levels but is particularly challenging in IT when governments are adopting cloud technologies at an accelerated rate. In a January 2021 survey, 70% of state and local government executives highlighted that cloud is their preferred environment for hosting citizen and mission data[1]. However, they are struggling to find IT professionals to fill the roles needed to support these environments. This is not completely unique to government agencies as a recent study found 67% of global business leaders are considering using generative AI, but roughly the same number of IT leaders say their employees do not have the skills to use it.

Service Expectations

Residents, businesses, and visitors are increasingly expecting governments to provide services online and through mobile devices. A survey by the Center for Digital Government reported 67% of respondents prefer to access government services online. When engaging with government agencies, users want the services to be accurate and reliable. They want to know that the information is correct and that services are delivered in a timely and efficient manner. They want to perform the request quickly, on any type of device, and without answering needless questions. Finally, users of online services what them to be secure, so their personal information is safe and kept private. Meeting these expectations and others is paramount for governments.

The challenges facing state and local governments related to digital transformation and modernization are significant. However, governments that can overcome these challenges can reap the benefits, including:

- Improved efficiency and effectiveness

- Reduced costs

- Improved security

- Increased satisfaction

2 RECOMMENDATIONS

There are several things that state and local governments can do to address the challenges facing them related to digital transformation and modernization. These include:

• Investing in new technology

• Building a strong IT workforce

• Working with partners

Investing in New Technology

Governments are investing in innovative technology to increase their digital services for numerous reasons. Some government agencies are investing in new technology to save money. By leveraging online solutions governments can save money when the need for paper-based transactions and associated labor is reduced or when they are able to automate tasks completely. The California Department of Motor Vehicle leveraged digital services during the pandemic by expanding its virtual field offices. Digital services can also help governments improve user engagement making it easier for people to interact with government on their schedule and to provide feedback. These are just a couple of reasons that governments may invest in new technologies.

Governments are investing heavily in cloud computing. A 2021 survey by the National Association of State Chief Information Officers (NASCIO) reported that 83% of state governments and 77% of local governments are using cloud computing in some capacity which is up from 72% and 67%, respectively, in 2020. Some of the most popular cloud computing platforms in use include Salesforce, Amazon Web Services, and Oracle Cloud. These platforms can be used for a variety of purposes such as data processing, improving cybersecurity, and providing citizen services.

IT and program leadership need to work with their elected officials, public administration officials, and other leaders to fund transformational projects through direct appropriations, user fees, partnerships with the private sector, and/or grants from the federal government. While these projects may be daunting when looking at the whole take a moment to break them down into manageable phases with clear success metrics.

Building a Strong IT Workforce

Governments need to build strong IT workforces that have the skills necessary to adopt digital services, leverage modern technology, and can upskill, as necessary. To build a strong IT workforce, government will need to adjust its approach to continued education and skill acquisition. Many state and local governments have antiquated processes and requirements that do not allow them to hire quickly or get the best candidates applying for roles. To retain existing employees' governments will need to adjust pay scales, continue adopting hybrid work environments, and highlight the social impacts of the roles. Additionally, governments should adopt [mobile learning](), [microlearning](), and [blended learning]() to ensure their workforce has the talent they need to take advantage of the new technology they are adopting. Finally, use transformational projects to excite your teams and instill a strong upskill culture within your organization. Most government employees are dedicated public servants who started their careers hoping to make an impact. When I worked on large projects with the state of Colorado I was amazed at how motivated and willing to learn team members were when they felt that work was making a difference in their careers and members of the public.

Working with Partners

Governments can, at times, accelerate digital transformation and modernization efforts by working with partners that have experience in building robust solutions and re-engineering business processes. Oftentimes, a government agency that is embarking on implementing a new digital service will be doing it for the first time. By partnering with an experienced service provider governments can avoid common pitfalls, take advantage of lessons learned, and ensure best practices are followed. They also get the benefit of working with individuals who have completed similar projects in other jurisdictions. Private sector partners have often developed proven project methodologies, have subject matter experts on staff, provide flexible staffing options, and have invested in program accelerators or quick start paths that allow for organizations to take advantage of native platform features as opposed to custom development. When working with a partner, it is vital to select a firm focused on meeting your needs. A true implementation partner will take the time to understand your staff's availability, ongoing commitments, realize the funding parameters of the project, work alongside you on risk mitigation strategies, and build a workable governance model.

3 CONCLUSION

There are many challenges facing government organizations when it comes to providing digital services, but there are also steps the organizations can take to address those challenges. By taking these steps, state and local governments can position themselves for success in the digital age. AST has been partnering with state and local governments for nearly three decades and has a strong reputation for delivering results. If you would like to understand how AST can assist your organization, learn about our methodology or simply have a conversation about how to best work with professional services partners, reach out today.

About the Author:

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John D. Conley, Senior Director, Public Sector Transformation for AST, LLC, has been supporting public sector organizations for 20 years. He was directly involved with digital transformation and modernization efforts during his time as Deputy Chief Information Officer for the state of Colorado and the Executive Director of the Colorado Statewide Internet Portal Authority. When he worked at Salesforce, he was at the forefront of many state and local governments making the transition to cloud computing and advised them on lessons learned and best practices. John has a great devotion to the missions of the agencies he works with, and he continues bringing his expertise to multiple organizations with AST, LLC.

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