The Top Government Innovations of 2019



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Executive Summary

For many government agencies, 2019 has been a mix of experimentation and measured progress toward meeting clearly defined goals.

Modest investments in technologies such as robotic process automation (RPA) and artificial intelligence (AI) sprouted up at all levels of government, with promising results for augmenting the workforce and freeing employees up to tackle higher-level tasks.

On the cybersecurity front, there's a realization that business as usual is no match for the rise of ransomware attacks. Add to that the ongoing challenge of workforce shortages, increasing customer expectations and modest budgets.

Collectively, these issues are forcing agencies to prioritize innovation to achieve mission outcomes. Unfortunately, the internal and external frustrations around government's challenge to execute on basic public services has given the word "innovation" a negative connotation — in some cases. But as you read this guide, you'll see that government innovation looks different depending on the department, office, state, city and job function. We didn't minimize innovation to a single service or product because it is much more than the latest and newest trend. Innovation can be a service improvement, organizational efficiency or a new thought process that is helping an organization get 1% better every day.

In this GovLoop guide, we explore innovations that gained traction in 2019 — and those that are likely to play a major role in the year ahead. Specifically, we look at innovations in five areas across federal, state and local governments:

- Cybersecurity
- Artificial intelligence/machine learning (AI/ML)
- Workforce
- Customer experience (CX)
- Acquisition

Use the case studies throughout this guide to help your agency reimagine what is possible and to spark new ways of approaching some of government's age-old challenges.



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3 Ways to Build Secure Code Faster and Innovate

An interview with Cindy Blake, CISSP, Senior Security Evangelist, GitLab

Managing security risks and developing next-generation software often feels like competing priorities in government.

On one hand, software developers are responding to the needs of end users, updating code and testing quality before deploying. But the rapid pace of software development at even the most agile organizations is no match for the monolithic security review at the end of that process.

The problem is that when security checks aren't integrated into developers' workflows, they can unnecessarily delay software releases, potentially creating greater vulnerabilities if issues slip through the cracks and frustrating everyone involved. "It's a bit of a square peg, round hole problem," said Cindy Blake, Senior Security Evangelist at GitLab, a popular web-based DevOps software development lifecycle tool. "Software is a fundamental part of operationalizing any mission, and speed to mission is essential."

But how can agencies truly "shift left" and empower developers to find and fix vulnerabilities early so that they are improving speed to mission and efficiencies? The short answer, Blake explained, lies in agencies' ability to 1) inspect software incrementally and continuously, 2) rethink how they view security, and 3) automate policies where possible.

In a recent GovLoop interview, Blake said when security reviews are integrated into the software development process, teams are freed up to do more innovative work and end users get the capabilities they need faster. "If you can increase your velocity, while at the same time improving your efficiency and reducing risk, you can free up resources to focus on your innovation efforts," she said. GitLab enables agencies to embed application security testing into their overall software development lifecycle. In other words, the developer can test each and every line of code within their workflow and get results in real time, while the code is still in their hands — rather than having to wait for a massive scan at the end.

Creating this type of environment requires agencies to rethink security and treat it as an outcome, rather than a function, Blake said. "When we think about security as a department, we get really hung up on tracking stuff. Tracking and reporting on the progress made to resolve those vulnerabilities becomes the bulk of the effort and the real focus, as opposed to focusing on how to eliminate the vulnerabilities from the beginning," she noted. "Rethinking security can also allow for common security, compliance and governance models, in addition to simplifying compliance and auditing — further freeing up resources within the agency."

For security teams, this translates into more time to focus on defining policies reflecting their agency's risk appetite. Teams can then automate those policies and focus on exceptions rather than manually inspecting every line of code. GitLab, for example, automates app security within its developer tool and has also created a hardened version of its enterprise software that's currently used within the Defense Department.

"With GitLab, you can streamline your workflows and provide security insight right to the developers," Blake said. "This frees up resources, speeds time to mission and ensures everyone is on the same page."

Takeaway: When software development and security review processes become concurrent, teams are freed up to do more innovative work.

Cybersecurity: New Approaches Welcomed

Government agencies are getting creative when it comes to developing new cyber solutions and strategies.

"We're pedaling as fast as we can!" Government cyber experts might not say that aloud, but given the current threat landscape, they likely often think it. Cyberthreat environments are evolving rapidly, with threats growing more numerous and more sophisticated. The last generation of cyber solutions just weren't made for this environment.

Fortunately, cyber strategies are evolving, too, as agencies figure out new ways to identify, respond to and mitigate potential attacks. Consider RPA, which is software that is designed to execute repetitive, process-driven tasks. Widely recognized as a great solution for administrative work, RPA is now gaining relevance in the cybersecurity field. This is the kind of innovation that could bring some relief to government cyber experts.

Here's a look at RPA and other emerging cybersecurity strategies that could gain popularity in 2020.

Montgomery County Boosts Cybersecurity With RPA Bots

Montgomery County, Maryland, suggests that local governments will boost their cyber defenses with RPA bots in the future. In addition to being digital coworkers, RPA bots can reduce the number of vulnerabilities agencies have inside and outside their walls.

Jhason Abuan, IT Division Chief for Montgomery County's Department of Finance, told GovLoop in 2019 that his agency's RPA bots help deter cyber threats. The department gives its RPA bots the least amount of access they need for their jobs so that cyberthreats can't reach valuable data during successful attacks.

"In the event that a username or password is hacked from a robot, if that robot is using an account with the least amount of access privileges, I think that's something that will help an organization," Abuan said. "If an account is compromised, it's going to have the keys to the kingdom or access to multiple systems."

Abuan added that RPA bots also strengthen the agency's cybersecurity by reducing the potential for insider threats. Unlike humans, bots won't abuse their data access should the opportunity arise.

"The robot is only going to do what you program and tell the robot to do," Abuan said. "A robot's not going to be tempted to do a search on someone that's outside the scope of what they're supposed to be doing."

Collectively, these features make RPA bots a valuable addition to any agency's cybersecurity ranks.

47% of state CIOs <u>said</u> they had purchased cybersecurity insurance in 2019.

Louisiana Declares Ransomware Emergency

Louisiana's response to a recent cybersecurity incident shows that state governments don't need to stand idly by during ransomware attacks. Instead, they can issue statewide emergency declarations to overcome this major threat.

In 2019, ransomware struck school systems in at least three Louisiana parishes. Gov. John Bel Edwards <u>responded</u> by activating Louisiana's emergency support function for cybersecurity for the first time. Ultimately, the move minimized damage state IT systems in three ways.

First, the declaration made all of Louisiana's available resources accessible statewide, which improved cooperation and communication among agencies.

Second, the move allowed Louisiana's agencies to obtain assistance from cybersecurity experts statewide. During and after the attack, organizations needing help received support from the Louisiana National Guard, the Louisiana State Police Department and Louisiana's Office of Technology Services. Overall, these efforts prevented the ransomware from causing greater harm.

Third, Edwards' measure strengthened the coordination between state agencies and their external partners. Consequently, the directive helped both the FBI and Louisiana's higher education institutions lend a hand with the attacks.

Because ransomware is often profitable for cyberattackers, it's unlikely to disappear any time soon. Louisiana's response, however, implies that systematically addressing ransomware reduces the suffering it causes.

2

As of May 2019, there were at least 24 <u>reported</u> ransomware attacks on municipalities nationwide in 2019. In August 2019, more

than 20 government entities in Texas <u>reported</u> ransomware attacks on the same morning.

"I'll say that our employees are one of our best defenses that helps us prevent malicious activity if they are well educated and fully understand cybersecurity and cyber hygiene."

– Arkansas CIO Yessica Jones

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DHS Pairs Al and Cybersecurity

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The Homeland Security Department (DHS) pictures its cybersecurity reaching new heights with AI, which federal agencies can use to strengthen key cybersecurity programs and make them more responsive.

For instance, take DHS's incident triage initiative. In 2019, Martin Stanley, Senior Adviser for AI at DHS's Office of the Chief Technology Officer, said that his agency is hoping AI will upgrade its incident triage efforts. According to Stanley, the program constantly catalogs data about DHS's IT environment. Adding AI to the equation, he said, would aid the department by automating parts of the project. Over time, AI could list which cybersecurity incidents deserve a response, including those that need human involvement.

Stanley also noted that AI could bolster DHS's Security Orchestration Automation and Response (SOAR) operations. SOAR takes predefined actions based on a machine's analysis of DHS's IT environment; automating the machine's responses would assist DHS by launching those actions faster. Gradually, SOAR could help DHS collect, analyze and address information quicker and with more flexibility.

"We're looking at narrow AI solutions, which are good at uncomplicated, known tasks that have tons of data examples," Stanley said. "We focus on what the best practices for implementing AI or machine learning systems within our environment are and then try to apply those as we look at solutions to see if they make sense."

\$17.4 BILLION

in budget authority for cybersecurity-related activities was included for federal agencies in the president's fiscal 2020 budget.



U.S. Department of Homeland Security



ThreatConnect

Work smarter and more efficiently to defend your agency from cyber attacks.



<u>ThreatConnect</u> was recently added to DHS' CDM approved product list for Network Security Management.

Threat Intelligence Accelerates Cyber Operations

An interview with Joon Shin, Sales Engineer, ThreatConnect

Government security operations centers and incident response teams are long past the point of hoping to keep pace with cyberthreats by relying on traditional processes for detecting, analyzing and existing threat data.

The challenge is that analysts spend so much time trying to sift through the endless stream of data points, they have little opportunity to translate that data into intelligence about the overall cyber posture of their agency, or to take a more proactive approach to cybersecurity.

"The volume of attacks – and the sophistication of the attacks – will only get worse as you go, but you only have a limited amount of resources in terms of the tools you can use and the experts you can hire," said Joon Shin, a Sales Engineer with ThreatConnect, which provides an intelligence-driven security operations platform.

Consider the task of assessing suspicious emails and links, which are some of the most common threats that agencies face. The traditional manual process for investigating such a threat – identifying the IP address, checking it against various threat intelligence databases, and so on – is time-consuming, repetitive work, which, while necessary, is painfully inefficient.

The good news is that because the work is processdriven, it can be automated – from the detection and investigation of a possible threat, to protection and response. The same holds true with many cyber processes. But rather than simply automating individual tasks, agencies should look to orchestrate processes across the IT environment.

Together, automation and orchestration accelerate cyber operations and eliminate human error, while also freeing up analysts to focus on higher-value work, such as threat hunting, Shin said. But that is only half of the solution. To fully understand their threat environment, agencies need to leverage threat intelligence to develop real-time cyber situational awareness. Rather than look at individual threats in isolation, the goal is to put them in context by aggregating and correlating data from multiple sources.

For example, a user-reported phishing attempt might seem like a low-level incident. But once correlated with other data points from across the enterprise – and viewed in light of data from other organizations – that phishing attempt could prove to be part of a multipronged, systematic attack that has been underway for months. Again, automation is critical to this approach, accelerating the time it takes to collect, analyze and arrive at actionable insight.

It is also essential to have a centralized repository for threat intelligence, including both external intelligence feeds and internal historical data. **"Having everything contextualized and normalized on a single platform really helps you connect the dots," Shin said.**

ThreatConnect's founders developed this approach to security operations in large part based on their experience in the defense cyber community. They found that other popular approaches, such as security incident and event management or feed-centric solutions, simply did not provide analysts with the actionable intelligence that they needed when they needed it.

In today's threat environment, that is a mistake that agencies cannot afford to make.

Takeaway: Agencies need to approach their security operations like a business owner, investing in tools that enable their analysts to bring more value to the mission.

AI: A New Way of Thinking

In 2019, government agencies began exploring the new possibilities AI created.

AI, ML and other cognitive technologies are rapidly reshaping how agencies at all levels of government think about managing their operations and delivering on their missions. It's almost as if the term game-changer – which has been misused so many times in recent years – was coined specifically with AI in mind.

Except that we're not there — yet. Yes, AI has the potential to introduce a whole new class of automation capabilities, enabling the development of systems that can process information and carry out tasks in ways that humans cannot yet imagine. But most agencies still have a lot of work to do in terms of how they gather, manage and process data. That is likely to be a big theme in 2020, as agencies ramp up their AI initiatives.

Here are some examples of where that work is being done today and how agencies might build on those efforts in years to come.

\$973.5 million

<u>Projected</u> federal spending on AI in fiscal 2020 (not including DoD and DARPA) Columbus Parking / ers In

data including zone, sub area, latitude and longitude, meter number, configuration ID, and route numbers.





Columbus Proves Smart Cities Can Get Smarter

39.97224-39.96379

39.96373 39.97185

39.96652

39.96533

39.96562

39.96536

Data has always played a critical role in the concept of smart cities. But city officials in Columbus, Ohio, are working on an ambitious initiative to deepen their stores of data and spur developers to new levels of creativity.

The Smart Columbus Operating System program brings together 3,000 open datasets drawn from agencies and organizations citywide and makes them all available through a web-based data delivery platform. That includes records as varied as traffic information, city infrastructure inventory, crash records, weather information, emergency response times and food services. The second iteration of the Operating System, launched in April 2019, also incorporates near-real-time data streams.

City officials say the wealth of data is critical to their efforts to build an "ecosystem of innovation" in which developers can imagine new ways to deliver services and new services to deliver, with AI expected to play a growing role.

"Data will be available for analytics and visualization as well as for artificial intelligence required by various smart city applications," <u>according to the</u> <u>Operating System strategy</u>.

The program has its roots in transportation. Columbus was the recipient of the U.S. Transportation Department's first Smart City Challenge, and the Operating System now feeds data to eight mobility projects, including a connected vehicle environment, a multimodal trip planning/common payment system and an event parking management system.

But over time, the program is expected to support initiatives tackling a wide range of issues, from poverty and unemployment to infant mortality. The common thread in all those areas is the importance of bringing intelligence to data analysis. For example, the city might look at the extent to which people in need of food assistance are able to access food programs via public transportation.

"We have taken great care to establish a vision, create a detailed architecture and design and develop our approach using Agile Project Management methodologies to create a system that can be used to enhance human services," according to the program strategy.

AI Experts in Demand

With AI efforts ramping up, federal agencies are beginning to realize that they need some new technological expertise and leadership. Here are three examples:

* The Veterans Affairs Department (VA) appointed its first <u>Director</u> <u>of Artificial Intelligence</u> in July. Gil Alterovitz is also a professor at Harvard Medical School and the Computational Health Informatics Program at Boston Children's Hospital.

* In the same vein, the U.S. Patent and Trademark Office in October 2019 began seeking applications for its <u>newly created position</u> of **senior**level AI technical expert.

* Meanwhile, the Pentagon is looking for a different kind of expert: **an Al ethicist**. This executive will work with DoD's lawyers to determine how to "actually bake [AI] into the Department of Defense," said Air Force Lt. Gen. Jack Shanahan, Director of the Joint Al Center at DoD. "We will harness the potential of AI to transform all functions of the Department positively, thereby supporting and protecting U.S. servicemembers, safeguarding U.S. citizens, defending allies and partners, and improving the affordability, effectiveness, and speed of our operations."

- From the summary section of the 2018 DoD AI Strategy

Sandia National Labs Goes from Data Streams to Actionable Intelligence

Many AI programs operate in what you might call a highly controlled environment. Data scientists have all the time they need to gather, scrub and integrate their target datasets and put AI to work. It's not necessarily easy, but it's manageable. Real-time data introduces a whole new set of challenges.

Begin with traditional datasets, then add in data from sensors, social media, cameras and countless other devices that make up the emerging Internet of Things in communities nationwide. What would it take to integrate and analyze that kind of data and convert it into actionable intelligence in near real time?

That's the challenge that researchers at Sandia National Laboratories are taking on, in collaboration with students at the University of Illinois Urbana-Champaign. They are working on a <u>distributed data processing framework</u> "that takes disparate data from multiple sources and generates usable information that can be acted on in nearly real time," according to Sandia.

Researchers believe that such a system would be a boon in the intelligence community and in other national security-type environments in which analysts monitor for active threats.

The researchers are using the streets of Chicago as their laboratory, using their framework to analyze Chicago traffic data, including images, sensors, tweets and streaming text. The goal? To assess real-time conditions and provide drivers with the most efficient routes around the city.

As innocuous as it sounds, the complexity of that environment aligns well with the demands of national security, researchers say. "Success on this research will have a strong impact [on] many time-critical national security applications," <u>said Tia Ma</u>, Sandia computer scientist and project co-lead.

Sandia

National

\$5.5 Million

Funding, courtesy of the Energy Department, for joint Al initiative by the Pacific Northwest National Laboratory and Sandia National Laboratories and the Georgia Institute of Technology.



DoD Tests AI in the Disaster Zone

If you say, "situational awareness," people are likely to assume you are speaking in Defense Department (DoD) parlance about the need to give warfighters as complete a picture as possible about what is happening in a region where they are deployed. But situational awareness speaks to the concerns of first responders as well.

That's why DoD's Defense Innovation Unit (DIU) is collaborating with humanitarian assistance and disaster recovery (HADR) organizations to see if AI can provide responders with better insights into the situation on the ground before they head into an area hit by a natural disaster.

After a disaster, responders want to know the location of damaged buildings and infrastructure and the severity of the damage. In theory, they can tap into satellite imagery to get a clear overhead view. With high-resolution imagery, they should be able to get a good read on the condition of individual structures.

The problem is that many natural disasters cover a large area, meaning that analysts need to sift through a lot of imagery. That is time-consuming work when a rapid response can be the difference between life and death for people waiting for help.

So, DIU and HADR organizations have released a highresolution satellite imagery dataset and invited specialists in AI-based computer vision to develop new techniques for automating damage assessments, accelerating their delivery to first responders. The challenge comes with a \$150,000 pool of cash prizes.

But if this effort results in viable new solutions, the real payoff will come when disaster strikes and lives are saved.

areas:

- Coordinating long-term federal investments
 - in Al R&D Promoting safe and effective methods for
 - human/AI collaboration
 - Developing methods for designing AI systems that align with ethical, legal and societal goals Improving the safety and security of AI systems
 - Developing shared public datasets and
 - environments for AI training and testing Improving measurement and evaluation
 - of AI technologies
 - Expanding public/private partnerships
 - Growing the nation's AI R&D workforce

"In an era of rapid technological change and nearly limitless possibilities, artificial intelligence (AI) and machine learning stand out for their potential to transform our society."

- "Delivering on Digital Government: Achieving the Promise of Artificial Intelligence," a report from NASCIO developed in conjunction with IBM and the Center for Digital Government

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Why Containers Are Key to Boosting Software Innovation

An interview with Chris Grimm, Solutions Architect, Red Hat

The barrier to entry for agencies that adopt innovative technologies and approaches can seem daunting. It's hard enough to change the hearts and minds of those used to working a certain way, but then there's the challenge of learning a new process or tool.

For example, DevOps and containers have become synonymous with innovation, but how do agencies make the shift from current state to embracing these gamechanging capabilities?

"Culture is usually the first hurdle that agencies run into," said Chris Grimm, Solutions Architect at Red Hat, an open source software solutions provider. "The common sentiment is, 'This is how we've always done it, so why should we change?'"

No matter the size of your organization, it can be challenging to get buy-in from senior leaders while also convincing implementers at various levels that change is not only necessary but transformational to the way they work and deliver services. In a recent interview with GovLoop, Grimm shared how technologies such as Red Hat's OpenShift, coupled with DevOps, are enabling innovation in government.

Red Hat OpenShift is an open source container application platform used to develop and deploy enterprise applications. In many ways, it supports a new way of doing business in government by radically simplifying the day-to-day operation of deploying and maintaining large-scale apps.

Using this container application platform, agencies can provide a consistent environment and tools for developers and IT operations teams to package, deliver and manage agency applications — regardless of what the apps look like in development. "OpenShift can run literally anywhere, and almost on top of anything," Grimm said. For agencies that want to move applications to the cloud or keep them on-premise, OpenShift allows them to take a hybrid approach and live in both environments, while maintaining applications in a consistent manner.

But before any technology can run on a government network, an authority to operate (ATO) must be issued to grant that access. The events leading up to an ATO can take a year or more, with a lengthy, back and forth process between government system owners and those assessing the security of the system.

To streamline this process, the OpenShift platform for government agencies is built with security in mind. Red Hat experts work alongside agencies throughout the ATO process, ensuring that risk management is at the forefront and that security controls are clearly documented. "A major factor for streamlining the ATO process is ensuring developers, security and operations teams all have the same goal in mind," Grimm said.

Many times, developers build innovative software and want to get it into production, only to have their work halted by the security team. That's why moving to a DevSecOps model and integrating the work of development, security and operations teams throughout the software development lifecycle is key to moving faster and innovating.

"With these tools, agencies can reduce the barrier-toentry sooner and benefit from 21st century capabilities to run their missions," Grimm said.

Takeaway: To ensure your agency can take advantage of secure, innovative technologies, ensure that developers, security and operations teams have the same goal in mind.

Workforce: Stir the Talent Pool

Government agencies are not giving up on their quest to hire the best talent, as seen by these 2019 workforce initiatives.

It's often said that government agencies can't hope to compete with the private sector for talent - especially IT talent. It's certainly true that the public sector's traditional approaches for recruiting, hiring and retaining employees often make it difficult for agencies to keep pace with private-sector practices.

But who says that agencies need to stick with tradition? Government agencies are beginning to recognize that they have more options than they once assumed. They just need to exercise a little creativity. Here are three examples of what can be done when agencies let go of old assumptions.



North Dakota Nurtures Cybersecurity Education

come to

A recent initiative in North Dakota proposes that education might be essential for growing state government workforces going forward. By standardizing the curriculums for desired skills, state governments can develop thriving talent pipelines for years to come.

In February 2019, North Dakota's Department of Public Instruction (NDDPI) <u>announced</u> that it had crafted educational standards for two of the state's most desired talent tracks. Aimed at K-12 students, NDDPI's guidelines addressed how educators teach computer science and cybersecurity in their classrooms.

Regardless of grade level, NDDPI envisions students learning about five overarching topics: technology systems, computational thinking and information literacy, computing in society, and digital citizenship.

> NDDPI hopes that after completing a K-12 education, North Dakota's students will use the internet ethically and safely. The agency also wants them to understand the role cybersecurity plays in their future workplaces. A third goal involves teaching pupils to recognize and react appropriately to cyberattacks. Collectively, NDDPI's standards aim to teach young citizens how to protect and secure their data, technology and digital identities.

Like many states, North Dakota wants more computer science and cybersecurity workers than are available to its agencies. Over time, the state's framework may inspire more students to pursue both fields professionally, filling in the state's talent gaps.

NORTH DAKOTA DEPARTMENT OF PUBLIC INSTRUCTION

About **10,000 employees** were added to state governments nationwide in September 2019.

Cuyahoga County Builds New Talent Pipeline

A major program in Cuyahoga County, Ohio, demonstrates the power of public-private partnerships for training new government employees. By teaming with the private sector, local governments such as Cuyahoga County can grow their available labor exponentially.

Cuyahoga County <u>launched</u> Workforce Connect in January 2019 with the goal of quickly and efficiently addressing workforce needs across three industries — manufacturing, health care and IT — by creating intermediaries for each sector. Key businesses from each field would lead these intermediaries. The desired outcome involves connecting skilled citizens with companies that need their abilities, ultimately benefiting both parties.

Workforce Connect was initially funded with \$2.5 million for three years, with up to \$1 million provided by the Cuyahoga County Economic Development Fund. The remainder came from philanthropic and public and private sector providers. For instance, some partners were Cleveland's city government, the Cleveland/Cuyahoga County Workforce Development Board and charitable organizations such as United Way of Greater Cleveland. Together, these contributors are now working to improve Cuyahoga County's economic prospects.

By the time 2019 ends, Cuyahoga County expects to have chosen intermediaries for all of Workforce Connect's target industries. Ultimately, economies are a triangle containing businesses, citizens and governments; by joining each side, programs such as Workforce Connect boost the prosperity that all three groups experience.

About 14,000 employees

were added to local governments nationwide in September 2019.

Workforce Connect

Pilot Program Frees Up Federal Hiring

A recent pilot program illustrates how federal agencies might unclog their hiring processes. The experiment could produce a new model for agencies where subjectmatter experts (SMEs) join the process sooner to determine a candidate's qualifications, rather than relying on subjective self-assessments.

In March 2019, the Office of Personnel Management (OPM) and U.S. Digital Services (USDS) partnered on the pilot. Dubbed the <u>SME Qualification Assessment</u> (SME-QA), it used SMEs and HR specialists to conduct resume reviews and structured interview assessments at the Interior and Health and Human Services (HHS) departments. Next, these teams determined if remaining applicants were qualified or preferable for employment as military veterans. Overall, such efforts reduced the number of unqualified applicants competing for important jobs.

The SME-QA focused on technical positions – such as IT – that are classified as GS-12 or higher on the federal government's General Schedule pay scale. The trial also centered on testing roles with at least five vacancies for the same opening; applicant volume for those roles was limited to 100 to 200 applicants. These measures were intended to arrive at a list of truly qualified candidates.

OPM says it will provide guidance for other agencies to imitate the SME-QA pilot. Overall, reforms such as these are helping federal agencies grow stronger workforces. The federal government had an <u>estimated</u>

RESUME RESUME RESUME

XPERIENCE

4,205,576 employees in 2019.

Of all federal employees, an <u>estimated</u>

2,714,897 were executive branch workers in 2019.



"People who are not qualified are essentially blocking people who are qualified from getting visibility."

 <u>Margaret Weichert</u>, Deputy Director for Management at the Office of Management and Budget, on subjective self-assessments in the federal hiring process.

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Putting out Cybersecurity Fires With Integrations

An interview with Chris Usserman, Principal Security Architect/DHS Shared Services Program Manager, Infoblox

When fire departments receive emergency calls, firefighters at the nearest station have to be quick on their feet, gear up and race to the scene. Cities place fire stations strategically throughout their locales so that firefighters can respond as quickly as possible to signs of smoke, knowing every minute is crucial to containing the fire and minimizing damage.

In the digital world, government cybersecurity departments are responsible for putting out fires, as well. Sadly, these fires – in the many forms of cyberattacks – are increasingly common and severe, and organizations often lack the staff and procedures to promptly respond.

Much like emergency services have mastered coordination between a central location and field stations, government cybersecurity departments need a connected response system to extinguish threats across the enterprise as soon as they're detected.

"In an age where there are increasingly more attacks on systems, government IT departments have to be more proactive in how they answer alerts," said Chris Usserman, Principal Security Architect/DHS Shared Services Program Manager at Infoblox. **"That means they need a single view of their environments, and they need to have the right people, processes and technology in place."**

Infoblox offers integrations across technology silos that give organizations one hub for cybersecurity.

"So, what should organizations do to unify security responses? Automation and orchestration leveraging native integrations will allow short-staffed cybersecurity departments to navigate a landscape of constant threats as one entity," Usserman said.

Automation refers to a programmed approach to cybersecurity, both preventative and reactive. With network automation, when an attack hits, the security system can carry out a protocol of what to do with data, whether to shut down access and how to move forward.

Orchestration builds on the automation of each component. Whereas different systems and tools all have their own programmed responses to attacks, orchestration can link those actions together to produce a bolstered defense. And with orchestration, if an attack successfully gets into one system, the entire network won't crumble.

These two pillars of modern network defenses are crucial, but even with orchestration and automation, security teams will still have to fight through silos and limited visibility to react to attacks – lacking agility and insights. Using integrations, these teams gain a holistic image of their many environments.

"This lets agencies make the best decisions about their automation and orchestration," Usserman said. "Then, they can prioritize their responses and proactively protect against cyberattacks with visibility."

The Infoblox Ecosystem Exchange combines dozens of native third-party vendor integrations, enabling a connected cybersecurity ecosystem. With an interconnected single-pane-of-glass view of the agency's network, an agency would see the bigger picture and the finer details of its cybersecurity posture, while simultaneously having a distinct advantage over its attackers.

And with a centralized command, more granularity and more precise visibility, security teams can stomp out flames at the first sign of smoke.

Takeaway: Automation and orchestration are integral components of a dependable cybersecurity strategy in 2020. But to be one step ahead, agencies also need to look to integrated capabilities so they can truly monitor and protect their whole enterprise.

Customer Experience: Let's Get Serious

Customer experience (CX), which has long been associated with commercial success, gained new traction in government agencies in 2019.

On its surface, CX is a small thing, but the implications are important: Government agencies are beginning to think of the public not just as "citizens" or "constituents" but as "customers." What's the difference? Traditionally, constituents have expected government services, digital or otherwise, to be slow and clunky. Customers, whose expectations have been shaped by the digital economy, are not inclined to be patient. They expect a better experience.

In 2019, it became commonplace for agency officials to talk about CX, a critical element for mission-driven government. It's about making those who interact with government feel good about government, whether they're an internal employee or a local resident.

Here are three federal, state and local initiatives that show how CX is more than a matter of semantics.

Customer Experience

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Customer

Service

Sum of all interactions in different places, via different channels, and over time. How customers *feel* about your business or agency.

At a specific time, place and channel. It's the help you get. It's reactive.

San Jose Puts People in Their Place

The city of San Jose, California, took a compelling approach to innovating CX with its 311 app — citizen-first and tech-second.

"We can deliver more user-centered services even with fairly basic technologies that have been around for 10 or more years," <u>said Michelle Thong</u>, Digital Services Lead at the city's Office of Civic Innovation and Digital Strategy.

In other words, the agency put the citizens' interaction and feedback first, instead of prioritizing the implementation of shiny new services. The team created a 311 app for San Jose residents to report activity and make requests. Between January and March 2019, more than 42,000 requests went through My San Jose.

A smartphone app may not be the newest tech, but it fit the needs of San Jose's residents.

And CX improvement didn't stop there.

When duplicate reports from residents arose, the agency created a feature indicating previously reported activity to tackle the issue. However when tested, the issue was, in fact, not an issue at all. Residents were purposely resubmitting reports of an abandoned vehicle or a pothole because they felt the more people the city heard from, the faster it would respond. The tech upgrade weighed little on citizen satisfaction.

"Any time we can have our assumptions disproven by users, that means we're doing something right because we're asking the right questions," Thong said.





Measurement

Defining and instituting CX outcome measures.

Governance & Strategy

Institutionalizing CX by identifying responsible executives and leaders, organizing supporting resources and establishing decisionmaking processes.

Culture & Organization

Acquiring and developing the talent required to incorporate and improve CX within agency activities and empowering all employees to adopt a CX mindset.

Customer Understanding

Implementing activities and conducting qualitative and quantitative research across organizational silos to map intra-agency customer journeys.

Service Delivery

Adopting a customer-focused approach to the implementation of services, involving and engaging customers in iterative development and using digital technologies.

Hey, DMV Lines, Meet BEN from Montana

Notoriously long Department of Motor Vehicles lines emblematize bad bureaucracy, like Kleenex to tissues or Coke to soda. But here, <u>there's a</u> <u>different tale</u> – one of true citizen-centric innovation.

Levi Worts, Public Information Officer at the Montana Department of Justice's Motor Vehicle Division (MVD), was a technical writer without an upfront role in customer service. But working in a back office in the Bozeman Driver License Station, he heard weekly tirades from customers fed up with the website's lack of accessibility.

BEN

Tired of hearing the rants, Worts decided to solve the problem as he knew how – not with intense coding or overhaul, but as a technical writer. That's how he landed on the chatbot.

Using TARS, an online chatbot-builder, and taking classes on web design, Worts built the product through and through, digesting information already on the website and converting it into an easily navigable search format.

At the MVD website, you're now greeted by BEN, or Bot Enhanced Navigation, proudly flaunting government awards for innovation. With 500,000-plus interactions, more than half of the visitors to Montana's Real ID website have received information from the chatbot.

"All I really did to build this chatbot was open my doors – listen to people talk, which seems so simple," Worts said. "But it was incredibly important to the process because that was my direct line of communication with the audience."



At the Veterans Affairs Department (VA), the difference between good and bad customer service can be life or death, especially when it comes to veterans contemplating suicide or dealing with other serious health problems.

"Customer experience means saving lives from the VA's perspective," <u>said Lee Becker</u>, Chief of Staff at the Veterans Experience Office.

This means focusing more on emotion, experience and business drivers than on buying new technology, Becker said. To do that, VA is hardwiring CX as a core capability in the department to provide the best experiences in care delivery. And its plan is working.

According to Forrester's U.S. 2018 CX Index based on 47 experience drivers, VA was one of two federal agencies to improve its CX that year.

What is the agency doing?

The department began strategically institutionalizing CX goals in policy and operational decision-making. One of the results is a veteran journey map, which identifies VA care and benefits services available to veterans, their families and caregivers at different stages in their lives.

The VA strategic plan was then designated around the veteran experience and the journey map to drive a VA-wide focus and strategy on CX.

But no matter where you start, Becker noted, you must always ask yourself: "Does this meet mission needs?"

"Everything we do has to be making an impact for our veterans," Becker said.

American Customer Satisfaction Index (ACSI) <u>Federal Government</u> <u>Report 2018</u>:

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The Path Starts Here

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Cloud-Based CX Helps Agencies Upgrade the Customer Journey

An interview with Bobbi Chester, Senior Director of Cloud Product Marketing, Genesys

The government contact center has always been a demanding operational environment, but it is more challenging than ever these days.

Given both the critical nature of the work and the sheer volume of activity, these centers have little tolerance for downtime or performance problems. Increasingly, however, they face growing expectations from the public, who see the rich customer experience (CX) they receive in the private sector as the new norm.

These days, customers expect to have a range of options available for accessing information and services, including voice, email, chat and self-service apps – and they want a smooth transition from one channel to the next. That's the goal of thinking in terms of a customer journey.

Unfortunately, many agencies find themselves trying to support this omnichannel customer journey using a mishmash of point solutions that don't integrate easily.

"You can have people within agencies who want to give this awesome customer journey, but when you have a kind of spaghetti infrastructure, it is almost impossible," said Bobbi Chester, Senior Director of Cloud Product Marketing at Genesys, a company that provides cloud and on-premise CX solutions for contact centers.

But that omnichannel customer experience doesn't have to be out of reach. By deploying CX solutions in the cloud, agencies can get out of the business of maintaining that infrastructure and instead focus on improving the customer journey.

While people often think about CX in terms of the frontend applications, it all depends on getting the back-end architecture right.

Let's say a person begins interacting with an agency via a self-service app but runs into difficulty and needs to speak with a customer service representative. That rep should have immediate access to information about earlier transactions so that the customer does not need to go back to square one. A cloud-based, integrated solution makes it possible to ensure seamless flow of information and services from channel to channel.

The cloud also brings a whole new approach to delivering those services.

From an administrator's perspective, a cloudbased solution both simplifies and accelerates the deployment of new services. In the past, deploying a major new software release typically meant buying and installing new hardware. Because of the effort involved, organizations often were in no rush to add new capabilities.

With cloud-based CX, the industry has shifted to a continuous deployment model, releasing new capabilities in small, frequent increments. Contact centers no longer need to worry about revamping their infrastructure; they just need to vet the upgrade, train staff on the changes and click to enable the services.

"It used to be that on the call center operations side, as new capabilities became available it was always a question of, 'When can I have it?'" Chester said. "Cloud has shifted that question to, 'I will simply start consuming it."

Agencies need to think this way because their customers do. Traditionally, most people did not expect government agencies to deliver good customer service, but that's no longer the case, Chester said. "They are not giving the government a pass."

Takeaway: Transitioning to a cloud-based CX solution is how agencies will reap big rewards in terms of more efficient operations, easier management and better CX.

Acquisition Is Cool? You Bet...

Acquisition has always been integral to agencies' IT strategies, but the procurement community is getting new respect these days.

Government acquisition isn't the sexiest of topics, but heading into 2020, government acquisition is hot, newsworthy and even Hollywood. In 2020, acquisition will be transformed, as governments work to leverage their immense purchasing power as one to bring in the best technology available and vanquish legacy systems from sight.

Cloud is on the radar. So is cyber. So is AI. No matter what you're buying, though, the message from government heading into 2020 is singular: "We're all in this together."

Here is a look at three examples of transformation in action.

L.A. County Helps Smaller Counties Go Big Time With 'Assessor-as-a-Service'



The Los Angeles County Office of the Assessor has launched an "Assessor-as-a-Service" program designed to help smaller counties maximize their operations despite lower budgets.

The L.A. County Assessor's Office is modernizing its operations by moving to the cloud and, in the process, has opened up the new functionality to other assessor's offices throughout the state.

"We were willing to provide our code and our system to other counties free of charge just because we're not in the business of making money off our product. We're here to help each other out," said Steven Hernandez, Assistant Assessor at the office, adding that Assessor-as-a-Service would work as a subscription service for smaller counties.

California assessor's offices identify property owners and perform property assessments under the unique environment of Proposition 13, a state law that creates more exemptions, or non-taxable values. Prop. 13 had made it difficult for vendors to lead a movement away from mainframes.

Moving to an Agile and tailored cloud, the Assessor's Office was able to work in three-month intervals to deliver piece-by-piece functionality to end users and improve incrementally – first getting rid of green screens and launching an online portal.

With the cloud, the county will be able to host more than 100 formerly separate applications in one online-based suite when the project is complete. These can be accessed from anywhere, including from counties throughout the state, as part of the Assessor-as-a-Service program.

Features will include geographic information systems and mobility that smaller counties would likely not have been able to afford alone.



NASCIO interviewed 49 state and territory CIOs on trends and factors driving enterprise IT. Here's what they said about their satisfaction with their current system of IT procurement.

How satisfied are you with the current system of IT procurement in your state?



The New Shared Services Approach That Could Reshape Government

The federal government announced a new initiative in April 2019 that moves shared service acquisition missions into central offices, housed at designated federal organizations that are leaders in HR, grants, finance and cybersecurity.

Quality Service Management Offices (QSMOs), which will coordinate shared services for those product areas, will be at DHS, the General Services Administration (GSA), HHS and the Treasury Department.

These offices will procure and manage solutions that will then be spread throughout government. QSMOs will fundamentally change the way that federal civilian agencies acquire and implement solutions, administration officials said.

"This is not a project. It's a fundamental change in our operating model," Federal CIO Suzette Kent said at a press briefing.

The aim of QSMOs is to replace redundant and duplicative processes throughout agencies. "Sharing Quality Services" was a cross-agency priority goal that the President's Management Agenda identified.

As it stands, federal agencies undergo long, expensive procurement cycles. This initiative, officials hope, will accelerate the modernization process. The first project to take hold is at GSA, which often serves as the test site for new technologies and federal programs, in the area of HR management.

"It really goes back to the mission that President Truman created for us 70 years ago – reducing duplication," GSA Administrator Emily Murphy said.

Implementation of QSMOs is expected in 24 to 36 months. Other QSMOs will be established as the project moves forward.

Federal Centers of Excellence Take on Al

The Trump administration's plan to develop AI expertise across the federal workforce includes the November 2019 launch of a cross-governmental community of practice around AI. The hope is that the community will feed into a larger initiative, aimed at embedding AI professionals within agencies to help improve government services to the public.

This larger initiative, known as Centers of Excellence (CoE), is still fairly new but has already shown promising results at the Agriculture Department (USDA), for example. Under the CoE model, centralized teams of technical experts work alongside agency employees to accelerate the procurement and adoption of modern technologies, such as cloud computing and data analytics.

Al is next on that list.

"That is all about accelerating and driving and scaling the execution of AI across the government," said Anil Cheriyan, Director of GSA's Technology Transformation Services (TTS) office. Speaking during the Sept. 9, 2019, White House Summit on Artificial Intelligence, Cheriyan explained how the CoE initiative, which is housed within TTS, will drive government adoption of AI.

The expectation is that knowledge derived from the community of practice will help agencies that want to adopt AI more holistically. Practically speaking, experts from that community could lend their knowledge and potentially be detailed at an agency to work alongside its employees on AI projects.

USDA and the Housing and Urban Development Department are already using the CoE approach to tackle pressing issues that affect the public. For example, the CoE team at USDA developed a digital tool to streamline the farm loan process for new producers. OPM and, more recently, the Consumer Product Safety Commission are following suit to improve their CX.

> Federal agency contracts for goods and services account for about **40%** of the government's <u>discretionary</u> spending.

What Are Other Transaction Authorities?

Other Transactions are legally binding contracts that are generally exempt from federal procurement laws and regulations such as the Competition in Contracting Act and the Federal Acquisition Regulation. They're also gaining steam at DoD.

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Generally, DoD can use Other Transaction Authorities to:

- 1. Conduct research
- 2. Develop prototypes
- Contract for follow-on production of a successful prototype project.

Source: Congressional Research Service



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Using HR Tech to Engage Candidates

An interview with Ted Kinney, Ph.D., Vice President of Research & Development, PSI Services

In 2019, the unemployment rate reached a 50-year low, which means that when agencies hire for top talent, they have a smaller pool of candidates.

As a result, candidates have become more invested in the hiring process as they have a greater advantage than before to be selective about where they work.

"In the past, a candidate for a federal job might have come in and expected to spend 30 years or a career there — that isn't so much the case anymore," said Ted Kinney, Vice President of Research & Development at PSI Services, a workforce solution provider for the public and private sectors.

In the public sector, agencies must see the hiring process as bidirectional, not unidirectional as it has in the past, Kinney said. In current labor market conditions, agencies have to be aware that candidates are making a decision about their employer, too.

"We need to create an experience that's going to give the candidate the data they need to make the most accurate decision about the agency," Kinney said. "Because when they make a wrong decision, we're the ones that feel that pain."

Kinney highlighted two things that open the gateway to a better candidate selection process experience: clear communication about what to expect and an assessment strategy that creates a positive, engaging first impression.

When it comes to hiring assessments, candidates aren't surprised they will undergo evaluation. "What PSI has found is candidates react negatively when they don't know what to expect in a selection process," Kinney said.

PSI's research shows that if an organization communicates in advance what the hiring process entails, the candidate will be receptive. Creating an engaging assessment experience is also key. A good assessment experience strengthens the connection between the candidate and the employer. A scientifically derived assessment approach leads to better hiring decisions rather than relying on a hiring manager's gut feelings. Individual impressions often lead to a workforce that's just the same as the hiring manager, Kinney said.

Technology-enabled solutions can help. "One of the things that is key about a well-developed assessment process is that it ensures that every candidate is measured using the same yardstick," Kinney said.

"A computer doesn't know the demographic characteristics of the person being asked the questions," he added. "So a technology-enabled assessment eliminates a lot of the sources of bias that plague many hiring managers."

Online Software-as-a-Service (SaaS) platforms provide an engaging assessment experience through leveraging gamified principles like progress bars, interactivity and section timers. These techniques keep the candidate interested in the experience.

At PSI, a dedicated team of industrial-organizational (I/O) psychologists works to improve how to leverage technology to create forward-thinking talent solutions.

"When building a selection process, organizations should make sure that every stage strengthens the employment brand, while also collecting predictive, fair and compliant information to win the war for talent," Kinney said.

Takeaway: Think bidirectionally when it comes to hiring. Agencies have to be aware that candidates are making a decision about their employer, too.

Meet the Next-Generation Government Leaders and Innovators

Each year, GovLoop celebrates deserving individuals selected from the public service community for their intelligence, exuberance and dedication to improving and invigorating government. In honor of our 10th year, this year we celebrated 10 amazing winners during our 2019 Next Generation Government Training Summit in Washington, D.C. Next year's summit will take place July 22-23 in D.C. You can find all the details <u>here</u>.

In the meantime, let's take a look at the winners.

Exemplary Leader



ANGIE AWADALLA

Asylum Officer U.S. Citizenship and Immigration Services

Angie Awadalla's impact is not limited to government; she also touches the lives of everyone whose asylum claims she works on as an Asylum Officer at U.S. Citizen and Immigration Services (USCIS). Based in the Newark, N.J., Asylum Office, she has had a positive impact during her time there. In 2018, USCIS declared that its case backlog was in "crisis," and Awadalla was ready to step up, completing her usual caseload while also working to reduce the backlog. Nominator Neil Hernandez, an Assistant Professor at the Baruch College Marxe School of Public and International Affairs, said, "Ms. Awadalla's tireless work in adjudicating cases that are part of the agency's backlog helps the agency address a critical priority."

JANICE BROWN-MCKENLY



Test and Evaluation Manager Defense Health Agency

Janice Brown-McKenly has an important responsibility: making sure military health care products are up-to-date, well-tested and evaluated to provide the highest quality of care to active-duty military personnel, veterans and their families. As a Contracting Officer's Representative, her day-to-day tasks involve overseeing the implementation and maintenance of the military medical patient care systems being used at fixed military treatment facilities and/or in combat zones. In the words of nominator Patrick Faherty, "Janice is a critical leader within the Defense Health Agency. Her guidance advances the strategic goals of the Military Health System and ensures our warfighters receive the care they need, whether they are abroad or at home."





Innovator



MELINDA CROCKOM

Public Education Coordinator Texas Commission on State Emergency Communications

As Public Education Coordinator for the Commission on State Emergency Communications, Crockom is responsible for the vital task of ensuring that the public understands emergency services. She is a master of public awareness, and her work has educated countless people on topics such as 911 response and preparedness. Commenting on her dedication to using all potential avenues of public communication, including speaking at conferences and managing social media accounts, nominator Ben Bills described her as thinking "outside the box and always looking for new and creative ways to educate the public on the very important topic of 911."



TEDDY KAVALERI

Chief IT Officer D.C. Office of Applied Communications

As Chief IT Officer at DC's Office of Unified Communications (OUC), Teddy Kavaleri has a primary responsibility overseeing the IT Division: ensuring that citizens can access the services they need. Whether they're calling 911 or 311, it's thanks to OUC's work that they know their call will be answered. In the words of nominator Janice Quintana, "Due to his work alongside the OUC executive management and IT staff, the District of Columbia's residents, workforce and visitors are now served by a local government with one of the best integrated contact centers in the country. DC311 has earned the respect of the 311 community."

The future of govenment agency business has feelings.



Becoming a data-driven agency isn't about using technology for technology sake, but rather using intelligent tools and data to better serve the public.

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Practical Steps for Becoming a More Data-Driven Agency

An interview with Chris Atkins, Vice President for Digital Government Transformation, SAP Public Sector

For agencies charged with delivering public services, their pursuit to do so in a thoughtful and data-driven manner is paramount.

Admittedly, this approach starts with a decision to make data and business intelligence a strategic priority. "This isn't about doing technology for technology's sake but rather focusing on outcomes and impact", said Chris Atkins, Vice President for Digital Government Transformation at SAP Public Sector. SAP has long been a leader in supporting public sector organizations to become intelligent agencies through data and technology. To provide clarity around what customers need, SAP brought Atkins on board to leverage his background as the former Director of the Indiana Office of Management and Budget.

"The challenges for agencies fall into two broad categories: one is the business side of the agency and the other is its IT operations," Atkins explained. On one hand, agencies are challenged with serving a customer base that has grown accustomed to seamless digital experiences through online platforms. The public expects the same experiences from their government.

Sadly, these expectations are at odds with the siloed nature in which government is structured. It also includes the back-end systems agencies use to serve the public, many of which were not initially designed to integrate with other systems. For example, the government systems and interfaces a citizen might use to file paperwork or make payments are not usually the same systems and interfaces they use to dispute any issues with those payments or documents.

"This creates frustration, and a lack of quality services can erode the public's trust in government," Atkins said. With this in mind, Atkins shared practical steps agencies can take to achieve data-driven outcomes and work collaboratively with stakeholders to tackle pressing issues.

First, identify a compelling project that has broad support and could benefit from business intelligence tools and data. Start with an outcome that your agency leaders and staff can rally around, such as reducing traffic congestion or addressing the opioid epidemic.

"You have to find a way to bring the business side and the IT side of the house together," Atkins said.

He cautioned against using data and technology for technology's sake — rather than as strategies to accomplish a goal. For example, using the SAP® HANA platform together with SAP Predictive Analytics® software, state and local agencies have taken a more insightful and innovative approach to chronic issues, including decreasing infant mortality in the state of Indiana and reducing recidivism in Arkansas.

Although SAP works closely with agencies to provide software for core processes, such as finance and procurement, the company is delivering on the government's need to add intelligence to those core operations and integrate that knowledge across the enterprise. The ultimate goal? Use technology and data to tackle the government's most pressing challenges.

On this data-driven journey, Atkins advised that agencies openly share their results, rather than revealing an initiative but concealing progress. **"Don't get everyone excited and then wait a year to show results," he said. "Showing quick wins will generate goodwill and executive support."**

Takeaway: Becoming a data-driven agency isn't about using technology for technology's sake, but rather about using intelligent tools and data to better serve the public.

Silent Hero



CAPT. ELIJAH MARTIN

Health Resources Service Administration Tribal Affairs Manager Office of Health Equity

As Health Resources and Service Administration Tribal Affairs Manager, Capt. Elijah Martin works diligently on behalf of an often underserved segment of this country's population. He provides senior-level leadership for the agency's American Indian, Alaskan Native and Urban Indian activities, and advises on policy and tribal partnerships. According to his nominator, Christine Ramey, Martin "is a valuable resource on minority health and health inequities. He has combined his education, public health background and training with a dedicated sense of purpose, direction and mission. Above all, he has an unwavering commitment to serving others."



MARCHELLE FRANKLIN

Director, Human Services Department City of Phoenix

Marchelle Franklin has years of experience in government, and she puts everything she's learned to work on behalf of the citizens of Phoenix every day. As Director of the Human Services Department, she leads more than 375 employees and is responsible for a budget of \$85 million. Her department provides vital services to citizens in the areas of emergency financial assistance, job training, senior programming, Head Start Birth to Five, homeless services, and domestic and sexual violence response and advocacy. In the words of her nominator, Karen Apple, "She has holistically delivered social service programs to the Phoenix community and enhanced the programs' visibility and participation levels, and nurtured new relationships. She has empowered her team to develop new social initiatives and built consensus within valuable community stakeholders to continue to provide muchneeded social programs to Phoenix residents."





2019

Advocate



JUDITH GREEN

Social Media Specialist Los Angeles County Child Support Services

As the Social Media Specialist at Los Angeles County Child Support Services, Green is responsible for raising awareness of the vital services her agency provides, and for shaping its public messaging. In her time in this role, she has had great success driving engagement, with an award-winning social media campaign already under her belt. Nominator Kevin Sangrung describes her impact by saying, "Judith's unique and engaging digital marketing campaigns have gained the attention of elected officials, social media influencers, community stakeholders and most importantly, the families we serve."



GIOMAR VELOZ

Public Health Nutritionist Supervisor *Florida Department of Health*

As a Public Health Nutritionist working with infants, children and pregnant women, Giomar Veloz is truly a caretaker of our country's future. In the words of nominator Monica Correa, Veloz "utilizes her practice to educate and built strong relationships with pediatricians, caregivers and other organizations to provide as much assistance as she can. She understands that it takes a village to help a child, and she is not afraid to reach out and advocate for them." This dedication shows in her commitment to the mothers and children that she works with. Said Monica Correa in her nomination, "Giomar helped to implement breastfeeding classes in English and Spanish. Every year she organizes a massive breastfeeding event in August, Breastfeeding Month. In the prior months to the event, Giomar reaches out to organizations [and], pediatricians, collects donations, buys food and giveaways from her own money, and goes above and beyond to provide the future moms the assistance, tools and resources they need to thrive."

Courageous Champion



ROBERTO MIGUEL VIDA OBONG

Criminal Investigator Veterans Affairs

A retired combat Marine, Obong understands the challenges his fellow veterans face. Obong has a unique position at VA: He is both a Criminal Investigator working to uncover criminal acts by veterans and a strong advocate for at-risk veterans' mental and physical health. "When he is notified of an at-risk veteran, Obong quickly mobilizes local resources to find and assist them, while talking to them on the phone until local resources arrive," said Obong's colleague Catherine Kemmerling. On one occasion, a veteran in Nicaragua was experiencing a mental health emergency but could not get care. Obong coordinated with the State Department and local officials to find the veteran and bring him back to the United States, where he received life-saving aide. "Even if a veteran commits a crime, we need to look after their welfare," Obong said. "I see myself as both a cop and a social worker at the same time."



GEORGIA MADRID

EEO Specialist National Oceanic and Atmospheric Agency

As an Equal Employment Opportunity (EEO) Specialist, Georgia Madrid works with current and potential National Oceanic and Atmospheric Agency employees. Her responsibilities encompass a broad range of tasks, from ensuring compliance with EEO and diversity regulations to outreach to communities that are underrepresented in the federal government. All of this is done to support and maintain an inclusive, respectful workforce; in her words, "we want to be a diverse workplace that mirrors the United States of America."

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HCI: A Rock-Solid Foundation for Great Customer Experience

An interview with Dan Fallon, Senior Director of U.S. Federal Engineering, Nutanix

When agency IT leaders look to improve the customer experience (CX) of their services, they are likely to think in terms of cloud-based services, mobility and DevOps – all the hallmarks of a modern IT environment. But such solutions are of limited value if they are running on a legacy infrastructure.

The problem is that modern solutions require a flexibility and scalability that a legacy environment simply cannot provide. Agencies can try to make it work, but eventually that underlying infrastructure limits their ability to deliver high-quality CX.

"[Agencies] need to modernize that underlying core infrastructure, because that is where it all starts," said Dan Fallon, Senior Director of U.S. Federal Engineering at Nutanix, a cloud computing software company. "If they stay in the legacy mode, they will never be able to free themselves to focus on the higher-level stuff, such as doing DevOps."

In a traditional data center environment, compute, storage and network operate in silos, with each often managed by a different team. The siloed structure reduces an organization's ability to reallocate or scale resources as requirements change.

That model worked in the mainframe days, when workloads were fairly predictable, but it is not a good fit in the cloud era, when agencies need increased agility. That's why more agencies are turning to hyperconverged infrastructure (HCI).

HCI collapses the compute, storage, networking, security and virtualization functions into a single platform, with the full stack managed through software. This softwaredefined approach essentially renders the hardware invisible, enabling IT managers to shift their energy from managing hardware to optimizing the performance of applications and services. One remaining headwind to digital transformation is the federal acquisition process. While HCI and other technologies enable agencies to add capacity quickly, the actual procurement of that additional capacity can take months.

With that in mind, Fallon said agencies might consider a managed services-based approach to buying HCI – paying for infrastructure-as-a-service through operating expense funds and not worrying about owning and managing the underlying infrastructure.

There's one more factor, often overlooked, that can help or hinder agencies' ability to boost their operations by leveraging HCI: the quality of vendor support. The industry standard for customer loyalty is the Net Promoter Score (NPS), which measures customers' willingness to recommend a product or service to someone else.

On the most recent results, Nutanix scored a 92, on a scale of 0-100, and has maintained a score in the 90s for the last 4 years. But for Nutanix, it's not about the score. It's about the company's customers getting the support they need.

"When you pick up the phone and call that vendor, you really want it to be a good experience and resolve the issue quickly," said Fallon. "There's little value in getting a bargain purchase price, if you end up spending the time and money you thought you were saving, trying to get the support you need."

Takeaway: As both internal and external customers demand modern services, agencies shifting to a modern IT environment, based on a software-driven platform with world-class customer support, will be best positioned to pass on a world-class customer experience. Look for vendors who are ranked highly by independent industry experts in product, execution, and customer service and support. To read more stories about government innovators and how agencies are embracing innovation, make sure to sign up for <u>GovLoop's Daily Awesome</u> <u>Newsletter</u> and follow our coverage on <u>GovLoop.com</u>.

About GovLoop

GovLoop's mission is to inspire public sector professionals by serving as the knowledge network for government. GovLoop connects more than 300,000 members, fostering crossgovernment collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to the public sector.

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