

State and Local Tech Priorities In Brief: What You Need to Know

Quick tips for a modern state & local government



Executive Summary



With information technology, it seems there's always a catch: Technology continuously evolves, making it tough to stay up to date and on the cutting edge. That's especially true for state and local governments, which often stare down small budgets for IT and staff. And there's plenty to think about.

A modern IT department at the state and local government level is not without its challenges, but it's becoming more accessible, thanks to outside-the-box thinking, partnerships and strategies. In this In Brief, we will examine nine priorities for a modern state and local government landscape:

- ▶ Cybersecurity
- ▶ As-a-Service offerings
- ▶ Legacy IT modernization
- ▶ Internet of Things
- ▶ Data analytics
- ▶ IT workforce
- ▶ IT management structure
- ▶ Broadband and connectivity
- ▶ Consolidation of IT services

Total IT spending across state and local governments is projected at \$101.3 billion for 2017, up 1.4 percent from 2016. Cities are expected to spend \$30.9 billion on IT this year, while counties are expected to spend \$22 billion.

Source: Center for Digital Government (CDG) and Government Technology

1 Cybersecurity



What it Means:

The National Institute of Standards and Technology succinctly defines “cybersecurity” as “the ability to protect or defend the use of cyberspace from cyberattacks.” Gartner also defines cybersecurity as “encompassing a broad range of practices, tools and concepts related closely to those of information and operational technology security.”

50%
Half of state and local governments experienced a breach in a 24-month period, according to a 2015 Ponemon Institute study.

Takeaways:

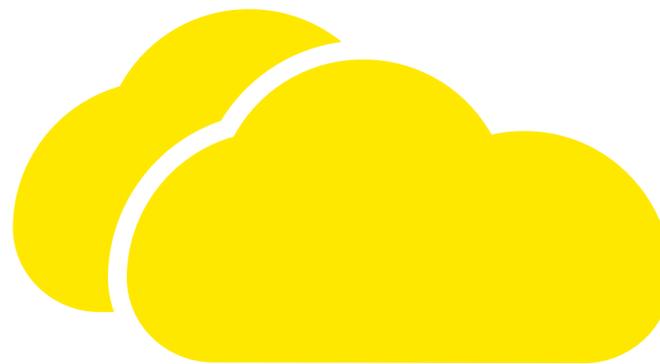
- ▶ Employees no longer work only from desktops in the office. Cybersecurity officials must take into account home and remote networks.
- ▶ Agencies must learn that a data-sharing approach is a smart one. Governments can't fight cyber incidents in a vacuum.
- ▶ State leaders need to set examples and a high bar for cybersecurity in their states by getting involved and leaving politics out of it.

Source: State Tech Magazine

2 As-a-Service

What it Means:

“As-a-Service” (aaS) is the ending attached to something being made available online. There are three main categories: platform-as-a-service, software-as-a-service and infrastructure-as-a-service, but more offerings are becoming available, such as containers- and email-as-a-service. Enabled by cloud computing, aaS is appealing to state and local agencies because it speeds development and simplifies operations.



Cloud services hold the No. 3 spot on NASCIO's State CIO Top Ten Priorities for 2017 list.

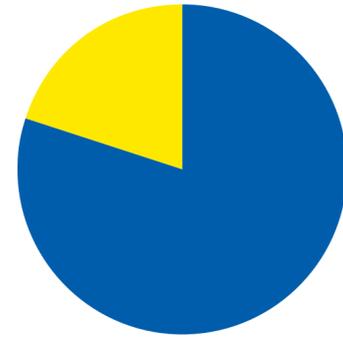
Takeaways:

- ▶ **Inventory your infrastructure to understand what your agency uses, operating costs and contractual obligations.**
- ▶ **Review your agency's goals and technology's role in achieving them.**
- ▶ **Set an as-a-Service strategy, which should determine what processes will go to the cloud, when and in what order.**

3 Modernizing Legacy IT

What it Means:

Technology evolves at impressive speeds, and it can be tough for government agencies to keep up. With the regulations, budget and workforce constraints that governments face, updating and upgrading legacy systems become extra challenging. The result is an IT shop with a mishmash of off-the-shelf software, homegrown applications and terabytes of data.



About 80 percent of IT resources go toward maintenance of existing IT operations and systems.

Takeaways:

- ▶ **Make modernization part of your overall strategy, not a one-off event.**
- ▶ **Plan for change management and be prepared to support both the legacy and new systems during transition periods.**
- ▶ **Train current and new employees on how to use new IT, and hire expert help.**

Sources: [Govtech](#) and [Carolinas IT](#)

Internet of Things

What it Means:

In its simplest form, the Internet of Things (IoT) involves the connection of just about anything to the internet. This could be as obvious as a smartphone or as unexpected as the drill of an oil rig. By 2020, IoT devices, excluding PCs, tablets and smartphones, will number 26 billion and IoT will be a \$267 billion industry. State and local governments are using this technology to become smarter, greener and more efficient.



53 percent of state CIOs are in informal discussions about implementing IoT, according to NASCIO.

Takeaways:

- ▶ **Strategize.** Clearly state a problem to address with IoT and the steps, devices and expertise you need to carry the project through.
- ▶ **Define how sensors will communicate with legacy and other devices and what data format you'll use.**
- ▶ **Implement security, governance and policy across each layer.**

5 Data Analytics

What it Means:

Data analytics holds the seventh spot on NASCIO's top 10 list of priorities for CIOs in 2017. Techopedia defines "data analytics" as "qualitative and quantitative techniques and processes used to enhance productivity and business gain." In plain language, it means studying datasets to gain insight and actionable knowledge about the information.



52 percent of respondents to NASCIO's 2016 State CIO Survey said their state has deployed some data analytics capabilities.

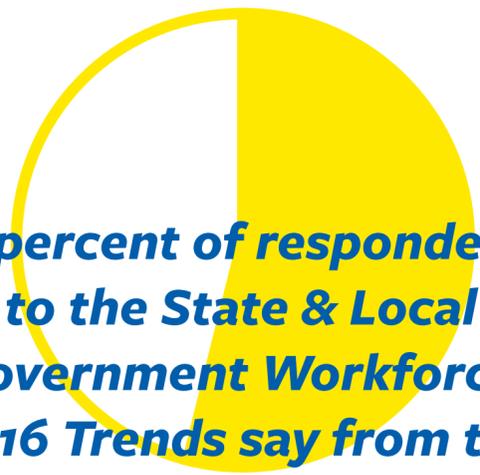
Takeaways:

- ▶ Use the open source [Analytics.usa.gov](https://analytics.usa.gov) dashboard as a jumping-off point for data analytics projects.
- ▶ Partner with a university that has analytics expertise and tools.
- ▶ Build an analytics approach with three elements at its foundation: process, people and technology.

IT Workforce

What it Means:

As nearly half of public servants approach retirement age, governments are scrambling to find new talent. Yet as agencies compete for new hires, they often find that recruitment time, pay and benefits fall short of private-sector equivalents. What's more, today's IT workforce has expectations for mobility and innovation, changing the landscape of how IT shops look and function.



54 percent of respondents to the State & Local Government Workforce: 2016 Trends say from the Center for State and Local Government Excellence report that retirements were higher in 2015 than in 2014.

Takeaways:

- ▶ Consider taking advantage of more contractors and temporary workers to offset full-time employees.
- ▶ Revamp the pay scale and benefits packages to better align with those of the private sector, or entice workers with flexible work hours, telework opportunities and training opportunities.
- ▶ Make the office an inviting place to be by knocking down cubicle walls and making a more open floor plan – something many employees prefer and seek out in a work environment.

7 IT Management Structure

What it Means:

Without the right IT management structure, accountability and communication suffer. An effective, efficient management process emphasizes the importance of thorough planning, competent risk management, strict accountability for meeting business and program goals, and cost-effective lifecycle management. When you improve IT management, you improve delivery of services to the public, employees and other governments.



IT and technology management ranked third in Route Fifty's study of the 2016 Top Management Challenges for State and Local Government.

Takeaways:

- ▶ Ensure that the IT you're using aligns with business and mission goals – and be willing to change it if it doesn't.
- ▶ Create a governance framework that offers transparency into what IT is being used.
- ▶ Be willing to work with third parties to get the resources you need.

8 Broadband & Connectivity

What it Means:

The need for speed is alive and well in the digital age, but so is the need for reliable network connectivity. To this end, many municipalities are looking to broadband, which promises speeds that are 50 to 100 times faster than is typical. For governments, faster internet connections mean a greater ability to deliver services, and some are starting to look at that as another utility municipalities should provide, much like electricity, gas and water.

450+

Communities in the United States offer a form of publicly owned internet service, according to The Nation.

Takeaways:

- ▶ **Want broadband in your city? Get support from the community and market it as an essential utility.**
- ▶ **Seek unconventional funding, such as revenue bonds, partnerships with local utility services and grants.**
- ▶ **Write a formal resolution in support of broadband. Here are a few examples.**

Consolidation of IT Services



What it Means:

Taking cues from the Federal Data Center Consolidation Initiative, state and local governments are looking for ways to merge governmentwide IT functions into a single cloud platform. This allows agencies to improve service processes, increase data reliability and make better use of data to deliver services, manage projects and improve financial and budget-making decisions.



Consolidation and shared services initiatives can reduce IT spending by 20 percent, according to McKinsey.

Takeaways:

- ▶ Create a roadmap and pilot test each step, understanding that consolidation will be a yearslong journey.
- ▶ Get support from employees and have stakeholders lead initiatives to push adoption.
- ▶ Centralize procurement.

Conclusion



Modern state and local governments are as varied as the states and municipalities they serve. Each one implements the technology that best serves its needs and budget. At the same time, they face many of the same challenges across the board, including finding more resources, updating and upgrading IT, and finding ways to innovate despite governmental red tape.

But examples of modern IT abound and inspire. They prove that the problems are not insurmountable. By applying inventive strategies and hiring employees from unconventional backgrounds, IT professionals can prevail over budget and skillset obstacles to produce a more modern workplace. And when that happens, employees and the citizens they serve stand to benefit.

Thanks to Workday for their support of this valuable resource for public-sector professionals.

