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Breaking Out

Chief information officers have a long-awaited opportunity to move beyond traditional responsibilities and drive public-sector strategy. But it requires some new skills.

By Tod Newcombe

Splitting the Burden

State and local governments have found a variety of ways to reduce costs for IT infrastructure and support by crafting low-cost sharing agreements.

By Andrew Westrope

The 2019 Cohort

Get to know some of the new technology leaders in state and local government.

By Adam Stone

Washington state CIO Jim Weaver is starting his tenure by focusing on IT governance and architecture.
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Changing Faces, Facing Changes

Our focus this month is on the ever-evolving role of the chief information officer. It’s an important topic given that CIOs are a critical part of our audience, and it gets a lot of attention at our conferences and on our editorial platforms. The evidence is clear: The job of the CIO has fundamentally changed. Pure technology skills are still — and will likely always be — important, but not as important as they used to be.

Technology leaders in government used to be focused on managing their onsite infrastructure, looking for efficiencies and building and configuring their data centers. But most CIOs are pivoting toward a much more public role. Smartphones in the hands of every resident paired with always-on connectivity have dramatically raised expectations from policymakers and the general public of what technology can do. CIOs need to be able to explain technology to people who don’t have their nuanced knowledge base. And they must know how to do so in a way that fosters understanding and support.

A recent Center for Digital Government survey, cited in our cover story, Breaking 60/40 (p. 18), validated this change in direction. Seventy-nine percent of public-sector tech leaders say their job has taken a turn toward the strategic in recent years, while 76 percent say that skills as a communicator are growing in importance. Also interesting is that more than half of respondents cite being a good negotiator and a good motivator as also important — likely not results that would have shown up a few years ago.

And as far as the people occupying the CIO position, there’s been a similar shift. To gauge the degree of that shift, we’ve done some research on state chief information officers across the country, past and present. On p. 14, you’ll find the data generated by GT’s emerging data practice which chronicles the occupants of state CIO offices over the past 25 years. We looked at things like where state CIOs most commonly work before their appointments, where they go afterward, and how often CIOs rotate out after new governors take office.

One particularly interesting element of the data relates to gender diversity. Colorado and Arkansas have had several female chief information officers — Colorado’s last three CIOs have been women — but they stand out in this respect. Overall, during the period we tracked, just 17 percent of state CIOs have been women. It’s an interesting statistic, and one that mirrors the findings of research conducted by organizations like McKinsey and the National Center for Women and Information Technology.

At last month’s National Association of State Chief Information Officers (NASCIO) Midyear conference, Policy Analyst Laura Tate of New America discussed the organization’s recent report New Ways to Bring Women Into and Up Through Cybersecurity Careers, which offers some practical steps to help increase the number of women in cyber, specifically — a field notorious for its staffing gaps.

“Women make up less than one-quarter of the cybersecurity workforce, which can lead to less innovation, inferior design, seriously underutilized human potential and needlessly unfilled jobs in a growing field,” the report reads. “In short, this lack of gender diversity means poorer security.”

“You need to be able to see people who look like you and understand there is a possibility to advance in that position and own it,” said Maria Thompson, chief risk officer for North Carolina, at the panel.

As the role of the chief information officer evolves at all levels of government, it makes sense to work toward workforce equity in order to tap the ideas and brainpower available across the country’s vast, multi-dimensional talent pool.

For more data-packed pieces (like local government procurement thresholds, the market trajectory of police body cameras and changes over time to state IT structures), visit govtech.com/data.

*The Center for Digital Government is part of e.Republic, Government Technology’s parent company. 
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Autonomous Motor City

Waymo, formerly the self-driving car project launched by Google, announced it will locate its mass production of level 4 — “high automation” — vehicles in Detroit. The company will partner with American Axle and Manufacturing to rehab an existing facility for assembling the new high-tech cars. Many cars today come with level 2 automation, which includes driver-assist technologies, such as backup cameras or blind-spot warning systems.

GETTING THE WORD OUT

A major barrier exists for government to ensure that all citizens who qualify for social services benefits receive them: knowing they qualify and how to apply. To fix this problem, the New York City Mayor’s Office for Economic Opportunity has created the NYC Benefits Screening API, which pulls data about residents to determine which of 30-plus services they may qualify for. Developers are now making the API open to the public.

Biz Beat

The startup UrbanLeap and the local government network ELGL are joining together to create a one-year program where 25 cities, counties and towns will work together to find common problems, test solutions and then share what they’ve learned. But don’t expect to see the typical big cities involved in it — the Small Places, Big Ideas Innovation Cohort is specifically looking for small and rural governments with populations lower than 30,000.

WHO SAYS?

“If the public can look over your shoulder easily, it kind of lights a fire under you. You know if you make a mistake, it will be caught at some point. The public goes over this stuff with a fine-tooth comb.”

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The number of cannabis convictions to be cleared in a partnership between Code for America and California’s Los Angeles and San Joaquin counties.

The amount California Sen. and 2020 presidential candidate Kamala Harris proposed in annual funding for the U.S. Digital Service, quadruple the current amount. The bill would also create $15 million in seed grants for state and local governments to develop digital services teams like the one that was established within the federal government in 2014.

The number of companies in the 2019 Startup in Residence cohort, working on 43 challenges with 22 cities or government agencies.

The amount public transit ridership fell in 2018 compared to 2017 levels, according to the American Public Transportation Association.

The number of companies in the 2019 Startup in Residence cohort, working on 43 challenges with 22 cities or government agencies.
Taking Control of Employee-Initiated Expenses

The latest cloud-based applications offer greater visibility and management of this potential budget-buster.

Research shows that employee-initiated expenses — hotel bills, meals, airfare, mileage, etc. — represent the second-largest employee expenditure for state and local governments after payroll. Unfortunately, these costs also may be one of the least-managed areas of public sector budgets. One critical challenge is that many agencies struggle with legacy systems dependent on paper expense reporting and other outdated practices that make it difficult to track and account for this costly area.

In this Q&A with Government Technology, David Ballard, senior vice president for public sector at SAP Concur, discusses how automated expense reporting systems with modern mobile apps and cloud services help state and local officials better understand, optimize, and reduce employee-initiated expenses.

Q: What are some of the problems that result from poor expense management? A big one is non-compliance with internal purchasing policies, including the use of unapproved vendors. Employees may book rooms at favorite hotels without realizing their organization has negotiated better rates with approved vendors. Mileage allowances are another huge area. Whether intentionally or because they don’t understand government policies, employees often overreport miles on their expense reports.

Q: How can a modern expense reporting application address these issues? SAP Concur has many tools to gain greater visibility into expenses to control them more effectively. For example, the platform can automatically enforce expense guidelines so employees use approved vendors unless a manager allows an exception because of a special circumstance. We also offer a mobile app that integrates with Google Maps to automatically track how many allowable miles people drive and then send the data to an employee’s expense report. Similarly, we’ve established relationships with many airlines and hoteliers to create eReceipts. When employees travel, these partners generate the receipts and send them directly into the traveler’s expense records. Employees don’t need to fill out these expenses in their reports as they are already itemized in the system.

Q: What other capabilities should organizations look for when evaluating expense management applications? Cloud-based SaaS applications are key. They have minimal management overhead compared to on-premises solutions, which means IT personnel can spend time on tasks that align to their agency’s mission-critical goals.

Government officials should also look for applications that are easy to configure to meet the unique needs of their organizations. They should make sure the system offers flexibility to support existing policies and methodologies. Just as important, they should be able to change those policies over time as they optimize their expense practices.

Q: What business benefits can government officials expect to see? Reducing costs is one potential benefit. When organizations have complete and accurate data, they can analyze spending volumes and perhaps negotiate better rates with hotels and other suppliers. In addition, we’ve seen organizations significantly reduce annual mileage reimbursements. Agencies also can speed reimbursements to employees, sometimes shortening the time from a couple weeks down to same-day payments.

ENDNOTE


SAP Concur is the world’s leading provider of integrated travel, expense, and invoice management solutions, driven by a relentless pursuit to simplify and automate these everyday processes. With SAP Concur, a top-rated app guides employees through every trip, charges are effortlessly populated into expense reports, and invoice approvals are automated. By integrating near-real-time data and using AI to audit 100% of transactions, organizations are now exactly what they are spending without worrying about blind spots in the budget. SAP Concur eliminates yesterday’s tedious tasks, makes today’s work easier, and helps organizations run at their best every day.

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David Ballard, Senior Vice President for Public Sector, SAP Concur
Many businesses are going completely digital with their point-of-sale systems, telling customers they want their money, as long as they do not pay in cash. Unfortunately, some state and local lawmakers have stepped in to halt this move toward a cashless society.

In March, Philadelphia Mayor Jim Kenney signed a law that makes it illegal to run a cashless store. The law prohibits consumer-facing businesses from refusing to accept cash or charging a higher price to customers who pay cash. While it has a few exclusions, such as for mail-order or online businesses, the vast majority of retail businesses in the city must comply.

Others have quickly followed suit. Legislators introduced similar bills in Chicago, New York City, San Francisco and Washington, D.C. And later that month, Gov. Phil Murphy signed a statewide ban prohibiting retailers from not accepting cash to purchase goods or services. These moves have thrown up a major roadblock to a growing trend among stores and restaurants to abandon cash in favor of credit cards and mobile payments. Businesses have many reasons to go digital. First, it’s faster. During a busy lunch hour, the bottleneck at restaurants is often the cashiers, where one person searching for change can bring a line to a halt. Sweetgreen, a fast-casual locavore salad restaurant chain, found that switching to a cashless model allowed its team to process 5 to 15 percent more transactions per hour. Second, switching to cards and mobile payments is safer. Having cash on hand makes stores a target for robberies, and businesses must find secure ways to store cash on the premises and while transporting it to the bank.

Many consumers prefer alternatives to cash. In an annual consumer survey of payment preferences, 80 percent preferred credit or debit cards, compared to 14 percent for cash. And a 2018 survey from the Pew Research Center found that 29 percent of Americans report making no purchases using cash during a typical week. Indeed, the United States lags significantly behind many other countries in the adoption of non-cash payments.

The major objection to cashless stores, and the motivation for many of the recent bans, is the concern that some consumers will be unable to pay. But if the goal is fairness, the solution should be “progress for everyone” not “no progress for anyone.” It’s a classic chicken-or-egg problem. The more stores adopt cashless payments, the more consumer demand there will be for different types of card and mobile payment options, including for low-income consumers. But there are steps that policymakers can take to increase access to non-cash payment options. First, policymakers can make it easier for consumers of all types — including those who are low-income, homeless, elderly, formerly incarcerated or undocumented immigrants — to open bank accounts. For example, New York City created IDNYC, a free municipal ID card, and partnered with local banks and credit unions that will accept the card for new accounts.

Second, state governments can allow electronic benefit transfer (EBT) card users to add their own cash to their cards. Many government agencies provide residents with EBT cards for both food and cash benefits. However, many EBT cards do not allow consumers to load their own cash on them, either in-person or at kiosks at banks, convenience stores, or government offices. States should work with their card providers to make this a requirement.

Finally, policymakers should continue to make it a priority to support programs aimed at closing the digital divide. Increasing access to mobile phones, including mobile payment technology, can help increase economic opportunities for low-income individuals. Non-cash payments are the future, and while policymakers should address issues of equity, they should not hold back progress.
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Known as the Horse Capital of the World® and ranked the eighth-best big city to live in by Money magazine in 2018, the city-county of Lexington, Ky., is a vibrant municipality with a rich history, a dynamic economy and a solid vision for the future. With 3,400 employees and a budget of $650 million, the municipality’s leaders recognize the importance of modernizing their human capital management (HCM) and financial supply chain management (FSCM) solutions to more aptly support ongoing business operations today and in the years ahead. To that end, Lexington became the first municipal government in the U.S. to take its entire on-premises PeopleSoft solution, upgrade it and move it to the Oracle Cloud.

MIRED IN LEGACY
Lexington had implemented Oracle PeopleSoft’s on-premises enterprise performance management (EPM), FSCM and HCM systems more than a decade earlier, but it had never fully adopted the systems’ features. As a result, a number of business processes were not fully automated and treasury, employee performance evaluations and other functions were still primarily manual, which can create inefficiencies and data silos within organizations.

“We knew we were missing out, and we realized we needed additional functionality,” says Aldona Valicenti, CIO and Commissioner, Lexington Fayette Urban County Government (LFUCG).

However, moving to the latest release of PeopleSoft presented the complex challenge of upgrading not only software but also ensuring LFUCG had an infrastructure that could support the software’s advanced functionality.

“We recognized that we would have to make major upgrades to our data center. We knew we would need highly skilled personnel and have to make continuous investments if we didn’t move the solution to a new environment,” explains Valicenti.

That’s when the municipality decided the best option would be to have these applications managed in a cloud environment.

THE CLOUD AS A PREFERRED STRATEGY: PREDICTABLE BUDGETING AND A BUILT-IN SKILLSET
The Oracle Cloud was the logical choice since LFUCG was going to be running an Oracle product, however LFUCG had been considering a cloud strategy for many applications, not just PeopleSoft.

“One of the most unpredictable things in any city budget is the ability to get the same type of investment year after year for technology. I wanted a predictable way of providing IT services to the city over time,” says Valicenti.

After ample research and due diligence, the LFUCG team decided that cloud-based infrastructure and software services would be the preferred strategy whenever it came time to upgrade or replace existing technology. The Oracle Cloud provides a secure, scalable, future-proof infrastructure for vital services — all with predictable costs. In fact, LFUCG moved its EPM solution to the cloud using Oracle’s Planning and Budgeting Cloud Services in 2016.

Another important driver for a cloud-first strategy was employee staffing. In the next five years, many of LFUCG’s IT team will be eligible for retirement. Recruiting new staff will be extremely difficult given that IT unemployment in the area is less than one percent and
the city cannot compete with private sector wages. Operating on the Oracle Cloud, as well as working with a managed services team, alleviates the burden of managing and maintaining infrastructure in-house and frees up employee time for higher-value tasks. “We have to think in terms of not just the next year or two years; but instead, how can we continue to run this system and sustain our investment for at least an additional five or more years. That’s what made us move in this direction,” says Valicenti.

To help manage migration to the cloud and the overall cloud services strategy, LFUCG turned to its longtime partner, Metaformers. The company led the PeopleSoft implementation for the city in 2008, so Metaformers’ familiarity with the city’s systems and processes made it the natural choice for the cloud migration and implementation.

“We didn’t have to spend a lot of time educating them, so we got a quicker start,” says Valicenti. “Above all, upgrading and moving to the cloud were two huge, separate projects. Metaformers was with us the whole time.”

**BETTER SERVICES AND A STREAMLINED DATA CENTER**

With Metaformers’ support and input from the city’s department heads and commissioners, LFUCG upgraded the PeopleSoft HCM and financial suites, as well as implemented treasury, grants, project costing, performance management and persons functionality. Oracle Cloud provides the organization increased agility to add new functionality and applications, since compute, storage, networking and other capabilities can be scaled to meet changing needs.

The system was operational on day one and in just six weeks, three payrolls had been processed; employees were using the system for W-2s and employee performance reviews were being deployed.

“Our users had high expectations that this would work as if it were under our own roof. We were able to do a payroll within days, so that in itself speaks well for the upgrade to the system and moving it into a totally different environment,” says Valicenti.

Besides streamlining financial and HCM processes and improving delivery to employees, the solution will allow data center staff to initially retire at least 100 servers — and to the IT staff’s great relief — reduce their management and maintenance load.

Employee acceptance and enthusiasm is a success metric all its own when migrating systems.

“We had a very good project management structure, with tremendous participation from our customer base, and a dedicated and engaged executive steering committee,” explains Valicenti.

LFUCG’s users were excited about the new functionality and improved ease of use, which eased the inevitable transition growing pains and rewarded Valicenti’s team for its careful planning and execution.

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**BEST PRACTICES FOR GETTING STARTED**

Valicenti recommends jurisdictions consider the following suggestions before beginning any migration to the cloud:

- **Plan and educate.** Operating in a cloud environment is much different than operating on premises. Valicenti’s team spent nearly six months experimenting and educating themselves and staff in the data center about migrating to and operating in the cloud.

- **Understand your processes and security requirements.** It’s important to know where data exists across the system — both internally and in the cloud. Document how users navigate the system today and what insights they need. Then decide how to manage and control that environment when it’s no longer on premises.

- **Evaluate the financials.** Determine whether the solution is more or less costly and be able to justify your investment from a financial perspective.

- **Upgrade and acquire applications with the cloud in mind.** Whenever possible, choose applications that can run in the cloud, and avoid customizing them. State-of-the-art applications have built-in best practices; it’s often better to change internal processes instead of customizing apps to conform to old ways of doing things.

- **Recognize and account for complexity.** Upgrading is one project, moving to the cloud is a totally separate project. Adequate sufficient time and resources — and work with third-party consultants with expertise in each area — to do both successfully.

**MEETING EXPECTATIONS FOR MODERNIZATION**

As the city-county of Lexington continues to grow and evolve to attract and serve citizens, businesses and employees, it will need innovative solutions to support day-to-day operations. “As our population and employees become accustomed to these types of services, they want to use the computing and cloud environments almost the same way as walking into the room and turning on the lights,” says Valicenti. From a technology management perspective, Oracle PeopleSoft and the Oracle Cloud give the municipality a sustainable strategy for doing so.

This piece was developed and written by the Government Technology Content Studio, with information and input from Oracle and Metaformers.
No, not governors — we’re talking about state chief information officers, who have vast influence over gov tech in the U.S. They also find themselves in the somewhat unique position of being treated like political appointees, despite their work being (mostly) non-political in nature.

To learn more about who these people are, the work they do and their backgrounds, GT put together a list of as many state CIOs as we could find information for: what amounted to 206 CIO terms in all 50 states going all the way back to 1994 (with more complete records for some states than others).

Shortest serving CIO:
Jim Mann
In 2011, it took incoming Kansas Gov. Sam Brownback more than 10 months to name a CIO, and his choice — Jim Mann — stayed in the role only nine days. Shortly after news of Mann’s appointment became public, the Topeka Capital-Journal revealed that Mann’s resume included a degree from an institution known as a “diploma mill.” Brownback publicly defended his CIO, but nonetheless Mann submitted his resignation.

Survival Rates

Common wisdom has held that a new governor typically means a new CIO. But exactly how much of a sure thing is it? In other words, how often does a CIO “survive” a transition to a new governor?

Survival rate when a new governor has been elected
34%

When the governor’s seat changes parties
30%

When the governor’s seat doesn’t change parties
39%
Where Do They Come From?

Previous job before becoming state CIO:

- Private: 28%
- Public: 59%
- Education: 9%
- Nonprofit: 1%
- Military: 3%
- Retired: 0%

Where Do They Go?

Next job after serving as state CIO:

- Private: 52%
- Public: 23%
- Education: 14%
- Nonprofit: 3%
- Military: 1%
- Retired: 8%

Most Common Names

- James/Jim: 14
- David/Dave: 10
- John/Jack: 8
- William/Bill: 8
- Michael/Mike: 7
- Richard/Rich: 7

Methodology Notes: Data was collected from LinkedIn profiles, coverage from Government Technology and other publications, state government websites, and a couple very helpful public officials. Only permanent CIOs and interim/acting CIOs who served for at least a year were included. Data is current as of April 9, 2019.

Moriah Sollie assisted in compiling information.

Fewer and Fewer Women

Female state CIOs as a percent of all available information:

- 2006: 20%
- 2007: 20%
- 2008: 21%
- 2009: 21%
- 2010: 18%
- 2011: 18%
- 2012: 16%
- 2013: 16%
- 2014: 8%
- 2015: 12%
- 2016: 10%
- 2017: 8%
- 2018: 9%
- 2019: 9%

States with the Most Female CIOs:

Arkansas:
- Carolyn Osborne 8/02-6/04
- Claire Bailey 12/04-10/04
- Yessica Jones 3/07-present

Colorado:
- Kristin Russell 2/11-4/14
- Suma Nallapati 8/14-1/19
- Theresa Szcurek 1/19-present

Overall percentage of state CIOs who have been women:

17%
Craig Hopkins assumed the role of the chief information officer in the country’s seventh largest city in summer 2017, following nearly 20 years with military-focused insurance giant USAA. He wasn’t looking to get into government per se, but seized an opportunity to become San Antonio’s first CIO (the position was being converted from a CTO), won over by the culture and commitment of city leaders and rank-and-file employees alike. “I was incredibly excited about how I could bring my customer experience knowledge and all the things I learned on the private side to city government,” he said.

1. What are you working on since becoming CIO? I was asked to reset the relationship between IT and the 42 departments — to get us to be consultants and partners, to help departments solve their business problems, that was probably the No. 1 thing. And the No. 2 thing was to shape the culture in IT to be focused on innovation and teamwork, and then to let that culture overlap out into the departments.

2. How is your smart city program taking shape? We reached out to seven agencies across the city and asked them to come to the table under a Smart San Antonio umbrella to solve our smart city program together. We’ve built collaboration, governance and data-sharing across those agencies through a common vision for smart cities in San Antonio. We all have assets — fiber, towers, right-of-way, data — and we should share those assets with each other for the greater good. We’re good at sharing physical assets — we already had some agreements in place — but we didn’t have anything that allowed us to do point-to-point data sharing between agencies. Every time we wanted to do a project like that, it required a standalone contract. You had to build the terms and conditions from the top, and it could take anywhere from four weeks to six months to sometimes a year depending on the complexity of the project. So the first thing we wanted to solve for was one common data-sharing agreement and then each individual project will be a one-page addendum. Now we don’t have to negotiate that every time.

3. You said the city focuses on citizen engagement and designing services from the outside in. Where have you used human-centered design? We’re rolling out 30 kiosks across the city. They’re standard in the sense that they have a lot of content on each one, but they’re tailored to each individual location. So we went out and pretended the clipboard was a kiosk and asked people what type of information would be pertinent to them about where we’re standing at this very moment. And then we were able to collect different pieces of information and find out the No. 1 content request: If you’re downtown, that might be a place to eat, but when you’re at a park, you want to know when yoga classes are. By using that technique before you ever build a kiosk and start coding for content, you get a sense of what that specialized content should be for that location.

4. San Antonio has an active innovation team. How do you work with the chief innovation officer? I believe that the innovation team should be separate from the technology team, but they should absolutely be joined at the hip. The agreement that was made was the two CIOs would work together, but we needed to staff that shop so half was process engineering and half was focused on real innovation: research and development and smart cities. Now there are four people focused on each side. I still am responsible for anything technology — the definitions, governance and implementation — but we do that hand in hand with the innovation team.
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www.govtech.com/library
Chief information officers have a long-awaited opportunity to move beyond traditional responsibilities and drive public-sector strategy. But it requires some new skills.

By Tod Newcombe

In 2011, when Mark Raymond was first appointed chief information officer of Connecticut, the No. 1 tech priority in state government was hardware virtualization, according to the National Association of State Chief Information Officers (NASCIO). Raymond, who was recently re-appointed by incoming Gov. Ned Lamont, found that much of his time was spent doing just that—virtualizing the state’s technology, moving a data center, anything to improve the technical efficiency of the operations, he recalled.

Today, his work with the state is much different. “I now spend the majority of my time talking about the value of the services we provide or the investments we are making,” he said. “It’s more about helping citizens and businesses and less about the technical aspects of the operation.”

The changing role of Raymond’s job reflects what has happened on a broader scale in government IT. The era of virtualization, data center construction and overall operational efficiency is waning. The mass consumerization of technology has shifted IT’s role from its primary back-office function, serving government workers, to one in which it is expected to enable a broad range of new services that can be downloaded onto smartphones and provide citizens with personalized experiences.

To help make this happen, CIOs need to have a broader, more enterprise view of what their government does, and it’s beginning to happen, according to Teri Takai, former state CIO of Michigan and California, and now the director of the Center for Digital Government (CDG). “Whether they are exerting influence or have actual statutory authority, or just through their ability to build relationships, CIOs are making progress in terms of driving IT from an enterprise perspective,” she said.

Along with viewing the work of IT across an entire government, CIOs have also seen their role become more strategic. In a recent survey of state and local CIOs conducted by CDG, 71 percent of respondents somewhat or strongly agreed that their role has become more strategic in the past three years. Only 37 percent felt that being a technologist was the most important leadership trait of today’s public CIO.

A New Set of Skills

Stretch your memory back a dozen years or so, and you will remember a very different IT landscape. In 2006, Amazon launched AWS, its cloud computing service. A year later Apple introduced the iPhone. It’s hard to underestimate the impact of these two technological innovations, which have shifted both the private and public sectors away from building or buying software systems and running them in their data centers to something far more diffuse, according to Graeme Finley, a principal at Grant Thornton Public Sector.

“There’s been a migration underway to a multi-vendor, multi-source environment,” he said. “This means the skills and requirements of a CIO have to change as well. As much as anything, the role is about customer relationship management, or contract management, where you are dealing with various providers as well as customers.”

At the state level, this shift in emphasis for IT has put a premium on CIO skills that come from a business background rather than traditional public-sector work experience. “We are seeing more CIOs come in from the private sector, or have some private-sector experience,” said Takai.

What states and some local governments are looking for are CIOs who are less technologists and more adept at communicating and relationship building. Phil Witmer, former chief information technology officer of Kansas, and a CIO with 30 years of experience in the private sector, found he had to invest heavily in communications during his tenure. “I went so far as to hire a communications director and a legislative liaison,” he said. “It was necessary because of the diversity of audiences you have to communicate with in your role as CIO.”

For Raymond, the skill CIOs need today goes beyond being a good communicator. “Now, it’s a little bit like an evangelist,” he said. “You need to be the person who is creating, or translating the vision of how technology can help into the context of the agency heads. Each one has their own vernacular, which you have to learn and understand.”

Raymond made a point that is often overlooked, but bears emphasizing as CIOs...
It’s more than good communication and relationship skills, it’s having executive presence and expressing yourself as an equal, in order to take that next step.

do and why they are so important to the government enterprise. “There’s no one in government who by default has this broad view of the citizen and how they are touched by all the services that government provides,” he said. “So, the CIO really needs to share and communicate the vision of what the future of government looks like and how technology plays a role, not to replace anyone, but to enhance what they do.”

Another skill today’s CIOs require is something Takai calls executive presence. “This is the ability to feel confident to approach the governor’s office, to approach cabinet members and to do that on an equal basis, in which the CIO makes recommendations for cross-agency initiatives.” CIOs need to figure out how to have a seat at the table, even if they aren’t part of the cabinet, she added. “It’s more than good communication and relationship skills, it’s having executive presence and expressing yourself as an equal, in order to take that next step.”

With Security Comes Strategy

If there’s one IT trend that embodies the changes CIOs are undergoing and is indicative of who they are today, it’s cybersecurity. In 2011, NASCIO ranked cybersecurity seventh as a strategic and technological priority. Today, it is the No. 1 priority at the state level and, based on other surveys and reports, it’s a top priority for local CIOs as well.

Cybersecurity has forced CIOs to change how they handle infrastructure and has raised the importance of pursuing solutions at the enterprise level. “Cybersecurity has led to a recognition that having scattered technologies and not looking at them coherently and cohesively is a showstopper,” said Takai.

Luis Taveras, CIO of Buffalo, NY, called cybersecurity his biggest challenge when he became the city’s IT head last year. “Today, I feel much more comfortable where we are with our cybersecurity platform, but the challenge I faced was with the legacy applications, some of which hadn’t been upgraded in decades,” he said.

Raymond also spoke of cybersecurity as pivotal to how his state began to view technology. “Cybersecurity is like recycling. You can’t do it unless everyone is involved,” he said. “Cyberthreats aren’t a tech issue for technologists to solve. It’s a business risk that requires behavioral changes to reduce future risk.”

With cybersecurity as one of the key catalysts, the role of government CIO is becoming more strategic, helping governments prioritize the best way to govern and deliver services in today’s digital age. Mike Pegues became CIO of Aurora, Ill., after holding an executive IT position at Morgan Stanley. Pegues was appointed by the city’s mayor after a long discussion on how the city, the second largest in Illinois, could leverage its assets to trigger more economic growth. “Aurora has good assets, including a fiber-optic network and its own high-value data,” he said. “These were the foundations for a smart city, but the city’s technology had to be reorganized and made more enterprise.” Making that happen required the city to rethink how it used technology. The best way to do that, according to Pegues, was to think like a business, a skill he had from working in the private sector.

Since his appointment in 2017, Pegues consolidated spending on IT, getting rid of little-used applications, and has saved the city $2.3 million. He has also emphasized the need for public-private partnerships, “because the city isn’t going to be the innovator;” he said. “That’s a fact of life. We have to partner with the right people and organizations to get ahead today.”

Aurora’s bet on technology to help the city generate economic growth reflects a national trend. IT budgets are growing, with more than 70 percent of respondents to CDG’s CIO survey saying their IT budget has increased over the past three years. However, it may not be enough to trigger the kind of digital transformation envisioned by public leaders. Despite budget growth, 63 percent of public CIOs said their IT budget isn’t meeting their department’s needs, according to CDG’s survey.

Wisconsin CIO David Cagigal points to high customer expectations as a new challenge for today’s government IT leaders.
The chief information officer is the heart and soul of IT in government. But what exactly are the key issues they have to grapple with and what technologies do they feel will have an impact on operations and services? To get answers to these and other questions, the Center for Digital Government surveyed state and local tech executives in April 2019.

When it comes to defining their role, CIOs have seen a big shift in what they are doing and are having to use skills that may have been less important just a few years ago. Compared to three years ago, 71 percent say their role has become more strategic. Respondents ranked the most important leadership traits of today’s public CIO:

- Strategist: 79%
- Communicator: 76%
- Negotiator: 51%
- Motivator: 50%
- Technologist: 37%
- Broker: 6%

Threat of cyberattack/data breach: 63%
Recruiting and retaining talent: 49%
Maintaining legacy systems: 33%
Data sharing and privacy issues: 31%
Aligning IT with government policies and practices: 29%
Resistance to change by staff: 29%
Resistance to change by policymakers: 20%
Other: 16%
Shadow IT in agencies and departments: 14%

In the past three years, state and local CIOs have seen their IT budget increase as well — 71 percent say it has gone up while 29 percent say there’s been no increase. Despite that growth, only 37 percent of CIOs say the growth in budgets has been enough to meet their department needs. More troubling is how elected and appointed leaders view the impact of IT on government. According to 60 percent of CIOs, their leaders still see IT as a cost center, while only 21 percent feel their bosses view IT as a value generator.

When it comes to challenges, the CIOs cite facing issues that dominate the IT sector overall, as well as ones that might be considered unique to government:

- Threat of cyberattack/data breach: 57%
- Recruiting and retaining talent: 51%
- Poor project management: 40%
- Resistance to change: 39%
- Challenges in re-engineering business processes: 38%
- Maintenance of legacy systems: 34%
- Data sharing and privacy issues: 32%
- Aligning IT with government policies and practices: 31%
- Resistance to change by staff: 29%
- Resistance to change by policymakers: 28%
- Other: 16%
- Shadow IT in agencies and departments: 14%

Often considered a problem area for IT acquisitions, procurement practices are not as much of a trouble area for CIOs as one might expect, according to the survey. Nearly three-quarters of CIOs (71 percent) said they are satisfied with their organization’s current procurement practices. Somewhat linked to this issue is the use of agile software development, which can be a success or not, depending on how the procurement office embraces it for software acquisition. A majority of CIOs (65 percent) say agile is very or somewhat important to their IT efforts. Only 24 percent did not see agile as significant to application development.

Despite the upswing in the use of agile to help improve the success of IT projects, CIOs continue to struggle with a litany of problems that can slow down, derail or shut down an IT project completely. Respondents cited their top three reasons a project fails as:
Another concern is the inability of appointed and elected officials to see IT expenditures as an investment. Just 21 percent of CIOs said their policymakers view IT as a value generator, according to CDG.

Meet Government’s New Broker

Until 2007, the way consumers interacted with technology was pretty much the same way it was done since the 1990s. They sat in front of a PC, purchased software programs they needed or they surfed the Web. But the introduction of the iPhone changed forever how people use technology and what they expect to happen when they use it. “Consumer technologies have pushed expectations,” said David Cagigal, CIO of Wisconsin. “It’s on our phones and it appears that it didn’t take much to create apps, which seem to appear and pop up almost instantly,” he said. “The speed with which these solutions are being delivered has conditioned the consumer to ask for a lot more and to expect a lot more, and in some cases they expect it to be free.”

It’s taken a little while to reach the public sector, but the disruptions brought on by high-powered mobile computing are now at the front door of government and are beginning to change things in a big way, but the change won’t be easy. “CIOs are struggling with the proposition that the consumer has expectations about how long it takes us to implement services using our infrastructure,” Cagigal pointed out. “That’s a big concept and change we have to deal with; it takes states so long to implement new services compared to the private sector.”

To reduce the amount of lead time for new services and to make government more flexible in how it adopts and implements software tools, CIOs have begun turning to a service broker business model. More than half of the states are downsizing their data centers, according to NASCIO’s 2018 state CIO survey. “The trends show that the dominant business model across state government is one of a CIO organization operating as a shared services broker that leverages as-a-service models to deliver on their service portfolio.”

The reason this is happening and why CIOs need to pay attention is because it makes sound business sense. Phil Wittmer, who has made it his business to focus on the economics of IT, says that whenever an organization takes on an IT project, it has to ask: What is the business value? “Are we advancing the ball financially or just trying to modernize?” he asked.

Takai echoes this principle. “Building your own applications is becoming more and more difficult,” she said. “State and local governments are also hampered by the challenges of attracting top IT talent to develop customized software programs and retaining skilled workers who can sustain those applications.”

Accelerating this trend is the fact that so many companies are building SaaS products that are exclusive to the state and local market, reducing the need for cities and states to build their own software. “And if new development is needed, it’s very much being done using a cloud provider to host it rather than in a data center,” said Takai.

In addition, CIOs will need to determine when they should build and when they should buy. “They will become the integrators of solutions — bringing together software solutions with customized applications to integrate the data and present the services to the citizens.”

The Constraints Battle

For local governments with tight IT budgets, the service broker model fits well, given the plethora of new “smart city” applications that are launched almost daily. “I’m not a big believer in building applications these days,” said Buffalo’s Taveras. “There are so many solutions out there that we can go and get, rather than build ourselves. Finding the talent to build and maintain applications is hard, so we don’t do that these days.”

But Taveras, like just about every CIO in state and local government, is constrained by the inability to dismantle and remove costly legacy applications and hardware. For states, the problem can be exacerbated when a mainframe is running three or four major agency systems and two of the agencies decide to modernize and take their application off the mainframe, sometimes leaving just one agency to try and finance the cost of running an expensive computer system that is decades old.

In some cases, government CIOs can find a way to bolt on a modern front end to a legacy application in order to meet the growing expectations of citizens who want easy-to-use, mobile solutions. But shifting to a service broker model calls for meshing a trend that is subscription-driven with a tradition in government of financing IT as a capital expenditure. Budget officers must be on the same page with CIOs if this is going to happen. The procurement system also has to understand this new, somewhat complex method of purchasing technology. It’s no longer about buying widgets, said Takai.

CIOs have also struggled to get IT governance right. Wittmer says governance needs to hit on four dimensions: organizational, policy, financial and contractual, but that’s not always the case in government. “When I was state CIO, I found my authority for those dimensions was all over the map,” he said.

CIOs have the further challenge of adjusting to what is considered success in their jobs. Previously, it was about projects done correctly and on time, and making sure outages were minimized. It was all about what was going on in the back room with the servers and networks. “Now, success is in bringing a vision that allows us to operate while fundamentally changing and function with a new set of constraints and citizen expectations,” said Raymond. “If we are not evolving quickly enough, then we may have to find someone else to do the job.”

The CIO really needs to share and communicate the vision of what the future of government looks like and how technology plays a role, not to replace anyone, but to enhance what they do.
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The combination of cloud, edge computing and data analytics will make state and local governments smarter, safer and more citizen-centric than ever before. These technologies are critical to unlock the power of the Internet of Things (IoT), which will enable agencies to collect and operationalize vast new quantities of information generated by just about everything around us.

Edge computing devices located near data sources — mounted in vehicles and on traffic signals, for example — will deliver real-time insights like detecting the location of a gun shot or spotting a wrong-way driver. These devices also will feed data to powerful cloud-based computing resources which will crunch massive data sets for deeper analysis of crime trends or traffic patterns.

Ultimately, this powerful combination of technologies will help government leaders improve citizen services, boost program performance and lower costs. The transition already is underway. The Kentucky Department of Transportation, for instance, uses data collected from sensors in roads and on snowplows, along with weather forecasts, to more precisely manage its anti-icing and snow-removal activities. Algorithms developed for the initiative analyze how fast cars are traveling, the number of vehicles on a road at a given time, temperature, wind speed, cloud cover and more.

In all, the technology examines more than 80,000 records of information every 60 seconds, enabling the department to make snow removal decisions in real time. As a result, anti-icing and plowing activities are more effective, saving the department 5 to 10 percent on snow and ice removal costs.

Cloud and edge computing increasingly will work together to power innovative IoT-driven use cases. Bob Woolley, former chief technical architect for the Utah Department of Technology Services who is now a Center for Digital Government senior fellow, says the combination of cloud, edge and analytics is poised for significant growth, especially as smarter and faster network technologies become available.

“Today about one-fifth of data is generated by edge devices connected to government networks,” Woolley says. “Some writers have suggested that with the implementation of 5G networks that number could be as high as four-fifths of all data by 2023.”

Growing State and Local Adoption

The Center for Digital Government’s 2018 Digital States and Digital Cities surveys reflect the use of edge computing is growing throughout state and local government. Here are the most popular state government uses for this technology.
experiencing with cloud, edge computing and analytics to prove their value in managing real-world issues and challenges. Last year, the city of Las Vegas launched a pilot project to deploy sensors across 30 city blocks to gather information about how vehicles, bikes and pedestrians move around downtown and then offer predictive insights into how transportation behavior is likely to occur in the future, given certain situations and variables.

Intelligent edge devices — in this case smart video cameras — will work in concert with central computing and analytics resources to help city leaders understand, for example, when and where wrong-way driving incidents are likely to occur.

The business challenge of that is, you don’t know how many people are going the wrong way, because there’s been really no way to effectively count that occurring. So what we’re doing is having a video camera that’s able to analyze traffic and tell us how many wrong-way drivers we’re having on a one-way street,” says City CIO Michael Sherwood.

The city will then compare these occurrences against weather data, time-of-day and other variables.

And so over time — and we’re getting to the point now where we can start predicting the times of day that we might have a wrong-way driver — that allows us to maybe make changes in the layout of the street, or provide enforcement,” Sherwood says.

Building the Foundation
But to implement these technologies and take full advantage of them, state and local IT leaders will need to master new skills and capabilities. On the technology side, states and localities will need infrastructure that enables them to easily move data from on-site computing resources to the cloud and share that information among multiple clouds. They'll also need tools that let them manage and secure this complex, distributed, hybrid, multi-cloud landscape. And they’ll need to make smart business decisions about where data should be aggregated and processed based on specific application and agency requirements.

Finally, as governments collect and analyze data at IoT scale, privacy will become a key issue. State and federal lawmakers are focused on giving citizens better protection and more control over their personal information. As states and localities harvest and examine more data in more locations faster than ever before, applying complex privacy rules to this massive new wave of information won’t be easy — and it will drive demand for sophisticated data and identity management tools and techniques.

Still, the move toward an IoT-connected world powered by cloud, edge computing and analytics is well underway. State and local leaders are developing and refining innovative use cases for these technologies that will strengthen government effectiveness and efficiency — and make our communities safer and better places to live.
Where do you see the biggest potential for state and local agencies to leverage cloud, edge computing and similar technologies to improve service delivery and performance? State and local governments already are gaining insights and improving services with IoT and edge computing. At the same time, these government agencies carry out much of the people’s business with outdated technology, siloed operating models and manual processes. This dichotomy will persist into the foreseeable future, but a cloud-based service management platform enables agencies to minimize reliance on archaic infrastructure and replace outdated operating models and processes with streamlined and automated digital workflows.

Agencies also gain a single pane of glass into the organization. With a service management platform, it’s about visibility: What do we own as an agency; how do we recognize the applications that we have; how do we grow and modernize them on a platform; and then how do we take those services to our constituents.

As use of cloud grows, why is it important for government agencies to evaluate how they manage multi-cloud environments? As CIOs become enterprise service brokers, agencies have a greater ability to look at things holistically — whether it’s cost, compliance, compute resources or something else. So as IT leaders explore different cloud solutions, they need to look at which providers make the most sense from a risk, cost, innovation and management standpoint. Then they can use that visibility to help guide their agencies to the best solution.

How can automation and predictive intelligence improve multi-cloud management and user satisfaction? We want the same consumer-like experiences at work that we experience in our personal lives. Automation and predictive intelligence help enable that type of experience in our work lives.

Government agencies can leverage these capabilities to deliver effortless experiences to their internal customers and constituents. Automation and predictive intelligence help optimize resource usage, including cloud resources. With these technologies, agencies can identify usage trends and then precisely predict where they’re going to run into power, capacity, memory or other resource constraints. In the same way, they can assess when and where resources are underutilized and flexibly reallocate them as needed.

In what ways can an enterprise service management platform enable an agency to operate faster and become more scalable? With the ServiceNow enterprise service management platform, streamlined and automated digital workflows speed service delivery. A single source of truth provides visibility into service health. Performance analytics delivers real-time insights and drives continual service improvement. These capabilities help agencies identify and prioritize which processes to modernize.

How can moving to an enterprise service management platform help agencies attract and retain employees? To be successful, agencies need “frictionless” processes that accelerate employee recruitment, simplify onboarding and streamline work. Imagine engaging with employees from the day they accept a job. Using a service management platform with case and knowledge management, new employees can learn about their team, apply for their security badge, select their devices and so on. Now they can start their new job engaged and productive.

With modern services aligned to agency priorities, employees are more productive and agencies deliver better results to their constituents. Satisfied constituents help mission-driven employees feel the work they are doing is valuable and appreciated. That’s going to get them excited, and as they share the news of their job satisfaction with peers, it’s also going to attract new workers.
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Agencies of the public sector, you’re here to serve the people. We’re here to serve you. We can help you modernize IT services with better efficiency and security, transforming the impact, speed and delivery of government services. You can increase productivity, achieve new insights and reimagine every process as a digital workflow, all while exceeding citizen expectations, all on one platform.

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In what ways can data visualization help agencies improve service delivery?

Data visualization helps organizations go beyond reporting — which is really just outputting the same old list of things. Instead, visualization lets agency personnel analyze data in a more agile way for faster insight into more complex questions. The real value, though, comes when organizations embed data visualization into front line applications and services — for example, child support or caseworker workload management apps — so organizations can use interactive data from multiple streams at the point of service to deliver citizen services quickly, accurately and more cost-effectively.

How are government requirements and expectations for data visualization evolving?

Let me give you a quick example. A large state transportation department is equipping its traffic signals with advanced networking capabilities. The department wants these signals to talk to each other and is already incorporating the power of data analytics to see every signal throughout the state on a single screen. If one light in a sequence goes out, department leaders don’t want to wait for a complaint and then send employees out to look at every individual light to find the right one; they want to see on a dashboard that one light is out, exactly where it’s located and send the appropriate equipment immediately. Being able to engage in a more analytical fashion — through a browser or mobile device — with a fully networked signal cabinet and integrated dashboard is a game changer for the department.

How does data visualization help organizations address workforce challenges such as IT skills gaps, mass retirement and the influx of new workers?

Each of these issues presents a large challenge on its own, but you must look at them jointly, and together they become very complex. Data analysis and visualization tools help government organizations create value from the raw data generated by a growing number of IoT and edge computing devices, as well as other applications. In this Q&A, Anthony Young, state and local government and education enterprise architect for Tableau, provides insight into what’s possible.

Each scenario has several high-level key performance indicators (KPIs) to manage. Data visualization helps agencies track and analyze the KPIs coming from each of them to help support more informed decisions about current and future workforce needs. For example, HR can proactively recruit incoming workers aligning to the skills that retirees are taking with them, then determine the training needed to fill skills gaps from that point forward and supplement with contractual labor as required to keep the programs on target.

What new data visualization capabilities are on the horizon?

One of the most exciting things is natural language processing (NLP) — the conversational engagement with data. NLP allows the everyday person, who has no idea how to write a query or even what a dashboard is, to answer questions about data they use regularly. For example, if a person needs to know how many opioid overdoses there were in a specific demographic last year, he or she could just “speak” that question to get the data, and then continue with the iterative asking of additional questions as needed.

What advice do you have for organizations that want to take advantage of data visualization?

First, you can’t just implement something new and assume people will use it. You have to help people at every level of the organization get good at analysis and analytics. That means communication, training, support and sharing successes. Second, shift your focus from generating reports to concentrating on very specific use cases and delivering value. For example, instead of creating a list of “opioid overdoses,” focus on a specific analytic exercise such as “overdose victim risk stratification” so you can quantify something tangible and place immediate value on an outcome to positively impact the organization.

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How can electronic signature technology improve government efficiency and the user experience?
The legacy process for signing documents involves printing static forms and then either driving somewhere to sign and submit them, or having to scan, fax or email them. Ultimately that data is key-entered into some other system and then there is some process for managing the document. Besides being inefficient, costly and highly insecure, nobody wants to interact with their government in this outmoded way. Electronic signature technology eliminates these issues. People can interact with their government anywhere and anytime, on any device they want and in a secure fashion.

What is the Agreement Cloud and how can this technology help state and local agencies?
The Agreement Cloud allows organizations to digitize the entire citizen interaction — from procuring documents in a dynamic format, completing necessary workflows and signing those documents, to using that process to kick off other business processes and managing all this activity securely. The entire process takes place in a secure digital platform that users can easily interact with.

What unique challenges do governments face in implementing electronic signature solutions?
The biggest challenge is change management of manual processes that have existed for a very long time. When you look at the breadth of government organizations using electronic signatures, you see that these solutions can be applied to almost any type of use case. If an agency isn’t using electronic signatures, it’s usually because of a change management issue.

What features and security safeguards should agencies look for as they adopt cloud-based electronic signature and digital document solutions?
If I were a state or local agency CIO, I would insist that whatever solution I chose was FedRAMP Moderate. As the market for electronic signatures grows, a lot of smaller vendors are popping up. But you don’t know where they’re storing data or how they’re securing it. Digital processes in a FedRAMP environment are much more secure than paper forms, email attachments, faxes and data stored on laptops.

How is electronic signature technology evolving to support important trends like mobility and digital payments?
We’ve put a lot of effort into ensuring that our traditional signing process is as easy on a mobile device as it is on a computer. If the forms aren’t optimized for mobile devices, it’s a clunky process. The capability to sign offline in a secure fashion also is important. For example, government inspectors can go into the field, have a secure signing ceremony and sync their mobile device when they reconnect to the network. We’re also adding pre-built integration into payment gateways, because digital payments are an important part of what we want to offer in the Agreement Cloud.
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Where do you see the biggest potential for state and local agencies to leverage IoT, cloud, edge computing and similar technologies to improve service delivery and performance?

The biggest potential is focusing on a platform for these technologies. When you say IoT, or cloud, or edge, we’re talking about physical locations of applications and data that are different for each technology. You need to tie those together with a platform, a common substrate that is consistent and reusable no matter which of those technologies is being used. Then you focus on the best applications of those technologies and where they can help the most.

For instance, this approach can support field devices that enable subway maintenance crews to enter the status of projects offline and then update that information to edge devices once workers are above ground. Or drones that can inspect the condition of powerlines or other infrastructure, automatically sending imagery and other data to base stations without putting human employees at risk.

How will open source technologies and tools support the growing demand among state and local agencies for real-time data analysis and decision-making?

As an example, let’s look at emergency response, where real-time data analysis and decision-making is critical. Each of the various entities involved, including police, fire, first responders and hospitals, has a different way of handling data — whether it’s the application interface they use, the data format they use or something else. Open source is the reference implementation of open standards, so agencies can more easily enable real-time communication and data sharing across these applications. That’s very difficult to do with proprietary solutions.

How will open source technologies and tools enable government agencies to manage increasingly complex hybrid and multi-cloud environments?

In addition to open standards allowing agencies to pivot flexibly to the best environment for any given use case, there is another important advantage. Many of the tools that have grown up around cloud computing have been developed in the open source community. Containerization is one example; it’s probably the most modern computing construct running workloads in the cloud today. The more that government organizations embrace open source, the more likely they’ll be able to leverage complex cloud environments as opposed to restricting themselves with tools and technologies that haven’t been cloud native from the beginning.

Open source also can help them transition to the cloud faster and move from cloud to cloud without experiencing vendor lock-in.

How does a move toward open source in these areas improve efficiency?

The most obvious way is the idea that many eyes solve problems faster. Just look at Ansible, which has about 2,500 individuals who have submitted code, documentation or bug discoveries. They’re finding and solving problems very fast; innovation happens very quickly with open source technologies.

What advice do you have for state and local agencies interested in implementing open source strategies?

Be sure you have a thorough understanding of open source methods, technologies and culture. Develop your internal capabilities by hiring employees that have open source experience, but don’t go it alone; work with systems integrators and industry partners that understand open source. Finally, remember that your peers have already solved many problems for you. Before you decide to develop your own unique solution, find out what your peers have done or refer to existing government open source resources such as California’s Open Source Portal.
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As government agencies move to the cloud, how do their needs and requirements change around identity? Their needs change drastically. Cloud and modern compute platforms are driving the need for modern identity architectures. Prior to cloud, identity systems were typically bolted on as part of the application stack, hosted in the agency’s data center and protected by complex perimeter security systems that included firewalls, VPNs and intrusion detection systems. With cloud, the data center perimeter becomes perforated as data and applications extend beyond it. The security perimeter is no longer the firewall; it is the user. In this new era, identity must move beyond the application stack and be its own independent and neutral platform.

Governments increasingly operate multi-cloud and hybrid environments. How does this impact identity and what should agencies be thinking about? Agencies can now pick a host of cloud services – the best email platform, the best content management system, etc. – for their own specific missions. These services usually come from different cloud vendors. Agencies also are choosing multiple cloud infrastructure providers along with their own data center or private cloud. These trends drive home the need for identity management to be its own independent and neutral platform that supports whatever applications the agency requires.

How can modern identity solutions improve the user experience for government employees and citizens? In the past, the greater the security needed, the greater the friction that was imposed on the user. With modern identity solutions, organizations can dial up the security while simultaneously reducing impact on the user. Users also want to log in any time. Modern cloud-based identity systems deliver a 99.9 percent uptime service level agreement with zero planned downtime. That is never the case with legacy on-premises systems, which always have downtime.

Do emerging technologies like IoT and edge computing impact government identity strategies? How? Absolutely. IoT in particular is a challenge. Rather than just data being at risk, dams, crops and power generation are now at risk. A government identity strategy has to address these factors as part of risk assessment and mitigation. In this environment, specific methods of multifactor authentication, application authorization and API authorization (authorization to the data) become particularly relevant.

How can modern identity solutions help governments share more data (to improve service and efficiency) while complying with increasingly complex privacy laws? The ultimate goal of any modern identity solution is to allow the right data access to the right person at the right time, from anywhere and on any device. However, it’s not the only goal. The service provider must also prove to be trustworthy. This trust typically comes in the form of third-party attestations and authorizations that are continuously monitored and adhered to. These accreditations and authorizations include ISO27018, ISO27001, FedRAMP, AICPA SOC2, CSAStar, HIPAA and GDPR.

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Okta is the leading independent provider of identity for the enterprise. The Okta Identity Cloud enables organizations to both secure and manage their extended enterprise and transform their citizen experiences. With over 5,500 pre-built integrations agencies can easily and securely adopt the technologies they need to fulfill their missions. Over 4,000 organizations, including CMS, FCC, Georgia Technology Authority and City of San Francisco trust Okta to securely connect their people and technology.
How will IT infrastructure demands change as state and local agencies move toward smart environments that leverage IoT, cloud and edge computing?
First, with IoT and edge computing, every edge location becomes a data center. Agencies that once operated a handful of mission-critical data centers will now have to manage many. Second, today’s applications — email, file sharing, etc. — are meant to serve humans, but most of the use cases for IoT and edge computing are for machines that must process a ton of raw data. The application stack to power this new generation will be very different. Third, applications increasingly will be distributed across multiple clouds. For example, video from police body cameras is collected at the edge of the network where folks are working, but the archiving and processing are done at the police station or in the cloud. Agencies will need to create a universal data plane that makes data movement very easy and secure between all these clouds.

What compute/storage/network capabilities will state and local agencies need as they move toward making data-driven decisions in real-time or near real-time?
Computing will need to become increasingly miniaturized. Take drones and autonomous vehicles for example. To capture and process data on these devices and make them autonomous, you have to miniaturize the computing stack that does the AI on top of the data.

What key challenges do states and localities face as they move in this direction?
The challenges involve people, process and product. Instead of experts in databases, storage systems and networking, organizations will need experts in things like containers, AI and real-time analytics. In terms of process, the pace will be much faster; they’ll need to deploy new applications every month and update apps every week or even daily. Finally, ensuring security in the context of this amount of change will be very complex.

How does hyperconverged infrastructure support the move toward IoT and edge computing?
Hyperconverged infrastructure provides the ideal building block for setting up infrastructure that is extremely simple to operate, secure and scale. By bringing together compute, storage and networking functions onto a core building block — a server — it eliminates the inefficiencies associated with getting disparate moving parts to work together securely and efficiently. It flips the “80/20” rule. Instead of spending 80 percent of your time on infrastructure problems, you can now spend 80 percent of your time on what matters, which is business logic.

How does hyperconverged infrastructure enable states and localities to get more value from hybrid cloud environments?
To achieve the hybrid cloud vision, certain tasks — for example, provisioning or securing infrastructure — must be done the same way in each cloud. Hyperconverged infrastructure organizes these details so they look the same across multiple clouds. In addition, it lets you easily control all three parts of the infrastructure stack — compute, networking and storage. This control and consistency across the hybrid cloud environment improves your ability to complete tasks more efficiently and effectively.
Public cloud benefits you want. Private cloud control you need. Embrace multi-cloud on your terms with Nutanix.

nutanix.com/freedom

YOUR ENTERPRISE CLOUD
Edge computing has enormous potential to optimize government service delivery, from emergency response to water distribution, snow removal, road repair, street light maintenance and more. Over the next several years, experts predict governments will leverage edge computing to make operations more affordable, efficient and timely. But what can governments do today to prepare for the coming edge computing era?

Why is edge computing important?

There’s a lot of hype around edge computing, so it’s worth taking a moment to define the term. Put simply, edge computing processes data close to the source, allowing for real-time data and analysis and improving reliability, performance and cost.

“Edge computing represents a point in the communications network where people and things converge with the digital world,” says Bob Woolley, senior fellow for the Center for Digital Government and former chief technical architect for the Utah Department of Technology Services.

The number of active IoT devices is expected to grow from about 26 billion today to approximately 75 billion by 2025, and that growth is a catalyst for edge computing. As IoT devices become more common and citizens demand faster, more streamlined services, agencies will want to limit the distance between the data source and the end user. Edge computing will play a pivotal role, solving a variety of challenges around latency, governance, security and monitoring.

The ability to gather, distribute, process and analyze data in real-time or near real-time will allow agencies to see broader trends and data relationships that will help them improve service delivery and performance.

Changes Ahead

The following are three things state and local agencies should keep in mind as they prepare to move into the edge computing era:

1. Infrastructure demands will grow.

With edge computing, data is collected and analyzed locally, and may be aggregated and correlated at remote public and private data centers. Some experts suggest that the implementation of 5G will dramatically boost the amount of data generated by edge devices connected to government networks.

2. Compute, storage and network capabilities will need to be re-evaluated as agencies begin to make data-driven decisions in near real-time.

“Agencies will need to correlate locally gathered data from information silos and analyze that data in a broader, multiple-agency and business-requirements context,” says Woolley. “This implies the use of edge devices at all kinds of collection points — local servers for immediate business analysis and core data center services for large-scale storage and analysis.”

3. Multi-cloud environments will be mandatory. Since data aggregation and analysis tools are largely enterprise services, availability in both private and public clouds will assume greater importance.

Cloud services traditionally have been delivered from the core to the edge, but that will change with edge computing. “The point of edge computing is to provide situations where information processing is extended from the edge to the core to meet specific agency and multi-agency business requirements,” says Woolley. “Agencies will need to make business decisions as to where final points for data aggregation, computing resource requirements, and storage and reporting services are most effectively utilized.”

Interview with Bob Woolley, senior fellow for the Center for Digital Government and former chief technical architect for the Utah Department of Technology Services

Learn more at Carah.ion/Innovation
Splitting the Burden

By Andrew Westrope
In 2019, state and local governments are expected to spend $107.6 billion on technology. The size of this figure reflects a growth in revenue streams to support new investments, according to the Center for Digital Government.*

But IT costs are growing too, along with the need for cybersecurity and updating legacy systems.

More importantly, expensive new technologies promise to improve how governments deliver services, and some agencies, especially smaller municipalities, are struggling to afford them. In turn, many state and local governments have shown a growing willingness to split this burden. Shared-service agreements between public agencies today are commonplace, and the idea of consolidating EMS or fire departments is familiar to city councils across the country. For new and evolving IT services, however, the concept can be a little more novel, and has taken many forms.

Depending on how they’re defined, agreements for shared IT services have been around since governments and law enforcement agencies were using mainframe technologies in the 1960s. Today, with computer systems and telecommunications infrastructure in virtually every office of government, these agreements touch everything from consulting and cybersecurity services to shared radio systems, fiber and software.

The terms of shared IT service agreements vary widely, but the benefits are fairly consistent: improved access to new technologies and expertise, shared costs, and better deals on bulk equipment and contracts. In talking to more than half a dozen offices across the U.S., Government Technology found some of the most visible examples of shared IT service agreements fall into three categories.

**INDIVIDUAL INTERLOCAL AGREEMENTS**

You have to start somewhere. For small to mid-sized city, county or school agencies considering shared IT services, especially without an urban tech hub nearby, one place to start is a short-term, individual interlocal agreement. These typically involve a small city or agency receiving services from a more-equipped one of equal or greater size nearby.

When municipalities initiate these contracts, they usually depend on proximity for logistical reasons and the elimination of redundant services, with cost savings passed to the taxpayer. One such agreement, past its halfway point, exists between the cities of Tyler and Whitehouse, Texas.
Initiated in October 2018, the agreement stipulates that Tyler, a city of roughly 108,000 people, will administer end-to-end IT services for Whitehouse, a city of 8,000 people about 10 miles away. It’s a one-year, $75,000 contract, with the option to renew. Services administered by Tyler employees include everything from installing software upgrades to troubleshooting, data backups, system administration and network monitoring.

Whitehouse City Manager Aaron Smith said the agreement made sense because of proximity, Tyler’s staffing level and the changing landscape of IT. He’d seen firsthand the expectations of digital government outpace the budgets and capabilities of small towns, and he knew Whitehouse’s single in-house IT person, prior to the contract with Tyler, was no longer sufficient.

“We have a smaller budget,” Smith said. “In my opinion, the time of having one individual in total control of your IT is past. I don’t think that’s appropriate anymore. To protect that information and protect the system, you need to have backup. For us, that would mean literally doubling our IT budget.”

Although Whitehouse no longer has an in-house IT person, Smith said requests for service or repairs from Tyler haven’t been a problem, and he estimated that Whitehouse would spend $40,000 more per year for the same level of service if they were providing those services themselves.

For Tyler, the prospect of shared IT services started 18 years ago with an agreement with Smith County, which they managed for five years before it was undone by “politics,” according to Tyler CIO Benny Yazdanpanahi.

Three years ago, Tyler also started offering basic IT consulting to the nearby city of Jacksonville. This experience gave Yazdanpanahi the confidence to reach out to Whitehouse for a full-blown, end-to-end service agreement. For Whitehouse, he said, the benefits were many and obvious: a dozen IT staff instead of one, stronger and cloud-enabled infrastructure, no need to contract outside consultants, and the ability to borrow, share or inherit better equipment instead of buying new.

For Tyler, the agreement’s short-term benefits include cost-splitting alongside greater purchasing and negotiating power of a combined entity, which reduces the need to raise taxes to buy new technology.

“No. 1, you have to have a good team that has a good understanding of the infrastructure,” he said. “Secondly, the infrastructure needs to be bulletproof. We have redundancy and continuity throughout the city, so if I want to become the cloud for an organization ... I can house those things without just being a single-point failure.”

THE HUB-AND-SPOKE MODEL

With multiple agreements in the works, Tyler could become the center of a hub-and-spoke model. This generally entails a region’s most-equipped city, with a data center, advanced infrastructure and trained staff, becoming the IT provider for many smaller government agencies around it. Most often this means interlocal agreements between cities, counties or school districts sharing fiber, radio networks or emergency services.

Hampton, Va., which has been sharing a public safety radio system with more than 12 public entities since 2011, is collaborating with surrounding communities to build out broadband connectivity and installing a fiber connection with nearby cities.

For these agreements to work, Yazdanpanahi had two recommendations.

“First, you have to have a good team that has a good understanding of the infrastructure,” he said. “Secondly, the infrastructure needs to be bulletproof. We have redundancy and continuity throughout the city, so if I want to become the cloud for an organization ... I can house those things without just being a single-point failure.”
Newport News, Va., Lee’s Summit, Mo., is the latest addition to the Metropolitan Area Regional Radio System (MARRS), a system of interconnected digital emergency service radios across the Kansas City metro area. Shawnee, Kan., has laid over 25 miles of fiber since 2006, allowing it to share technology with nearby De Soto school district, Johnson County and the cities of Overland Park and Lenexa, and to operate nearly 700 traffic signals across the region.

In central California, an ever-expanding e-gov initiative from 2003 has linked the city of Fresno, Fresno County, the city of Clovis and other nearby schools and agencies in a fiber-sharing agreement that also involves information and data sharing. A vision statement from 2002 proposed five critical factors for success: strong and sustained leadership, solid budgeting support, accountability of management and staff in making changes, well-defined organizational priorities, and execution in incremental steps that can be tested and fixed.

Fresno CIO Bryon Horn would add collaboration and relationships to that list, since parties must be able to work together, especially when crossing political boundaries for council approvals or other legal hurdles. He also said a shared-service agreement should benefit all involved.

“We had the fiber, we had an opportunity, we needed to share information between the city and the county and the city of Clovis, so for us there was a need for information sharing,” he said. “But I’m not going to manufacture a sharing opportunity if it’s going to be too costly or I don’t need to do it. We’ve got to watch taxpayer dollars. For us it’s all about making sure we’re good stewards.”

One of the largest shared IT hubs is in Oakland County, Mich. The county provides e-commerce services to about 100 public entities across the state and is in the process of adding its first out-of-state partner, Vigo County, Ind.

“We saw mid-size to small governments not being able to take advantage of larger technologies, because the private sector saw no profit margin in these smaller communities and counties,” said Oakland County CIO Phil Bertolini. “Since we were already sharing internal to Oakland County, we thought we could broaden that base and provide that service for other governments that just weren’t able to get that on their own, or it wasn’t profitable for a company to provide that for those governments.”

Bertolini said the county customizes interlocal agreements which are browsable on g2gmarket.com, a free marketplace exclusively for governments where they can find copies of contracts, GIS strategic plans and social media policies.

He said the program is nonprofit, all cost-recovery through usage fees. Bertolini estimated g2gmarket.com transacts about $70 million a year, supported by a staff of eight.

With so many partners, Oakland County can buy bigger contracts with tech companies that don’t work with small to mid-sized governments. He described it as a three-way win:

“There’s a win for the large government, us, because of the volume of transactions and the ability to manage costs; the small government gets a win because they get to use bigger technology and don’t have to worry about a company dropping them because there’s not enough profit; and the third win is for the private-sector partners we have in our G2G marketplace,” he said. “A lot of the contracts we use to run these technologies are also available for the other governments to buy off of.”

STATE GOVERNMENT AUTHORITIES

In some states, legislation has created a public cooperative or other organization to accommodate basic IT services where needed. Such is the case with Digital Towpath, a government entity
and shared service in New York formed in 1998 by an intermunicipal agreement. Project Director Jeanne Brown said Digital Towpath hosts a private community cloud with a suite of basic Web-based services, such as a website contact management system, an email system, electronic records management and a code enforcement actions tracking program. The cooperative has 161 participating agencies, mostly small towns with an average population of 3,000 and villages of less than 1,000.

Digital Towpath is supervised by a nine-person executive board, elected by co-op members, which oversees four contractors and two technical support staff. It is also a member of MS-ISAC (Multi-State Information Sharing and Analysis Center), a federally backed cybersecurity resource. "There are two different ways to design a shared service in this state, and most of them are a larger entity that has excess capacity, and they share that with smaller entities that are related to them in some way," Brown said. "What’s different about Digital Towpath is, it’s statewide and there is no larger entity. Every municipality has equal standing within the group. They each have one vote at the annual meeting where the big decisions are made."

Brown said the cooperative is mostly funded by state grants and an $850 annual membership fee, supporting an annual budget of less than $200,000. For an operation that size to sustain itself, she recommended two things: a clear agreement describing how it will be run, who will make decisions and what members are responsible for; and active participation at the organizational level by all stakeholders. "They’re not customers, they’re members of the cooperative, and those that wanted to be treated as customers have kind of dropped off over the years," she said.

Another statewide model is Colorado’s SIPA (Statewide Internet Portal Authority), a self-funded technology authority created by statute in 2004 to give state and local government agencies, special districts, K-12 districts and public universities support, security and tools to put more information and services online. SIPA is the oversight organization for the free Colorado.gov portal and employs about 50 people in the state between SIPA and its portal integrator, Colorado Interactive, which is a subsidiary of NIC Inc. Spokeswoman Jamie DeRosier said besides its free portal services, Colorado SIPA was also created as a procurement entity for the state, contracting with vendors to deliver competitive contracts to members so they wouldn’t have to put out RFPs for services. She said SIPA works with about 500 different entities across Colorado, the smaller of which use SIPA primarily for their free websites and payment processing.

SIPA’s Sales and Marketing Manager Beth Justice called the authority a unique model for IT services, because unlike models where the administration of these services is wrapped inside government and paid for by tax money, SIPA is not. The shift toward electronic service delivery may be inexorable, but who pays for it is the problem everyone must solve. "Legislation has to be in place for this to work, and I think the hurdle is, is it OK to add a 75-cent transaction fee or whatever that amount is, and pass that fee on to your constituents?" she said. "We have very few entities to absorb that fee, but that is what pays for those things."

Fresno, Calif., links with Fresno County and the city of Clovis on a fiber-and-information-sharing agreement.

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*The Center for Digital Government is part of e.Republic, Government Technology’s parent company.*
This year’s freshman public CIOs have their hands full. At the state and local levels, newly hired tech chiefs find themselves confronting a range of challenges and opportunities.

The opportunities abound: Recently arrived CIOs talk about delivering on the promise of IT to make government smarter, more responsive and more accountable. But the challenges are not trivial. Budget constraints, entrenched cultures and the staggering breadth of needs all conspire to make for some heavy lifting.

We asked a roundup of state and city information chiefs that are just getting started to sound off about the role of the tech exec circa 2019. Here they share their goals and clue us in on their strategies for success.

By Adam Stone
A FORMER SCHOOL district CIO, Gary Brantley, took the job as Atlanta’s tech leader last fall with a solid understanding of what a public-sector CIO needs to deliver.

“I am here to really focus on the tech strategy and vision,” he said. “I’m providing an interface between the technology department and the business units. I want to be able to create a secure, reliable and efficient delivery model, and I also want to be able to create business value for those units. Technology is supposed to create an easier pathway for those units to be able to operate.”

That starts with building in new efficiencies. “We want to streamline a lot. When you start to look at permitting, for example, we want the citizens and business owners to have a seamless process,” he said. “In transportation, we want to use technology to control traffic. How we also want to use technology as it relates to our water system, using it for meter reading and to help gather data on our efforts to purify our water systems.”

To make those kinds of changes, Brantley will be seeking constituent buy-in. “You have to resonate not only with the business units but also with the external customers. They have to see themselves in what you are trying to fix,” he said. “That means having goals that make a measurable impact on people’s lives.”

Budget constraints can present a challenge to that vision. Rather than look for more money, Brantley said he plans to look for ways to spend less in order get the same results. “I look at where we can be more efficient, rather than asking for more budget,” he said. “Do all the things you do right now rate well in terms of technical fitness? If you look for redundancies across the enterprise and you eliminate those, you can become a lot more efficient in leveraging the technologies that you already have in place, which in turn frees up budget for doing some of the more aspirational things.”

Hawaii: Checking Off Achievable Gains
Douglas Murdock, Hawaii CIO

SINCE SIGNING ON to the job in January, Hawaii CIO Douglas Murdock has been thinking a lot about money, and the lack thereof. “We are always resource-constrained, so we have to prioritize really well,” he said. “To that end, he’s been reviewing the architecture across his portfolio to better understand needs around IT modernization. “We have to look at requirements and decide which are the must-do and which are the nice-to-do. We look at the risk to a system in terms of how old the technology is, how critical it is to our success and what resources we have available,” he said.

So far he’s found that the best path forward often involves taking little nibbles rather than big bites. “I’d like to do everything at once, but the state doesn’t really have the staff to do that. So we take a big strategic system like the ERP and break it down to smaller transactional systems like payroll and human resources management, and we do them one at a time,” he said.

Even as he tackles big statewide issues, Murdock also is collaborating with agencies to help them advance a range of citizen-facing initiatives. “A couple of departments have started building digital government portals, and we will provide governance for all those IT systems,” he said. “We might help them look at business process re-engineering, organizational change management, procurement issues, how to properly staff their programs and then how to track through the process.”

Murdock’s key to success is the use of IV&V—independent verification and validation contractors, outside entities who come on board to ensure IT projects stay on course. “They attend all the meetings, they look over all the documentation and they give us a monthly report on each major area of the project,” he said. “They have a lot of experience on IT projects, so if they see something going over cost or a schedule not being met, they will help to flag it.”

He expects to be leveraging that tool in the coming months to drive overhauls in areas like travel tracking and electronic purchasing. “They’re not sexy, but they could have great money-saving value to the state,” he said.
Illinois: Finding Value in Emerging Tech
Ron Guerrier, Illinois CIO and Secretary of Innovation and Technology

A FORMER PRIVATE-SECTOR tech chief — he previously served as CIO for pharmaceutical benefit manager Express Scripts — Ron Guerrier took up the tech helm in Illinois this spring with a pragmatic mindset. “First and foremost, my job is to ensure that we meet all the technology needs of my agency peers as well as the residents of the great state of Illinois. That is what I have done in the past: keep the trains running and make sure everything is operational so that people can do their jobs,” he said.

But Guerrier wears another hat here: He’s not only CIO but also secretary of Innovation and Technology. “Things are evolving quickly when it comes to technology and I have to make sure we are looking three steps over the horizon,” he said.

Whatever he finds lurking over that horizon will have to pass a simple litmus test in order to make it onto his to-do list: Any new innovation will have to be practical and useful. “We have to focus on things that add value,” he said. “Innovation has to meet that criterion.”

In the realm of innovation, he is, of course, eyeing AI, not as an end in itself but rather as a tech enabler. “We want to use the AI to leverage existing investments,” he said. “Let’s use AI to make the current technology work better, until we are able to secure funding for new technologies. Mainframes are not going away. Let’s invest in the technologies and make them smarter.”

He also wants to put a human face on technology, literally. One of his immediate goals is to create avatars, animated embodiments of the different end users his department serves. “I am trying to humanize technology as much as we can,” he said. “When you can visualize that person calling at 2 a.m. with a problem, see them as a real person, it gives a sense of urgency and a sense of connectedness.”

Collaboration and Cooperation Fuel Ohio
Ervan Rodgers, Ohio CIO

THE FORMER CIO for the Ohio Attorney General’s Office, Ervan Rodgers takes both a strategic and a tactical view of the statewide office that he assumed in January. Strategy means ensuring all agencies share a common vision and direction. Tactically he has his eye on data and analytics as a potential common bond, a tool that could be used across multiple agencies. Backing from the governor and lieutenant governor plays an important role: “It’s a big help for me as state CIO to have that kind of support,” he said.

One top priority is to engage with Innovate Ohio, an interagency effort to boost citizen service. “The purpose is to take a look at the citizen journey,” he said. “They should be able to do things via mobile apps and websites and applications to save time, money and effort.”

In order to get government technologists all rowing in the same direction, Rodgers convened a think tank of agency CIOs within a month of coming on the job. “We walked away with a number of key critical ideas that we can implement right away to improve efficiencies,” he said. First on the agenda: Build customer portals to streamline access to government services. “That process will take time, but we had some immediate synergies between different lines of business across various agencies. We can put that infrastructure in place.”

Another long-term goal involves the continued consolidation of government’s IT infrastructure, which could be completed within the coming year. At the same time, Rodgers will be backing the Recovery Ohio initiative, leveraging technology to combat the opioid crisis. His big challenge will be to shift a culture in which agencies are used to going it alone when it comes to IT initiatives. Instead of agencies having the option to opt out, we want to emphasize the collaboration and cooperation. Assuming we meet all the regulatory requirements, there should only be very limited scenarios where data can’t be shared,” he said.
THE 2019 COHORT

Bringing a Private-Sector Mindset to Colorado
Theresa Szczurek, Colorado CIO

WITH A CUSTOMER BASE comprising some 31,000 state employees and 5 million citizens, Theresa Szczurek respects the monumental scale of the task before her. “It’s a big job and an important one, because IT is involved in all aspects of keeping the state of Colorado functioning. We keep all the systems running, the information flowing, the technology advancing securely,” she said.

Szczurek came on board in January as Colorado’s chief information officer and executive director of the Office of Information Technology. She took the helm after a 10-year run as CEO of Radish Systems, a tech startup she co-founded. She’s here to support the governor’s priorities: free kindergarten, affordable health care and renewable energy. While these may not be high-tech endeavors per se, all have an IT component. In health care, for example, she’s working to expand broadband access in support of telehealth and rural medicine. Broadband factors into education, too, as a means to help teachers access online training and certification.

Other top agenda items include a big cybersecurity push, like an effort to implement dual-factor authentication across government entities. “Cybersecurity is one of our top priorities,” she said. “We have an office for information security and we are constantly looking at ways that we can be more innovative to address these big risks.” Blockchain also ranks high on the to-do list. Szczurek serves on a statewide council exploring that technology, and she says her office is actively working to identify potential use cases.

“That’s a lot of irons in the fire, and one of Szczurek’s first tasks will be to put these various projects into some kind of order. “There is so much to be done, so we need to prioritize and figure out our wildly important goals,” she said.

To guide that effort, she’ll be using a metric she brought over from the private sector: customer satisfaction, or as she prefers to put it, “customer delight.”

“We want to meet and exceed the expectations of the consolidated agencies within the state and the other stakeholders across state government. We need to understand the needs of these customers and then leverage technology statewide across multiple agencies,” she said, pointing to e-licensing as one likely example of a technology that could benefit multiple agencies.

“Rather than having each of them come out with an independent solution, the Office of Information Technology is looking at ways to provide a solution that allows everyone to access that.” That sounds like private-sector thinking, as does Szczurek’s approach to evaluating technologies.

“We don’t have the resources to chase everything,” she said. “So we start by doing a limited proof of concept, a minimal viable product with some lean and agile approaches, to actually develop a case study. We know that not every proof of concept will deliver the right kind of results, but we have to test it in order to find out.”

While this “it-is-OK-to-fail” philosophy has come into vogue in private industry, it still isn’t spoken very loudly in public-sector circles, where accountability looms large. Asked whether she worried about conducting small-scale failures in the public eye, Szczurek expressed little concern. She works for an entrepreneurial-minded governor, she says, and anyway, this is just the right way to do things.

“You have to be very willing to try new things and learn from them. You have to be curious and grow,” she said. “Fail fast and fail small. You have to be willing to risk.”
Building a Resilient Boston
David Elges, Boston CIO

AS TECH CHIEF in the District of Columbia, David Elges learned public-sector work the hard way. “There’s a lot of politics there, a lot of horse trading to try to get anything done,” he said. “That was definitely a dive into the deep end.”

When he took the helm as Boston CIO last fall, he shed some of that political baggage. He might have also assumed that the city’s plethora of universities would ensure a steady supply of IT talent to support his efforts. It turns out that Boston faces the same woes as many other cities. “We are dealing with a brain drain here too. The technology investors want you to be next to them, so they want you to move to California. We lose a lot of talent over to the West Coast,” he said. The business schools meanwhile tend to export their graduates to New York, thus compounding the labor crunch.

A top priority, therefore, will be to court younger workers into public service. “They want to make a difference in the world, so there is an opportunity to take a collaborative approach, to really talk about the ways in which we can make an impact on the citizens,” he said.

Elges has long-term plans to address resiliency in the city’s IT infrastructure. “You talk about the environmental changes and things like rising tide,” he said. “If half our infrastructure is going to be underwater, how can we make that more resilient?”

In the short term, Elges is looking at cyber-resiliency, the ability to bring IT systems back to life after a major hacking event. “Our investment is not quite what it should be,” he said. “In the minutes after, the day after, the week after, what are the plans for what happens next? You can fortify the castle as best you can, but you still need a plan for what happens when a handful of them get inside the walls.”

Creating a Common Vision for IT in Washington
Jim Weaver, Washington CIO

WHEN PENNSYLVANIA’S former CTO took the reins as CIO in Washington state, he knew that he was coming into a sticky situation.

The state had been without a CIO for a year, with interim directors overseeing technology. Expenses were outpacing a biennial budget; IT jobs weren’t being filled fast enough; and agencies were grousing about sub-par service delivery.

A review of 62 services found that a handful were due to be retired, but among those were some of the IT department’s biggest revenue generators.

To put the house in order, Weaver said, the department needs to shift its funding structure. “We have to change the financial model so that rather than being a fee-for-service, revenue-generating entity, we can be a cost-allocation entity,” he said. It’s a long-term goal but an important one. Cleaner funding lines could help him to better align services with customer needs.

In the short term, Weaver is working to win back the trust of agencies. To that end, he convened an advisory group within the state’s CIO forum, in order to generate greater buy-in among key stakeholders. “We want to let the community vote, to represent the themes and concerns of interest to the CIO community,” he said. “We are trying to build a collaborative partnership. If we can have candid, transparent conversations, that will do wonders in re-establishing trust. But it starts with us demonstrating that we are listening and trying to do the right thing.”

Weaver also is forming an IT governance group to create a common vision among the agency business leaders. “Business drives IT,” he said. “We exist because agencies need to do business, so we need guidance from the business side.”

Finally, he’s aiming to create a group to help shape IT architecture, to look at big-picture issues around the organization of technology resources. “When you build a house, you have a blueprint. That’s what the architecture piece is all about,” he said.

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In the short term, Weaver is working to win back the trust of agencies. To that end, he convened an advisory group within the state’s CIO forum, in order to generate greater buy-in among key stakeholders. “We want to let the community vote, to represent the themes and concerns of interest to the CIO community,” he said. “We are trying to build a collaborative partnership. If we can have candid, transparent conversations, that will do wonders in re-establishing trust. But it starts with us demonstrating that we are listening and trying to do the right thing.”

Weaver also is forming an IT governance group to create a common vision among the agency business leaders. “Business drives IT,” he said. “We exist because agencies need to do business, so we need guidance from the business side.”

Finally, he’s aiming to create a group to help shape IT architecture, to look at big-picture issues around the organization of technology resources. “When you build a house, you have a blueprint. That’s what the architecture piece is all about,” he said.

Creating a Common Vision for IT in Washington
Jim Weaver, Washington CIO

WHEN PENNSYLVANIA’S former CTO took the reins as CIO in Washington state, he knew that he was coming into a sticky situation.

The state had been without a CIO for a year, with interim directors overseeing technology. Expenses were outpacing a biennial budget; IT jobs weren’t being filled fast enough; and agencies were grousing about sub-par service delivery.

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THE EXTRAORDINARY CIO:
5 Essential Traits THAT YOU CAN DEVELOP

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Deloitte.
Many governments decide now and then to refresh their websites. But when Joe Hogsett took office as mayor of Indianapolis in 2016, Chief Information Officer Ken Clark and the Information Services Agency (ISA) came to him with a more ambitious vision. “We had a great opportunity to rethink how we do digital services,” says Abbey Brands, ISA’s chief communications officer.

Hogsett agreed, giving the green light to Shift Indy, an initiative that has transformed the way people do business with the city-county government. Today, the relaunched Indy.gov gives citizens a fast and easy way to find the services they need, apply for benefits and conduct transactions.

Shift Indy succeeded because officials put citizens at the center of their decisions. The project also reached its goals thanks to close collaboration between ISA and its partners — the city-county government’s departments and agencies, vendors that provide back-office systems and the primary partner on Shift Indy, Chicago-based CityBase.

A SHIFT IN PERSPECTIVE

The previous city of Indianapolis and Marion County (Indy) website was not an effective tool for delivering citizen services. That’s because it was designed to serve the purposes of the city-county government’s 40-plus departments and agencies, not the needs of Indy residents.

Behind the original Indy.gov home page, each entity maintained a site with its own look and methods to engage the public.

“Some pages had multiple colors; some had multiple fonts,” says Brands. “Some used very intense legal language; others used simple language.”

The sites were also hard to navigate. “A lot of pages were nested within other pages,” Brands explains. That left visitors clicking through numerous layers. When government entities posted information, they often used a PDF format, and they gave little thought to how the site was organized. As a result, search engines were largely ineffective.

When search didn’t work, the only alternative was a trial-and-error journey through individual pages, says Brands. “If you don’t know a lot about local government, if you don’t know that the auditor does the homestead deduction or the treasurer collects property tax bills, that can be difficult.”

Clark and officials at ISA decided they would not simply correct the obvious problems. Instead, they decided to help agencies and departments reimagine how to use technology to deliver services, viewing every function through a citizen’s eyes.

CREATING A DIGITAL CITY HALL

Clark and his team started gaining buy-in from each department and agency. They collected more than 1,000 user stories, plus another 100 or so from partners in the community. User stories define an action that a person needs to take to achieve a certain outcome, like finding a polling place to vote. The innovation of Shift Indy was to provide more than information about these city-county services. Wherever possible, residents and businesses could complete the entire process online, including searches, registrations and payments.

Not every department or agency came on board immediately. “A lot of people felt they were leaving their specific brand by moving into a unified effort,” says Brands.

But enthusiasm grew as ISA demonstrated how new processes would improve service, while also making internal operations more efficient.

“Being a partner, meeting with every single agency, documenting their processes and seeing where they could leverage technology was helpful,” says Brands.

With branding unique to Indy, the CityBase platform introduced an easy, consistent user experience across the entire site. CityBase and ISA worked with agency partners to replace manual processes with new, digital versions, and to improve existing digital services.

To connect these customer-facing services with Indy’s back-end information systems, ISA asked its third-party vendors for application programming interfaces (APIs).

“In some cases, vendors were ready to go; they had APIs built,” Brands says. “In other cases, we had to work alongside them to get APIs built and tested.”

To build an outstanding digital presence, officials in Indianapolis-Marion County first had to view the world through their customers’ eyes.
REVAMPING THE CONTENT

Another focus of Shift Indy was to streamline and rationalize website content. The previous Indy.gov included roughly 8,000 pages, and for a decade, editors had carte blanche access. Content ranged from vital information such as court schedules to nice-to-know items such as facts on local bird species. There were no firm guidelines to regulate which information to provide, or how to present it. One of the reasons ISA selected CityBase was its approach to information design. The platform organizes content into small units or “activities,” to allow many ways of finding the same piece of information.

To start the renovation, Brands created a spreadsheet for each department or agency, mapping the content that entity controlled. Partners examined each item in the map, deciding whether to keep it or drop it.

“The idea was to put the ownership on our partners, to say, ‘This is your site. This is how you want to present yourselves,’” Brands says. She stayed in continual contact with all the partners, encouraging them to deliver their responses on schedule.

In the next phase, Brands and two content experts from CityBase removed redundant material, grouped related items, and revised content for style and consistency. Almost 60 percent of the ancillary content was removed throughout the transition. A new editorial style guide helped keep writers and editors in the same voice, and ensured content was written at a seventh-grade reading level to make information accessible for all audiences.

CityBase launched its content management system (CMS) with Indy as the beta users. The CMS allows experts in each department or agency to update content themselves. The system ensures they use the correct fonts, headings and other design features to keep the look and feel of Indy.gov consistent.

AWARD-WINNING RESULTS

Indianapolis-Marion County first piloted the new site at My.Indy.gov in 2017. Its success won ISA the Corporate Innovator of the Year award in 2018 from TechPoint, an organization that promotes technology growth in Indiana.

Today, Indy.gov offers 60 digital services, presenting transactions and information in an intuitive format that is easy to use on a computer or a mobile device. Features that make services easier to use include the ability to validate a person’s information as they enter it against a database, and forms with conditional logic that only show people questions relevant to them. The user-friendly portal encourages citizen engagement and increases government transparency.

“The old site didn’t serve citizens,” says Brands. The new one does. “You can type in exactly what you want on the front page, find what you need, complete it and be on your way.”

One of the first digital services to arise from Shift Indy was a transaction to obtain a homestead deduction on a resident’s property taxes. Applicants used to submit paper forms and then wait up to 10 business days to find out if their deductions were approved.

“Now, we’ve seen it take as little as 20 minutes from the time a digital form is submitted to the time it’s approved,” says Brands.

REMEMBER YOU’RE NOT AN ISLAND.

Start working on content early.

Start working on content early. Don’t focus so much on improving digital services that you forget about text-based content. That information is vital, and re-doing it takes effort.

Be thorough when you make the transition to the new site. Incrementally remove all traces of the old site to avoid confusing users.

Educate end users within government about what the new site can do. Don’t stop with top agency executives: get the word out to the entire staff. “If you come to the city-county building in Indianapolis today, you can hear about Indy.gov in elevators and on revolving doors,” says Brands. “We have it plastered everywhere.”

Use every tool at your disposal to educate the public. “We got a lot of our agencies and partners to share this on social media,” says Brands. The messages not only promote the new site, but also suggest transactions citizens can complete there. “Using as many channels as you can to get the message across is incredibly important.”

INDY’S KEYS TO SUCCESS

Remember you’re not an island. Study the successful work of other municipalities. Brands and her team particularly like Boston.gov.

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This piece was developed and written by the Government Technology Content Studio, with information and input from CityBase.

CityBase gives people and businesses an intuitive way to interact with utilities and government agencies. CityBase technology dramatically improves customer service through payment solutions, digital services and API development for cities, counties, states and utilities.

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Real. Ethical. Dilemmas.
The questions have not changed. Only the technology has.

Do we have the ethics to confront the big challenges of our time? No less than Elon Musk and Bill Gates have warned of the potential perils of artificial intelligence. And AI isn’t the only emerging technology worth worrying about. Yet policymakers have no central place to review and make sense of the promises and pitfalls of the application of new technologies, never mind the ethical dilemmas that come with them.

This is not a new problem. Consider J. Robert Oppenheimer, nuclear physicist and director of the Los Alamos Laboratory, known to history as the father of the atomic bomb for his work on the Manhattan Project. Soon after the bombs were detonated over Nagasaki and Hiroshima, Oppenheimer met with President Truman to question the ethics of nuclear weapons. Truman was dismissive of the hand wringing and later told aides he never wanted to see the “cry-baby scientist” again.

For its part, too, Congress has often had a difficult time engaging the chief executive on matters of technology. Presidents have a deep bench of technical expertise on which to draw; members of Congress were (and are) comparatively thinly staffed, particularly when considering the impacts of technology. That changed in 1972 with the creation of the Office of Technology Assessment (OTA), which provided Congress with independent analysis on more than two generations of emerging technologies, focusing some of its 750 detailed reports on energy, the environment, education, health care, human services, digitization, government modernization, renewable resources and space exploration. It is a research agenda as relevant today as it was 50 years ago. OTA teams comprised scientists, engineers, policy types and, by design, a humanities scholar, ethicist, poet or even shaman to bring an outsider’s point of view to the deliberations. It operated free from the influence of corporations, foundations or think tanks. The limit of its independence was budget, which Congress cut in 1995.

Other than its archives, which are housed at Princeton University, the OTA became a footnote to history until a long-shot candidate in the crowded 20-person Democratic field of presidential candidates called for its revival. Andrew Yang, a tech entrepreneur turned novice candidate who first gained notice for advocating for universal basic income (UBI) to deal with economic disruptions, wants to bring the OTA back to give Congress access “to get in front of the true challenges of the 21st century and get Congress the information [it] needs to make intelligent decisions.”

So here we are at the end of the second decade of the 21st century. Nuclear weaponry is still a thing, more prolific and less stable than it was a half-century ago, with no overarching ethical norms in place. AI is similarly ethically vexing for its potential impacts on society, including but not limited to implicit bias in the underlying code and the soundness of the logic that informs autonomous vehicles about whose life to save or sacrifice when such decisions are forced. (Google assembled a short-lived industry group to advise on the ethics of AI; the European Commission is piloting a similar group in the hope it can be a competitive advantage.)

Add the Internet of Things, robotics and automation to the mix to confront issues of the future of human worth in the absence of conventional worth, and whether UBI might be part of an appropriate market response. And an existential crisis awaits when virtual and augmented reality become indistinguishable from real life — or maybe are real life. (Just ask Elon.)

We are working in and witness to a remarkable era of technological innovation and, in many cases, breakthroughs. The solutions to date are not seamless, the thinking through of wider implications is not complete. Absent bodies such as the OTA, it pushes responsibility for such work closer to the ground, including states and localities.

The chill you feel is real. It is a cold wind that blows through the cracks and the holes.
SEEING INTO THE FUTURE:
Traditional tests for how much eyesight a person has lost due to glaucoma are complex and time-intensive, but IBM’s research team has used artificial intelligence and deep learning to evaluate vision levels based on a 3-D scan of an optic nerve. They report that the method is more accurate than conventional tests, and that going forward, AI could predict the outcomes of future vision tests, allowing doctors to better treat glaucoma patients.

CAN YOU HEAR ME NOW?: There are now more cellphones on earth than human beings. That’s according to data from the United Nations, the UN’s International Telecommunication Union and the World Bank, who found that in the middle of the past decade, the number of active cellphone plans surpassed the now more than 7.5 billion people on the planet. Not every single person has their own phone, of course, and many people have more than one. Plus, there are only about 5.28 billion smartphones globally.

123456
According to a study from the UK’s national Cyber Security Center, more than 23 million people globally use the same, easy-to-guess password: 123456. Second place goes to “123456789,” and runners up include “1111111” and, simply, “password.”

Send Spectrum ideas to Managing Editor Lauren Harrison, lharrison@govtech.com
Trump Names Federal CTO

In March, President Trump nominated Michael Kratsios to the position of federal chief technology officer, a seat that had been vacant since the beginning of the Trump administration in 2017. Kratsios was elevated from deputy CTO, a role he had held for two years. The federal CTO position was created by President Obama in 2009.

Alaska CISO Moves to Phoenix

Former Alaska Chief Information Security Officer Shannon Lawson is now heading cybersecurity efforts in Phoenix, the nation’s fifth-largest city. Lawson’s other prior experience includes work with a number of government agencies and tech companies. His predecessor, Randell Smith, had held the position since 2008 and left to form his own cybersecurity consulting firm.

Von Wolffradt Goes to Abilene, Texas

Longtime state CIO Robert von Wolffradt has taken on his first city-level job as CIO of Abilene, Texas. He was most recently chief information officer in Iowa, a position he held for more than six years. Before that, von Wolffradt was CIO of Wyoming and IT director for Snohomish County, Wash. “Bob will lead a team of dedicated professionals and will ensure that the city’s acquisition and implementation of technology is strategically focused and well-executed,” the Abilene city manager said in a statement.

Kansas City Appoints New Innovation Chief

Kansas City, Mo., named Alex Brasor as its new chief innovation officer. Brasor is a former lieutenant colonel in the Army, where he specialized in analyzing big data. He succeeds Bob Bennett, who left the city after four years of service and has since become chair of the Cities Today Institute, a think tank working on best practices for sustainable urban development.

CISO Transitions in Georgia

In April, Georgia Chief Information Security Officer Stanton Gatewood reportedly stepped down from the role. He was appointed in 2016 following a cybersecurity career spanning more than 30 years. He was replaced by David Allen, who comes to the state having served as CTO and chief of cybersecurity with the Georgia Army National Guard.

Massachusetts CIO Leaves for iRobot

Dennis McDermitt, Massachusetts’ CIO of four years, stepped down from the post to take the job of director of enterprise information security with iRobot, the Massachusetts-based company that makes the Roomba. He has been replaced in an acting capacity by Curtis Wood, secretary of the Executive Office of Technology Services and Security.
Minnesota Gov. Walz Appoints New IT Commissioner
In April, Gov. Tim Walz named Tarek Tomes the new commissioner of Minnesota IT Services. He was formerly the chief innovation officer and chief information officer of St. Paul, among other tech positions in both the public and private sectors. In Tomes’ first week as CIO, Walz announced he would scrap the state’s troubled Minnesota Vehicle Licensing and Registration System in favor of a commercial-off-the-shelf alternative.

New CTO in Michigan
IT veteran Jack Harris was named as Michigan’s chief technology officer after serving in an acting capacity since the departure of former CTO Rod Davenport last August. Harris’ extensive experience includes seven years in the state’s Department of Technology, Management and Budget as director both of enterprise architecture and network strategies in the office of the CTO.

California CISO Steps Down
After nearly three years in the position, California’s Chief Information Security Officer Peter Liebert left state government. Liebert also served as director of the Office of Information Security, an agency he massively expanded during his time there.

Detroit Hires a Digital Inclusion Director
Joining the growing list of cities dedicating full-time positions to digital equity, Detroit named Joshua Edmonds its first director of digital inclusion. Edmonds previously worked on digital inclusion efforts in Cleveland. “The recipe for successful digital inclusion in every city boils down to four things: partnerships, funding, engaged residents and political will,” he said in a statement. “I believe Detroit has every one of those points in excess. I’m excited to build relationships and do something bold.”

Philadelphia Consolidates GIS and Data Roles
Geographic Information Officer Henry Garie is now also taking on the position of chief data officer in Philadelphia, working in the city’s Office of Innovation and Technology. The new dual role will encompass managing open data, analytics, mapping projects and more.

The Recipe for Successful Digital Inclusion in Every City boils down to four things: partnerships, funding, engaged residents and political will.

THE RECIPE FOR SUCCESSFUL DIGITAL INCLUSION IN EVERY CITY BOILS DOWN TO FOUR THINGS: PARTNERSHIPS, FUNDING, ENGAGED RESIDENTS AND POLITICAL WILL.
When a tech-savvy electorate comes to the ballot box, they expect a more modern experience than long lines, paper records and manual work. Two cities—Aspen, Colo., and Burnsville, Minn.—are updating their election information, processes and workflows using the Laserfiche Enterprise Content Management (ECM) system. These improvements are helping the cities reduce costs, save staff time, create operational efficiencies and deliver better service to voters.

STREAMLINING VOTER INFORMATION AND BALLOT PROCESSING

Same-day voter registration, three voting centers and voters who can cast multiple ballots through multiple methods mean city clerk staff in Aspen have a lot to track for each election. Previously, this involved printed voter registration lists and 12 handwritten logs to track ballot processes, with information reentered into a master spreadsheet at the end of the day.

Today, paper and manual processes have been replaced with electronic documents and automated workflows thanks to the city’s Laserfiche solution. With real-time voter information and online updates, Aspen is better able to manage the complexity of verifying voters and processing ballots. Checking in voters and confirming their registrations can be the biggest contributor to delays and confusion at the voting site. Historically, election judges (i.e. pollworkers) in Aspen verified voters against a printed list and had to call the County Clerk’s office to confirm new voters and resolve discrepancies. Today, voter registrations received from the county are loaded into an automated workflow for each election. The system automatically associates an electronic image of the voter’s signature with the registration record, allowing election judges to easily verify voter signatures at the polling site and on mailed ballots. On election day, judges can also use the system to enter the information and signature of newly registered voters. The Laserfiche solution automatically tracks any modifications for audit purposes.

“Because paper can’t portray real-time updates to voter information, the risk for errors was way too high,” says Linda Manning, Aspen’s city clerk. With all voter information maintained in a single electronic system, the city has reduced duplicate data entry and potential for error, as well as the time delays and voter inconvenience of phone calls to verify registration.

“Overall, Laserfiche has helped us take a complicated election process and modernize it into an efficient system that meets the needs of staff and the expectations of the community.”

— Linda Manning, City Clerk, Aspen, Colo.

How Automation Can Modernize Election Processes
Using Laserfiche also simplifies ballot tracking. Aspen voters can submit up to three ballots through five different methods for each election. The voter record in Laserfiche tracks the ballots submitted and is configured to automatically invalidate previous ballots when the voter submits a new one. At the voting center, the election judge can view the number of ballots already cast by the voter as part of the check-in process. This method is faster and more accurate than paper tracking, saving time for both the election judges and the voters.

“Overall, Laserfiche has helped us take a complicated election process and modernize it into an efficient system that meets the needs of staff and the expectations of the community,” says Manning.

RECRUITING AND ASSIGNING ELECTION JUDGES

Every election cycle, the work of recruiting, scheduling, training, and communicating with hundreds of judges was a laborious and time-consuming task for Burnsville City Clerk staff. The manual processes historically in place meant lots of paper and spreadsheet entries, which was inefficient and frustrating for staff and potential judges.

Today, Burnsville uses online forms and automated workflows through the city’s Laserfiche system to manage applications and automate testing for election judges. Previously, a potential judge submitted a paper application and skills test, then had to wait for an acknowledgment of receipt and instructions on next steps. Now, an online application form leads directly to an online test and the applicant receives an immediate email to confirm the submission.

Judges appreciate the efficiency and convenience of the online processes. “We’re able to deliver better service to judges due to more effective tracking and communication related to their application and training. We are also able to answer questions much faster,” says Megan Hamilton, deputy city clerk for Burnsville. A system dashboard makes it easy for staff to view data on recruiting status and manage the tasks and communications related to the judges.

The city gains significant benefits from the automated processes. Hamilton estimates she will save 120 hours each election for the work involved with recruiting and managing judges, and assigning them to the 17 precincts. She no longer needs to manually score the judge skills tests, contact applicants to resolve illegible or incomplete applications, or track hundreds of RSVPs for training sessions.

By using the dashboard’s email feature for routine communication with judges, such as for polling place assignment and training session details, Hamilton saves time and costs around postage and printing. “Contact information for judges is saved in Laserfiche and selected as part of the email workflow, so I don’t need to cut and paste addresses from a massive Excel spreadsheet to an email message. This also keeps a better record of what message was sent to which email addresses,” says Hamilton.

Workflows developed in Laserfiche help her send the right email template to groups of judges according to criteria such as precinct, judge role or shift.

“Because Burnsville already had a Laserfiche system, the city was able to avoid purchasing dedicated election management software. However, adding the new data and workflows for election judging involved an expense for development work done by a Laserfiche solution provider. Hamilton knows that nearby cities would have similar challenges and needs, so she reached out to her counterparts about a cooperative project.

ADVERTISEMENT

By using online forms and automated workflows to onboard election judges, Burnsville will SAVE 120 HOURS each election cycle.

Four cities joined Burnsville to share the planning and cost of the system development work. Representatives from each city collaborated to define a common set of requirements for the new dashboard. Each city now benefits from the new capabilities for managing election judges in their own Laserfiche system, but they can also tailor the workflows and data to better serve their local needs and practices.

A FOUNDATION FOR FUTURE ELECTIONS

In both Aspen and Burnsville, officials expect the benefits of automated processes will carry through to future elections. They plan to extend the time and cost savings and service improvements of automation by adding more processes to the system.

“There is more public scrutiny on the entire election process and more pressure to make sure we’re tracking everything,” says Hamilton. “This scrutiny has pushed us to find better solutions for processes that just weren’t keeping up with today’s need for speed, accuracy and efficiency.”

From securing content to maintaining audit trails, state and local governments can use the powerful Laserfiche automation tools to handle these mission-critical election processes.

This piece was developed and written by the Government Technology Content Studio, with information and input from Laserfiche.

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If you’re a Facebook user, odds are you belong to at least one Facebook group. If you personally participate in a very active group, you may have had the thought, could the public we serve benefit from our government agency starting a group? Over the last year, I’ve talked a lot about how the Groups feature in Facebook brings value to private industry. It undoubtedly does — in fact, there’s so much to say about the business case for Facebook groups that I authored an entire LinkedIn Learning course on the subject.

If you’re not selling widgets and your service is to the public, can Facebook groups still bring value? My answer is yes, but you have to craft your group with the right goal in mind, and you must have the bandwidth to support it. A group does take some work to manage, since it’s yet another communication tool needing support. So don’t drop my column on your social media manager’s desk and request a Facebook group without having them weigh your agency’s needs and resources. I suggest first exploring where groups might fit into your existing social strategy.

Where Groups Fit with Pages
Facebook has made a visible effort over the past year to encourage the creation and use of groups. From tweaking the placement of the group shortcut icon on mobile to allowing pages to join and interact in groups as members, there’s no question about the social platform’s push for the medium. While there’s a laundry list of benefits to using Facebook groups in addition to maintaining a page for your government, let’s skip to the real reason why I’d even recommend that you consider adopting yet another social media tool. In one word: notifications. With your traditional Facebook page, you can expect a very, very small number of people who have liked your page to see your updates in their newsfeed. This is a fraction of the people who saw your updates a year ago, thanks to Facebook’s famous algorithm adjustments that give priority to “meaningful” interactions between friends, not pages. The important thing about groups is that members receive notifications about new posts and new comments.

What Kinds of Groups Do Governments Run?
Ever since Facebook gave page administrators the ability to create groups as their pages, government agencies have started experimenting with running them. When thinking of a purpose for your group, keep in mind that communication happens differently here — there’s more focus on conversations between group members than the admins of the group.

The city of Lenexa, Kan., started a group for its seasonal farmers market. It allows vendors and shoppers to connect with one another more authentically than an official government page could. Zach Whitney from the Utah Department of Transportation manages Facebook groups for stakeholders. In his remarks at the 2019 Government Social Media Conference, he pointed out that using groups is a good way to write focused content for specific regions. He noted that while groups are certainly more work than simply running a basic Facebook page, there’s a lot of value in it for agencies. There are many other details to consider, such as group privacy settings, comment moderation and content strategy. Even so, Facebook groups might be a worthwhile path for building engagement with the public in an organic way.

Kristy is known as “GovGirl” in the government technology industry. A former city government web manager with a passion for social media, technology and the lighter side of government life, Kristy is the CEO of Government Social Media.

Do You Need a Facebook Group?
Some in government are using groups to generate increased reach and organic conversation.
In the past, speed was everything. Which is why Comcast built the nation’s largest Gig-speed network. Now we’re going beyond with high-performance solutions that can help increase innovation, responsiveness, and public safety. They provide the network foundation that agencies can depend on to run bandwidth-intensive applications and support interoffice collaboration across town or around the state.

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Fast is connecting the public with the public sector at Gig-speed.

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