WHITE PAPER

Why Technology Matters in the Public Sector

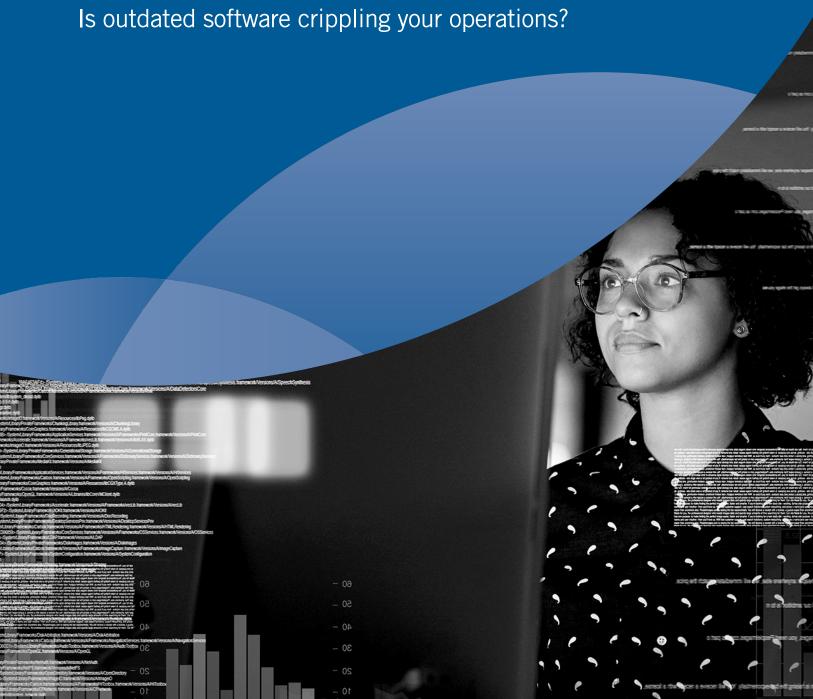Is outdated software crippling your operations?

Why Technology Matters in the Public Sector

Even Jim Parsons, who plays Sheldon Cooper on television's hit comedy show, The Big Bang Theory, knows antiquated technology can affect performance. Take his appearance in Intel's commercial spots from 2017 for example. In one such spot, Parsons enters the frame and asks, "Are you still trying to perform on an old computer?" The shot then shows Serena Williams, elite women's tennis star, on court preparing to play an opponent. "That's like Serena trying to perform with an old racket," says Parsons. Just then, we see Serena with a clearly dated, wooden tennis racket. She swings at a ball and the racket breaks.
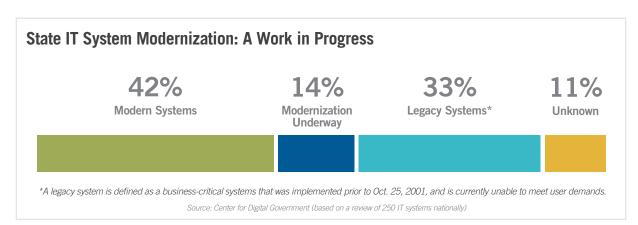
Maybe you've seen the commercial. With a modern twist using celebrities to highlight the problem, Intel forces us to ask ourselves: Is our technology holding us back from improved performance or efficiency? The answer, in most cases, is yes. Consider an even more obvious example: How often do you see individuals with flip-phones? Almost never. Why? The technology is outdated. Capabilities are improved. There's greater functionality in modern smartphones. You can pay bills, browse the internet, play games, run applications, etc. We can simply do more with modern technology.

In being able to do more with modern technology, it

seems many local and state governments and public sector agencies are lagging behind. This transition from outdated to modern must be addressed by governments and entities in the public sector today, or they risk severely damaging their operations.

According to the Center for Digital Government, 33% of state IT systems are considered legacy systems. This means roughly one-third of business-critical state IT systems were implemented prior to the fall of 2001 and are currently unable to meet user demands.[1] And, with states and local governments slated to spend more than $107 billion on IT expenses in 2019, it is important for agencies to make the right decision when it comes to upgrading technology.[2] Though this decision to modernize can be frictionless and empowering with the appropriate vendor partner, there are significant challenges for everyday organizations when addressing a technology transformation plan.

Budgets, staffing, security, process changes, support, and return on investment are all relevant pains or challenges in this move to modern, and public sector organizations are at a crossroads. Do they risk maintaining an outdated system, or do they embrace change and implement modern technology?

State IT System Modernization: A Work in Progress

42%	14%	33%	11%
Modern Systems	Modernization Underway	Legacy Systems*	Unknown

*A legacy system is defined as a business-critical systems that was implemented prior to Oct. 25, 2001, and is currently unable to meet user demands.

Source: Center for Digital Government (based on a review of 250 IT systems nationally)

These challenges experienced by local governments in search of modern systems are real. Agencies must confront these pains and challenges head-on to truly see how making changes to technology can have an impact on their operations. We'll explore each challenge in this decision to modernize so you and your organization can take away helpful information to plan a successful technology transition.

Budget

Local and state budgets are often limited. And, the majority of state and local IT budget dollars go toward IT staffing.[3] Because of budgetary concerns, agencies often succumb to the idea that their current software is sufficient and decline to invest in an upgrade. However, foregoing additional costs to update technology often leads to larger, more significant costs later when the software is no longer supported. Older homegrown or legacy systems also leave organizations to incur costs of hiring new staff, maintaining the current tools, storing physical papers, additional upgrade fees, and more. Finding a vendor who offers perpetual updates, enhancements, and training without an added expense is the way to go. While it may entail a larger up-front investment, the improved functionality coupled with greater efficiency and improved services will bring numerous returns to the organization.

Staffing

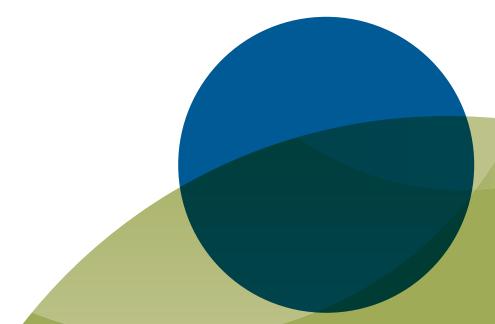The impact of the aging workforce in the public sector can be mitigated by the use of new technology. More than 50% of public employees are age 45 to 64.[4] This means a large number of workers will retire within the next few years, leaving younger generations to fill the gaps. Simply put, younger workers are not as familiar with antiquated technology and processes. Not only is it tough to train a new employee on antiquated technology and processes, it is extremely hard to recruit for the technical skill set required to maintain these older technologies. Imagine offering your office new solutions that allow staff to reduce effort and have time for additional work. Finding a vendor with offerings including built-in training resources and mobility options is critical.

Security

Agencies using older technology may also be concerned about exposing security vulnerabilities in their operations. After a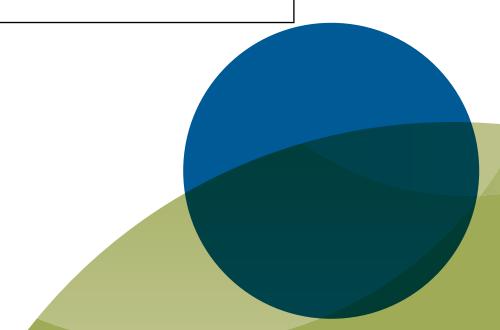ll, there were 53 ransomware attacks on state and local governments in 2018, and that number is expected to rise.[5] Antiquated software not only presents security issues, it also increases chances for downtime and system outages because of its lack of support.

	Status Quo
Budget	• Budget dollars contribute to maintaining dated systems • Low upfront cost • Higher expenses throughout the life of the software
Staffing	• Difficult to recruit for skill sets that support outdated technology • More people means higher overhead and employment costs • Limited/restricted opportunities for mobile work
Security	• Outdated operating system and software • Limited security controls • Vulnerabilities in data-sharing and information access due to fragmented tools • Vulnerabilities in software programs due to lack of updates
Processes	• Limited functionality compared to modern software tools • More steps to access data and compile information • More steps to manipulate content so it "fits" in the old system • More keystrokes, manual effort, paper, etc., involved in daily tasks • Stagnant technology capabilities — rare updates to tools or processes
Support	• Lack of support from software provider • Lack of investment in research and development to improve antiquated programs • Limited integration • Smaller vendors are often privately held, limiting viability in financial security
ROI	• Return on investment is limited as the costs to maintain older technology rise

New Technology

- Budget dollars contribute to an intuitive, streamlined system
- Higher upfront investment
- Lower expenses throughout the life of the software

- With proper training, the system is operable by anyone, and often with remote access abilities
- Fewer people means lower overhead and employment costs
- Mobile and digital technology options to make staff more efficient

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- Up-to-date, secure software
- Controlled security access for employee roles, tasks, etc.
- Safe, efficient data-sharing methods and information architecture
- Added security layers against ransomware and other cyber threats

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- Extremely capable, efficient, integrated software
- Less steps to access data and compile information. More data available across all offices due to open data capabilities
- No need to manipulate content. Data, reports, etc. are agile and customizable
- Less keystrokes, manual effort, and paper waste. More automation and intuition
- Evolving technology capabilities — consistent updates to tools and processes

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- Ongoing support and training from provider
- Large investment in research and development to refine and improve tools based on feedback from users
- Adaptive, open integration
- Certain vendors are powerful and future-thinking, connecting communities with a history of success and stability

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- Return on investment is significant

We all have experienced that alert or pop-up that lets us know something needs an update. If you haven't seen that alert in a while, or your system hasn't been updated, it's definitely time to modernize. With new technology solutions, local governments and agencies can architect their own security settings, allowing staff in different offices and roles to garner specific access to data and data sharing capabilities. So, the records office needs to share information with the appraisal and tax office — no problem. New technology allows offices and organizations to maintain compliance and privacy while still managing to offer transparency to the communities they serve. Choose a vendor with strong data security and agility for added protection.

Processes

One of the biggest challenges in transitioning to the latest software and technology is the inevitable process changes. Sure, things may be fine now, however, when most organizations truly inspect their operations, they typically find room for improvement. Employees are simply not as efficient on older systems with outdated processes. They must jump into multiple programs, manipulate information manually, handle paperwork, and compile data from disparate sources. If only your organization could implement new processes driven by intuitive workflows and shared data — then staff could complete tasks faster, access data more easily, and improve productivity. A vendor who minimizes paperwork with streamlined processes for tasks, shortcuts, and intuitive tools can turn your organization in to a well-oiled machine.

Support

Top-notch support is important for agencies looking to update technology needs. With outdated software, clients and programs can be forgotten. Whether your vendor decides to eliminate support for older versions, or they stop investing in research and development to improve the tools, your operations can take a huge hit. This lack of support not only affects your employees in their ability to do their jobs adequately, it also affects the communities you serve. Organizations must search for a vendor with excellent support and continued investment in solutions. Some providers even offer a way to clean, validate, and organize your existing information prior to a migration so your most important asset — your data — is current and accurate as your foundation moving forward.

Return on Investment

Yes, it's important to consider your return on investment. When an organization throws people or money at a technology problem and repairs broken systems and processes by adding bodies or maintaining old tools, the outcome is as you would expect. There's a reason engineers combined a home phone, a copier, a camera, a calculator, a computer, a scanner, and more to create the smartphone — the technology helps us do more with less. Any software provider or system that can help your staff do more with less keystrokes, less programs, less effort, and less paperwork is an investment worth making. There is even a cost savings due to the digitization of processes, eliminated paper waste, and reduced redundant effort. Some vendors even offer perpedutal software updates as part of maintenance, so offices can continue to operate

without a hitch. The short-term investment might be more costly than maintaining a relic system; however, the long-term benefits from not having to hire more staff or worry about that old system's performance are too important to neglect.

Conclusion

Performing with old tools and software is challenging and frustrating. Don't get stuck trying to repair homegrown or legacy systems while new technology leaves your organization behind. The right vendor, backed by up-to-date technology, can help reduce the amount of manual and redundant work dramatically. Processes can be automated, keystrokes can be limited, errors can be mitigated, and the data you need can be compiled quickly and accurately in a unified system.

New technology also creates cost savings from eliminating paper waste, reducing redundant effort, and digitizing processes. If you could reduce the long lines and paper storage in your office, your staff would have more time to address important issues, your operations could flow smoothly with less manual effort, and your community would appreciate the streamlined access to information with the new, intuitive software.

Whether you choose to upgrade to new technology or not, find a vendor with a history of longevity and industry experience, and engage in an operational assessment. A simple review of your technology and processes can go a long way in determining the best step for your organization. To get started, download a step-by-step buyer's guide at **tylertech.com/buyers-guide**. The guide will navigate you through the technology purchase process and help you avoid mistakes that can cost you thousands of hours and dollars. The valuable tips will help you make the right technology choice the first time around, so you never have to select another technology vendor again.

Visit **tylertech.com/buyers-guide** to download your copy today.

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Sources

1 Center for Digital Government, 2019

2,3 Govtech Navigator, 2019

4 Workforce, 2019

5 Recorded Future, 2019

About Tyler Technologies, Inc.

Tyler Technologies (NYSE: TYL) is the largest and most established provider of integrated software and technology services focused on the public sector. Tyler's end-to-end solutions empower local, state, and federal government entities to operate more efficiently and connect more transparently with their constituents and with each other. By connecting data and processes across disparate systems, Tyler's solutions are transforming how clients gain actionable insights that solve problems in their communities. Tyler has more than 21,000 successful installations across 10,000 sites, with clients in all 50 states, Canada, the Caribbean, Australia, and other international locations. A financially strong company, Tyler has achieved double-digit revenue growth every quarter since 2012. It was also named to Forbes' "Best Midsize Employers" list in 2018 and recognized twice on its "Most Innovative Growth Companies" list. More information about Tyler Technologies, headquartered in Plano, Texas, can be found at **tylertech.com**.