

GOVERNMENT TECHNOLOGY®

SOLUTIONS FOR STATE AND LOCAL GOVERNMENT

VOL.28 ISSUE 3 | APRIL 2015

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COVER PHOTO BY JOHN BRAGG



Government Technology (ISSN# 1043-9668) is published monthly, except February, May, August, and November by e-Republic Inc., 100 Blue Ravine Rd, Folsom, CA 95630. Periodical Postage Paid at Folsom, CA and additional offices. POSTMASTER: Send address changes to: Government Technology, 100 Blue Ravine Rd, Folsom, CA 95630. Copyright 2015 by e-Republic Inc. All rights reserved. SUBSCRIPTIONS: Subscription inquiries should be directed to Government Technology, Attn: Circulation Director, 100 Blue Ravine Rd, Folsom, CA 95630, 916-932-1300.

DAVID KIDD

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GOV. JACK MARKELL, DELAWARE

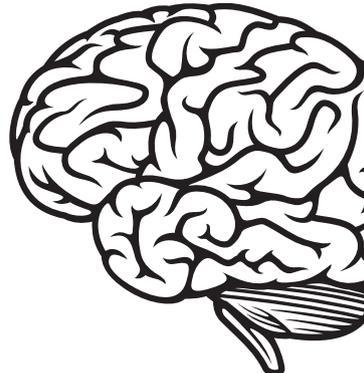
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Can edge computing transform the cloud, mobility and analytics?

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A Great Time for Gov Tech

Has there ever been a better time to be involved with technology in the government space? Maybe not. Like all overnight sensations that have been years in the making, civic tech or gov tech — we like that one best — suddenly is cool.

Venture capital is flowing to startups focused on solving government problems, bringing new ideas and vitality to the market. A nationwide army of citizen coders is partnering with innovation-minded public officials and delivering impressive results. The cloud, open source software and predictive analytics continue to evolve and mature, offering new ways to strengthen public programs and services.

Our Doers, Dreamers and Drivers for 2015 are in the thick of this shift. This year's list includes a California-based entrepreneur who recently placed a \$23 million bet on new companies in the gov tech space, along with the founder of a social platform widely used by local agencies that's now valued at more than \$1 billion. It also includes government innovation and performance officers who are reinventing how agencies acquire and use technology, as well as how they measure the results. And, of course, it includes CIOs and elected officials who are transforming the bedrock systems and infrastructure that power government service delivery and public safety. (You can meet them all, starting on page 14.)

The stature of this work has been on a pronounced upward trend over the past few years. Groups like Code for America and a number of foundations — Knight, Sunlight and the aptly named Information Technology and Innovation — have done yeoman's work in catalyzing interest and bringing new blood into the government technology space. Our sister organizations — the Center for Digital Government and the startup e.Republic Labs — have helped convene like-minded people on forward-leaning efforts in states and localities. Civic tech or gov tech is even getting positive attention in the mainstream press.

But using innovative technology and ideas to solve community problems and provide crucial services has always been a big deal. One of the reasons we launched the GT Top 25 in 2002 was to give well deserved recognition to public-sector visionaries and their partners who are doing great work, but too often fly under the radar.

It's great to see heightened interest in public-sector technology, and we applaud the spread of a civic-minded entrepreneurial spirit that's attracting new players and participants. Like you, we were gov tech before gov tech was cool. And like you, we're happy to share the stage with those who are making the movement stronger, louder and prouder. **GT**

RAISE YOUR VOICE



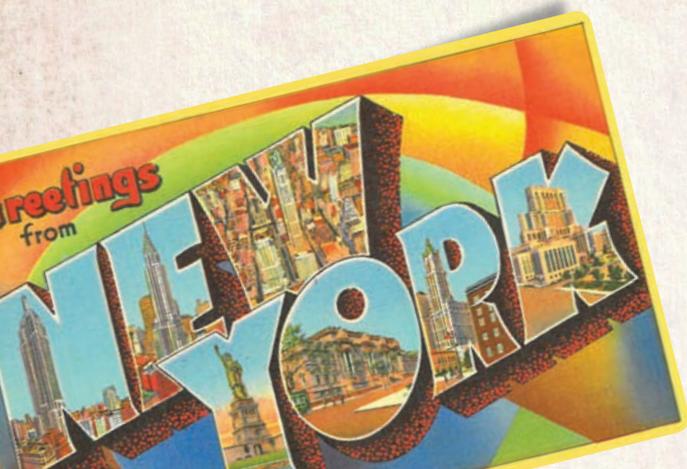
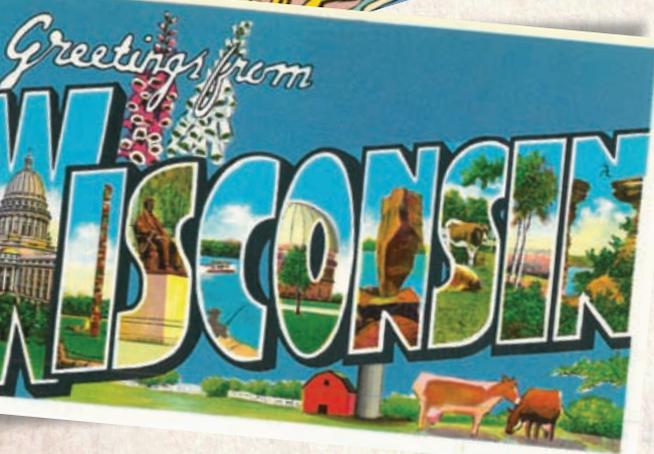
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| Charleston, WV | Linthicum, MD | Springfield, IL |
| Columbus, OH | Little Rock, AR | St. Paul, MN |
| Denver, CO | Los Angeles, CA | Tacoma, WA |
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Cop Cams

The Oakland, Calif., Police Department is piloting a new Criminal Justice Information Services (CJIS)-capable cloud storage platform for body-worn camera video that may help officers better manage the deluge of video they now capture and store.

While the adoption of **body-worn cameras** by law enforcement has accelerated in recent months, storing video evidence can be problematic for agencies as a year's worth of video from each officer's camera can require terabytes of data. Cloud storage represents a potential solution, but until now, most platforms have not met the FBI's CJIS policies, which enable police departments to connect to the FBI's systems and securely access its data.

“I find it curious that the federal government is all of a sudden so concerned about openness when FOIA requests are selectively processed. Since when is more regulation a good thing, and do any of you really think the feds will be able to resist further regulating the Internet? Also, is anyone sure the FCC [has] the right to do this? If it is so incredibly important, why not approach it with legislation? This is a bad deal.

BarryCondrey in response to FCC Votes for Net Neutrality, Expanded Local Broadband Choice

“I think this was a great piece. Yes, people will build vanity projects, people will waste time and it will cost some money to maintain an open government/data policy, website and practices. Yet, from an advocacy-activist and an open-gov-data proponent perspective I believe we are far too early in the open life cycle (if it ever dies?) to discount the value of open data. Equally important is it is far too early to judge the efforts of entities that are striving to build open-gov projects in a sustainable model — either by for-profit or nonprofit entities.

CivicArchive in response to Is Open Data Running Out of Steam?

“For projects that require funding from that level I follow your logic, but do we really need more bureaucratic oversight on projects? I work at a Superior Court and while we generally are able to keep our homegrown projects in-house, I have seen large statewide projects rolled out well and some not so well. While I don't know all of the happenings in each project before I got involved, the biggest areas I've seen problems with seemed to have come from people who know only enough to hurt, not to help. They don't understand the need for the ability to allow change in the details of the project. They think everything is cookie cutter even if the incoming project has to interact with the existing infrastructure and services.

Baldy in response to California Lawmakers Want Better Communication on IT Projects

Saying No to Social

South Carolina state employees will not be allowed to access social media at work, effective in July. A new code of conduct prohibits workers from “us[ing] state resources for their private business or financial gain.” Using social media will only be allowed in instances where it's directly related to the employee's job function,

though penalties for breaking the rule are not detailed in the code.

This new rule follows news of possible social media abuse in Oklahoma, where a legislative report revealed that three of the top 10 websites accessed by state workers were social media websites, with Facebook ranking No. 1.



WHO SAYS?

“One of your biggest tasks is to develop the next generation of leaders. It's one of your responsibilities as a public servant.”

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Tom Schenk

Chief Data Officer, Chicago

Tom Schenk is Chicago's second chief data officer, leading the city's analytics and open data initiatives since September 2014. He previously served as the city's director of analytics and performance management and as a senior research analyst for Northwestern University's Feinberg School of Medicine. Schenk now focuses on Chicago's citywide data repository WindyGrid and related predictive analytics pilots.

1 Last year Chicago deployed a predictive analytics project forecasting rodent infestations. What's next? Since then we've been working on research around predicting and optimizing where to inspect for food poisoning, namely restaurant inspections. So of 15,000 establishments in Chicago, the goal is to identify how we can better recognize which restaurants are the ones we need to visit first. We finished off that pilot. It went very well. We were able to find critical violations earlier than we could in a normal process, so that data-driven approach is driving more efficiency. In the upcoming months we're going to have some more research projects that we're just piloting right now.

2 WindyGrid collects 7 million rows of data each day, much of it in real time, across departments. How is Chicago working to offer this technology to other cities? The commitment to open source, on the software side, is our

biggest work right now. WindyGrid has Mongo as its back-end database, which is an open source solution. But we want to make the entire platform an open source solution so other cities or entities can use its interoperability for geospatial data. So we're rewriting a lot of the code to achieve more user functionality that will work on mobile devices — which is a big objective of ours — and also to ensure our code base can be completely open source and literally put on GitHub.

3 Do you think WindyGrid will be used only by large cities or will it be easy enough for smaller cities to deploy? Certainly large cities would be able to deploy it. For smaller cities, we hope this will be an easily deployable platform or framework, but the true measure of that is only going to come after we get through development. It's certainly going to be useful for them, but it's going to depend on other things

such as the availability of data in smaller cities. Many cities do have 311 systems, and that is one important source of data for us and other large cities, but deploying the system depends a lot on the data sources available — for example, the degree to which information is digitized.

4 How does open source software foster city partnerships? A great part of using open source technology is that it can be somewhat agnostic toward vendors yet able to leverage partnerships with other companies; companies need to use such software for research. For instance, with the restaurant inspections we partnered with Allstate Insurance, which has a team of data scientists. And like many companies, Allstate workers do volunteer projects pro bono for the community. In our case, Allstate's team of data scientists worked with us to develop a predictive analytics model to improve quality of life for Chicago residents. So by leveraging open source technologies — and not requiring software licenses to do research — it gives us the nimbleness of partnering with companies and knowing they don't need software licenses to contribute. **GT**

— Jason Shueh, Staff Writer



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Closing the Digital Divide with Payphones

An innovative solution will bring high-speed Wi-Fi to all New York City residents.

Cities are now dotted with myriad sensors and digital devices. Besides traditional traffic and security cameras, many cities have sensors to detect gunfire and still other devices to monitor vacated parking spots. As this network of digital, Internet-connected devices (i.e., the Internet of Things) grows, city officials are finding new ways to repurpose and incorporate more traditional assets.

Few attempts at this work may prove as path-breaking as New York City's plan to repurpose thousands of underutilized payphones into hubs that provide both a platform for sensors and a citywide, high-speed Wi-Fi network. As the network of high-speed hubs grows, it is expected that so too will the network of real-world sensors and cloud-connected devices that constitutes the city's Internet of Things.

Starting this year, New York City will begin to replace aging payphones and install thousands of connection points, dubbed Links. The goal is for a seamless Wi-Fi roaming experience from Link to Link once the network of hot spots across the five boroughs has fully expanded. In addition to 24/7 free Internet access at speeds of up to 1 gigabit per second — more than 100 times faster than average public Wi-Fi — each Link will offer a range of other benefits as well. This includes free domestic phone

calls, a touchscreen interface for accessing city services, wayfinding information, easy access for 911 and 311 calls, free cellphone charging, and digital advertising and public service announcements.

“We can't continue to have a digital divide that holds back so many of our citizens,” said Mayor Bill de Blasio in a prepared statement. “With this proposal for the fastest and largest municipal Wi-Fi network in the world — accessible to and free for all New Yorkers and visitors alike — we're taking a critical step toward a more equal, open and connected city for every New Yorker, in every borough.”

The service won't just be free to users; it's intended to be free to the city as well. The Links will be funded through advertising revenues and built at no cost to taxpayers. Development has been several years in the making. Then-Mayor Michael Bloomberg unveiled the plan and put out the RFP in 2012. The winning proposal was developed through a partnership between the city and a consortium of four private-sector companies representing a mix of expertise in technology, advertising, connectivity and user experience. In addition to the four consortium companies, the same partner

company already working to bring Wi-Fi to hundreds of city subways will execute the high-speed fiber infrastructure needed to power the network.

It will take several years to install Links across the entire city, but the consortium has committed to establishing a facility for local production right in New York City. In addition to creating tremendous value for the city and private citizens, each unit is expected to provide local businesses and advertisers with the ability to provide highly targeted, contextualized ads. Over 12 years, the network is expected to generate more than \$500 million in revenue for the city.

As sensors and connected devices become core to how cities are managed, the need for citywide Wi-Fi networks is likely to increase. Building these networks will be a complex endeavor that requires the best in network integration — not just the digital network but also the network of public, private and nonprofit users who share risk and benefit. A bright future for cities will be achieved by those whose officials creatively procure innovative solutions. 



Stephen Goldsmith is a professor at Harvard Kennedy School and director of the Innovations in Government Program and Data-Smart City Solutions. The former mayor of Indianapolis, his latest book is *The Responsive City: Engaging Communities through Data-Smart Governance*.



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A Web of Innovation

What does innovation look like? Based on the work of *Government Technology's* Top 25 for 2015, it's a web of good ideas focused on important problems powered by visionary leadership. It's collaborative and interconnected. It's often data-driven and aimed at optimizing performance and effectiveness. When we mapped our Top 25 recipients to their many achievements, it produced a picture of how governments use technology to improve programs and advance their missions, which looks a lot like innovation to us.

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CIO, Workforce Development, Iowa

Story Bellows
Director, Philadelphia Mayor's Office of New Urban Mechanics

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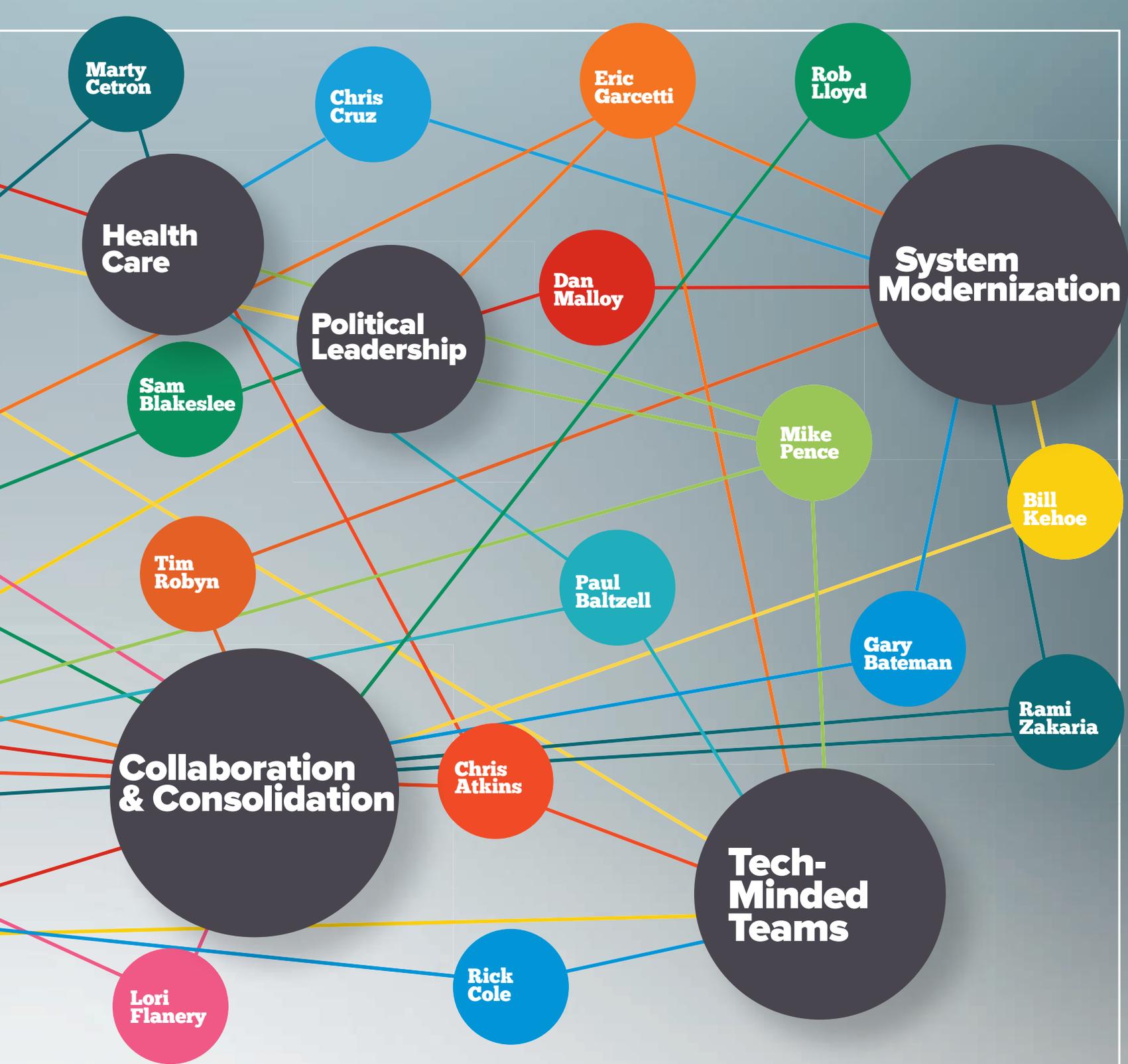
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2015

TOP 25

DOERS
DREAMERS
AND DRIVERS

Every year, we seek 25 individuals (and sometimes a few teams) who cut through the public sector's legendary barriers to innovation with transformative ideas. We call them our Top 25 Doers, Dreamers and Drivers — and we believe they set the standard for using technology to make government more effective and responsive. As usual, the composition of this year's Top 25 is impressive and wide-ranging. It includes elected leaders who drove new technology investment and advanced the use of analytics for decision-making; local officials who used open data to strengthen government transparency and solve problems; state CIOs who shepherded complex consolidation initiatives and sophisticated cloud deployments; emergency management professionals who made communities safer; and entrepreneurs who led and financed innovative civic-tech startups. Collectively their skill and determination helped improve quality of life and community prosperity nationwide. We're proud to introduce our 2015 Top 25 Doers, Dreamers and Drivers.



Team Indiana

Mike Pence (center) / Governor

Paul Baltzell (right) / CIO

Chris Atkins (left) / Director,
Office of Management and Budget

Weaving together publicly held data sets holds great potential for making government more effective at serving the public. There's no shortage of use cases: rooting out fraud and waste in social service programs, increasing revenue collection and connecting citizens with public services. The term getting all the buzz is "big data," and the state getting much of the attention is Indiana.

Gov. Mike Pence wants state decisions to be data-driven, and he now has visible evidence of that commitment in the form of the Management and Performance Hub at the Indiana state Capitol. Opened in June, the hub is the physical space where data and performance indicators across agencies are united and analyzed in order to make programs more effective.

Indiana's inaugural endeavor took on the state's high infant mortality rate, aggregating 5 billion rows of social services, corrections and workforce development data. On the front lines of implementation alongside Pence are CIO Paul Baltzell and Office of Management and Budget Director Chris Atkins.

The initial analysis revealed that the strongest predictors of adverse birth outcomes are inadequate prenatal care, Medicaid enrollment and young maternal age. While these groups represent just 1.6 percent of the state's births, they account for almost half of Indiana's infant deaths. A dynamic Birth Outcome Risk Quantification tool lets the state target resources to the most vulnerable populations and track their effectiveness over time.

"By applying this tool to available data, Indiana can perform continuous analysis and find new ways to connect at-risk mothers with the resources that will support a positive birth outcome," said a report released in January on the initiative.

The state sees potential to impact child fatality rates using these tools as well.

"Case workers in the field will have the capability to make data-driven decisions about a child's welfare," Baltzell said late last year. He named recidivism, economic development and cybersecurity as other areas where this data-driven approach could make a difference.

BY NOELLE KNELL

JOHN BRAGE



Story Bellows

Director, Philadelphia Mayor's Office of New Urban Mechanics

DAVID KIDD

For many civic technologists, local government is where the action is. “We are the test beds of innovation across the country,” said Story Bellows, director of the Philadelphia Mayor’s Office of New Urban Mechanics. Through her work with Philadelphia’s FastFWD program, Bellows is becoming a well known voice on innovation in government.

In October 2013, the city announced its unique 12-week accelerator program aimed at applying fresh entrepreneurial talent to government problems, specifically public safety. FastFWD offers startups rare access to city staff and government data in order to develop solutions that can meet a real need in local government, and scale up for broader implementations in Philadelphia and other cities facing similar challenges. Bellows said Philadelphia now is running pilot projects with three initial companies: Jail Education Solutions, an inmate learning platform; Textizen, a text message-driven engagement tool; and Village Defense, a neighbor-to-neighbor crime alert system. The second group of FastFWD companies completed investor pitches in January 2015.

The program bridges the gap between young companies and government, connecting good ideas to program areas they can actually impact. Part of the disconnect now lies in government’s overly prescriptive purchasing process, Bellows explained, which short-circuits innovation. Maybe one of the most exciting byproducts of FastFWD is a new RFP, honed from what the city has learned through working with program participants. She describes the new document as “a much more entrepreneur-friendly, startup-friendly RFP than we’ve ever issued in the past.”

As the momentum behind procurement reform continues to build, Bellows and the Philadelphia story are ones to watch. Their efforts are yielding lessons that can and should be replicated across the public sector.

“Due to the scale of cities, there are richer opportunities to experiment. Hopefully we can continue working with other cities to lead the way to develop better tools and better processes for multiple levels of government,” she said.

BY NOELLE KNELL

DAVID KIDD



Brian Fontes

CEO, National Emergency Number Association

The National Emergency Number Association (NENA) has been instrumental in the march toward next-generation 911, an Internet protocol-based system that will let users send photos, video and text messages in addition to traditional voice calls — all greatly enhancing public safety.

The transition is arduous — and without leadership, intelligence and vast ability, the quest wouldn't be where it is today. Brian Fontes, CEO of NENA, is at the point of this transformation, leading the push toward a much more capable 911 system.

When Fontes was named NENA CEO in 2008, it was considered a coup of great proportions due to his impressive credentials. At the time, he was vice president of federal relations for Cingular Wireless (now AT&T), and he had been both a senior vice president at the Cellular Telecommunications Industry Association and senior adviser to former FCC Commissioner James Quello. Fontes also was appointed by President Bill Clinton to lead the U.S. delegation to the International Telecommunications Union's World Radio Conference in Geneva.

Fontes now serves on the board of directors of the 911 Institute and the Quello Center for Telecommunication Management, Policy and Law. He also co-chairs the Commerce Department's Spectrum Management Advisory Committee and serves on the FCC's Communications Security, Reliability and Interoperability Council.

It is no surprise that under his leadership, 911 centers nationwide are preparing to adapt to Internet protocol-based systems that will revolutionize public safety.

BY JIM MCKAY



Team Los Angeles

From left to right:

Eric Garcetti / Mayor

Rick Cole / Deputy Mayor for Budget and Innovation

Ron Galperin / Controllor

Bob Blumenfield / Councilmember, Chair of the Innovation, Technology and General Services Committee

You'd be hard pressed to find a city better equipped to boldly confront its tech future than Los Angeles. Originally a *Government Technology* Top 25 honoree in 2007 when he was first elected to the City Council, Eric Garcetti assumed office as mayor in July 2013. Since then, he's appointed the city's first chief innovation technology officer, Peter Marx of Qualcomm Labs, as well as its first chief data officer, former

Code for America co-executive director Abhi Nemani, to serve alongside IT Agency General Manager (and fellow past Top 25 award-winner) Steve Reneker.

Evidence of Garcetti's commitment to technology as a powerful enabler of improved citizen services can also be seen in a number of initiatives he's launched since becoming mayor. A new data portal features more than 800 sets of city data and performance-tracking metrics in several key program areas.

Fellow 2015 honoree, Controllor Ron Galperin, made major contributions to the city's transparency efforts too, with his launch of the Control Panel L.A. portal, which features user-friendly dashboards on all things financial. Other efforts championed by Galperin include the Civic Innovation Lab, an engagement effort aimed at using city data to solve city problems, and the Civic Innovation fellowship, which pairs enterprise city staff for short-term projects.

L.A.'s "cloud first" strategy, officially adopted last July, sizes up software and hardware purchases against their expected return on investment. This policy led to a decision to move 20 city websites, including the L.A. home page, to the open source Drupal content management system. These bold initiatives vaulted Los Angeles to the top spot in the large cities category in the 2014 Digital Cities survey, conducted by the Center for Digital Government, the parent company of *Government Technology*.

One of Garcetti's first moves upon assuming office was to line up veteran municipal administrator and former Pasadena Mayor Rick Cole to serve as deputy mayor for budget and innovation. Among a

host of efficiency measures, Cole has his sights set on implementing performance-based budgeting for the entire enterprise. His commitment to innovating included a study of the structure of other cities' innovation offices, many of which are set up as autonomous entities. In the end, Cole concluded that integrating innovation functions with the budget office would better promote a culture of innovation across city operations as a whole.

The city has gigabit aspirations as well, a goal made loftier by the area it hopes to cover — L.A.'s more than 500 square miles. Councilmember Bob Blumenfield, who chairs the Innovation, Technology and General Services Committee, authored the broadband legislation, which has been vocally supported by Garcetti. Residents and businesses alike should reap the benefits of this modern infrastructure, leaders say, sweetening the RFP released late last year with \$1 billion worth of incentives in return for making the super-fast connectivity available in low-income neighborhoods. Blumenfield wants gigabit speeds available to 90 percent of the city by 2020, according to the *Los Angeles Times*.

BY NOELLE KNELL



Most governors wouldn't call re-election by 25,000 votes a rout, but that midterm margin looked pretty good to Connecticut Gov. Dan Malloy, who first took office in 2010 on a razor-thin 6,400-vote victory.

Malloy joked with reporters about his "landslide" November win in a tightly contested Connecticut governor's race. But in a midterm election that was tough on Democrats, he was also an anomaly: an unapologetic progressive who ran on his record of raising taxes on the wealthy, implementing new protections for workers, tightening gun control laws and sinking new investment into infrastructure. It's the latter category — infrastructure investment — that had a dramatic impact on technology.

Connecticut CIO Mark Raymond says Malloy led efforts to modernize state computer systems that were outdated and at risk of failure. "Gov. Malloy came in and said, 'We want to be able to do more with technology,'" Raymond told

Government Technology last year. "He's focused on technology — not from a personal usage perspective — but as an important lever of change."

To pay for new systems, Malloy created a \$50 million IT capital investment fund governed by a committee of seven agency commissioners. As of late last year, nearly 30 projects were being financed by the fund and more than 20 others were under consideration. Along with new funding came business process changes for state agencies and an enterprise identity and access management platform launched in conjunction with the successful Access Health CT health insurance marketplace.

These efforts cut operating costs by more than \$4 billion, the state says, and earned Connecticut an A grade in our 2014 Digital States Survey along with recognition as most improved. They also establish Malloy as one of the nation's tech-friendliest governors.

BY STEVE TOWNS

Kevin Counihan

Director and CEO of HealthCare.gov

Kevin Counihan ran one of the most successful state health insurance exchanges during the first year of Obamacare. As a reward, he was tapped by the Obama administration for one of the toughest jobs in government: keeping the federal HealthCare.gov online marketplace running while millions of Americans sign up for year two of coverage under the Affordable Care Act.



Until last August, Counihan was CEO of Access Health CT, the Connecticut HIX that signed up more than 250,000 residents for health coverage in year one and ranked

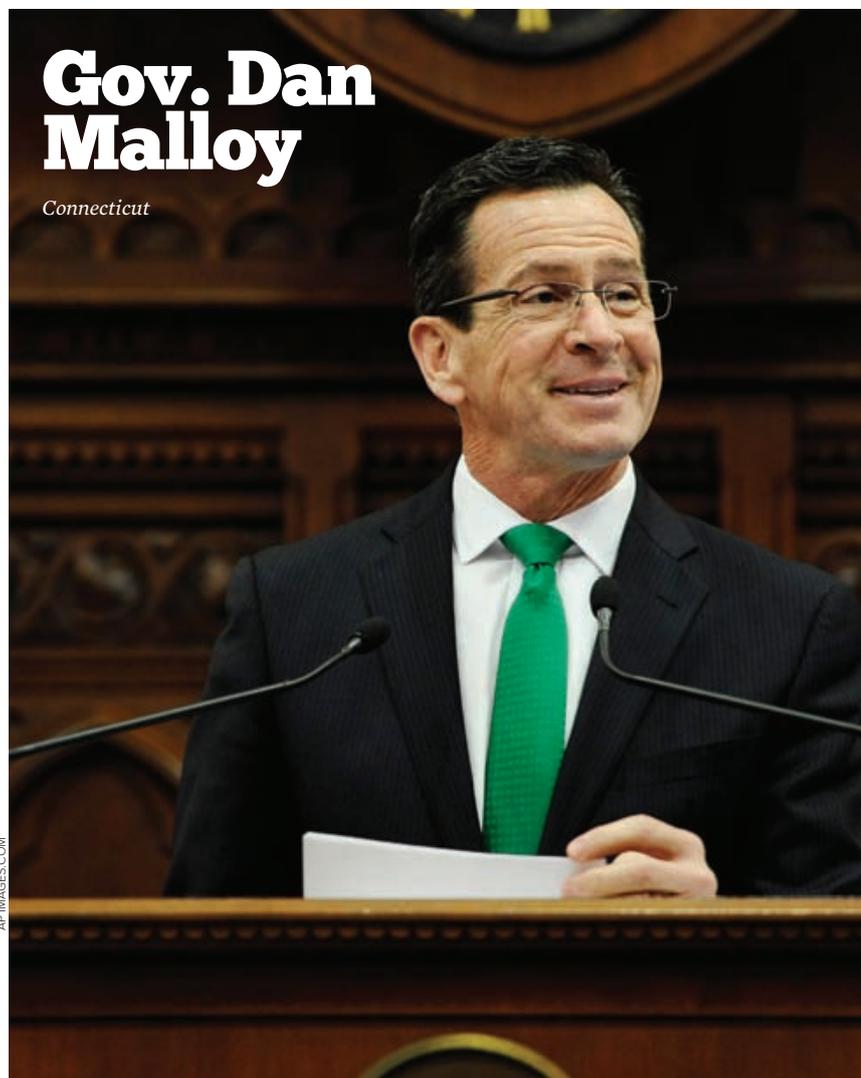
among the nation's smoothest Obamacare rollouts. The site was praised for its no-frills approach. Functions like payment processing, site development and call center operations were outsourced, while an experienced state team focused on the fundamentals. And on opening day, while other health exchange sites staggered under the load, Access Health CT worked as advertised.

The site's performance was so good that at least one state — Maryland — switched its HIX to Connecticut's technology platform.

Now Counihan is the first CEO of the federal exchange, a position many called for after the disastrous rollout of the national marketplace. An all-hands-on-deck tech intervention in late 2013 stabilized HealthCare.gov, and 5.4 million Americans ultimately signed up for health insurance via the site.

HealthCare.gov isn't out of the woods yet — observers warned late last year that back-end repairs were still under way on the site — but Counihan appears to be on a roll. In October, the Obama administration unveiled a revamped version of the exchange. And while not perfect, the signup period was much better this time around.

BY STEVE TOWNS



Gov. Dan Malloy

Connecticut



Tim Robyn

CIO, Missouri

Missouri Gov. Jay Nixon is fond of saying that he wants to make government smaller, smarter and more efficient. Since 2012, it's been state CIO Tim Robyn's job to help turn those words into action. Over the past few years, Robyn's Information Technology Services Division (ITSD) has consolidated data centers — saving the state millions of dollars — and deployed new online services to improve convenience for citizens. The ITSD also is facilitating new data initiatives that are turning information into valuable assets. Better data sharing among state health and social services agencies recently cut hospital use by Medicaid recipients by 20 percent, for instance.

The impact of these and other initiatives was big enough to earn Missouri an A grade in our 2014 Digital States Survey, one of just three states to win a top mark. Robyn says his success stems from a team effort. “We have a unique situation where

everybody is pulling together to leverage technology for the benefit of the state,” he said. “We have support from our Democratic governor and our Republican Legislature, so it's bipartisan.”

Robyn is particularly happy with recurring funding for cybersecurity approved last year, which provides an extra \$4.5 million annually for security enhancements. “The governor and the Legislature both recognize how great a priority that is,” he said.

And Robyn is just getting started. Now he's presiding over a monumental legacy modernization initiative that will replace Missouri's tax collection, unemployment insurance, offender management and workers' compensation systems.

“I'm proud that people have come together and are tackling these very challenging projects,” he said. “We're not waiting for the people who come behind us to figure it out. We're modernizing. We want to do it while we're here.”

BY STEVE TOWNS



Carolyn Hogg

CIO, Fresno, California

For nearly eight years, Carolyn Hogg has used her open leadership style to further the reach of technology in Fresno, the hub of California's fertile San Joaquin Valley. Hogg is keeping an eye on the future of broadband, promoting agricultural technology and water research, finding new opportunities in work-sourcing models like contests, fine-tuning an open data policy and building relationships that create regional opportunities.

One of those opportunities is 59 Days of Code, an annual hackathon used to generate interest and build public participation in projects that the city doesn't have the skills to tackle itself, like creating a mobile app for homeless people. The app shows where food is being distributed, along with the availability of dental care, transportation and donated goods like pet supplies.

Hogg also is at the center of agricultural technology and rural broadband development — a new regulation requires the city's Public Works and Planning Department to lay fiber-optic cable in the ground whenever it does roadwork.

“The city has embraced the idea that broadband is here to stay and it's actually going to be treated as a utility because it's such a way of life,” she said.

In fact, broadband is the backbone of a broader vision for the region, Hogg said, which encompasses agricultural tech, remote learning and building new research opportunities. California State University, Fresno, is developing coursework around agricultural technology, and Hogg is a member of a multi-agency water hub that's working to unlock data to promote innovation across the area.

BY COLIN WOOD

DAVID KIDD

DAVID KIDD

Oliver Wise probably couldn't have picked a worse time to work for a city. For years following Hurricane Katrina, New Orleans was a government on the brink. The city faced massive budget deficits, staff morale had cratered and its IT systems were collapsing. But Wise went ahead and joined newly elected Mayor Mitch Landrieu's administration in 2010 with the goal of bringing innovation and success to a moribund performance management system.

Wise's first task was huge: find a way for the city to deal with the enormous amount of blight. Nearly 30 percent of the city's housing stock was thought to be impaired or abandoned. Wise created a strategy to address or remove 10,000 blighted homes by 2014 and launched a "blight stat" program to track results. He then spread the same data-driven, analytical approach to operations citywide.

Wise and his team coordinated a strategic framework organized around Landrieu's goals of supporting public safety, sustainability, economic development, children and families, and open and effective government. Performance metrics align to these strategies. "We now have a high-touch stat program for cross-cutting issues in the city," said Wise.

In 2014, New Orleans was recognized by the International City/County Management Association for its excellence in "superior performance management," including performance analytics. Technology is, of course, critical to the work done by Wise and his associates. But he makes sure the Office of Performance and Accountability figures out the questions it needs to answer and the metrics that must be measured before sitting down with the IT department to determine how technology will drive the process forward.

New Orleans still has its challenges, but Wise says he's working in the most fascinating city in the world right now. "New Orleans came from a tragic low and in the wake of Katrina became a symbol of what happens when government doesn't do its job. Now it's a beacon of innovation and progress that the entire world can look to."

BY TOD NEWCOMBE



Oliver Wise

Director, Office of Performance and Accountability, New Orleans

Bill Kehoe

CIO, King County, Washington

During more than four years as CIO, Bill Kehoe has seen King County transform. And whether it's moving applications to the cloud, modernizing legacy software, consolidating executive leadership or changing institutional mindsets, Kehoe has tended to the long view.

Most recently, King County's transformation has manifested itself in the form of a migration to Microsoft Office 365 and a unified communications project using Skype for Business that supports nearly 8,000 users.

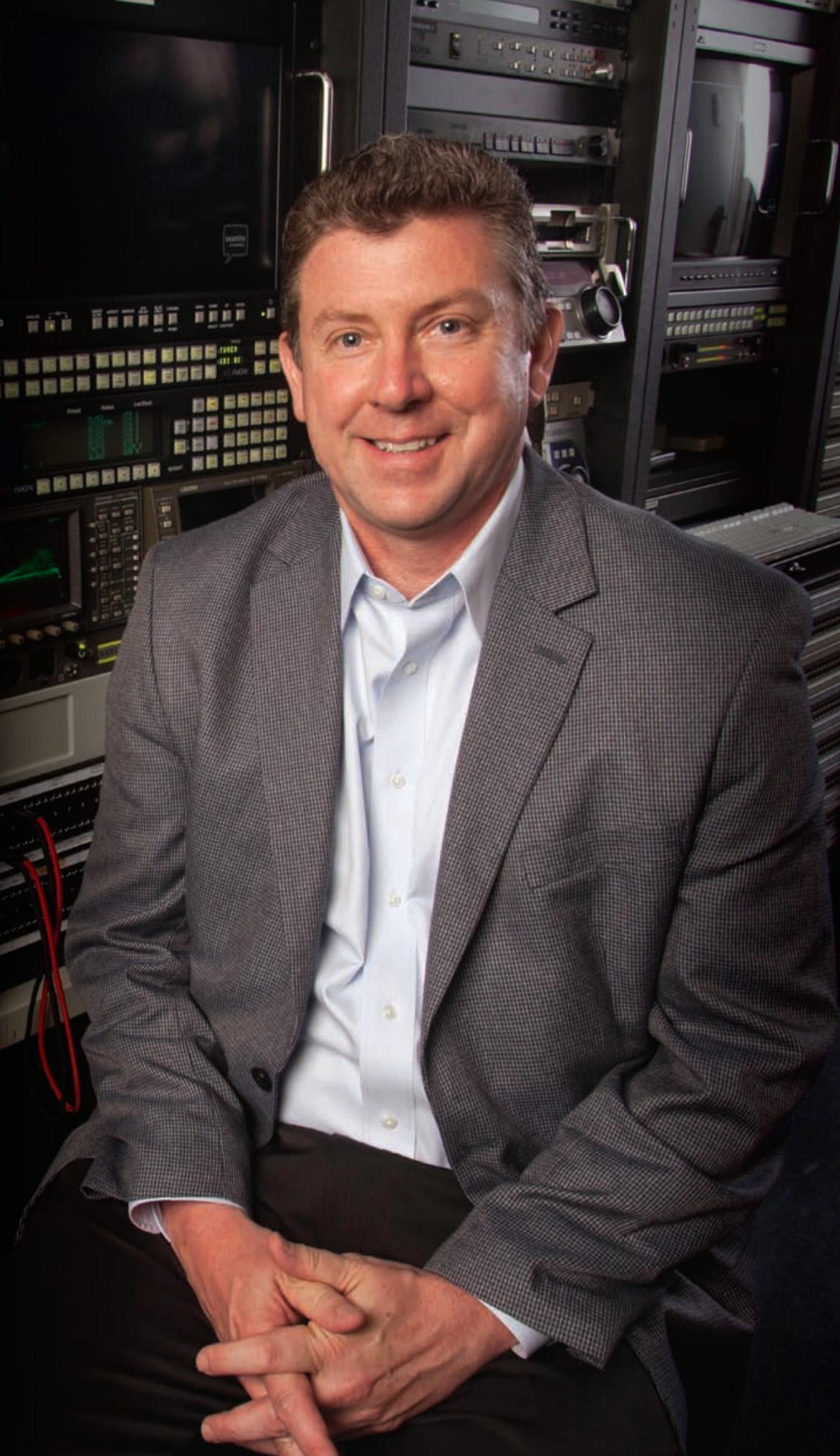
The county's success in technology is nothing new. It's been recognized in e.Republic's Digital Counties Survey regularly for the past 10 years. The county also took third place in *Government Technology's* Best of the Web survey last year. But for Kehoe, successful innovation goes beyond technology.

The Metropolitan King County Council has created an innovation team — comprising the county's IT governance committees, business management council and technology management board that will organize new, countywide projects around e-government, mobility and open data, Kehoe said. It's not just an IT project, he explained, but also a cultural shift.

Kehoe added that innovation is about getting the county's business customers to think beyond short-term tactics and to build a strategic plan for long-term success.

"My mantra here," he said, "has been to put together an organization under a service model and to create these platforms that are sustainable for the future, and I think we've made a lot of great progress in both of those areas."

BY COLIN WOOD



Ron Bouganim

Managing partner, Govtech Fund

Last year Ron Bouganim trailblazed a promising new catalyst for government innovation. In September, Bouganim founded the Govtech Fund, a first-of-its-kind, \$23 million venture capital fund dedicated exclusively to investment in government tech startups. The fund is the result of an 18-month courtship of investors, an endeavor that drew from Bouganim's personal expertise in entrepreneurial ventures and his mentorship service in the Code for America Accelerator.

"To be able to publicly announce the first-ever fund for government technology startups, that, for us, was fantastic," Bouganim said.

To date, the fund has invested in four companies: AmigoCloud, a GIS mapping service; SmartProcure, a government procurement intelligence platform; SeamlessDocs, a solution to digitize government forms; and MindMixer, a community engagement service known for its civic idea contests and public input gathering.

The fund discards assumptions that government officials are too risk averse to buy from innovative startups. It also purports that civic innovation can be profitable. Bouganim says two of the Govtech startups already have received additional funding from investors.

"That just shows confidence from the investor community that we're moving in the right direction," he said. "And you just continue to see data point after data point of momentum in the space, which we fully expect to continue in 2015."

Average initial investments going forward will be around \$500,000, and a total of 15 to 20 investments will be made in the next three to five years.

BY JASON SHUEH

Theresa Pardo

Director, Center for Technology in Government, University at Albany, State University of New York

Despite the billions of dollars spent annually by governments on IT, and the critical role technology and data play in public-sector operations and programs, there's relatively little research devoted to the subject. One of the few institutions that does this kind of work, and perhaps the most elite, is the Center for Technology in Government (CTG) at the University of Albany. For the past five years, Theresa Pardo has been leading the center at what it does so well: fostering public-sector innovation through applied research, knowledge sharing and collaborative problem-solving.

Pardo and her team work with all levels of government, not just in the U.S., but also around the globe. Take, for example, a project called the "open government portfolio public value assessment tool," which was funded by the National Science Foundation to support the CTG's work with the U.S. federal government to measure the public value of open government projects. Through a partnership with the World Bank and several private-sector firms, the center brought the tool to Nigeria where it was used to guide the country's national open government plan development. Since then, the tool has been downloaded more than 600 times and is being used in many governments.

"One thing CTG is really great at is helping governments unpack

the complexity of information- and technology-related problems and create solutions and strategies that maximize public value," said Pardo.

The CTG has undertaken many research projects under Pardo's leadership, but a couple stand out. One involves research on information sharing, one of the center's strongest areas of study. "It's extremely challenging to do well," she said. But the center has transferred that expertise to a variety of contexts, including Kenya, where the implementation of the nation's new constitution relies heavily on the sharing of information.

The center also has worked extensively with New York state and its local governments to help build data resources in a number of key policy areas. "We help people understand what it takes to create a robust and relevant data infrastructure and analytics program, and then help them design and build it within different policy domains and organizational contexts," Pardo explained.

In working with her team, a wide network of collaborators, visiting scholars and students, Pardo says it's her job to find out what inspires and interests them. Her leadership philosophy dovetails into what the center strives to do: bring the best minds together to help organizations create sustainable and valuable change.

BY TOD NEWCOMBE



JESSICA MULHOLLAND





Stephen Elkins

CIO, Austin, Texas

DAVID KIDD

With decades of public- and private-sector IT experience, Stephen Elkins is a calming force in an era of rapid technological change. Since being appointed Austin CIO five years ago, he has championed a transition toward shared services, open data, and streamlined IT processes and projects throughout the city.

One current project for Elkins is using data to ease gridlock on city roads, particularly during major events like University of Texas at Austin football games. The plan calls for continually retiming traffic lights using data provided by apps on drivers' cellphones.

In addition, like many of his fellow CIOs, Elkins faces a looming "silver tsunami" of IT staff eligible for retirement in the next few years — roughly 30 percent of his workforce. To stem the tide,

Elkins is embracing innovative hiring practices to fill tech roles.

Staff members, for example, are cross-trained on multiple IT jobs where possible, and retirees often fill in as temporary employees until permanent hires can be made. Elkins also wants to use Austin's reputation as a college town and live music mecca to recruit out-of-town IT talent.

Collaboration is another priority. Elkins has supported partnerships with Code for America and embraced the value of hackathons to spur IT innovation in the city. But perhaps his most valuable move has been fostering regional cooperation with Corpus Christi, Houston, Fort Worth, Harris County and other local governments in Texas to tackle common issues such as cybersecurity, vendor management and public-safety dispatch.

BY BRIAN HEATON

Dr. Marty Cetron

Director, Division of Global Migration and Quarantine, Centers for Disease Control and Prevention

Marty Cetron knows first-hand that diseases have no borders. As a high school student, Cetron remembers his father returning from Mexico suffering from a form of hepatitis; he also recalls wondering why no one could initially diagnose his father's illness. Now as director of the CDC's Division of Global Migration and Quarantine, Cetron understands as well as anyone how today's mobile populations impact the spread of disease.

Cetron was instrumental in the development of BioMosaic, a big data tool that creates a comprehensive picture of potential foreign-borne disease threats in the United States, by merging three separate data tools into a single app.

For the last four years, the CDC has used BioMosaic to monitor the risk

to U.S. citizens from diseases

like Ebola and the Middle

East Respiratory Syn-

drome. The tool combines

airline records, disease

reports and demographic

information on people who

leave affected areas and

head for the U.S. The data is

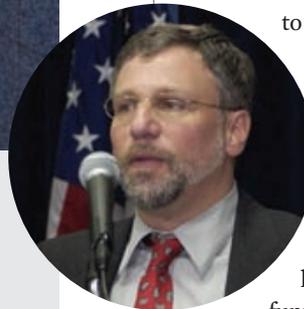
funneled to public health officials

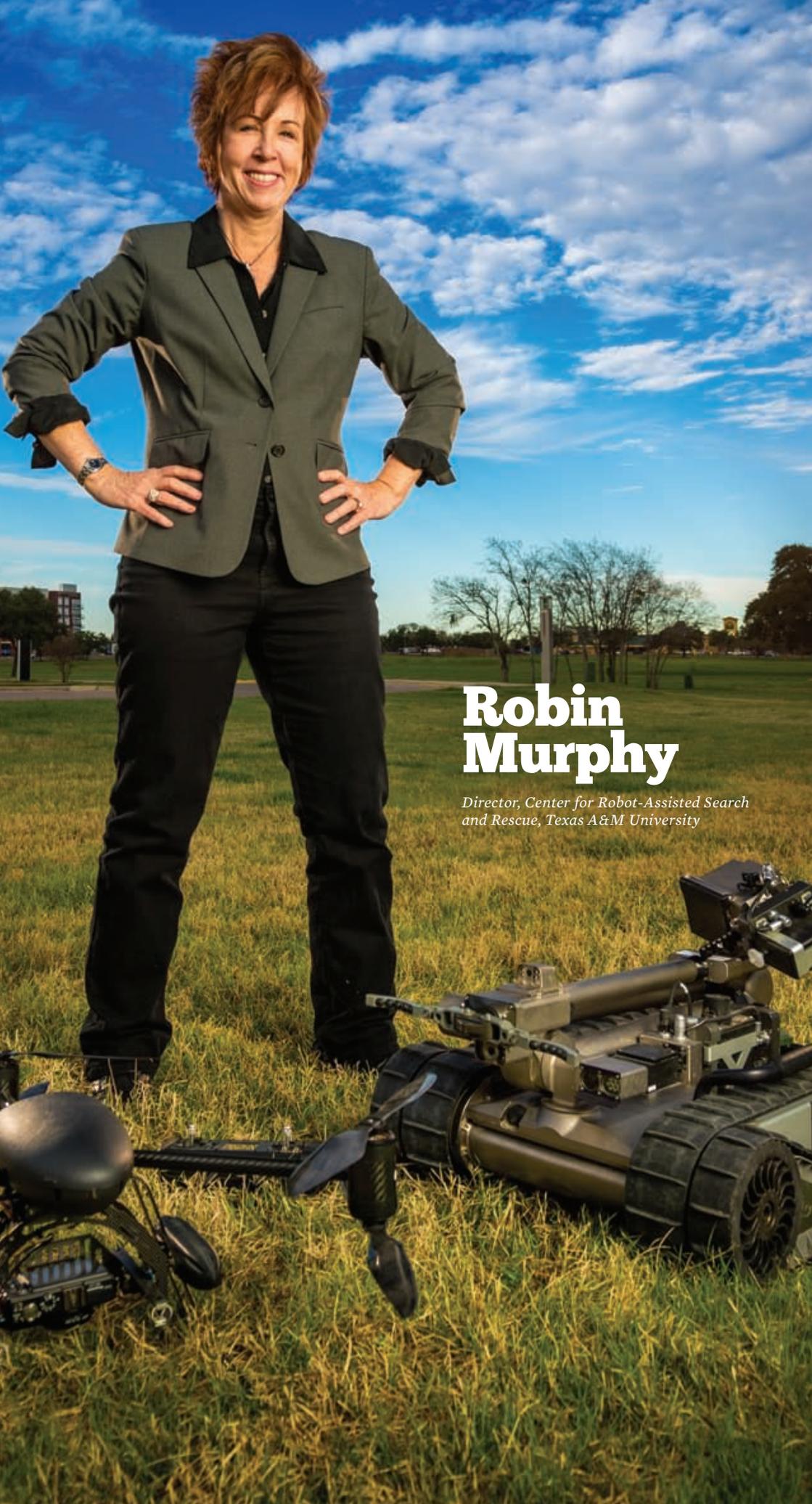
through a website and an iPad app.

After the 2010 earthquake in Haiti and subsequent cholera epidemic, BioMosaic showed where clusters of Haitian-born residents in the U.S. were most likely to live, along with air and sea travel routes to and from Haiti, to pinpoint where anti-cholera measures in the U.S. would be most useful.

During the height of the Ebola scare last year, Cetron was a beacon for calm and a trusted source on the spread of infectious disease. For instance, he argued against restricting travel to and from West African countries, reasoning that such a move would only force travelers to take circuitous routes, making the spread of the disease even harder to track.

BY JIM MCKAY





Robin Murphy

Director, Center for Robot-Assisted Search and Rescue, Texas A&M University

For Robin Murphy, 1995 was a career-defining year. Both the Oklahoma City bombing and Kyoto earthquake in Japan occurred that year, highlighting the need for small and smart robots that could search areas too dangerous for people and dogs. These events prompted Murphy to work on robots that could improve disaster response and recovery.

Fast-forward two decades and now Murphy is considered a pioneer in the field of disaster robotics and has the experience to back that up: She has studied or responded to nearly 50 emergencies in the U.S. and abroad to understand robots' role in the situation. What's more, she also developed robots that were used during the 9/11 response — the first reported use of a robot in a disaster situation — as well as those during Hurricane Katrina and the Oso, Wash., mudslide.

Like other technologies, disaster robotics continuously evolves as needs are identified and new tools emerge. The initial focus was ground robots, but unmanned aerial vehicles and underwater vehicles are commonplace now. "Starting in about 2011, I think if you have a disaster and you're an agency and you haven't figured out a way to use a small unmanned aerial system, it's kind of surprising," Murphy said.

As director of the Center for Robot-Assisted Search and Rescue at Texas A&M University, Murphy works to advance the technology (currently she's focused on the human factor and how people actually use the technology) while also traveling to disasters when called upon to help agencies determine how robots can aid the response. Through the Roboticists Without Borders program, which she said acts as "a dating service," Murphy works to pair the best technology for a given disaster with people who can run it to meet responders' needs. And that's a scenario she wouldn't mind seeing end.

"I would love to be out of business; I would be just as happy for groups to have robots on their own," said Murphy. "I would like the data though. I love learning from the practitioners what's working and what's not."

BY ELAINE PITTMAN

OSCAR WILLIAMS

Theresa Reno-Weber

*Chief of Performance and Technology,
Louisville Metro Government, Kentucky*

Theresa Reno-Weber is an assiduous tabulator, a performance driver and a groundbreaker when it comes to municipal data analytics. Hired in 2012, she helped craft Louisville's strategic plan and spearheaded development of LouieStat, a performance platform that tracks progress on operational goals.

In 2014 Reno-Weber completed the complex task of incorporating city departments into the platform — a process that started with nine in 2012, increased by 10 in 2013, and finally included all 24 departments last year. The initiative supplies city officials and residents with regular updates on progress while holding the metro government to a higher level of accountability.

“We continue to work with each department to cascade their strategic plan goals into operational metrics that can be tracked on a consistent basis and be indicators of where there are opportunities for us to improve performance,” Reno-Weber said.

Despite the progress so far, she says Louisville is just scratching the surface of what data can do. The vision is to create a repository of operational and public data where analytics deliver instant intelligence and predictive forecasts for city planning. Logistically this means linking LouieStat with the city's open data portal — 70 new data sets were added last year — and procuring new technology that automates analysis, visualization and predictive analytics. Reno-Weber already is in talks with possible vendors and scouting various solutions.

“Connecting the dots there is the place we want to head,” she said.

BY JASON SHUEH





Rami Zakaria

CIO, Sacramento County, California

JESSICA MULHOLLAND

The Great Recession was a turning point for many local governments as revenues plummeted and budgets shrank. For Sacramento County, agencies had to change the way they did business, and none more so than the Department of Technology. By the time Rami Zakaria became the county's CIO in 2011, a massive consolidation effort was under way, saving millions of dollars while improving IT services to internal and external customers.

Zakaria says his staff of dedicated professionals is the reason the county completed the consolidation so successfully. But the CIO, who has spent much of his career working for the county, also redrew IT governance, abandoning the old decentralized approach and giving greater emphasis to countywide IT priorities like a new VoIP phone system, automated hiring application process, construction tracking system and a media platform for county leaders to communicate directly with the public.

Zakaria made it clear that IT consolidation was never an effort to centralize control of technology in the county. "We see our role as an enabler, with a focus on customer services," he said.

Consolidation and new governance laid the foundation for a series of data-driven modernization efforts. By linking 311 data with business intelligence tools, the sprawling county can determine the best way to deliver services to unincorporated areas. At the same time, IT continues to modernize the county's digital infrastructure and improve information security strategies. In 2014, the county received national recognition for its website and digital accomplishments.

Zakaria keeps his leadership philosophy simple and strives to make it effective. "I strongly believe in leading by example. I don't sit in my office; I'm out meeting with my staff and others on a regular basis," he said. "I also believe it is very important to foster collaboration and to build trust with my staff and my customers."

BY TOD NEWCOMBE

Lori Flanery

Secretary, Finance and Administration Cabinet, Kentucky

As a lawyer and executive leader, Lori Flanery never expected to find herself presiding over technology for Kentucky. But she did. "And it's really been one of the best things that's ever happened to me from a career perspective," she said.

Flanery was appointed secretary of the state's Finance and Administration Cabinet in 2011, having served as deputy secretary since 2007. Not only does the cabinet oversee the technology department, she was also Kentucky's interim CIO for seven years. Flanery calls technology "a breath of fresh air." The law is wonderful, she said, but it's all about following precedent. Flanery enjoys the contrast of technology's forward-looking viewpoint.

During her time as secretary, numerous IT initiatives have been implemented and strategic changes made, but it's an upcoming project that Flanery is most excited about: a public-private partnership that will bring high-speed broadband statewide by late next year. Kentucky is laying middle-mile fiber to serve state government buildings, K-12 schools and universities — and allowing Internet providers to access the infrastructure. "We're going to sell or lease the excess for economic development to

help people who want to serve but who don't have enough capital to lay the infrastructure themselves," Flanery said.

Kentucky also saves millions of dollars annually by managing print devices. It may not sound as flashy, but Flanery calls the move "kind of a culture change." She added that Kentucky may have been the first to approach managed print on a statewide basis.

With the governor's term ending in December, Flanery is working to institutionalize the changes made so far, so they can become a platform for the next administration. "I think a lot of the things we're doing are going to need next phases," she said. "We're just touching the very beginning of what we're going to be able to do."

BY ELAINE PITTMAN





Bryan Sastokas

CIO, Oakland, California

DAVID KIDD

On the doorstep of Silicon Valley, Oakland is in the midst of a technological renaissance, having launched a new open source records request system called RecordTrac and encouraged hackathons for kids in low-income communities. In the center of it all is CIO Bryan Sastokas.

The first official CIO of Oakland, Sastokas was hired more than a year ago to lead the city's technology staff and mission. His immediate task wasn't a specific project or initiative, however. It was determining how to walk a fine line between keeping the city's IT infrastructure up and running, and taking steps to innovate.

When he took the job, Sastokas intended to provide some mature concepts and engage partners to take Oakland to the next level. Instead he found himself becoming an "operational guru," making sure critical functions like the email system and data centers didn't break down.

Getting his hands dirty in daily operations isn't something Sastokas regrets — he enjoys balancing his

duties as both an IT problem-solver and a collaborator who helps the city become a high-tech and forward-thinking powerhouse.

"When we become so focused on how we want to better things, we sometimes lose how to make them deliverable and actionable," Sastokas said.

For example, Oakland has a citywide fiber master plan and is forming partnerships to expand its fiber network, including a program to light dark fiber in two blighted areas of the city. Sastokas also said the city is moving many "underpinning technologies" to the cloud to take advantage of the resource savings and efficiency gains.

"We're doing large, Fortune 10 company-style projects that have been Herculean for us and we're doing them slowly," Sastokas added. "It's not easy — it's government. But you need to look beyond that and see how it betters Oakland. And that's where I see these initiatives going for the city."

BY BRIAN HEATON

Rob Lloyd

CIO, Avondale, Arizona

CIO Rob Lloyd came to Avondale in 2011, and since then he's led big changes and garnered equally big commendations, including first-place wins in *Government Technology's* annual Digital Cities Survey in 2013 and 2014. Avondale's technology leadership continually impresses its contemporaries through advances in project management, stakeholder engagement, cybersecurity, sustainability and procurement strategy.

Success, Lloyd explains, starts with people. "In government, we build communities, not stakeholder equity or profit lines, and so what we're after really is creating an exceptional workplace and culture and from there you take the great ideas that people have and step forward," he said.

Avondale also has been recognized for its branding efforts, an emblem of the city's winning technology strategy, which is to involve stakeholders and use that engagement to drive project focus

and priority. The city has a greater than 90 percent project success rate, Lloyd said, because its IT strategic plan is based on managing the needs of staff members in all areas and levels of the organization.

Avondale dismantled its traditional project management office — "a quiet revolution," Lloyd called it — in

favor of a more flexible approach that allows different tactics and strategies to be utilized depending on the project, and places more emphasis on goals than exact specifications for projects.

In addition, sustainability efforts cut annual data center power usage by 100,000 kWh and printing by about 1 million copies. To strengthen cybersecurity — an area where Avondale is a regional leader, Lloyd says — the city partners with groups like the Arizona Counter Terrorism Information Center to gain access to resources that a municipality of its size couldn't ordinarily access.

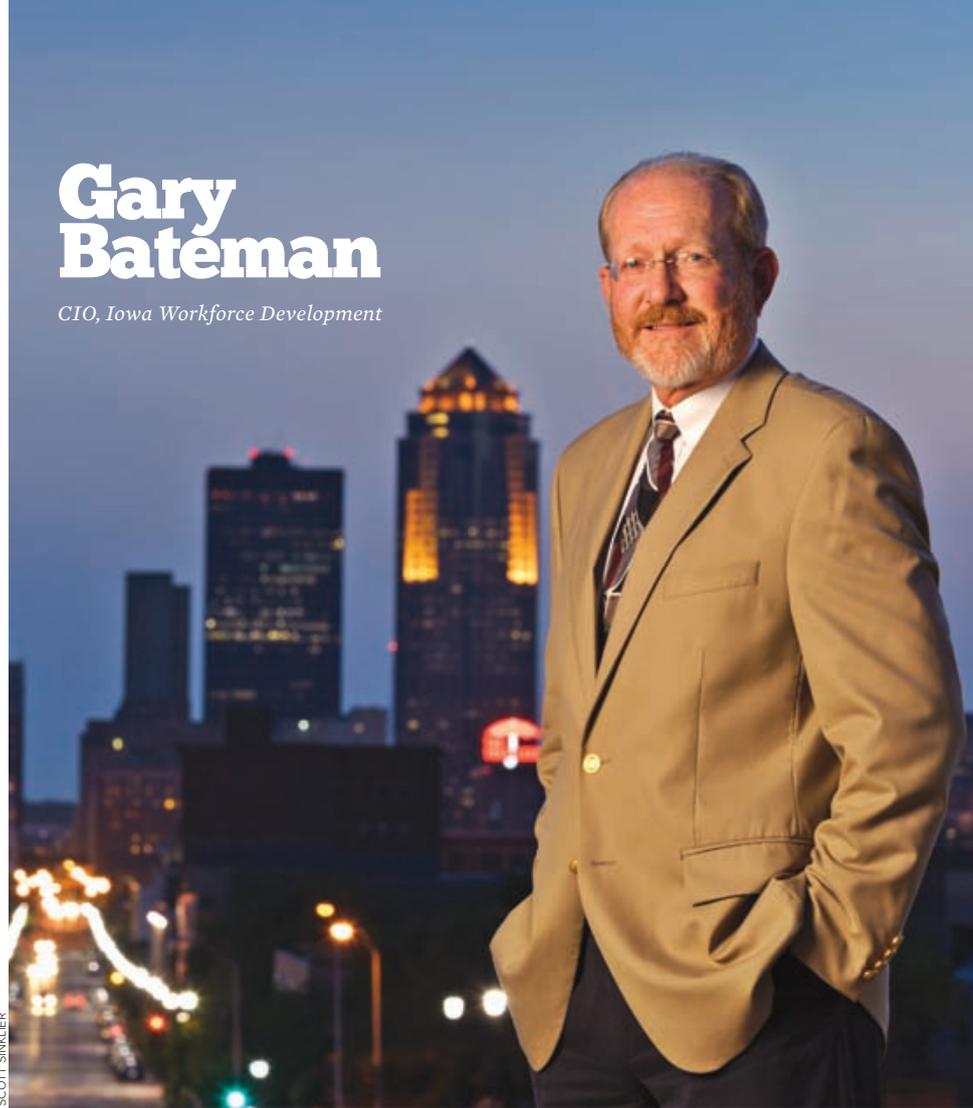
BY COLIN WOOD



Gary Bateman

CIO, Iowa Workforce Development

SCOTT SINKLER



Like many state offices, Iowa's Workforce Development agency had its belt severely tightened during the recession. But CIO Gary Bateman responded to budget constraints with innovative technology that cut costs while ensuring that services remained accessible to Iowa's 3 million residents.

By deploying 1,800 thin clients in places like libraries and National Guard armories, the agency increased the number of locations where residents can sign up for unemployment benefits while saving millions of dollars by closing brick-and-mortar offices. The project began in July 2013 and has been instrumental in shuttering many of Workforce Development's 55 physical offices.

The cloud and open source technology also have become instrumental, as Bateman works to leverage them in numerous ways. A new workers' compensation system and job search portal will be hosted in the cloud.

And the agency used the open source Drupal platform to develop an online unemployment claims interface that's user-friendly, reliable and accessible on any device. The platform's interface is largely hosted through Amazon's cloud-based services, making it Iowa's first cloud-hosted app. "For this coming year, the cloud is going to be the big thing that we're pushing for," said Bateman, who was named CIO of the agency in 2010.

As Iowa Workforce Development implements these shifts in strategy, Bateman is working with his staff to ensure that employees have the new skill sets these technologies require. "I like working with people who get enthusiastic about their work, not people who just consider it a day job, but people who get excited about technology in general, so I try to promote that," he said. "I look for ways to get people excited about new projects, new technologies and how we can use those to benefit the state."

BY ELAINE PITTMAN

Sarah Leary

Co-founder, Nextdoor

Sarah Leary didn't set out to be a bridge between local government and citizens. But that was a fortunate development when she co-founded the popular neighborhood social media platform Nextdoor in 2010. Today, Leary is connecting the company's 50,000-plus neighborhoods with public agencies nationwide. The value proposition is pioneering in that it links officials to specific geographies and gives residents direct contact with government — most notably for emergency services.

In an interview last year, Leary talked about creating Nextdoor for Public Agencies — an initiative that offers easy signups and personalized dashboards for government departments.

"We invested in putting up a sizable development team internally, and it was a several step process that culminated in September," she said.

Following the release, the number of public agencies that signed on grew from 100 at the start of 2014, to 600 by the year's end. Leary added that government users are forecast to triple sometime this year.

"Most Americans live outside major cities, and so we wanted to make sure that we were taking this powerful platform that allowed residents to connect with police and fire departments and making that available to any number of the 14,000-plus municipalities in this country," she said.

More new features are ahead in 2015, and while Leary couldn't elaborate, she said there are plans to create an experience that tailors the platform to all levels and types of government agencies.

BY JASON SHUEH



JESSICA MULHOLLAND


 A portrait of Chris Cruz, a middle-aged man with short brown hair and a slight smile, wearing a dark suit jacket, a white dress shirt, and a blue necktie. He is positioned in front of a window with vertical blinds, which are slightly out of focus.

Chris Cruz

CIO, California Department of Health Care Services

Chris Cruz deftly balances both the big picture and the smallest details.

Since becoming CIO and deputy director of the massive Department of Health Care Services (DHCS) in late 2010, Cruz has overseen a \$1 billion project portfolio and some of California's biggest IT initiatives, including a mission-critical Medicaid Management Information System expansion and upgrade.

Under Cruz's leadership, the department enacted a voluntary teleworking and virtual desktops plan for IT workers in order to attract and retain top talent. He also made DHCS one of the first

state-level departments to actively encourage bring your own device in the workplace.

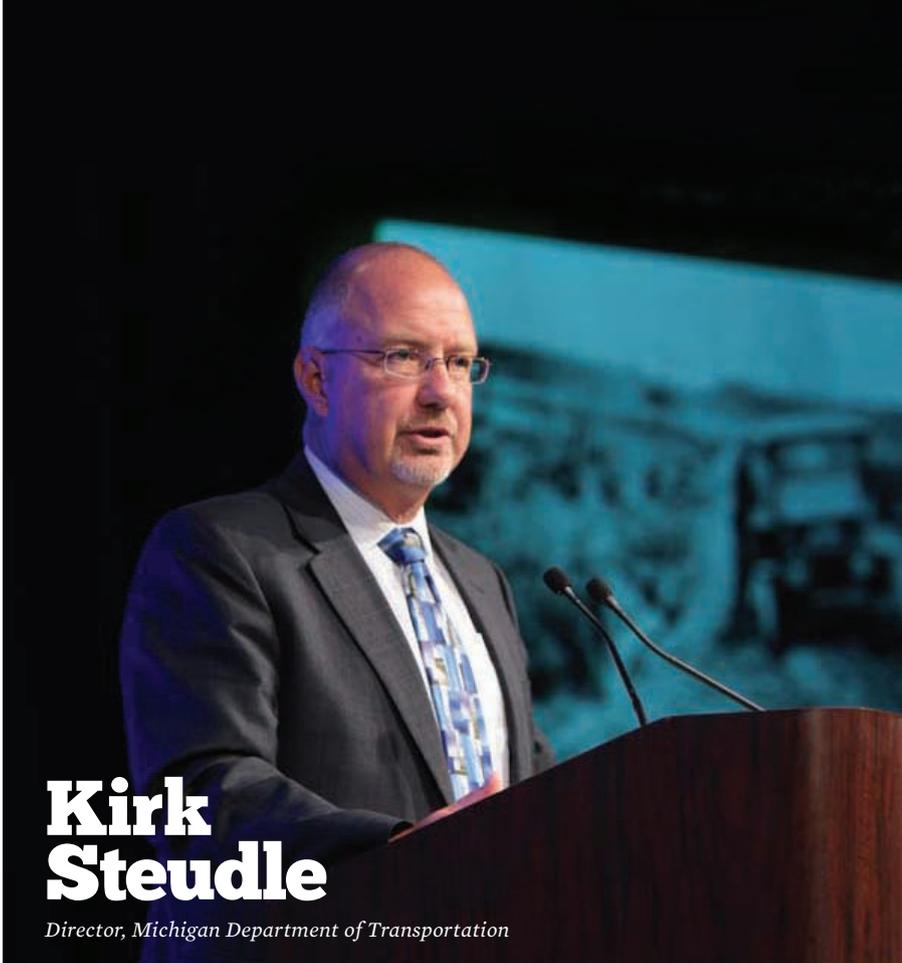
Cruz has spearheaded development of an enterprise architecture blueprint and a strategic vision plan for DHCS, and this year is driving hard to integrate data analytics into all facets of the organization in order to improve service delivery and derail fraud, waste and abuse.

"We have almost \$1 billion of projects on the books, and we have multiple people across multiple organizations working on our staff. It's a busy organization, but the mission is great in terms of advancing health-care needs of low-income Californians."

But Cruz is just as proud of byte-sized achievements, like a new smartphone app, developed in-house, that reminds users to schedule breast and cervical cancer screenings.

Another app, Welltopia by DHCS, offers information and outside resources on everyday health, including nutrition, physical activity, stress management and smoking cessation. A third, the award-winning California Health Care Quality Report Card application, provides quality and patient-experience ratings for health-care services.

BY MATT WILLIAMS



Kirk Steudle

Director, Michigan Department of Transportation

For Kirk Steudle, transforming our transportation systems into advanced networks of connected and autonomous vehicles isn't a question of if or even when. Rather, Steudle is deeply involved in facilitating that transformation now.

Regarded as a leading authority on intelligent transportation systems (ITS), Steudle holds or has held numerous positions of authority when it comes to improving the way we move. For most of a decade, Steudle has overseen the Michigan Department of Transportation while serving as 2014 chair of the Transportation Research Board Executive Committee. He also chairs the board's Strategic Highway Research Program, was the 2014 chair of the Intelligent Transportation Society of America Board of Directors, and is a member of the ITS Program Advisory Committee to the U.S. Department of Transportation.

Steudle is engaged with numerous projects. Among the most innovative is an effort to deploy vehicle-to-infrastructure communication technology on more than 120 miles of metro Detroit roadway.

"We're working on smart corridors," he said. "It's a big triangle in southeast Michigan. It's around the freeways. But it's not

just freeways, it's the surface streets, it's the connectors. They are corridors of infrastructure we are putting in place."

The project, a partnership between the state of Michigan, General Motors, Ford and the Mobility Transformation Center at the University of Michigan, was announced by General Motors CEO Mary Barra last September at the ITS World Congress in Detroit.

Connected vehicle technology, Steudle said, "is really moving away from research and toward how to make decisions about deployment." In that spirit, he also is helping to bring to life a new miniature city for connected and autonomous cars.

"There's another big thing we're doing this year, and really the University of Michigan is taking the lead on this, we're opening up what's called M City, which is a complete, autonomous city," Steudle said.

The 32-acre facility, which is set to open this summer, will test connected and automated vehicle systems, with a goal to implement a connected and automated mobility system on the streets of southeastern Michigan by 2021.

BY CHAD VANDER VEEN

Sam Blakeslee

Founder and Director, Institute for Advanced Technology and Public Policy

At the intersection of public policy and technology stands Sam Blakeslee, founder and director of the Institute for Advanced Technology and Public Policy (IATPP) at Cal Poly San Luis Obispo in California.

A former state senator, Blakeslee's vision is to bring policy leaders, industry experts, students and faculty together to develop and deploy practical solutions to complex challenges facing society in the areas of open government, education and energy. The IATPP's first open government project is Digital Democracy, an online platform that enables users to research, view, clip and share video of California Senate and Assembly committee hearings.

A beta version of the next-generation video archive solution launched last year. After Digital Democracy caught the eye of philanthropists, the institute received a \$1.2 million grant to roll out the full version later this year. Once complete, the platform will help usher in a new era of watchdog activity in state government.

Blakeslee, who says his team is responsible for IATPP's success, has a three-pronged goal with Digital Democracy: give the media accurate information on what really goes on in committee hearings, empower the general public to understand the state political process better, and hold state lawmakers accountable if they cut political deals on various bills and renege later on.

In addition to Digital Democracy, IATPP is active in renewable energy and education. Blakeslee's team introduced CalWave, which aims to harness ocean power to generate electricity. The institute also founded the Connect Academy program to develop a tablet-based interactive and culturally appropriate English-language learning system for California-based elementary schools.

BY BRIAN HEATON **GT**





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you measure it,**



9

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25

partners honored by 41 organizations that recognize excellence in digital service delivery, mobile solutions, design, customer service, and driving usage

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WHICH GOVERNORS ARE TALKING TECH?

We analyzed this year's State of the State addresses, looking for technology. Here are the speeches that rose to the top.

With revenue bouncing back in many states, governors once again are talking about investment. But are any of them talking about sinking that new money into technology? The answer is, not really — at least not overtly.

Our analysis of the 2015 State of the State addresses found relatively few direct references to improving the technology systems that run government or launching new digital services. Still, the Center for Digital Government estimates that states and localities will spend nearly \$100 billion on technology this year. To see where those dollars will go, you need to read between the lines. Priorities spelled out in these speeches will drive new tech investment and deployment in a range of areas. Two clear winners in the contest for gubernatorial attention are transportation and education.

Many governors want to spend more on state transportation systems — predominantly highways and bridges. Some proposals included changes to funding models — like raising gas taxes or vehicle registration fees — to pay for repairing existing infrastructure and building new roads to serve expanding populations. Several governors tied these improvements to economic competitiveness because of their importance to local manufacturers and other businesses.

New technology for smarter roads and infrastructure didn't make it into the State of the State discussion — but that doesn't mean tech won't be part of these projects as officials look to make highways safer and more efficient. For instance, Washington Gov. Jay Inslee rarely mentioned technology in his Jan. 16 address, but he used the speech to promote a new transportation plan released in December. That plan recommends using lidar imagery to detect landslide danger, creating electric vehicle charging stations and adopting performance dashboards at the Washington Department of Transportation to track revenues and project status.

Schools also can expect more money if governors get their way. State of the State speeches often called for better classroom technology and stronger curriculum for science, technology, engineering and math (STEM) education. Utah Gov. Gary Herbert wants to boost school funding by a half-billion dollars, which could be used for everything from buying new technology to hiring more teachers and guidance counselors. And Nevada Gov. Brian Sandoval proposed increasing school technology funding from \$4 million to \$50 million over the next several years.

More broadly, governors talked up the need to train or retrain their workforces to meet the needs of desirable high-tech employers.

Delaware Gov. Jack Markell highlighted a program developed by private employers and the state to train hundreds of IT workers at a coding school, launching this fall. Several others also pointed to public-private partnerships aimed at reskilling workers, as well as incentive programs designed to promote innovation and attract entrepreneurial companies.

Broadband was one of the few areas where governors mentioned technology directly. New York Gov. Andrew Cuomo wants broadband for 500,000 homes and 4,000 businesses that lack high-speed connectivity. Iowa Gov. Terry Branstad urged state lawmakers to approve a plan to boost broadband availability in rural areas. And Wyoming Gov. Matt Mead lauded the completion of a broadband network that brought Ethernet-speed Internet connections to every school district in his state.

Governors invariably linked broadband projects to economic viability. “A state that doesn’t have broadband is not going to be economically successful going forward,” Cuomo said.

Finally, technology was a lifeline for governors facing budget shortfalls. Although finances have improved for many states, not all of them are out of the woods. Hawaii Gov. David Ige described his state’s budget picture as “sobering.” He’s counting on a tax system modernization project to boost revenue collection, and encouraging efficiencies like the state Senate’s recent move to paperless operations that saved \$1.2 million. And Vermont Gov. Peter Shumlin listed consolidation of 911 call centers — estimated to save almost \$2 million — among his efforts to close a \$94 million state budget gap.

Government Technology editors analyzed each speech based on how much technology figured into the governor’s plans. Here are the speeches with some of the most notable tech-related initiatives. See the full story online at govtech.com/2015StateoftheStates.



DELAWARE

GOV. JACK MARKELL used his address to acknowledge the benefits of the digital age, which “has brought amazing innovations to improve our quality of life.” Paired with globalization, he warned of a growing potential for the middle class to be left behind if it doesn’t have the proper skills to excel in this new economy. Markell announced several initiatives toward that end, aiming to have 65 percent of the work-

force with a college degree or professional certificate by 2025. Eight major employers are working with the state to get hundreds of IT workers trained and hired using accelerated programs and a coding school, set to launch in fall 2015. Several technology companies growing in Delaware were also called out by Markell, who noted that business incubators are coming to the University of Delaware and Delaware State as well.

DAVID KIDD

IOWA

GOV. TERRY BRANSTAD highlighted Home Base Iowa, an initiative and portal dedicated to helping veterans find jobs and smoothly transition to civilian life. More than 24,000 jobs have been posted on the site's job bank, matching more than 600 veterans with jobs in the state. Increasing government transparency and expanding broadband were also major focus areas, as Branstad called for a new Government Accountability Portal to make state government more open, accessible and easier to navigate. He also asked lawmakers to pass the Connect Every Acre plan, which encourages service providers to build networks not just to the ending point, but also to the rural communities in between. One of the perils of being connected, however, is cyberbullying — something that, along with school bullying and domestic violence, Branstad is looking to end, calling on Iowans to stand up against bullying and to support legislation expanding the use of GPS monitoring of domestic abusers.



FLICKR/GAGE SKIDMORE



FLICKR/BRIAN SANDOVAL

NEVADA

GOV. BRIAN SANDOVAL'S speech focused on modernizing and transforming the state “for its next 50 years of success.” And technology will play a major role in those goals. Sandoval first outlined recent tech wins: Nevada is one of six unmanned aerial vehicle training sites in the country; electric car manufacturer Tesla is moving to Nevada; and the state has attracted numerous other cybersecurity and data storage companies. In the future, Sandoval will focus in part on improving the state's education system by modernizing classrooms through instructional

“**The Center for Digital Government estimates that state and local governments will spend nearly \$100 billion on technology in 2015.**”

technology, outfitting middle school students with digital devices and ensuring teachers receive proper technology training, all while protecting student data. Dollars invested in school technology will skyrocket from less than \$4 million to \$50 million. His proposed budget also includes funds to “reignite” the Governor's Office of Science, Innovation and Technology, which will focus on the state's STEM strategy and coordinate broadband connectivity to schools and communities while enabling telemedicine.



FLICKR/BERNARD POLLACK

MISSOURI

At the beginning of his second term, **GOV. JAY NIXON** noted that in Missouri, fiscal discipline is a value, outlining how

state government has gotten smarter thanks to technology over the past several years. From hunting permits to child-care provider information, he said, “Missourians can now access hundreds of government services from their smartphones ... saving time, money and aggravation.” Though technology has dramatically improved quality of life, it also has created security challenges. Nixon dedicated some time to talk about cyberterrorism, committing to ramping up cybersecurity efforts by partnering with businesses, law enforcement and universities to identify best practices and educate the public. He also vowed to expose schoolchildren at an early age to effective STEM programs, like Project Lead the Way, where kids analyze DNA and design software. Nixon's budget provides startup grants to expand the program into another 350 elementary schools.



Flickr/PBS NEWSHOUR

NEW MEXICO

While companies have been relocating to or expanding in New Mexico, **GOV. SUSANA MARTINEZ** said the state also needs to become a high-tech jobs leader while ensuring that new developments made at national labs, military bases, universities and companies are brought to the marketplace. “We can make that happen, through the Technology Research Collaborative,” said Martinez. The collaborative was signed into law in 2012 to support the development and commercialization of innovative ideas. In addition, she said stronger incentives are needed to create tech jobs and increase private investment in tech startups. Martinez also addressed the issue of child abuse, saying the state will implement a system to allow police officers to access a family’s history when responding to a child abuse incident.



DAVID KIDD

NORTH CAROLINA

GOV. PAT MCCRORY covered many economic development themes and stressed the importance of a quality education. But the most interesting statement from a technology standpoint was McCrory’s call-out of the state’s inefficiency in IT, saying “the piecemeal approach we’ve taken during the past decade to information technology has



Flickr/DIANA ROBINSON

NEW YORK

GOV. ANDREW CUOMO’S Jan. 21 speech drew next-day headlines about education reform and raising the minimum wage, but some tech initiatives were also mentioned. When speaking about infrastructure, Cuomo emphasized broadband

over roads and bridges. “A state that doesn’t have broadband is not going to be economically successful going forward,” he said. His goal is to bring access to the 500,000 homes and 4,000 businesses in the state that lack broadband by leveraging \$500 million in private-sector investment. Cuomo also wants to keep startups in the state and will use a \$100 million venture fund to invest in these small companies. In addition, he discussed the proposed \$15 million online

storm response system that will help coordinate with local governments when there’s an emergency. The system will track costs, aiding FEMA reimbursement procedures, and allow officials to see across county lines to improve situational awareness.

“State of the State speeches often called for better classroom technology and stronger curriculum for science, technology, engineering and math education.

had disastrous results,” adding that 74 percent of the state’s IT projects have been over budget and behind schedule. McCrory proposed creating a new cabinet-level Department of Information Technology, which all IT employees will report to. Additional technology mentions included: bringing Wi-Fi to all classrooms and long-distance learning to children and adults; installing self-service kiosks for renewal and/or replacement of drivers’ licenses or ID cards; beginning this year to accept credit and debit cards at DMV offices; and implementing intelligence-based policing initiatives to help prevent crime.



FUCKRKOOL CATS PHOTOGRAPHY

OKLAHOMA

GOV. MARY FALLIN focused on the state budget, education and incarceration rates, with technology playing a supporting role to many of the key themes. For example, she said the state

is implementing performance-based budgeting and it will post information about 160 measurable objectives on the OKStateStat portal. Keeping with the trend of many governors this year, Fallin focused on the workforce and ensuring that both students and employers have the skills needed to succeed in the 21st century. Looking back on her time since assuming office in 2011, she said, “We made huge strides in making government more efficient and effective.” One example highlighted in the speech was the state’s IT consolidation, which Fallin said is more than 50 percent complete and is saving money while increasing cybersecurity.



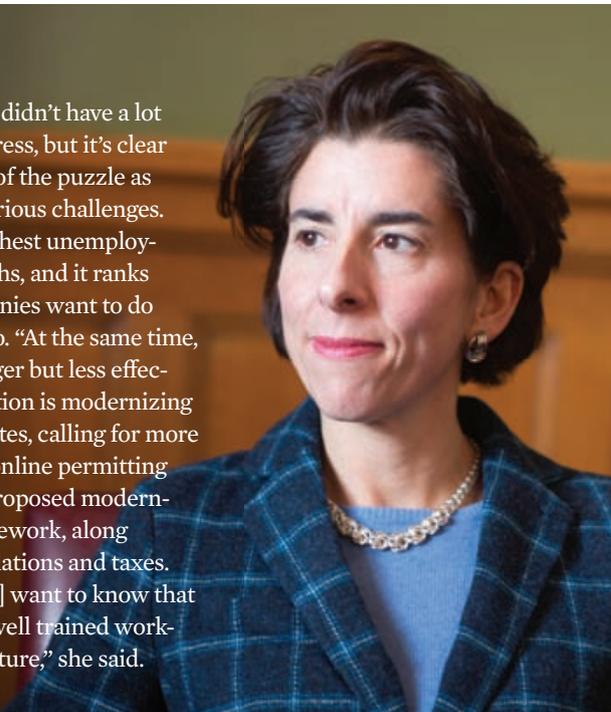
WYOMING

Broadband Internet connectivity figured prominently in **GOV. MATT MEAD’S** State of the State address, as he pointed to the completion of the Unified Network project, an initiative he championed to boost Internet speeds throughout Wyoming. “[The network] brings an even higher standard of broadband to our state, more fiber-optic connections and gigabit speeds.” All 48 school districts in the state now have Ethernet-speed connections, up from just two in 2011. In addition, the network is facilitating gigabit-speed connections in a growing number of Wyoming communities, making the state more competitive for tech employers. The governor added that incentives and aggressive recruiting to lure data center operators to the state are paying off. Microsoft recently opened a biogas-powered data center in Wyoming and is expanding an existing facility there. Finally, Mead noted that all state employees are on the same email system, one benefit of several years of government consolidation efforts. **GT**

FUCKRBU BAKER

RHODE ISLAND

Incoming **GOV. GINA RAIMONDO** didn’t have a lot of specifics in her inaugural address, but it’s clear she views technology as a piece of the puzzle as Rhode Island confronts some serious challenges. The state posted the nation’s highest unemployment rate for nine straight months, and it ranks 49th among states where companies want to do business, according to Raimondo. “At the same time, our government has become larger but less effective,” she added. Part of her solution is modernizing how the state government operates, calling for more digital services for citizens and online permitting for businesses. Raimondo also proposed modernizing school buildings and coursework, along with streamlining business regulations and taxes. “Before adding jobs, [companies] want to know that there will be a steady supply of well trained workers and a 21st-century infrastructure,” she said.



DAVID KIDD

SOUTH DAKOTA

The need to boost funding for road and bridge maintenance was a major theme of **GOV. DENNIS DAUGAARD’S** address. He proposed increases to fuel taxes, vehicle excise taxes and vehicle registration fees that would generate an additional \$50 million for highway and bridge construction. High-tech pavement assessment — conducted by a camera- and laser-equipped vehicle dubbed the “Spider Van” — was a big part of Daugaard’s pitch. “This tool provides objective measurements at each mile of the state highway system and allows the DOT to make well informed decisions on how and where to spend its limited resources,” he said. Daugaard also pointed out efforts to improve government transparency, like a single Web portal launched two years ago containing information on state agency rulemaking processes as well as the recent launch of a one-stop site listing members, meeting notices, agendas and information packets for more than 100 South Dakota boards and commissions.



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Securing Cloud Data

You can't secure the entire cloud, but you can take steps to reduce the risk of data loss.

There's an ongoing debate about when the term "cloud computing" first appeared. But there's no debate about the cloud's positive impact over the past decade. Whether discussing technology infrastructure, new data center needs, software as a service, disaster recovery, mobile app delivery or other aspects of future technology innovation, cloud computing is at the center of the conversation.

But security continues to top the list of cloud concerns. To prep for a recent online symposium on improving cloud security, I reviewed 2008 presentations from when I was Michigan's CISO describing the good, the bad and the ugly in the cloud. Here were some of the bullets:

- **Good (promises):** Lower costs, on-demand access and self-service, rapid provisioning and deprovisioning, minimal manual effort, ubiquitous network access, measured service.
- **Bad (concerns):** Loss of control, trust, security, data privacy (demonstrating compliance), resiliency, where's my data? (meeting legal requirements), proving hosting claims and promises when not in your region — with no state employee travel allowed.
- **Ugly (keeps me up at night):** Below the cost threshold for procurement scrutiny, explosive growth/migration of service consumption and bandwidth, fewer eyes on service use, contract hell, vendor management skill sets lacking or nonexistent, paradigm shift for IT rate

reimbursement models from agencies, how to block rogue cloud providers.

Do these topics sound familiar? We still struggle with the same challenges that were identified when we drew our first cloud architecture on a whiteboard. Meanwhile, the online threat situation has worsened, with relentless cyberattacks continually moving the "secure" target for even the best cloud providers.

Solutions, Please

How can you address concerns and drive greater cloud adoption? How can we get to those cost-saving and service delivery benefits, while minimizing risk?

I offer five recommendations to reduce your risk of data loss in the cloud.

Perform an enterprise cloud risk

assessment. This process is focused on your cloud applications and finding out where data is being stored. The goal? Develop an "as is" cloud assessment. What's really happening now?

- Survey the network to ID your SaaS footprint.
- Build a data flow map. You'll need tools to help, but you need to know where your data is going.
- Risk score applications and data found. After you know where the data is, you can use tools to build a score of the level of trust in the cloud service and process.

Business requirements specification and

gap analysis. This step maps what you know about business compliance needs (like PCI, HIPAA and tax data) with what's actually happening on your network.

Build a plan to address "shadow IT."

This step pulls together data from steps one and two to obtain an action plan that brings strategic results. Include legal, procurement and security specialists. There are companies that can help you through this planning and remediation process.

Choose a cloud framework to implement.

This recommendation is independent of the first three. Here are two options:

- FedRAMP, which is based on security standards and aims to build a catalog of prescreened cloud providers for government agencies.
- The U.K.'s Government G-Cloud framework offers another excellent approach, and the security principles are online at <http://bit.ly/1zdpOYv>.

Examine and implement cloud best practices.

- The Cloud Security Alliance promotes the use of best practices for providing security assurance in cloud computing.
- The Cloud Best Practices Network offers case studies and social media connections to help build enterprise solutions. A final thought: Frederick the Great of Prussia said, "He who defends everything defends nothing."

We'll never finish securing the entire cloud. (We'll always have new online threats and vulnerabilities.) Your goal is to build resilience into your cloud situation and know what to do if an incident occurs with your data. **GT**

Daniel J. Lohrmann is the chief security officer and chief strategist at Security Mentor. He is an internationally recognized cybersecurity leader, technologist and author. From 2002 to 2014, he led Michigan's award-winning technology and cybersecurity programs, serving as CSO, CTO and CISO.

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◀ Two-in-One

Toshiba's Portégé Z20t is a 2-in-1 detachable PC with high-precision pen input designed for a wide range of uses. An ultrabook and tablet in one, the device features a 12.5-inch Full HD IPS detachable display, a sleek thin-and-light design and a reversible keyboard dock. Powered by Intel's Core M processor and pen technologies by Wacom, the Z20t has a 9.1-hour battery life rating as a tablet and 17.4-hour battery life rating with the keyboard dock. The tablet weighs 1.6 pounds and when combined with the keyboard dock, weighs 3.3 pounds. www.toshiba.com



▲ Flex Phone

LG Electronics' G Flex2 curved smartphone offers a Qualcomm Snapdragon 810 processor with octa-core 64-bit capable CPUs. The phone measures 5.9 x 3 x .28-.37 inches, with a 5.5-inch full-HD display. It operates on the Android 5.0 Lollipop operating system and has memory capacity of 16/32 MB eMMC ROM/2 GB DDR4 RAM/microSD slot (up to 2 TB). The phone's self-healing back is designed to resist nicks and scratches from normal everyday use, with a healing time of 10 seconds at room temperature. The G Flex2 weighs 5.4 ounces and comes in silver or red. www.lg.com

Light and Portable ▶

The ASUS ZenBook UX305 is a 13.3-inch ultraportable laptop at 0.48-inches thick. The UX305 weighs 2.6 pounds and offers up to 10 hours of battery life. Its wedge-shaped design is crafted from solid aluminum, and features in-plane switching anti-glare display. The full-size ergonomic keyboard provides an improved layout for comfortable and accurate typing coupled with a large responsive touchpad that supports Smart Gestures for precise control of Microsoft Windows 8.1. Powered by the Intel Core M processor and standard solid state storage, the UX305 has 8 GB of RAM and an ultrafast 256 GB solid state drive.

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Q&A: The Mainframe Goes Millennial ... and Mobile

Government agencies can — and must — get more aggressive about advancing the economic value of their sizable application and data investment in the IBM z Systems platform.

CHRIS O'MALLEY
CEO,
Compuware



Many government agencies run their core databases and transaction processing applications on IBM mainframes. And many have allowed their investment in these mainframe environments to languish as they've focused on distributed systems, Internet, mobility and the cloud.

But, according to Compuware CEO Chris O'Malley, the time is ripe for public-sector CIOs to re-think their approach to mainframe ownership — and to aggressively re-tool mainframe management to improve constituent-facing services and the overall economics of IT.

Q: Public-sector IT leaders have been inundated with messages about cloud, virtualization and other leading-edge data center technologies. Why should they devote any of their limited resources to mainframe advancement?

Chris O'Malley: The volume of hype around distributed systems and the cloud has more to do with the nature of Silicon Valley and venture capital than it does actual benefit to government agencies.

The mainframe is the most powerful, scalable, reliable and secure platform on the planet. And, despite obfuscation to the contrary, it delivers all of this awesomeness with lower marginal costs than any other platform. Plus, government agencies have tremendous investments in the applications and data they have running in the IBM z Systems. So it is essential that they protect these investments — and exploit those investments even further to deliver more value to their constituencies.

Q: Are there specific challenges public-sector IT leaders face when it comes to getting more value from their mainframes?

Chris O'Malley: I'll highlight three. The first is the one we just discussed. Public-sector CIOs have to look past the hype to the unmatched virtues of the mainframe and the real value of the applications and data that are already

living there in a highly secure, always available, incredibly high-performing platform.

The second is prepping for the generational shift that is taking place as experienced mainframe staff retire and are replaced by Millennials who typically have little under-the-hood experience with the z Systems. This may be a bigger crisis for mainframe owners than Y2K was — so it's essential to start "Millennializing" the mainframe today.

The third is optimizing mainframe cost/performance so agencies can support new workloads, such as mobile and analytics, on the mainframe within their existing operational budgets. Many mainframe shops are spending way more on their IBM software than they have to, because they've let their rolling four-hour average (R4HA) metrics creep up too high. By bringing this R4HA metric down, they can free up resources at basically zero cost for new Linux and Java workloads — including scalable, high-performance back-end compute services for their mobile apps.

Q: And Compuware can help public-sector CIOs meet these challenges?

Chris O'Malley: Absolutely. As one example, Compuware recently debuted Topaz — which uniquely enables Millennial developers and data analysts to work with mainframe and non-mainframe data in a common, intuitive manner. Another example is Strobe, which provides

unmatched insight into how application code consumes IBM z Systems resources.

Beyond these specific solutions is our unique position as the world's largest mainframe-dedicated software vendor. No one is as committed to supporting mainframe users through this next phase of the platform's evolution as we are. We are pioneering the use of Agile methodologies to accelerate time-to-value for our mainframe customers. And we are partnering with other mainframe solution vendors such as BMC to help public-sector customers get where they need to go as quickly as possible and with the least amount of effort.

Q: You sound very passionate about the mainframe — almost as though it were a personal mission.

Chris O'Malley: It's more than a personal mission. We have put together an incredibly talented and committed team here that has made it an organizational mission to transform the value economics of the mainframe for customers across all market segments, including government and education. Plus we're headquartered in Detroit, so we clearly understand the special challenges government entities face — and how those challenges impact citizens. So, yes, we are ready to do our utmost for any public-sector customer who wants to get on board with a Millennial transformation of their mainframe environment.

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Elections Need a Tech Reboot

U.S. elections have not kept pace with the opportunities afforded by technology.

In 2002 Congress passed the Help America Vote Act, a federal law that provided states more than \$3 billion to modernize their elections, including upgrading their punch card and lever-style voting machines to electronic or optical scan voting machines and replacing antiquated voter registration lists with computerized statewide systems. Unfortunately these systems are now more than a decade old and reaching the end of their useful life. However, most states have not budgeted for replacements. The challenge is so grave that the Presidential Commission on Election Administration labeled this situation an “impending crisis.”

Even if states had funds available to buy replacements, the voting systems currently on the market do not meet the needs of most election officials. Part of the problem is that the market for voting technology is fundamentally broken, and voting technology vendors have had little incentive to innovate. Without a steady stream of new purchases, vendors get little return on investing in research and development. Moreover, a slow-moving federal technology standards

process has locked some states into outdated requirements, further discouraging vendors from releasing better systems.

Frustrated state and local election officials are now turning to home-grown solutions. In Travis County, Texas, officials are hard at work designing an electronic voting system with “end-to-

end verifiability,” meaning voters can verify both that their ballot was received correctly and that all ballots have been tallied correctly, all while preserving voter privacy. And in Los Angeles County, the Board of Supervisors just green-lighted a \$15 million project to design its own voting system, spurred on, in part, by legislation Gov. Jerry Brown signed in 2013 allowing California counties to create voting systems without approval from the federal government.

These efforts are worthwhile, but the rest of the country should not rest on its haunches while a handful of counties design the voting technology of the future. A more useful approach would be for state and local election officials to come together to design voting technology that can be used by any jurisdiction. For example, a consortium could develop an open source software solution that runs on off-the-shelf hardware provided by local vendors. The solution need not be limited to the systems used to mark ballots, but could also encompass other election technology, such as back-end systems to tabulate ballots and electronic poll books used to look up voter information.

In addition, states need to learn to better share election data. For example, many states do not participate in interstate programs to share voter registration data, such as the Electronic Registration Information Center, originally set up by the Pew Charitable Trusts, but now run by a group of 11 states. Sharing data — such as who has moved, who has died and who

is registered in more than one location — can produce more accurate voter rolls, which in turn can help election officials save money, protect against voter fraud and reduce waiting times at the polls.

There are many other opportunities for election officials to leverage data to improve elections. For example, officials should publish all election and ballot information in a standardized, machine-readable format to allow civic hackers the opportunity to build voter education tools. In addition, election officials should start collecting basic data about election operations, such as average wait times throughout the day and interactions with voting technology, to help better allocate resources. If election officials develop standardized data formats, then this information can be aggregated and used to model voter behavior to help determine how many provisional ballots are needed and why absentee ballots are rejected. Better election data can also help policymakers identify long-term problems and solutions.

Democracy depends on well-run elections, but elections in the United States have not kept pace with the opportunities afforded by technology. As states face this looming problem, the solution is not only to fix what is broken, but also to build something better. In the past, this might have meant election officials had to chart their own course and go it alone, but now it means working together across state and county boundaries to develop flexible and scalable solutions. **GT**

Daniel Castro is a senior analyst with the Information Technology and Innovation Foundation (ITIF) and director of the Center for Data Innovation. Before joining ITIF, he worked at the Government Accountability Office where he audited IT security and management controls.



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2-step authentication uses another factor to make sure it's really you trying to access your information. It can be as simple as a code a web site sends to your phone and then asks you to enter it for verification.



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Breakfast from a Bot?

The most important meal of the day just got easier for designer Miguel Valenzuela, maker of the LEGO PancakeBot. Load the attached ketchup bottle with batter, and the machine forms pancakes on a griddle situated underneath. Its X and Y axes control where the batter is dropped, and a C axis controls how much. Get out a spatula though, as flipping the breakfast treat still requires people power. Pass the syrup, please.

SOURCE: INHABITAT

NETFLIX NEUTRALITY:

On an average Sunday, about 30 percent of Internet bandwidth in the U.S. is taken up by activity from one company: Netflix. And the online streaming service outdid itself recently, with the release of the third season of its acclaimed series about fictional political power couple Frank and Claire Underwood, *House of Cards*. The event caused the service's share of bandwidth to spike to 45 percent, as fans binge-watched the newest episodes.

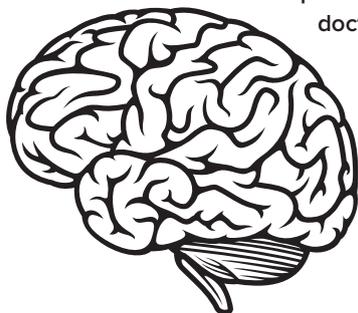


So-called "data hogs" like Netflix will force telecom providers to improve their networks to ensure Internet access is still available for everyone else during peak times, critics argue, especially given the FCC's February decision in support of net neutrality, which prevents providers from charging websites more for better bandwidth. SOURCE: BUSINESS INSIDER

REAL-TIME PARKINSON'S DATA: The loss of nerve cells in the brain suffered by Parkinson's patients makes it harder for them to create dopamine, a neurotransmitter that coordinates motor functions. But a portable monitoring system from European researchers led by Universitat Politècnica de Catalunya, Spain, may offer new hope for an improved quality of life for those who have the disease.

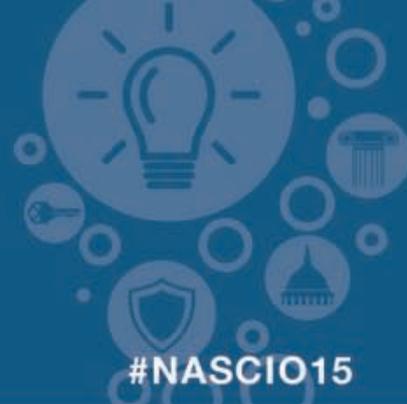
A wraparound waist pack along with a smartphone-controlled headset allow doctors to monitor symptoms around the clock, improving their ability to document how the disease is progressing and manage treatment. The device contains an accelerometer and gyroscope sensors to detect falls or other irregularities in how the patient is walking. In response, the server could prompt the headset to offer a rhythm to help regulate movement. Now being tested by 50 patients, the REMPARK system could improve outpatient Parkinson's treatment.

SOURCE: GIZMAG



Send Spectrum ideas to Managing Editor Noelle Knell, nknell@govtech.com, [twitter@GovTechNoelle](https://twitter.com/GovTechNoelle)

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Sustainable Social Media

How to support a maintainable government social media program.

Give me 20 minutes and I can make acceptable social media profiles on most of the major networks.

However, most of us know that creating social profiles is only a small part of the effort needed to make social media work for your agency. To support a maintainable social media program, government leaders must encourage a system that includes at least three essential concepts: ownership, empowerment and process.

“Empowerment is a key ingredient of a well functioning social media team.”

Ownership

Getting as specific as possible with social media ownership is vital. City management might agree that the communications division, in coordination with IT, has authority over social media. But what exactly does that mean?

The key is to identify exactly who is responsible for what — right down to the job titles. Perhaps the Web manager is responsible for integrating social APIs with the agency website, graphic designers are responsible for setting up profiles, the public information officer is in charge of writing

content, and the neighborhood services team moderates and responds to citizen questions. Codify this in your internal social media policy and you are on your way toward creating a sustainable program.

Empowerment

I recently worked with an agency to strengthen the involvement of its fire department staff in the official social media presence. The department had already assigned ownership to a staff member on the team, but had not fully empowered her to manage social media.

To empower a social media coordinator or team means to afford them flexibility to handle the program by truly letting it become part of their job duties. Allow them to schedule time to work on social media content and give it priority status. Encourage them to explore new ways to interact with the public and trust them to follow up with citizens on the agency's behalf.

Empowerment is a key ingredient of a well functioning social media team, yet it's often overlooked.

Process

There is nothing more discouraging than a government profile on social media that's collecting more dust than citizen engagement because a process was never established to keep it running.

Now that the team has been named and given the latitude it needs to manage social media regularly, a good process needs to be planned. This system will provide the constant energy the program requires to keep it running smoothly.

One way to centralize social media content planning is to maintain a content calendar, which is a shared calendar that highlights material the agency wants to promote on social media. Staff should be able to easily add major programs, events and meetings to the calendar. Social content is then developed based on this tool.

Remember when I discussed empowering your staff members assigned to social? Part of the process connected to that is that they consistently schedule a block of time on their calendars (such as one hour every Friday) to work on preparing social content. They can use the content calendar to craft posts that they will schedule to send at peak times the following week. This time is important — keep it as a priority and avoid letting other issues bump this time off the schedule.

Got this process down? Make sure other staff members are aware by posting the procedures in a place they can easily reference, such as an employee intranet. Bonus points if your intranet includes links to the content calendar.

While it takes only a few minutes to create social media profiles, a sustainable social presence involves regularly focusing on the bigger picture of establishing ownership, empowering staff and identifying processes. **GT**

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.

Freedom of Information/Public Records Request

Part I: I hereby request to: Inspect Copy the following records:
(please be specific and include names, dates, keywords, and name of record type where possible).

Please provide all Everton City and Police Department social networking content from May of 2012 regarding special notices and street closures related to the Everton Memorial Day parade

Part II: What format do you request? Electronic Paper

Part III: Name of individual(s) requesting information: John A. Reizer
Address: 1076 Freedom Way City: Everton State: TX Zip: 75496
Phone: (210) 867-5309 Email: jpublic1@gmail.com



For Internal Office Use Only

Date Request Received: **July 1, 2014** Request Status: **Pending**

Notes: Staff has invested more than ten hours scrolling through social media pages and collecting stored screenshots from department hard drives. Citizen comments no longer available, City Attorney issued subpoena to social network - response still pending after four weeks.

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