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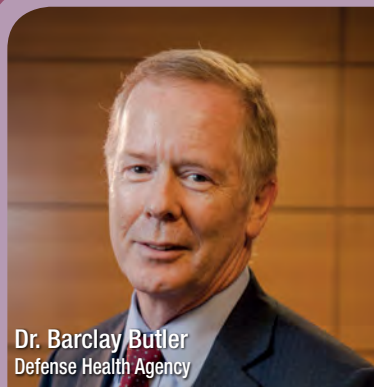
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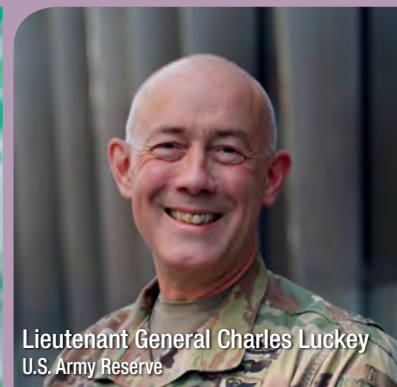
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The Business of Government

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The Next Stages of Government Transformation

Over the last twenty years, U.S. administrations of both parties have introduced agendas focused on improving government. The National Performance Review in the 1990s established many initiatives to help government work better and cost less. The President's Management Agenda in the 2000s raised the bar across mission support areas, including: financial management, technology, human capital, sourcing, and performance. The Open Government movement of the last decade led to agencies leveraging open data and digital technologies in ways that mirrored private sector best practices.

Given this history of promoting good government, where are public sector leaders headed next in transforming their programs and operations? Governments are facing tremendous change both in the U.S. and around the world, with demographics, technology, data, and citizen expectations among the major factors driving new solutions to help achieve key objectives. The U.S. is one of several nations (including Canada, the UK, and France) where these new initiatives are being framed in the context of a new central administration and new agency leaders.

A transformation agenda has started to emerge across the U.S. government, building on the efforts of prior administrations, and with bipartisan support. Components of this agenda include:

- **A set of strategic management priorities** in the Budget Proposal for FY 2018. The budget outlines four sets of goals to be achieved by 2020:
 1. Manage programs and deliver services more effectively by using hard data to make decisions
 2. Eliminate costly and unproductive compliance requirements
 3. Fix mission support service by adopting leading practices
 4. Report critical performance metrics and show demonstrable improvement at agency level
- **A reform agenda** announced by executive order (integrated with the budget process via the Office of Management and Budget [OMB] memorandum 17-22) asks that agencies take a fresh look at what they are doing, whether they should be doing it at all, and, if so, are there better ways to operate. The emphasis of these proposals is more about "rethinking" or "restructuring" rather than "reorganizing." OMB's guidance creates a framework and timetable for action that's rooted in the use of existing management, planning, and budget decision-making processes, instead of creating a separate effort.

- **Modernization initiatives** being developed by the new Office of American Innovation (OAI), a small White House team charged with working with private sector executives to “improve government operations” in part by “scaling proven private-sector models.” OAI has stressed that its focus is on long-term, sustainable actions to promote better government.

Such approaches being taken by government leaders in the U.S. and around the world create a backdrop for the IBM Center’s research agenda. We recently announced a new set of seven drivers for research on improving government, based on what we have learned about forthcoming trends and challenges from public sector officials, private sector executives, and academic experts. These drivers are outlined in the new IBM Center report, *Seven Drivers Transforming Government* and include:

- **Insight** – using data, evidence, and analytics to create insights that influence decision making, actions, and results
- **Agility** – adopting new ways for government to operate, using agile principles and putting user experiences and program results at the forefront
- **Effectiveness** – applying enterprise approaches to achieve better outcomes, operational efficiency, and a leaner government
- **Risk** – mitigating risks, managing cybersecurity, and building resiliency to meet the mission of government
- **People** – cultivating people: reforming processes for hiring, developing, and retaining workers; and leveraging data and technologies to build the workforce of the future
- **Engagement** – fostering a citizen-driven government through real-time interactive feedback, data visualization, and other tools to engage, co-create, and co-produce services and programs
- **Digital** – optimizing new technology and infrastructure models, focusing on the user experience and incentivizing innovators to modernize how government does business

As governments proceed in seeking effective pathways to transformation, the IBM Center will continue to work with leading experts to produce strong research and actionable recommendations on these topics and more to foster positive change in the way government does business. ■

By Michael J. Keegan



Michael J. Keegan is Editor, *The Business of Government* magazine and Leadership Fellow at the IBM Center for The Business of Government. Email: michael.j.keegan@us.ibm.com.

This edition of *The Business of Government* magazine provides a glimpse into the many different missions and programs of the U.S. federal government. It does so from the perspective of the mission leader, offering a snapshot-in-time discussion around challenges faced, innovations pursued, and initiatives yet to yield their desired outcomes. These are leadership stories that introduce you to those on the front line charged with delivering the business of government.

Along with telling the stories of actual government leaders, I also present insights and actionable recommendations from some of the best minds in public management research—focusing on key challenges facing government today. As with every issue of this magazine, the fall 2017 edition underscores the fundamental mission of the IBM Center for The Business of Government: connecting research to practice.

“Research is collaboration,” writes Aaron Wildavsky. “The obligatory footnotes merely memorialize the fact that we are dependent on the work of others.” Whether we build on or amend or oppose it, the work of predecessors and contemporaries provides the indispensable frame within which we write. Constant conversation is the only way—and the conjunction of idea and opportunity is critical. This is what I seek with each magazine.

Conversations with Leaders

If there is a constant theme that runs through these conversations, it is a singular focus on service: to country, to those who have made the ultimate sacrifice, and to mission. The leaders I introduce manifest a commitment to making a difference and trying new and improved ways of doing just that. They reflect on the status of their strategic priorities, the challenges they face, and the work they do.

This magazine provides a snapshot of their comments. I invite you to listen to all of these conversations in full at businessofgovernment.org/interviews.



- **Lieutenant General Charles Luckey**, Chief of Army Reserve and Commanding General, U.S. Army Reserve Command, leads a community-based force of more than 200,000 soldiers and civilians with a “footprint” that includes fifty states, five territories, and more than thirty countries. The Army Reserve is a critical force provider of trained-and-ready units and soldiers, delivering full spectrum capabilities essential for the Army to fight and win wars and respond to homeland emergencies on behalf of the American people. Lieutenant General Luckey discusses the mission of the U.S. Army Reserve, the essential components of force readiness, the Army Reserve’s support of civil authorities, and much more.
- **Bill Marion**, Deputy Chief of Information Dominance and Deputy Chief Information Officer, U.S. Air Force (USAF) assists in leading three directorates and supports 54,000 cyber operations and support personnel across the globe with a portfolio valued at \$17 billion. He provides oversight of the Air Force’s IT portfolio, including the IT investment strategy, networks and network-centric policies, communications, information resources management, and information assurance. Marion outlines the U.S. Air Force’s information dominance strategy and priorities, its modernization plan, and how USAF is changing the way it does IT.

- **Dr. Baligh Yehia**, former Deputy Under Secretary for Health for Community Care, U.S. Department of Veterans Affairs (VA) led VA's network of federal, academic, and community providers who care for 1.5 million veterans at community-based (non-VA) facilities. He provided leadership in the areas of member eligibility and services, network development, provider relations, quality and utilization management, care integration, medical claims processing, and revenue collection. Dr. Yehia offers his perspective on the mission of the VA's Office of Community Care, how VA has been enhancing community care, and what's on the horizon for the Veterans Access, Choice, and Accountability Act ("Choice Act").

Insights

During this transition year, I had the opportunity to speak with government executives who are changing the way government does business. In many instances, they are leading programs that are core to the Trump administration agenda ranging from trade to immigration to making government work smarter. Every presidential transition is marked by its own unique combination of continuity and change. The six government executives profiled here offer their insights into the work they do and the missions they lead. They joined me on *The Business of Government Hour* to discuss critical issues facing their agencies.

- **Dr. Barclay Butler**, Component Acquisition Executive, Defense Health Agency, U.S. Department of Defense oversees the approval of all acquisition matters for the DHA. He provides insights into his agency's efforts to make its acquisition and procurement functions more agile.
- **Tiffany Hixson**, Assistant Commissioner, Professional Services and Human Capital Categories, Federal Acquisition Service, U.S. General Services Administration provides insights into her strategic leadership and oversight of FAS professional services and human capital contract programs, as well as government-wide professional services category management.
- **Commander Eric Popiel**, Program Manager, U.S. Coast Guard (USCG) manages the Evergreen Program, the Coast Guard's Strategic Foresight Initiative (SFI). He serves on the leadership team for the Federal Foresight Community of Interest, advancing the use of strategic foresight at the USCG and promoting it throughout the U.S. federal government.
- **Carla Provost**, Acting Chief, U.S. Border Patrol, U.S. Customs and Border Protection, is charged with securing the nation's borders and offers insights into how her agency does just that. She talks in detail about how the agency is continually identifying new ways to meet its mission and secure the homeland.
- **Bryan Rice**, former Director, Office of Wildland Fire (OWF), U.S. Department of the Interior presents his insights into the work of OWF and its efforts to coordinate the fighting of wildland fires. He provides these insights as director.

Since our discussion, Bryan has been promoted to Director of the Bureau of Indian Affairs. This move is testament to his leadership skills—and to his dedication to public service. We wish him the best in his new role.



- **Brenda Smith**, Executive Assistant Commissioner, Office of Trade, U.S. Customs and Border Protection oversees a diverse portfolio of trade facilitation and enforcement matters. She shares her insights into the national strategy for the facilitation of legitimate trade and efforts to strengthen comprehensive trade enforcement.



Forum on Transforming Government Through Technology

By implementing private sector cost reduction strategies and technologies, the federal government can reduce costs while improving services. This cost-saving objective is highlighted in *The Government We Need* released by the Technology CEO Council (TCC) and supported by the IBM Center for The Business of Government. The report detailed how, if implemented effectively, technology-based reforms could reduce federal costs by more than \$1 trillion over the next decade. Right now, the federal government spends roughly 30 percent on operations that support mission delivery. Efficient private sector organizations spend roughly 15 percent for similar overhead. While government will always have unique demands and obligations that prevent it from reaching the efficiency levels of the private sector, it can still significantly improve operations.

This forum highlights the insights presented in the TCC report and the IBM Center's *Transforming Government Through Technology*—a companion piece to the more detailed TCC report. It presents the key insights and recommendations that can assist government leaders in understanding how to best leverage and scale past successes to benefit citizens and taxpayers today and in the future. These insights are confirmed by many of the IBM Center's past studies and reports that similarly examine opportunities for improving government operations by applying private sector strategies and innovations.

Viewpoints

John Kamensky ponders whether and to what extent cross-agency priority goals matter. Gwanhoo Lee and Justin Brumer detail lessons learned from the development of the HealthCare.gov website—lessons that may help future government software projects avoid similar challenges. Dan Chenok provides an overview of the IBM Center's new research agenda that shall guide its work and focus for several years to come.

I close this edition with overviews of recent IBM Center reports. If you have not read these reports, we encourage you to do so by visiting businessofgovernment.org.

I hope you enjoy this edition of *The Business of Government* magazine. Please let us know what you think by contacting me at michael.j.keegan@us.ibm.com. ■





Leading the U.S. Army Reserve: A Conversation with Lieutenant General Charles Luckey, Chief of Army Reserve and Commanding General, U.S. Army Reserve Command

By Michael J. Keegan

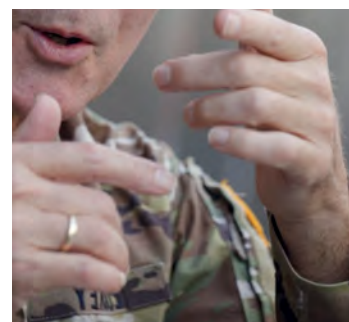
America's Army Reserve has always risen to meet the challenges of our time. It's evolved from a nascent force of doctors and nurses to an organized reserve, and then to a strategic reserve under federal control. Today, it is an integral element of the operational Army and a force-provider to the Joint Force.

Yet, its mission remains the same—to provide mission-critical capabilities for the Army and the Joint Warfighter whenever and wherever they are needed, anywhere on earth—forging and sustaining a capable, combat-ready, and lethal force: a force of technically and highly skilled soldiers, leaders, and units.

Lieutenant General Charles Luckey, Chief of Army Reserve and Commanding General, U.S. Army Reserve Command, joined me on *The Business of Government Hour* to discuss topics including the mission of the U.S. Army Reserve, the essential components of force readiness, the Army Reserve's support of civil authorities and much more. The following is an edited excerpt of our discussion, complemented with additional research.

On the History and Evolving Mission of the U.S. Army Reserve

In 1908, Congress created the Medical Reserve Corps, the official predecessor of the Army Reserve, as a way to expand the Army's medical capability and capacity in a time of war. During wartime, the Army needed access to medical specialties such as cardiothoracic and orthopedic surgeons, and emergency room technicians. The theory behind this approach was to access these skills when needed. The notion is to find places in America where the technical capabilities and talent required in the event of a war are already available, and to take advantage of that readiness. We're talking about places like Mass General Hospital or the



Mayo Clinic. At the time, it saved money and placed the onus of readiness on the community where the citizen soldier lived and worked. Though this concept has evolved, the purpose hasn't. It continues to field a broad array of capabilities, often by leveraging existing skills of citizen soldiers.

For more than a century, America's Army Reserve has delivered decisive capabilities to the battlefield, fulfilling our integral role as a force-provider for the most lethal land power in the world, with approximately 200,000 soldiers spread across twenty time zones. Our role is more critical than ever in an age characterized by the persistent presence of asymmetric threats, as well as emerging, dynamic and highly contentious challenges.

The Army Reserve comprises nearly 20 percent of the Army's organized units, almost half its total maneuver support, and a quarter of its mobilization base-expansion capacity. Its unique status as both a component of the Army and a singular command imbues it with the flexibility, agility, and unity of effort needed to respond to any mission at home or abroad, and often with little notice.

On Being Chief of the Army Reserve and Commanding General of USARC

I have two roles. I'm the Chief of the Army Reserve, which focuses on policy. It's about ensuring that from a legal perspective the statutory mandates and requirements of the Army Reserve are being supervised, led, and shaped by me and the staff in the Office of the Chief of the Army Reserve. In that capacity, I report directly to the Chief of Staff of the Army serving the Secretary of the Army as a member of the Army staff.

I also have responsibilities as Commanding General of the U.S. Army Reserve Command. It's headquartered in Fort Bragg, North Carolina, and is an operational headquarters under the control of U.S. Army forces. In this capacity, it's my role as a leader to build readiness and the units of action that are capable and prepared as a force multiplier.

On Challenges

My most significant challenge as a leader is to drive a change in culture. It's to ensure the Army Reserve culture matches, and supports, the development of certain capabilities to deal with the emerging threats in the twenty-first century. To put it a different way, we have spent the last fifteen to sixteen years engaging in a certain type of warfare in a certain part of the world. There was a relatively predictable sense of when we would need to move the next unit or capability into that area of operations. We are now in an environment where there are potential competitors on a global scale that can challenge our military capabilities and power.

Whether it be in cyberspace, under the seas, in orbit, or with global precision strike capabilities, our supremacy in key domains is no longer assured. We need to ensure that we have the right culture in place to be able to meet the evolving threat environment. Very simply, driving a requisite cultural change is probably one of the most significant challenges I face.



Air Force Gen. Joseph Lengyel, the chief of the National Guard Bureau, talks with Lt. Gen. Charles D. Luckey, chief of Army Reserve, before the Senate Appropriations Subcommittee Defense hearing on National Guard and Reserve Programs and Readiness, April 26, 2017. (National Guard photo by Tech. Sgt. Erich B. Smith/Released.)

On Readiness

Readiness is a core priority. Readiness encompasses such characteristics as manning, training, equipping, and ultimately, leadership. They are all critical, and let me tell you, largely interdependent.

Manning is the cornerstone of readiness for the Army Reserve. This applies across the force in general, and all the more so in quick-turn deployable units. It begins by positioning force structure in the right locales to leverage national demographics and emerging trends. This means we can capitalize on a mixture of population densities, predisposition to service, as well as other factors that set units up for success in recruiting and retaining talent in an all-volunteer environment.

Training is the second aspect of readiness. To maintain operational readiness and to prepare for current and future threats, we're revamping our training strategy, focusing on mission-essential tasks. Soldiers and units will not only be proficient in their warrior tasks and drills, but focused

collectively on the unit and occupational specialties required to win decisively in a complex and dynamic operational environment. The Army Reserve will train to Objective T standards. This means that commanders, at all levels, will ensure that units achieve participation rates and execute decisive action training in order to meet the new readiness requirements. Predictable multi-component integrated training is essential to building the readiness needed to meet short notice contingency requirements.

Equipping is the third component of readiness, and the latest equipment ensures that we remain both interoperable and readily available as a vital component of the operational force. Equipping requires sustained and predictable funding to maintain a fully operational Army Reserve. Insufficient funding widens capability gaps which jeopardize the Army Reserve's ability to support the Joint Force. And a lack of interoperability puts all Army formations at risk when deployed. Equipping, funding and fielding should ensure that the Army Reserve is ready and interoperable with deploying forces.

Leadership pervades all aspects of readiness, and serves as the ultimate force multiplier. Leaders are the most effective hedge against complexity and uncertainty, and a resource that can neither be replaced by technology nor substituted with weaponry and platforms. We have combat-seasoned force leaders, at every echelon, who have led in combat. It's this kind of leadership that makes a difference.

On Ready Force X

With the understanding that readiness is a key priority, we also recognize that the world in which we find ourselves today is changing rapidly. This impacts our readiness efforts significantly. Given the emerging threat environment, rapid mobilization is critical to deploying and sustaining combat power. As a result, we need to build a force that can deploy on short notice to respond to contingencies when needed. Ready Force X is that initiative and is designed to focus on short-term readiness. As we continue to meet current and projected demands, we are also developing and organizing enhanced readiness. This is to ensure that the team is able to move fast (in days or weeks) to fight, survive, and communicate effectively with deployed forces.

In the last fifteen years or so, we built readiness over time, in a rotational manner. So, if a unit was informed of possible mobilization, those soldiers had several years to work their way through the training required to prepare for the mission. Today, our situation is different and we may need



Lt. Gen. Charles D. Luckey, Chief of Army Reserve and Commanding General, United States Army Reserve Command, flew with Soldiers from Foxtrot Company 2nd Battalion, 135th Aviation Regiment (Multi-Compo General Support Aviation Battalion) to Mt. Rainier, Washington, October 5, 2017. LTG Luckey discussed Ready Force X and the role of aviation assets on a lethal battlefield with the aircrew.

to deploy in less time, perhaps in months or even quicker. It's a different way to look at readiness. That said, the rotational readiness works if you have time. When that's not the case, you'll need a different approach. In the end, it's about managing expectations.

On Supporting Families and Employers

Readiness is built and sustained by getting and keeping the support of both families and employers who enable us to serve the Army and our country. The reason for this is simple: We depend upon an all-volunteer force for our survival. We need to keep the support of our families and fellow citizens. Families who feel embraced, appreciated, and integrated are our key enablers. Similarly, the unwavering support of employers for Army Reserve soldiers often determines their ability to continue to serve the country without being forced to choose between a civilian career or continued service as a citizen soldier.

Translated into action, this reality requires a coherent and integrated approach whereby a variety of family support programs and initiatives are leveraged to support families. It also helps to sustain a sense of community and mutual support in spite of the geographic dispersion of our units and soldiers.

Sustaining employer support becomes an even more complex and demanding challenge when seen in the context of the Army's appropriate reliance on the Army Reserve to generate the combat power the nation requires. Through a variety of outreach tools, and persistent and persuasive engagement with employers and their communities is the

“Readiness is a core priority. It is built and sustained by getting and keeping the support of both families and employers who enable us to serve the Army and our country.”



key to reminding American businesses of the essential link between their “patriotism” and national security. We cannot, and will not, throttle back on this effort. U.S. Army Reserve Ambassadors, the Public-Private Partnership program, and community support initiatives at the local level are all critical enablers in this push.

I make sure that the family is comfortable, that the soldier is able to maintain good civilian employment and able to spend time at home; but at the same time, be ready and able to support our war-fighting efforts.

On Resiliency

Resiliency is integral to readiness. We need a force that is healthy and fit, physically as well as mentally. Yet, suicide and self-harm impact our units as they do other components of the armed services. In my response, I want to advance the ball, to continue to get after this persistent challenge. I’ve tried to learn as much as I can in this area. I’ve talked to researchers at the University of Southern California in behavioral sciences departments. I was surprised to learn that suicide and self-harm tend to increase during the spring and summer months. I was always under the impression that the holiday season was the most challenging time of year for folks struggling with mental health issues. There are at least three factors that contribute to this situation:

- Ready access to lethal means for self-destruction
- A sense of burdensomeness to their team or family
- A sense of simply not belonging to a team or feeling alienated

My message to my team is: Don’t be dissuaded. Recognize that we have a mission and you are an integral part of our team. We have each other—a team of 200,000 soldiers as well as their families and employers. We are devoted to improving the resiliency of our citizen soldiers and their

families, who face stress that civilian resources cannot always address. We are there with resources and programs. We stand shoulder to shoulder in our commitment to one another.

On Defense Support of Civil Authorities

We are structured with dual-purpose capabilities. The U.S. Army Reserve is a federal response partner, maintaining a ready posture for Defense Support to Civil Authorities (DSCA) operations as a resource and capability provider. Though our



Fort Dix – U.S. Army Reserve Commanding General, LTG Charles D. Luckey, attends a briefing during the 84th Training Command’s WAREX 78-17-01 at Fort McGuire-Dix-Lakehurst on March 23, 2017. Warrior Exercises are designed to prepare units to be combat-ready by immersing them in scenarios where they train as they would fight. Roughly sixty units from the U.S. Army Reserve, U.S. Army, U.S. Air Force, and other components are participating in WAREX 78-17-01, a large-scale collective training event designed to assess units’ combat capabilities and help build the most capable, combat-ready, and lethal federal reserve force in the history of the nation. (U.S. Army photo by Sgt. Philip Scaringi.)



“Our deep connection to the private sector is a substantial advantage in understanding and exploiting cutting-edge technology advances and capabilities.”

mission remains the same, our ability to respond to it has widened. The National Defense Authorization Act of 2012 expanded our capability to conduct DSCA response with increased mobilization authorities to rapidly activate units. The Army Reserve provides federal support to DSCA during emergencies with capabilities such as:

- Aviation lift
- Search and rescue or extraction
- Quartermaster (food, shelter, potable water, heated tents, etc.)
- Civil affairs and public information
- A significant portion of full-spectrum engineer capability

We conduct DSCA response in two ways—immediate and deliberate. These responses differ in the authorities under which they are conducted and the source of support request.

We have provided assistance (sandbagging, saving lives, protecting critical infrastructure) to towns in West Virginia in the aftermath of serious flooding. We provided aviation support in response to forest fires in Kansas. Most recently, active and reserve soldiers set up water purification systems to provide safe, potable water to the residents around Guajataca Lake in Puerto Rico after the local water treatment facility was damaged by Hurricane Maria. Army Reserve Soldiers from the 512th Movement Control Team began emergency relief operations in the U.S. Virgin Islands, responding to the immediate needs of residents affected by Hurricane Irma's damage. Army Reserve continues assistance in the aftermath of Hurricane Harvey with the U.S. Army Reserve's 373rd Combat Sustainment Support Brigade, assisting local authorities during the relief efforts.

On Shaping and Growing the Future Force

Staying current with force structure changes, unit positioning, leader development, and leveraging emerging technologies, capabilities, and opportunities, are key aspects of the agility the Army Reserve will use to shape and grow the future force.

Our deep connection to the private sector is a substantial advantage in understanding and exploiting cutting-edge technology advances and capabilities, such as those in the cyber domain. We're seizing on opportunities to draw upon our civilian skills and relationships with the private sector to meet the critical needs of the Army.



BAGRAM AIRFIELD, Afghanistan – LTG Charles D. Luckey, Chief of Army Reserve and commanding General, U.S. Army Reserve Command talks to Maj. James Fager, executive officer, 1st Cavalry Division Resolute Support Sustainment Brigade, and Maj. James (Troy) Fisher, operations officer, 1CD RSSB during his visit to Bagram Airfield, Afghanistan.

Infrastructure is also a critical component of generating readiness. Training platforms (their location, capabilities, and limitations) must be assessed and leveraged in a way that optimizes their ability to provide relevant, combat-focused training experiences for units. ■

To learn more about the U.S. Army Reserve, go to usar.army.mil.



To hear *The Business of Government Hour* interview with Lieutenant General Charles Luckey, go to the Center's website at www.businessofgovernment.org.



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Transforming VA's Community Care Program: A Conversation with Dr. Baligh Yehia, Former Deputy Under Secretary for Health for Community Care, U.S. Department of Veterans Affairs

By Michael J. Keegan

In today's complex and changing healthcare environment, where the U.S. Department of Veterans Affairs (VA) is experiencing a steep increase in demand for care, it is essential for the VA to partner with providers in communities across the country to meet the needs of veterans.

These partnerships must be principle-based, streamlined, and easy to navigate for veterans, community providers, and VA employees. Historically, the department has used numerous programs, each with its own unique set of requirements, to create these critical partnerships with community providers. This resulted in a complex and confusing landscape for veterans and community providers, as well as the VA employees who serve and support them.

Dr. Baligh Yehia is the former Deputy Under Secretary for Health for Community Care, U.S. Department of Veterans Affairs. He joined me on *The Business of Government Hour* just prior to leaving VA, to offer his perspective on the mission of its Office of Community Care, how VA is enhancing community care, and what's on the horizon for the VA Choice Act. The following is an edited excerpt of our discussion, complemented with additional research.

On VA's Community Care Mission

The focus is all about the veteran. As many know, we have veterans who live in every single corner of the country. But we can't have a brick-and-mortar facility in every location. It is all about creating partnerships—I call them highways—that allow us to connect veterans with necessary care wherever they are located.

The VA Community Care program complements VA's direct care delivery system. Together they create a network of services available to veterans. VA's goal is to deliver community care through a single consolidated program that is easy to understand, simple to administer, and meets the needs of veterans, their families, community providers, and VA staff. It is about improving the veteran's experience with



community care, ensuring that we are good partners for community providers and making sure that our VA employees who administer these programs have all the tools they need to be successful. This will allow us to improve the veteran experience, become a better partner to community providers, and increase staff efficiency and engagement.

There are packages that outline the different benefits that veterans are entitled to receive. For the most part, they collect these inside or outside the VA system; it depends on the location. In certain parts of the country, the VA may be more heavily reliant on our community partners. The frontier states or rural America is a great example of that. In other locations, we might have a very high concentration of clinics and services and care may be delivered more through our direct care system. It varies from location to location, but the same type of services, for the most part, can be found inside and outside the VA system.

It is important to note every healthcare system is different. Each one has certain things that it does exceptionally well. VA has a strong focus on the integration of mental healthcare with primary care to treat specific conditions related to veterans and their time in service. There may be certain things that we offer inside of our walls that are not readily available outside in the community.

On the Scale of Operations

The program links veterans throughout the nation with community healthcare providers. In terms of scale, the initiative currently serves more than 1.8 million veterans. Community Care has been available to veterans for more than seventy years and is how VA partners with community providers to deliver care outside of VA facilities. The network includes more than half a million providers. Community Care is represented in every state and territory in the U.S. to serve veterans and their families. There was an initial \$10 billion budget for the Veterans Choice Program (VCP) across three years; this was recently supplemented by an additional \$2.1 billion.

On Being VA's Deputy Under Secretary for Health for Community Care

I had two main responsibilities. The first was to oversee the Office of Community Care, which is a large organization: about 7,000 employees across the country who help to deliver services in the community for veterans. Along with the role of making sure that our operation is running smoothly and that we're being strategic about where we want to be in the future, I was also an integral part of the leadership team of the Veterans Health Administration. I worked to meet the Secretary's priorities, deliver the best quality care, and promote the highest levels of wellness for our veterans.

VA has a very noble mission; it kept me going each day. Serving veterans meant I would look forward to going to work. It is such a special population and I am thankful I had the chance to give back what little I could to those who, in many cases, gave so much.

On Leadership

An effective leader has several key traits. They have a vision and a plan to realize it. Clarity is essential because without it organizations can flounder. What is required of any effective leader is to ensure that they set the right direction and the right vision for an organization.

In complex organizations, leaders must be good listeners, open to insights from both employees and stakeholders. Effective leaders understand that they don't possess complete



information in order to address every organizational challenge. You can't know every single in and out of that organization or think that you have the exact solution to solve every problem.

During my time at VA, my true north was keeping the veterans front and center. I also wanted to foster an organizational culture that was open and responsive to both employees and those we served. In the end, an effective leader articulates a vision, sets a clear direction, welcomes ideas, and serves both employees and stakeholders.

On Optimizing the Referral and Authorization Systems

VA has made progress in this area. We started with a very cumbersome referral process that was manual and paper-based. Today, VA is working to leverage technology to transform many of these processes and bring them into the twenty-first century. VA continues to focus on making the referral process easier and simpler to use.

It is putting this process through a lean analysis, looking at every step and determining its value. It is asking how can steps be simplified, streamlined—or jettisoned. The process may not be where VA wants to be yet, but the organization is on the right trajectory, taking steps to automate and make the referral process easier. I think we will see larger leaps forward in this area as there are plans in the works with some external partners to further optimize the referral process.

On the Veterans Access, Choice, and Accountability Act of 2014 (Choice Act)

The passage of the Veterans Access, Choice, and Accountability Act of 2014 (Public Law 113-146) (the "Choice Act"), as



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amended by the Department of Veterans Affairs Expiring Authorities Act of 2014 (Public Law 113-175) was a bipartisan response to the healthcare access issues facing VA. The Choice Act provided new authorities, funding, and other tools to help support and reform VA. As directed by the Choice Act, VA administers the “Veterans Choice Fund” to implement the Veterans Choice Program (VCP). The program was set to operate for three years or until the fund was exhausted.

The Choice Act was born out of all the different access challenges that the department was facing. It provided access to resources that VA didn’t have. It provided \$10 billion that could be used to purchase healthcare in the community for veterans who met eligibility criteria. It also provided \$5 billion to support various workforce and infrastructure initiatives within VA. We have just passed that third year. As a result, Congress passed an additional \$2.1 billion for the Choice Act to continue, which will provide us with more runway to continue caring for veterans who need it.

Veterans Choice Cards allow those veterans unable to schedule an appointment within thirty days of their preferred date or the clinically appropriate date, or on the basis of their place of residence, to receive care from eligible non-VA healthcare entities or providers. This is separate from VA’s existing program providing veterans with care outside of the VA system. Eligible non-VA entities or providers must enter into agreements with VA to provide care, they must maintain the same or similar credentials and licenses as VA providers, and they must submit a copy of any medical records related to care and services provided under the program for inclusion in the veteran’s VA electronic medical record.

The Choice Act has also changed the way care is delivered to veterans. It provided significant resources and tried to cut wait-times. However, it became just another part of a patchwork of various programs that comprise VA’s Community Care program. The Choice Act became another program on top of existing programs. VA is working with Congress to consolidate and modernize this patchwork into a single consolidated program.

On Meeting the Mandates of the Choice Act

It has been challenging. The initial difficulty was meeting the tight timeframe. VA had 90 days to set up the program, which was unprecedented. I always compared that requirement to our Tricare colleagues at U.S. Department of Defense (DoD), who took about three years to set up their program. Three months versus three years is a big difference.

In its next iteration, VA is working to ensure that it has enough time to implement the program. The organization is advocating a twelve-month period that allows it to build the

systems needed to establish, deliver, and implement the next Choice Act type program.

The other challenge concerned working with our contracting partners. We have the Patient-Centered Community Care (PC3) contract, which is a vehicle for us to be able to purchase healthcare in the community. It was not designed for the Choice Act. VA had to amend that contract to help us administer the requirements of the Choice Act. We’ve been working with our contracting partners for the last two years to make that contract more efficient. VA has carried out more than seventy different modifications to the contract.



VA has been able to tackle many challenges, yet some may remain. A reset is needed. VA must take the best of all these different programs and work with our legislative partners to craft a law that makes the most sense. Together with a new law, new network partners, and new technologies, VA can drive toward realizing its goal of having one program that’s easy to understand, simple to administer, and that meets the needs of its stakeholders.

On Recent Changes to the Choice Act

A new law, enacted April 19, 2017, made three key changes to help improve the Veterans Choice Program:

- **Removal of Sunset Date:** The law removed the August 7, 2017, date for the VCP. It will now continue until the funds appropriated by Congress are completely expended.
- **Primary Coordinator of Benefit Designation:** VA is now primary coordinator of benefits for services provided to veterans under the VCP. This eliminates costly, time-consuming manual processes and more closely aligns the VCP with other VA programs.

“VA’s goal is to deliver community care through a single consolidated program that is easy to understand, simple to administer, and meets the needs of veterans, their families, community providers, and VA staff.”



- **Information Sharing:** The law removes barriers to sharing veterans’ health information with community providers while ensuring community providers only use that information to provide care.

On Transforming VA’s Community Care Program

While VA was excited about the recent legislative changes, it knows that more needs to be done. VA cannot streamline care and improve the VCP without help from Congress. Everyone understands the time is now. There is a mandate for change. It is not about simply continuing the Choice Act in perpetuity, but to take this opportunity to transform it—take the patchwork of programs, combine the best elements, and modernize how the program operates.

The proposals being considered in Congress are tackling key issues. VA must come up with a simple way to administer the program and a single set of eligibility criteria. Every different proposal is trying to do that. VA’s referral processes need to be simplified. There needs to be flexibility in how these processes and design networks are built and how VA partners with community providers to not only ensure that it pays them on time, but that it is able to exchange information easily. Many of these elements are being addressed in the various proposals under consideration. Some are being tackled in different ways, but ultimately what needs to be done is to build consensus and identify the best way to transform the community care program. VA has identified changes for transforming its community care program:

- **Consolidation and Redesign of Community Care:** VA has multiple programs to send veterans out into the community. It is important to consolidate and streamline the multiple community care programs into one, making sure eligibility and access is easily understood by veterans and their families, community providers, and VA staff.
- **Enhanced Sharing of Patient Information:** Restrictions prevent VA from sharing critical health information with veterans’ other health insurance providers. Further revisions to the law can remove barriers to information sharing for all types of health services provided. These changes would enhance VA’s ability to coordinate care.

- **Obligation of Funding:** Doing this at the time of authorization leads to inaccurate accounting. VA proposes moving the obligation of funding to the time of payment, which would improve the accounting of community care funds.
- **Provider Agreement:** Contracts create unnecessary administrative burdens for some community providers. VA proposes the establishment of provider agreements. A larger network would increase access to care for veterans.
- **Funding and Funding Flexibility:** VA Community Care is subject to unnecessary funding constraints. VA proposes flexibility for funding to meet the need of veterans, ensuring those eligible can access community care and increasing funding transparency.

On the Future

Ultimately, VA wants to ensure that veterans have access to high-quality care at the right time, in the right location, and from the right caregiver.

In the future, I want to see seamless care delivery, where you can go from one institution to another and your healthcare information is portable. And where it’s very clear to you where you go and who you’re seeing, and any cost-share responsibilities that you may have. In this system, it’s easy for partners to know where to send bills. They have assurances that those bills are going to get processed in a timely fashion and that everyone is happy and satisfied with their experience. Most importantly, I want to see that veterans are getting the highest quality of care that they need and desire. ■

To learn more about the VA’s Community Care Program, go to va.gov/communitycare.



To hear *The Business of Government Hour* interview with Dr. Baligh Yehia, go to the Center’s website at www.businessofgovernment.org.



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Changing the Way the U.S. Air Force Does IT: A Conversation with Bill Marion, Deputy Chief of Information Dominance and Deputy Chief Information Officer, U.S. Air Force

By Michael J. Keegan

Every Air Force mission depends on information dominance—the operational advantage gained from the ability to collect, control, exploit, and defend information to optimize decision making and maximize war-fighting efforts.

Information that is secure, accurate, reliable, and timely enables information dominance. This provides the war fighter with the best ability to make decisions that outpace their adversary. Innovation alone will not enable information dominance. Rapid and agile acquisition is critical to ensuring IT and operational technology can respond to dynamic cyber requirements.

Airmen need trusted information in place and across the spectrum of military capabilities to conduct their missions. There are many ways for users to communicate and interface among the networks and systems in the information environment; however, the more avenues users have to communicate and interface, the more risk there is for those systems to collect and deliver trusted information.

Bill Marion, Deputy Chief of Information Dominance and Deputy Chief Information Officer, U.S. Air Force, joined me on *The Business of Government Hour* to discuss the mission of SAF/CIO A6, the Air Force's information dominance strategy and priorities, how the Air Force is changing the way it does IT, and much more. The following is an edited excerpt of our discussion, complemented with additional research.

On the Mission of SAF/CIO A6

The Office of Information Dominance and Chief Information Officer (SAF/CIO A6) is responsible for ensuring the U.S. Air Force has developed the governance, guidance, policies, and workforce to allow for the information access, secure communication networks, and decision support tools needed to provide mission assurance in support of the Air



Force's core missions. With a portfolio valued at \$17 billion, it encompasses everything from normal operations and maintenance to investment areas, all things IT, and all things cyber. Information technology, including cyberspace, is at the core of what the office governs, leads, and manages every day.

The U.S. Air Force's mission is to fly, fight, and win . . . in air, space, and cyberspace. This global mission requires exceptionally well-trained Airmen and sophisticated systems. We support this mission by working to achieve information dominance. As such, the office comprises: CTO (Chief Technology Officer), A3C/A6C (Cyberspace Ops & Warfighting Integration), A6X (Cyberspace Capabilities & Compliance), A6S (Cyberspace Strategy and Policy), and A6Z (CISO – Chief Information Security Officer).



“Every mission depends on information dominance, but our information advantages are increasingly at risk in a cyberspace environment. Our vision is for the Air Force to fully exploit the man-made domain of cyberspace to execute, enhance, and support Air Force core missions.”

On the Air Force's Information Dominance Strategy and Priorities

We describe much of this content in the *Information Dominance Flight Plan*, which is available for those who are interested at www.safcioa6.af.mil.

All Airmen performing missions need information to make the right decisions—whether they're putting bombs on target, dropping humanitarian aid, uploading a software patch to satellite, designing base-level IT infrastructure, or even prescribing the right medical treatment. Every mission depends on information dominance, but our information advantages are increasingly at risk in a cyberspace environment.

Our vision is for the Air Force to fully exploit the man-made domain of cyberspace to execute, enhance, and support Air Force core missions. To meet this aim, we start by defining the three tenets for information dominance.

1. Information dominance increases effectiveness of Air Force core missions: information that is secure, accurate, reliable, and timely enables information dominance to warfighters by enabling the decision-cycle of observe, orient, decide, and act to outpace that of an adversary
2. Cybersecurity, resiliency, and a ready workforce enable mission assurance: from concept design through full operational capability, the Air Force must integrate cybersecurity and resiliency throughout the lifecycle of weapon systems to achieve mission assurance across all core missions
3. Innovative technology and rapid acquisition enable information dominance: innovation alone will not enable information dominance. Rapid and agile acquisition is critical to ensuring information technology and operational technology can respond to dynamic cyberspace requirements

We want to increase the effectiveness of Air Force core missions. This means that we need to increase security of Air Force information and systems, as well as realize efficiencies through innovative IT solutions.



We articulate four goals that will move the Air Force toward improving mission assurance and overcoming the challenges posed by “systems-of-systems” complexity and cyberspace vulnerabilities:

- Assure freedom of action and deliver combat effects in, through, and from cyberspace to advance Air Force core missions
- Provide Airmen with trusted information when and where they need it
- Organize the cyber workforce, and train and educate all Airmen to use the cyberspace domain to accomplish core missions
- Optimize the planning, resourcing, and acquisition of cyberspace investments

These goals involve specific priorities that encompass the overall enhancement of cybersecurity, supporting the transition to the Joint Information Environment (JIE). We are also working to transform IT/cyberspace career development and to operationalize authorities and responsibilities.



These priorities are solid. When you look at them, I think they'll morph and change as threats and business objectives change.

On Challenges

I'll identify a few key challenges we are tackling today. They run the gamut but are on some level classic people, process, and technology issues.

Workforce

The number one challenge is the competition for talent. We are not immune to the same issues plaguing the rest of the industry regarding workforce. The competition for prospective workers with the right skills is very tight. I graduated from college during an IT bust. The workforce population was flooded with IT professionals and not many IT-related jobs. Now it's the opposite. There are jobs in cybersecurity, system interface, development, web, mobile, and cloud. There's just unbelievable growth in this area, but not enough properly-credentialed talent available to do these jobs. As a result, we are retooling how we train our current workforce. We are also changing how we recruit. We used to do career fairs, but now we are running cyber competitions at colleges and universities.

Enterprise IT

I would argue we are on a par with Fortune 10 IT companies. Just as a frame of reference, on our unclassified network, we are 700,000 endpoints—700,000 individuals. Our classified networks expand the scope and complexity of our infrastructure. It is not a core competency of the Air Force to maintain PCs or run data centers. These functions are what we call "enterprise IT." We are focusing on outsourcing these functions to industry. We have a big initiative to outsource our web-based office suite, which is ongoing. We also have some cloud solutions that are working marvelously with industry. These cloud migration efforts involve everything from infrastructure-as-a-service to various other platforms. However, migration to the cloud is only one part of a larger initiative within the Air Force. Our transformation of IT isn't just about providing more security, more agility, and more speed. Moving to the cloud allows us to drive the innovation and scalability of the infrastructure, freeing up resources so our workforce can spend more time on cybersecurity business and operations. This, in turn, means better data security and better application security. We hope to leverage the cloud to focus on other key challenges.

Cybersecurity

Weapon system hardening is a big deal for us right now. We are ensuring those systems are secure, that they operate as we want them to operate, and that data is not being exfiltrated. Cybersecurity is at the forefront. We are focusing on overcoming the challenges posed by our complex systems and networks, and we're confronting cyberspace vulnerabilities. We are working to operationalize an enduring framework identified by the Cybersecurity Task Force to increase cyber support for our core missions. We're doing this by furthering and/or initiating foundational cybersecurity measures.

On Transforming the Development of the IT and Cyberspace Workforce

We are making a concerted effort to retool how we train our workforce. We are bringing on new people and hiring veterans. We are also making sure that when it comes to our current workforce, we are providing the training and skills to match a quickly transforming IT landscape. We need expertise in cloud and agile methodology. In fact, we've been retooling our schoolhouses, moving from waterfall software development to agile. We're retooling the entire curriculum to match a new era.

“The Office of Information Dominance and Chief Information Officer (SAF/CIO A6) is responsible for ensuring the U.S. Air Force has developed the governance, guidance, policies, and workforce to allow for the information access, secure communication networks, and decision support tools needed to provide mission assurance in support of the Air Force’s core missions.”



As I mentioned, the Air Force cyber landscape of today is not the same as that of five years ago; the complexities and threats in this environment have grown exponentially—and every Air Force core mission is cyber dependent. Given this reality, we created the Cyber Squadron Initiative. This initiative trains small teams of existing manpower that focus on defensive cyber operations for Air Force weapons systems. The initiative enhances the capabilities of cyber Airmen to defend, assure, and optimize unit missions in, through, and from cyberspace. Currently, fifteen initial cyber squadrons—called pathfinder units—have been organized, trained, and equipped to deploy cutting-edge applications that provide mission assurance to their wing’s critical missions. They are being joined by thirty new pathfinder units that have already begun training while identifying their key terrain in cyberspace. Ultimately, pathfinder Airmen will

present commanders with a more complete understanding of the risks military operations face in cyberspace. An updated program action directive and policy are to be implemented this year, as well as funding for new training in cyber schoolhouses for officers and civilians enlisted in FY18.

Our readiness is critically dependent upon a properly trained, properly equipped, and well-funded workforce. We will work to recruit, train, and retain those with the necessary skillsets to meet the IT and cyberspace challenges of the twenty-first century.

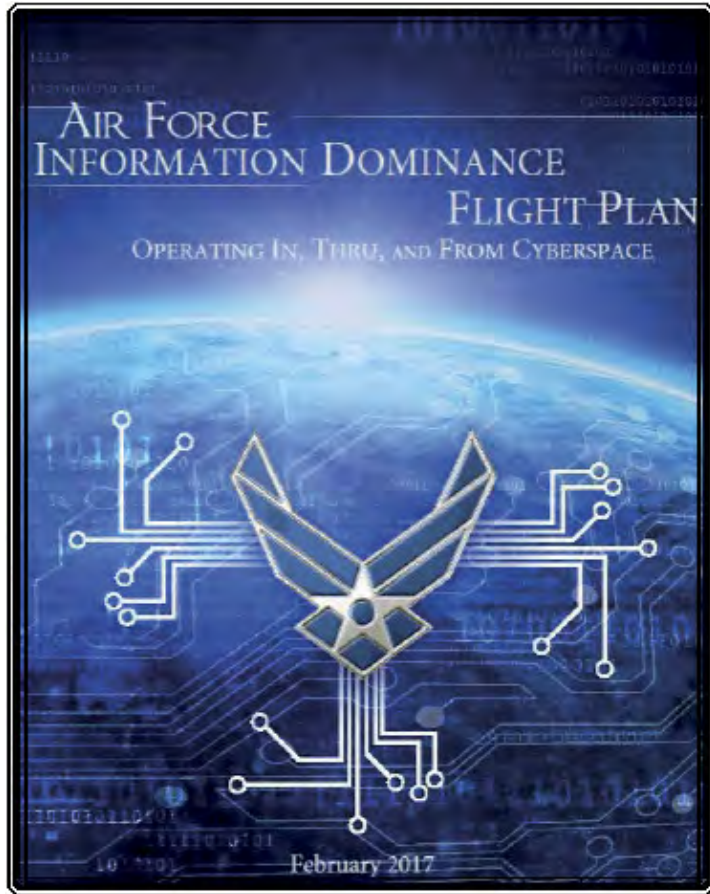
On DoD Instruction 5000.75 and Its Impact on Air Force Acquisition

The new instruction establishes the policy for the use of the business capability acquisition cycle (BCAC) for business systems requirements and acquisitions. The purpose is to align commercial best practices to minimize customization of commercial products. It was released in February 2017 and represents a phenomenal change in the acquisition mindset.

It was a very collaborative effort. The department engaged the Services to understand the pain points in the process. It posed serious questions as to what adds value to compliance, to security, and to cost-effectiveness. It recognizes that systems acquisition is the joint responsibility of the functional and the acquisition communities. Both communities are accountable for the successful delivery of business capability, from business process design through business system deployment and operations.

The ability to tailor the documentation is key. The authority to proceed (ATP) decision points of the BCAC will be tailored as necessary to contribute to the successful delivery of business capabilities. It was a unique opportunity to review the whole process—to see whether each step or action added value to the acquisition function or to IT procurement.





Source: www.safcioa6.af.mil.

We've basically taken an eleven-step process and brought it down to three steps. We can be laser focused on the three steps and make sure they are adding value. We have fundamentally changed the way we acquire IT—getting rid of processes or delegating authority to the right levels. We're on an outreach program right now to make sure that everybody understands there's a new way to do business. One that should be more empowering and offer more flexibility. Most importantly, it also gives us more insight and ability to shape these investments rather than simply following processes and rules that don't add value.

On Collaboration

Collaboration with industry is key. You see this with the outsourcing of our enterprise IT. We also did it with one of our personnel systems. We completely retooled it from an acquisition perspective into a commercial-off-the-shelf (COTS) configuration. We saved hundreds of millions of dollars, cut years off the timeline, and Airmen now get better capability faster and cheaper. Industry collaboration was instrumental in that effort.

On the government side, we collaborate with 18F of the U.S. General Services Administration (GSA), as well as Air Force Digital Services, to innovate and leverage new acquisition authorities. We're collaborating with the GSA on all of our acquisition approaches. It makes a real difference in the way we work.

On Public Service

I didn't go to college thinking about a future career in public service. I came into the federal government as an intern in intelligence—as an IT professional—and I wouldn't change anything for the world. Being an IT professional, I had the opportunity to empower serious missions, protecting our people and the homeland. The sense of service, working on cybersecurity, working in the Air Operations Center, in all facets of the distributed common ground system on the intelligence side, the U2s—these are just unbelievably cool and important missions. There's nothing better. Though there may be the paycheck trade-off, you can go home every day knowing that you helped in some way to protect this country. ■

To learn more about the U.S. Air Force's Information Dominance Strategy, go to safcioa6.af.mil.



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Making Acquisition Agile: Insights from Dr. Barclay Butler, Component Acquisition Executive, Defense Health Agency

By Michael J. Keegan



The Defense Health Agency (DHA) supports the delivery of integrated, affordable, high-quality healthcare services to the military health system (MHS). To meet its mission—to provide a medically ready force and

a ready medical force—the agency must acquire critical products and services. The DHA embraces and applies the full range of acquisition disciplines to ensure the efficient delivery of effective medical products and services. Its Component Acquisition Executive, J-4, oversees these functions as they are applied to the acquisition of supplies, equipment, services, information technology systems, and infrastructure.

What is the mission of the DHA's Component Acquisition Executive? How is the DHA working with industry? How is the DHA applying agile principles to its acquisition functions? Dr. Barclay Butler, Component Acquisition Executive for the Defense Health Agency, joined me on *The Business of Government Hour* to share his insights on these topics and more. The following is an edited excerpt of our discussion complemented with additional research.

Could you tell us more about the mission of the Defense Health Agency? How does your office support its mission?



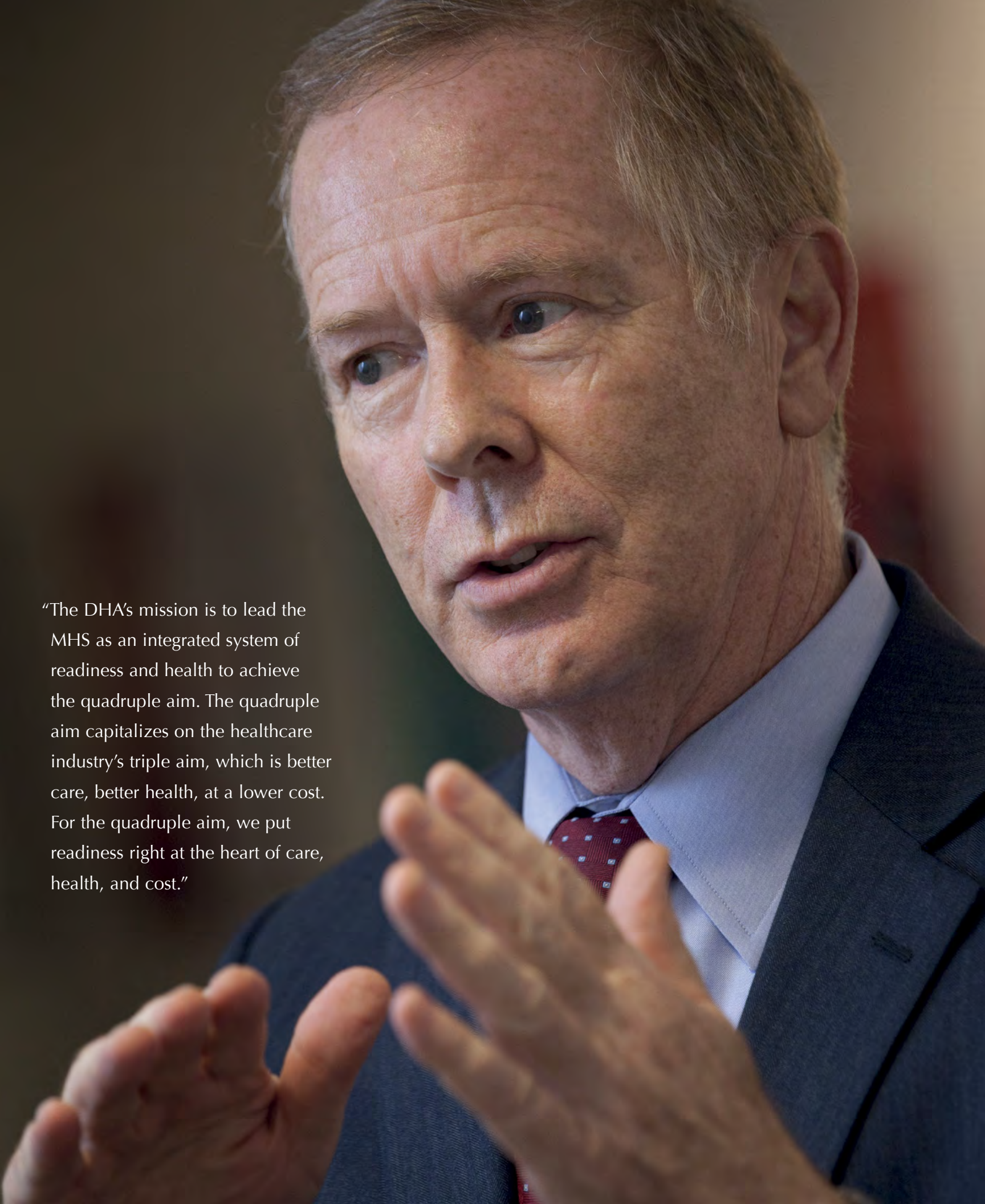
Dr. Butler: The DHA is a joint integrated combat support agency that enables the Army, Navy, and Air Force medical services “to provide a medically ready force and a ready medical force” to combatant commands in both peacetime and wartime. Its mission is to lead the MHS as an integrated system of readiness and health to achieve the quadruple aim. The quadruple aim capitalizes on the healthcare industry’s

triple aim, which is better care, better health, at a lower cost. For the quadruple aim, we put readiness right at the heart of care, health, and cost.

The DHA had its genesis in a 2011 MHS report. This report identified a need for the Department of Defense (DoD) to be more efficient in the delivery of care while enhancing its readiness mission. Prior to the creation of the DHA, the medical services of the Army, Navy, and Air Force ran the DoD’s direct care system via our military treatment facilities (MTFs—with the TRICARE Management Activity running the purchase care piece of the MHS. What really needed to happen was for these disparate elements to be combined into a single integrated delivery network. That was the impetus for the DHA.

My office provides oversight and approval of all acquisition matters for the DHA, including those performed under purview of the agency’s Program Executive Officers and those undertaken within the agency’s directorates and offices. The exception to this are acquisition matters explicitly reserved for oversight and approval by the Under Secretary of Defense (Acquisition, Technology, and Logistics). We support the medical mission of the Department of Defense by:

- Applying acquisition policy guidance, processes, life-cycle oversight, and management
- Providing a qualified workforce to acquire products and services that contribute to a medically ready force and a ready medical force
- Delivering timely, measurable improvements to medical capabilities at an affordable cost



“The DHA’s mission is to lead the MHS as an integrated system of readiness and health to achieve the quadruple aim. The quadruple aim capitalizes on the healthcare industry’s triple aim, which is better care, better health, at a lower cost. For the quadruple aim, we put readiness right at the heart of care, health, and cost.”

What are your specific responsibilities as the DHA's Component Acquisition Executive (CAE)?



Dr. Butler: Though I have a dotted line to the department's Under Secretary of Defense (Acquisition, Technology, and Logistics), my direct line of command and control is to Vice Admiral Bono, Director, Defense Health Agency. I am the principal adviser to Vice Admiral Bono on all matters regarding acquisition and procurement. On the acquisition side, I am responsible for planning, programming, budgeting, execution, and coordination across that management structure. It is my responsibility to drive improved acquisition, more efficient deployment of our systems, and overall management of the program—including oversight of the managers themselves.

In addition, the CAE is responsible for creating a professional, agile, and motivated DHA defense acquisition workforce that consistently makes smart business decisions, acts in an ethical manner, and delivers timely and affordable capabilities.

What challenges do you face and how do you seek to address them?



Dr. Butler: My top management challenge is being short-staffed. CAE is at about 50 percent of staffing. Hiring freezes coupled with a 10 percent higher-than-average turnover rate in contracting officers (1102 series) have contributed to staff shortages, which significantly stresses the organization.

I am always looking for ways to reduce the “demand signal” (or workload) placed on contracting officers. It enables them to focus more on writing better contracts and better performance work statements. It also means they can implement quality control measures to ensure the efficient delivery of the right products and services to our customers. We standardize how we do our business and redirect our demand signal. Many of our customers need to make very small dollar purchases and the expanded use of the Government Purchase Card (GPC) program enables them to do that. At the same time, it frees up our contracting officers to focus on more complex contracts.

The full cost of a \$1,000 purchase executed by a contracting officer is significant. For example, it costs us \$2,000 to write a contract and \$2,000 to close a contract—so a \$1,000 item just cost the government \$5,000. That's why I'm expanding the use of the GPC. I'm following the Air Force model in this area. It takes a very solid end-to-end management approach to using the GPC across the enterprise.

Acquisition forecasting is a serious challenge as well. A good forecast allows us to plan, project, and manage workload more effectively. This, in turn, enables me to manage the workforce more efficiently. I can prioritize the level of effort and get our customers what they need. I meet with them, set expectations, and make sure our colleagues understand timelines. Given the complexity of these purchases, the work isn't immediate. It could take six months to a year, perhaps longer. I help them project: Where do they need to be in six months? In a year, or in two years? Forecasting is so important. It means we secure better products and services. And we continue to improve our contract forecasting working with industry. In fact, we emphasized the importance of forecasting at some recent Industry Days.

What is strategic sourcing and how are you leveraging it?



Dr. Butler: Strategic sourcing is very important to us. It allows us to realize significant savings by making purchases as if we were a single, unified buyer—rather than purchasing through thousands of small contracts. We are able to negotiate better prices and services, while simultaneously reducing wasteful contract duplication across government.

Prior to the strategic sourcing effort, thousands of contracts allow military treatment facilities to procure access to clinical and ancillary staff. We've created a single contracting vehicle—a strategic sourcing vehicle with common terms, conditions, and pricing across the enterprise. (At the time of this conversation, this contracting vehicle was under competition. It is expected to be awarded in the first quarter of 2018.)



"I continue to be surprised at how great this job is. I hadn't expected it, as procurement and acquisition tend to be viewed as "back office" functions that rarely anyone hears about. Nothing could be further from the truth. I get to touch just about every facet of the DHA mission. Our actions can affect the quality of clinical care delivered by the MHS."

Is the DHA moving away from lowest price, technically acceptable (LPTA) contracting toward best value with a fixed-price incentive fee or award fee?



Dr. Butler: LPTA contracts have been described as a race to the bottom for us and our vendors; to win business, vendors are pushed to cut their prices further and further until they're right on the edge of collapse. That's not good for anybody, so we're getting away from it. There are times when LPTA contracts are exactly the right choice. For example, I'm buying network services and I need five nines of reliability for a network. It makes sense to use an LPTA contract to find the vendor who can give us the best price on that procurement. That said, most of our needs are for professional services and the LPTA approach is the wrong way to go.

We're actually moving toward performance-based contracts. Specifically, we are looking at two approaches. First, there's the traditional performance-based contract that focuses on how quickly a vendor delivers. Does a vendor deliver on time? Are the folks properly trained? In the clinical world, we want to incentivize and measure based on clinical performance. We're also looking to use fixed-price or cost-plus contracting approaches. We want vendors to keep the doors open and the lights on—but the real money is tied to actual performance. We want to get to incentive-based performance contracts. There are models currently being used in the private sector. We've just got to figure out how to do it ourselves.

Could you tell us more about your industry outreach efforts? How do you exchange ideas and ensure transparency across your acquisitions?



Dr. Butler: We're reaching out to industry more now than we have in the past. It's a key priority of Vice Admiral Bono. She understands the value of strong and healthy relationships with our industry community. Collaboration enables us to innovate, leverage resources, and achieve greater success.

Of course, we're going to go about it in the right way. We all know the rules and we play by them. Listening to what people want, we have established two very broad "industry days" per year. We ran one in May and have another scheduled for November. We also have opportunity-specific industry days that focus on our larger opportunities.

We also have the Industry Partner Network (IPN). The purpose of the IPN is to gather market intelligence for innovative solutions and products. As an overview, industry stakeholders will be asked to submit a written response on topics where the DHA is seeking market intelligence and innovative solutions to solve known or future requirements. The DHA will analyze these submissions and may invite selected vendors to present their solutions and/or products to a DHA panel. The panel will analyze the presentations, ask questions, and have open discussions with the vendors. The market intelligence gained as a result of the IPN process is intended to improve requirements, innovate potential solutions, and expand acquisition resources. My long-term measure of success for this exercise would be how many of the "Shark Tank" thumbs-ups actually make it into real programs.

How have you embraced agile principles in the delivery of the acquisition function?



Dr. Butler: Agile has its roots in the software development industry. It is a set of values and principles based on best practices in the delivery of software and other IT projects. Agile provides the flexibility to adapt to changes over time. The key intent of agile solution delivery is to provide value to an organization in increments, which are adjusted and built over time into a scalable solution. Applying this concept to acquisition allows us to evolve requirements.

Remember the program managers' iron triangle—requirements, cost, and schedule? Unlike agile, under the waterfall software development approach, requirements are fixed while cost and schedule change. Under agile, cost and schedule remain fixed and the requirements can fluctuate. The end customer gets a better product because they get to shape it along the way. Take that to a contracting officer and they'll say our contracting processes are much closer to a waterfall approach. We want to break that mold.

Colonel Wilson from our systems design group is using agile development and agile implementation. What I want to do now is marry up one of his small projects with an agile contracting piece and train my contracting officers how to write agile contracts. Then I'll have a process that I can expand more broadly.

What has surprised you since taking on your new role?



Dr. Butler: I continue to be surprised at how great this job is. I hadn't expected it, as procurement and acquisition tend to be viewed as "back office" functions that rarely anyone hears about. Nothing could be further from the truth. I get to touch just about every facet of the DHA mission. Our actions can affect the quality of clinical care delivered by the MHS. If I can provide performance-based contracts that incentivize quality of care, then I can help drive how well we treat our patients. "You might think, really? Can a contracting guy affect clinical care? Absolutely." Vice Admiral Bono gives us the latitude to achieve and innovate. As a leader, she expects us to get the job done but also encourages us to innovate. It's wonderful. ■

To learn more about the DHA's Component Acquisition Executive, go to health.mil/About-MHS/Defense-Health-Agency/Component-Acquisition-Executive.



To hear *The Business of Government Hour* interview with Dr. Barclay Butler, go to the Center's website at www.businessofgovernment.org.



To download the show as a podcast on your computer or MP3 player, from the Center's website at www.businessofgovernment.org, right click on an audio segment, select Save Target As, and save the file.



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Making the Right Buying Decisions: Insights from Tiffany Hixson, Assistant Commissioner, Professional Services and Human Capital Categories, Federal Acquisition Service, U.S. General Services Administration

By Michael J. Keegan




As an integral part of the U.S. General Services Administration (GSA), the Federal Acquisition Service (FAS) works to deliver comprehensive products and services across government at the best value possible.

In June 2016, GSA established a new office within FAS called the Office of Professional Services and Human Capital Categories responsible for oversight and program direction of GSA's professional services and human capital services under its category management initiative. These changes support FAS's goals in implementing category management and improving service delivery efficiency and effectiveness.

What is category management? How does the Office of Professional Services and Human Capital Categories assist federal agencies in making the right buying decisions? What is FAS doing to improve requirements development and acquisition management? Tiffany Hixson, Assistant Commissioner, Office of Professional Services and Human Capital Categories within FAS, joined me on *The Business of Government Hour* to share her insights on these topics and more. The following is an edited excerpt of our discussion, complemented with additional research.

Would you tell us more about your role within the Federal Acquisition Service at GSA?


 **Tiffany Hixson:** I am the Assistant Commissioner of Office of Professional Services and Human Capital Categories (PSHC)—a fairly recent portfolio and new organization within FAS. The Professional Services Category team focuses on combining expertise from industry and government to bring our customers the resources and tools they need to


make the right buying decisions. We're also committed to working closely with industry to make sure that the best they have to offer is available to the government.

I oversee all contract programs that support professional services or human capital services. Anything that's a service that is not IT or construction related is under my portfolio. It includes: the Professional Services Schedule (PSS), the OASIS Multiple Award Contract, and the Human Capital and Training Solutions (HCaTS) contract. In addition, my organization oversees the SmartPay program that provides the federal government with fleet travel and purchase card services that supports about 3 million card holders. It's a very broad portfolio of work.

Over the last year, we spent time really looking at the data through the Federal Procurement Data System. What are people buying? How's that categorized? What contract types are we using? How much contract overlap is there among key suppliers? Is that good? Is that bad? Do we know yet? I work across agencies to start to answer these questions.

With such an expansive portfolio, what are the challenges you've faced?

 **Tiffany Hixson:** Setting up a new organization is fraught with many challenges. Couple that with the reality that FAS is fee-for-service, which means we don't receive a budget appropriation. It's always a challenge building the foundation to help make an office successful. And just like private sector companies, I have to establish my budget. How do I cover my costs? What do I need to do to ensure that we're being efficient, effective, and delivering the best value for the services that federal agencies need? These fundamental concerns disclose other challenges: How many employees

A close-up, profile shot of a woman with blonde hair, looking slightly to the left. She is wearing a white sleeveless top. Her hands are visible at the bottom of the frame, gesturing as if she is speaking. The background is dark and out of focus.

"Category management enables the government to eliminate redundancies, increase efficiency, and deliver more value and savings from the government's acquisition program."

do we need? How many team members do we need to be effective? How do we want to do our work? It's a challenge to craft a vision and identify what we want to accomplish over the next three years and how we do that as a team.

Given your experience, what characteristics make an effective leader?



Tiffany Hixson: Being an effective leader requires you to be authentic and true to yourself. An effective leader must have a vision that charts the direction for an organization, tying it to key goals, and achieving those goals in a thoughtful and focused manner. I am very values-driven. I think leading with integrity is a core characteristic. Leaders need to foster a culture of collaboration and engagement that follows their vision and related goals. Leading by example, exhibiting integrity, authenticity, and vision, engages staff and is essential to being an effective leader.

How would you define professional services and its relationship with the government-wide category management initiative?



Tiffany Hixson: The Professional Services Category includes professional, scientific, and technical activities that require a high degree of expertise and training. Category management divides the federal marketplace into ten "super categories" of common spend. The professional services category represents one of ten categories of spend under the government-wide category management initiative and is the second largest category of spend after IT.

Category management is an approach the federal government is applying to buy smarter and more like a single enterprise. Category management enables the government to eliminate redundancies, increase efficiency, and deliver more value and savings from the government's acquisition programs. It involves:

- Identifying core areas of spend
- Collectively developing heightened levels of expertise
- Leveraging shared best practices
- Providing acquisition, supply, and demand management solutions

Key initiatives being pursued under the professional services category are:

- Improving contract offering
- Sharing expertise for professional services acquisition
- Building stronger relationships with key customers
- Enhancing engagement and management of vendors

Maximizing the relationship with your customers (e.g., federal agencies) is key. We need to make sure our customers are getting the best value that in the end helps them meet their missions. Leveraging relationships with our key suppliers and the supplier base in general, and doing that in a very thoughtful way, in a structured way with repeatable practices, is also critical for our efforts.

What are some of the unique challenges you face when you apply category management to services as opposed to commodities?



Tiffany Hixson: There's an obvious difference between buying services and commodities. With services, we are not necessarily buying in bulk for the most part. We do have some commoditized services. For example, identity protection services are priced very differently than if you were buying something that is high-end engineering or program management support.


Applying a management principle like category management to the procuring of services does require a different approach. There are many questions that need to be answered that make it more complicated than simply knowing the unit price of, say, a laptop. Given this reality, we start first with focusing on how do we buy a service better? How do you buy program management support services in an effective way? How do you do that in a performance-based way? What are the good models for that? If you're buying an integrated, total solution that includes services, it is critical to structure that contract in a way that makes sense and really delivers value. To put a finer point on the difference between buying commodities and services under category management principles, the former focuses on the unit price while the latter really looks at the total cost of ownership. A fundamentally different set of questions must be asked when you apply category management to services to make sure that what's being purchased is needed.

“The Professional Services Category includes professional, scientific, and technical activities requiring a high degree of expertise and training.”




We’ve informed our efforts by looking at the successes and experiences of both the UK and Canada. We’ve learned how important it is to think through the best practices for moving our category management along. We’re in the early stages. It’s going to take time as we’re still evolving, still learning.

There’s a thought process that if you’re trying to drive cost out of the lifecycle for services, you may be buying the services cheaply but the government may not be getting the value it wants. Is there any legitimacy to that kind of a claim?

 **Tiffany Hixson:** Cost is not price. When we talk about cost, it seems reflexive for people to focus solely on price. I’m not talking about price. I’m talking about the total cost of the whole lifecycle of getting a service delivered. Are we delivering a service in a cost-effective way? For example, did we spend two years writing requirements? How well written were those requirements? Did the requirements contain the right drivers and incentives? How long did it take us to get through the procurement cycle once we had the requirements defined? Do we have the right funding structure? How is that funding structure adding cost? This is what I mean by cost.

I think the focus tends to be on the price of the transaction instead of really looking at the full cost of an acquisition.

What’s being done in the area of improving requirements development? What are the challenges in this area?

 **Tiffany Hixson:** All category management strategies employed for services must be developed and implemented in a manner which addresses the principal challenges in acquiring them such as effective requirements definition, utilizing performance-based contracting techniques, and effective contract administration.

There are many challenges in developing requirements. The key challenge we really need to focus on is effectively using performance-based contracting in a meaningful way. Doing this helps develop a repeatable structure, process, and template for writing requirements. Getting the requirements right upfront can reduce cost and also equates to cost savings.

We are offering our own version of a Services Acquisition Workshop (SAW). These sessions are designed to help agencies buy professional services more successfully. After using an SAW in 2015, I thought it was something civilian agencies could benefit from a great deal. After the cyber breach where hackers stole the personal information of 21.5 million current and former federal employees, GSA, DoD, the Office of Management and Budget and Office of Personnel Management formed an SAW to create the blanket purchase agreement (BPA) for identity protection services. We were able to go from concept and requirements through to contract award based on getting those requirements well defined in a performance-based way in about three-and-a-half months. That was for an \$800 million BPA. We learned a lot of lessons through that procurement process and will be transitioning that BPA to a special item number (SIN) under the PSS. Even with the requirements under the SIN, we have gone back and validated those requirements and they still mirror what the original inter-agency working group came up with. So, I think that is a real testament to the efficacy of the process.

We are planning with the Defense Acquisition University (DAU), the Federal Acquisition Institute (FAI), and the Office of Federal Procurement Policy (OFPP) to expand access to SAWs and training for federal agencies to run these workshops. We’re also adding to the Acquisition Gateway’s Professional Services Hallways details about how an SAW works and where agencies can find more information on how to run one through webinars or how they can buy the service

from DAU. The U.S. Department of Defense (DoD) has done excellent work in thinking through how to use the facilitated workshop to devise performance-based requirements.

Looking into your crystal ball, what are some of the key issues you are focusing on over the next couple of years?



Tiffany Hixson: Though I don't own a crystal ball, we are now working and will continue to work on making a difference. Regarding improving contracts solutions, in the near term we're focusing on:

- Improving the usability of GSA Schedule contracts
- Implementing SmartPay 3, the next generation of the largest government charge card program in the world
- Preparing for industry on-ramps to OASIS in FY 2019
- Improving civilian contract audit and identity protection services
- Improving pricing intelligence, tools, and data for our services contracts

Regarding efforts to improve and expand stakeholder support capabilities, we are looking to increase customer engagement and support (video training, office hours, PS and HC Hallways, other online resources). We're also working to mature our supplier relationship management program as well as continuing to enhance Category Hallway content and tools.

What advice would you give someone who's thinking about a career in public service?



Tiffany Hixson: I love public service. It's my passion. I think you have an opportunity to make your country a better place. Every day I come to work, I contribute to making the government more efficient and effective. It is as important as it is rewarding. I'm out there recruiting all the time and I encourage those with interest in public service to do it. They may also be surprised at the quantity of opportunities and the quality of work that can be done in public service, especially within the federal government. ■

To learn more about GSA's Office of Professional Services and Human Capital Categories, go to www.gsa.gov/acquisition/products-services/professional-services.



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Using Strategic Foresight: Insights from Commander Eric Popiel, Evergreen Program Manager, U.S. Coast Guard

By Michael J. Keegan



Strategic foresight is not futuristic forecasting. Foresight is about being able to perceive the significance and nature of events before they happen. It's about having the imagination to be prepared for what may come,

regardless of which scenario occurs—it is a mindset, not a process. It's about going beyond the tyranny of the present and preparing the best you can for the uncertainty of the future.

Efforts to create strategic foresight capacity in the U.S. federal government have come in fits and starts over the past four decades. But in recent years, there has been some progress at the agency level, largely at the behest of political and career leaders who appreciate the value of foresight as part of their decision-making processes.

How does the U.S. Coast Guard use strategic foresight to inform decision making? What is the Evergreen process? How is the federal community sharing strategic foresight best practices? CDR Eric Popiel, Evergreen Program Manager, U.S. Coast Guard joined me on *The Business of Government Hour* to share his insights on these topics and more. The following is an edited excerpt of our discussion, complemented by additional research. The thoughts and opinions expressed in this article do not necessarily reflect the views and opinions of the U.S. Coast Guard.

What can you tell us about the U.S. Coast Guard's Office of Emerging Policy?



Eric Popiel: The office was formed to look at emerging and future issues and challenges around the globe that have the potential to impact the Coast Guard's mission set and operating environment. The office is the primary point of


contact for all long-term Coast Guard strategic thinking and the development of future strategies. It functions a bit like an internal think tank, addressing high-level strategic challenges and projects generally assigned by the Deputy Commandant for Operations or the Commandant of the Coast Guard.

For example, we are currently working on the Coast Guard Force Planning Construct and formulating some ideas and strategies on the future of the Maritime Transportation System in addition to our work on the future of the Arctic. In terms of supporting the Coast Guard's multi-mission roles, the Office of Emerging Policy provides recommendations and helps to identify future challenges and opportunities. We are not necessarily the subject matter experts on every topic or mission, but we have an extensive network of individuals, both in headquarters and at field units, that contribute to research and product development.

How does the Evergreen Program facilitate the U.S. Coast Guard's use of strategic foresight? What's your role in making this happen?



Eric Popiel: The Evergreen's mission is to establish a strategically agile Coast Guard prepared to manage a complex and fast-changing environment. Our mission is to position the Coast Guard to navigate challenges and harness opportunities by developing the foresight mindset in our workforce, teaching people how to practice disciplined foresight and identifying those long-term trends that will impact the Coast Guard in the future. The critical piece to all of this is that we must inform the key decision-makers and best inform the policy-makers. Identifying strategic challenges early and linking them to future capability gaps which can be linked to budget will help the Coast Guard get ahead of the curve and position the service advantageously. I think



“Our mission is to position the Coast Guard to navigate challenges and harness opportunities by developing the foresight mindset in our workforce, teaching people how to practice disciplined foresight and identifying those long-term trends that will impact the Coast Guard in the future.”

“While [strategic foresight] is still a grass-roots movement [in the federal government], I really think it is beginning to attract the attention of higher level leadership in many organizations. I’m optimistic that we can continue to make a difference and institutionalize foresight within the federal government.”



building a workforce that thinks strategically will help the Coast Guard as a whole be less reactionary and more strategic.

Currently, I am the Evergreen Program Manager, the officer assigned to lead the Coast Guard’s Strategic Foresight Initiative. In addition to managing that program, I also have a number of other training and facilitation opportunities, including teaching a foresight module to the Senior Enlisted Leadership Course in New London, Connecticut.

What are the top three challenges that you face in your position and how have you sought to address them?



Eric Popiel: Running a program like Evergreen comes with some unique challenges. The number one challenge is that foresight is one of those disciplines that not everyone understands; certainly few realize the value it can add to a large organization. Convincing people that the pursuit of long-term strategic goals is worthwhile can be daunting and at times frustrating. I find that addressing this problem is tackled through networking and relationship building. Nothing beats a face-to-face meeting when trying to explain what your program can do and how it can impact the organization. Senior leadership buy-in has also been helpful in addressing this challenge. The past two reports that Evergreen has produced were both signed and promulgated by the Vice Commandant of the Coast Guard, and I expect our upcoming Arctic report to be signed by him as well.

A second challenge has been linking the high-level strategic ideas the Evergreen produces to actual budget initiatives. From what I can gather, this is not a challenge unique to Evergreen, but one faced by many different foresight programs. I’ve studied our process and reached out to our requirements and capabilities directorates and brought them on board with what we are trying to do. I’ve explained how we can use their established processes to link the Evergreen outputs to requirements and eventual budget initiatives. I recently had a very productive meeting with our 7 shop

and explained our goals. They were incredibly receptive to our approach and we’ve forged a great relationship with them. I expect our two offices to be working closely together for the foreseeable future.

Finally, I’m challenged by not having enough time to do everything that I’d like to do throughout the day. Staying on top of foresight trends, researching current events, conducting environmental scans, in addition to other projects takes some time management. I’m also asked by a variety of government agencies to give presentations and assist with their foresight efforts. Juggling all of this can be a challenge but it’s a good challenge to have. When I came to D.C. four years ago, I assumed that every agency had a long-term plan for success and a foresight program similar to Evergreen. I’ve come to find out that this isn’t the case, although I’m incredibly enthused and happy that many agencies are integrating foresight into their planning processes. I’m optimistic that in the coming years, the discipline of foresight will be even more embedded in the mindset of federal employees and it will hopefully become “institutionalized.”

What are the characteristics of an effective leader? And who has inspired you?



Eric Popiel: You have to be a people person, someone who isn’t afraid to take risks, and someone who is always willing to go the extra mile to ensure those he or she leads are taken care of and have the ability to flourish and grow. You have to make a connection with those you are leading and be willing to help out—think of others above yourself. We throw around the term “servant-leader” and I think that is more important than ever. We should always be willing to go the extra mile; your career will take care of itself if you are a selfless leader.

I remember a gunner’s mate chief on one of my first boats pulling me aside and explaining to me that the Coast Guard will be a great career but that it’s still an organization. When you are ready to retire, your family and those people that

you've impacted will be the legacy you leave. They will invite you over for Christmas dinner; the Coast Guard will not. If you don't take care of the people around you or forge relationships, you may have a stunning career but you'll be lonely when it's all over. Put people first and never pass up an opportunity to help someone in need.

My inspiration comes from a variety of different sources. First and foremost is my faith, but I also look at some of the people that I've had the pleasure of serving with throughout my career. The XO at my previous unit, Don Taylor, was a man who always let you make a mistake but helped you learn for it. Retired Admiral John Carrier, my CO at Air Station Miami, always had our back as junior pilots and understood how important it was for us to be mentored and learn our craft. One of my good friends, Frank Flood, is one of the most selfless people I know—constantly looking out for others; always ready with a word of encouragement.

How does the Evergreen process assist leadership to think “over the horizon” and manage uncertainty and ambiguity in plausible operational environment?



Eric Popiel: The future is unpredictable and unknowable and therefore uncertain. Evergreen can expose senior leaders to different futures and allow them to grapple with the challenges that these scenarios present. It helps them to remove themselves from the “tyranny of the present” and operate in a world outside their typical environment. Thinking about a future ten, twenty, or even thirty years out is by definition over the horizon. I think it exposes them to uncertainty and helps them to formulate answers to some of the “what if” problems these scenarios present. This thought process alone is helpful and expands their aperture to not just include what is happening, but what could happen. I also think that exploring future worlds is fun and an exciting experience for those leaders who aren't into hard science fiction or alternative realities.

How does engaging in strategic foresight scenario planning help avoiding the “Most Likely Future” trap?



Eric Popiel: The most likely future in many circles is typically the one where you have an unlimited budget, all the authority you desire, and no major problems or challenges to adversely impact your organization. Unfortunately, this is never the reality, and playing in such a scenario is counterproductive.

Scenario-based planning helps avoid this because it presents workshop participants with a range of options. Typically, these options have elements that are challenging and may be hard for participants to grapple with. In other words, while we are not producing a dystopian future, we are certainly producing something a lot less utopian than people may like. Multiple scenarios force people to confront their fears, open their eyes to possibilities they may not have considered and live in a reality that isn't comfortable or ideal. It also forces an organization to look across multiple operating environments and plan for strategies that are successful across a range of these scenarios. This is inherently better than formulating a plan for a future you “think” will happen but in all likelihood will not.

How have your efforts with Evergreen informed and shaped the Coast Guard's Arctic strategy?



Eric Popiel: We have a project focused on identifying future capability gaps for the Arctic Domain. In terms of formulating the strategy, I think you would have to go back to 1998 when Evergreen identified the concept of Maritime Domain Awareness as the beginning of looking at the Arctic Domain. Fast forward a few years to 2009 and Evergreen identified a need for the Coast Guard to have greater Polar mission capacity.

The Coast Guard has been going to the poles long before Evergreen existed, but I think that identifying the region as a strategic imperative based on long-term trends was critical to ensuring the Coast Guard wrote an Arctic Strategy. I'd like to think that the Evergreen process had something to do with that.

We are currently working on a study of the Arctic looking at long-term capability gaps. We are crafting planning scenarios that will not only aid in our current work, but form the basis for the scenario-based planning process that is employed in a few years when it becomes time to refresh the Arctic Strategy. We'll also be assisting U.S. Department of Homeland Security (DHS) when it comes time for them to refresh their Arctic Strategy in a few years' time.

Cybersecurity is more important than ever. How have you used Evergreen to inform and shape the Coast Guard's cybersecurity strategy?



Eric Popiel: The Evergreen Program identified the cyber domain as a strategic imperative and helped prompt senior leadership to convene a task force to write the cyber strategy. In 2014, Evergreen was able to look another ten years into the future and identify some key success factors that would help the Coast Guard thrive in the cyber domain. Evergreen also looked at the current strategy and the implementation plan and mapped these new strategic needs to ensure alignment with current efforts. Where there was alignment, we noted it, and where there were new ideas to pursue, we passed them on to the appropriate team. As with the Arctic, we're looking forward to working with CG Cyber in the next few years to renew, refresh, and update the strategy as necessary.

What is the Federal Foresight Community of Interest?



Eric Popiel: The FFCOI was a group formed about three years ago with the purpose of bringing together foresight practitioners across the federal government to share best practices and showcase different foresight methodologies, and apply lessons learned. I'm currently honored to serve as the co-chair of the group along with Mr. Joe Moore from the VA. The community is thriving and has outreach to well over thirty different agencies. We meet on a quarterly basis and try to fill the agenda with thought-provoking speakers, presentations of foresight success stories, and reports on new projects currently underway. It is a tremendous opportunity to network with other like-minded individuals and learn from the best foresight practitioners in the federal government. I have learned a lot from my colleagues and they have helped out Evergreen in many ways.

I always reach back to the community when I'm looking for external workshop participants or just need some advice on methodology. We're all trying to make a difference in the federal government, and it's exciting to see foresight programs take root in different agencies. While this is still a grass-roots movement, I really think it is beginning to attract the attention of higher level leadership in many organizations. I'm optimistic that we can continue to make a difference and institutionalize foresight within the federal government. ■

To learn more about the U.S. Coast Guard's Evergreen Program, go to uscg.mil.



To hear *The Business of Government Hour* interview with CDR Eric Popiel, go to the Center's website at www.businessofgovernment.org.



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Securing the U.S. Border: Insights from Carla Provost, Acting Chief, U.S. Border Patrol, U.S. Customs and Border Protection

By Michael J. Keegan




Along the more than 5,000 miles of border with Canada, 1,900 miles of border with Mexico, and approximately 95,000 miles of shoreline, U.S.

Customs and Border Protection (CBP) is responsible for preventing the illegal

entry of people and contraband at and between the ports of entry. As America's Unified Border Agency, it works tirelessly to detect illicit trafficking of people, drugs, weapons, and money while facilitating the flow of cross-border commerce and tourism. The border environment in which CBP works is dynamic and requires continual adaptation to respond to emerging threats and rapidly changing conditions. The U.S. Border Patrol (USBP) plays a significant role in making this happen.

How is the USBP securing America's borders? What are some of the challenges in this area? How is technology being leveraged to meet its mission? Carla Provost, Acting Chief of the U.S. Border Patrol within U.S. Customs and Border Protection joined me on *The Business of Government Hour* to share her insights on these topics and more. The following is an edited excerpt of our discussion complemented by additional research.

Would you tell us more about the history and mission of the U.S. Border Patrol?


 **Carla Provost:** Since 1924, USBP agents have worked tirelessly every day to protect our borders and ensure national security—often controlling aspects of the mission that on the surface seem uncontrollable. We've been at the forefront of significant events throughout our history, adapting as needed to whatever a mission calls for.

Our ultimate goal is to protect our nation and her borders by preventing, detecting, and interdicting illicit materials and dangerous persons (seeking entry into) the U.S.


In the mid-90s, only about 5,000 agents patrolled more than 1,900 miles along our southern border, as well as around 4,000 miles on the northern border and more than 2,000 miles of shoreline. Today, we have more than 19,000 agents and over 1,800 support personnel. And I believe that with the renewed emphasis on the security of our nation come opportunities for growth of the USBP.

The total FY17 CBP budget was \$14.3 billion and the USBP portion was \$4.3 billion (approximately 30 percent of the overall CBP budget).

What are your specific responsibilities as Acting Chief of the U.S. Border Patrol?

 **Carla Provost:** I oversee operations for all twenty sectors, plus the academy and special operations group. I'm the Chief Operating Officer of the U.S. Border Patrol of CBP. I report to the CBP Commissioner and, ultimately, to the Department of Homeland Security (DHS) as well. I'm also here to act as the representative for our frontline agents—to ensure they get the tools and the equipment they need to be able to do their job safely.

Would you identify a key challenge faced by the USBP?

 **Carla Provost:** Recruitment is currently our biggest issue. As the role of the USBP has evolved from a small number of agents enforcing immigration laws under the purview of the Immigration and Naturalization Service (INS), to a premier law enforcement agency charged with nothing less than



"I've worked in law enforcement for more than twenty years. So, I can tell you from first-hand experience that there is no career I can think of that is more important—or effective—in creating a safe, secure environment for our friends, our families, our communities, and for future generations."

homeland security and employing a workforce of over 20,000 men and women, it becomes challenging to enlist, equip, and retain the personnel needed to do the job.

The Border Patrol faces competition from a multitude of local, state, and other federal law enforcement agencies for a finite number of interested and qualified candidates. We are addressing our recruitment needs by identifying groups of people and areas of the country that may not have benefited from previous recruiting efforts. We look forward to recruiting returning soldiers who may be interested in pursuing law enforcement as a career path.

Regardless of the recruiting challenges, I can state that the Border Patrol will remain a proud, family-oriented agency with a reputation for meeting the mission no matter the odds.

What characteristics make an effective leader?



Carla Provost: Throughout my years of experience, two things have remained clear in my mind when it comes to leadership: the responsibilities that come with any leadership role call for a certain level of humility and a certain level of communication. First, in my opinion, a humble leader is a respected leader. A leader understands that they don't know everything—but they can learn from the people working with them and understand what they bring to the table. This is where the communication component is key.

I think one of the biggest challenges facing leaders today is a lack of communication. We work within a large and diverse organization and in order for us to run a smooth operation, it's vital to use tact when communicating up and down the chain of command—whether internally or externally. I've tried to stay humble and communicate as effectively as I could in any position. The humble part has come easily because I came into the Border Patrol not really knowing what I was getting into.

Border and immigration security are key to the Trump administration agenda. What are the most serious threats and critical trends that shape and inform your strategy?



Carla Provost: The Border Patrol has taken a risk-based approach to address threats along the southwest border. This approach gives us the ability to adapt to situations in the field and has permeated throughout the organization.

Throughout our history, the Border Patrol has been asked to respond to a wide variety of missions. The men and women of the Border Patrol have always come through due to their unwavering dedication to our mission and their love of our

country. We use our four interdependent master capabilities in protecting the nation. As improvements to security occur in one domain, terrorist organizations and Transnational Criminal Organizations (TCOs) adapt to exploit perceived vulnerabilities in others.

- TCOs have resorted to developing their tunnels with lighting and rail systems to enter the country. We have identified 198 tunnels since 1990
- TCOs have also increased their use of Small Unmanned Aerial Systems (SUAS) to counter our surveillance and transporting contraband such as narcotics across the border. To date there have been over 500 confirmed incidents involving SUAS
- Our agility is derived from deploying resources to high-risk border regions, integrated counter-network operations, and enhanced detection and interdiction of illicit activities. Lastly, it is derived from employee engagement, professional development, and the personal integrity of our agents

To fully implement risk-informed, intelligence-driven operations that focus our capabilities against the highest threats, CBP must maintain and constantly enhance its situational awareness. What's being done to build and sustain situational awareness?



Carla Provost: We focus our operational planning around how well we perform our mission-essential tasks. Throughout the country, agents are trained to identify gaps in mission-essential tasks and plan against them to ensure that we are able to perform at optimal levels.

Through this process, we are able to identify the items needed to procure, develop, and deploy as well as change, implement, or enhance our capabilities. Solutions to close our gaps have ranged from introducing additional technology to the deployment of extra manpower. The Border Patrol is open to innovative solutions and actively collaborating with industry to find the best solutions. These solutions include developing SUAS which act as a force multiplier and allow agents greater visibility to quickly adapt to changing threats, and utilizing portable biometric systems to identify criminals. In addition, we collaborate with partner nations to build information-sharing relationships that enhance our situational awareness of threats approaching our homeland. You don't know what you don't know, so we must be in a constant state of awareness.

Among the tools and partnerships I've already mentioned, we also use a multitude of systems to detect, identify, classify, and track illegal activity. This includes integrated

“Military.com rated CBP the second-best place to work for veterans, and last year we finished in second place on Monster’s “2016 Best Companies for Veterans”—the only federal agency to finish in their top ten.”



fixed towers, remote video surveillance systems, fiber optic detection systems, mobile surveillance capability, unattended ground sensors, tunnel detection technology, and night-vision goggles/thermal imaging systems.

CBP’s border security mission regularly requires the operation of mobile tactical equipment. Would you elaborate on the investments being made to enhance your communication, transportation, and surveillance capabilities?



Carla Provost: We are currently using a mix of mobile assets on various delivery mediums. To name a few:

- *Agent portable surveillance systems:* provide a tactical man-portable solution capable of detection, identification, classification, and tracking of items of interest
- *Mobile surveillance capability:* provides long-range mobile surveillance with radar and camera mounted on a vehicle
- *Night-vision goggles/thermal imaging systems:* agent-centric support equipment for mobile surveillance

Border Patrol is also moving to incorporate new relocatable, mobile, and agent-portable technology into our cadre of surveillance systems. We often look for technology that allows our agents and officers to maintain operational control along the northern, southern, and coastal border areas in land, air, and water environments. For example:

- *Small unmanned aerial systems:* provide aerial surveillance capability to persistently and discreetly surveil remote access-restricted areas
- *Unattended ground sensors:* we employ a wide variety of ground detection equipment, including some with photo and video capability that can quickly alert agents to suspicious activity in remote areas
- *GRABBA device:* a handheld biometric collection device. We are able to quickly collect biometric and biographical information anywhere and rapidly identify and classify our encounters. This capability provides real-time information

to agents deployed in the field without requiring them to leave their area of responsibility

- *Agent visualization platform:* we are working toward a tactical smartphone-type device called an AVP, which would allow agents to better coordinate operations on the ground and receive rapid notification of surveillance activity

We understand hiring at USBP is a significant issue in the current environment. How have BP and CBP been working to ramp up hiring efforts? What are the opportunities and challenges in this space?



Carla Provost: We all want to attract the best-qualified people. And we are all competing for a limited applicant pool. But it’s not just numbers that pose the biggest hurdles: changing generational values, the patchwork of state-wide legalization of medical and recreational marijuana use, and a growing mistrust of law enforcement all contribute to hiring difficulties.

Furthermore, only about half of the American youth consider a law enforcement agency a desirable place to work. This has led to a critical shortage of applicants for most law enforcement organizations across the country, with some departments enduring up to a 90 percent decline in applications.

CBP therefore competes for a decreasing number of applicants with law enforcement organizations on all levels—local, state, and federal—including our partner agencies within the DHS who are trying to meet overlapping hiring mandates.

An Executive Order signed earlier this year calls for us to hire 5,000 more Border Patrol agent—that also means we need to make collateral hires for mission support, to backfill attrition losses and close staffing gaps across all three of our uniformed components: Border Patrol, the Office of Field Operations, and Air and Marine Operations.

Here’s how we’re handling these challenges. First, we’re modifying the administration of key tests for our applicants for uniformed positions—specifically our polygraph exam, entrance exam, and physical fitness tests. But I want to be clear here: CBP is not lowering its standards for any of our frontline

personnel. Our hiring process will continue to ensure that only individuals with the highest integrity can serve as agents and officers safeguarding our borders and ports of entry.

Second, we are making great progress with our National Frontline Recruiting Command (NFRC). For example:

- We're holding approximately 2,500 recruitment events in FY17
- We've held nearly 1,100 special-emphasis programs targeted at veterans and minorities
- We've forged partnerships with the CMA Music Festival, the Spartan Race obstacle course, Country Jam in Colorado, and the Big Ten and Big 12 collegiate athletic conferences
- We've improved our engagement with potential recruits by launching an Applicant Care program to pair recruiters with applicants on select job announcements (to reduce applicant attrition due to "fatigue" in the hiring process)
- We've taken meaningful steps to reduce the average time-to-hire. Through hiring hubs, we have demonstrated the ability to hire applicants in as few as 160 days, down from an average of 469 days in January 2016

Third, we're using technology to expand our recruitment "footprint." For example:

- We've established a digital media presence through LinkedIn, Indeed, Facebook, YouTube, and Twitter
- We launched a new mobile app—called CBPJobs—for iPhone and Android and available on iTunes and Google Play. This app streamlines the ability of applicants to see where they stand in the hiring process

We are doing everything in our power to get the word out that CBP is a great place to work. We've had some "wins"—Military.com rated CBP the second-best place to work for veterans, and last year we finished in second place on Monster's "2016 Best Companies for Veterans"—the only federal agency to finish in their top ten. We've still got plenty of work to do. And I don't have to tell you that getting good people on board is just the first step. Retaining those people—and taking care of them and their families—is equally critical, if not more so.

What advice would you give to those considering a career in public service?



Carla Provost: I've worked in law enforcement for more than twenty years. So, I can tell you from first-hand experience that there is no career I can think of that is more important—or effective—in creating a safe, secure environment for our friends, our families, our communities, and for future generations.

I have no regrets about my decision to join the USBP. We are absolutely committed to protecting our country from terrorists and terrorist weapons, while ensuring safe international travel and facilitating legitimate trade.

Policing has changed a lot over the years—and those changes have been driven by cultural shifts, new technologies, and a willingness to learn from our missteps and each other's best practices. What hasn't changed, however, is our profound commitment to the safety and the security of the public we serve. As recent events have shown, our world can be a dangerous and complicated place. A lot of the headlines about law enforcement can be pretty discouraging to our men and women in uniform who protect us. But all that negativity can't drown out the dedication and commitment our agents display every day on the job—on our nation's frontline. I'm very proud of them.

So, I want to encourage anyone interested in such a career to think about how your talents, your skills, and your interests can make a difference right here in your community. I would also like to mention that you don't need a badge to make a difference. To support our more than 19,000 agents, we have thousands of non-uniformed "mission support" employees in areas such as human resources, laboratory sciences, international relations, congressional liaisons, public affairs, finance, IT—you name it! ■

To learn more about the USBP, go to cbp.gov/border-security.



To hear *The Business of Government Hour* interview with Carla Provost, go to the Center's website at www.businessofgovernment.org.



To download the show as a podcast on your computer or MP3 player, from the Center's website at www.businessofgovernment.org, right click on an audio segment, select Save Target As, and save the file.



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Coordinating Wildland Fire Management: Insights from Bryan Rice, Former Director, Office of Wildland Fire, U.S. Department of the Interior

By Michael J. Keegan



Editor's note: Since this conversation and profile, Bryan has been appointed Director of the Bureau of Indian Affairs.

Wildland fire plays an essential role in the ecological process because it acts as a natural change agent. But in the past two decades, controlling it has become much harder. A rapid increase in difficult wildfire behavior,

accompanied by a significant rise in risks to responders and citizens, losses to home and property, soaring costs, and threats to communities and landscapes all act as obstacles to efficient wildland fire control. Fire management decisions are based on the best available science, knowledge, and experience, and are used to evaluate risk versus gain. These decisions take on even greater importance as the challenges facing fire management grow more complex.

Wildland fire management responsibilities are characterized by a patchwork of jurisdictions and ownership and often more than one agency may be involved in managing wildland fire incidents. It is the result of collaboration, partnerships, and cooperation among states and federal fire management agencies. The U.S. Department of the Interior's Office of Wildland Fire (OWF) is one such agency that plays an integral role in the nation's response to today's wildland fire challenges.

What role does fire play in shaping natural resource land management? How does OWF achieve its mission? And what's being done to reduce the risk to first responders and the public? Bryan Rice, former Director of OWF, joined me on *The Business of Government Hour* while still director to share his insights on these topics and more. The following is an edited excerpt of our discussion, complemented by additional research.

Before we delve into specific initiatives, could you provide a brief overview of the history and mission of OWF?



Bryan Rice: OWF is a product of many things that have happened over the last several decades. Particularly in the late 1980s, most people remember the Yellowstone fires, which consumed hundreds of thousands of acres within the park. Then there was the South Canyon Fire in Colorado five or six years later. There was the South Canyon Fire outside of Glenwood Springs in Colorado five or six years later, where there were many fatalities. These incidents, whether they were prescribed fires that escalated or other causes, drove fire policy at a national level.

With the issuance of Secretarial Order 3219 in January 2001, the Office of Wildland Fire Coordination (now OWF) was created when Congress provided new financial resources and direction to the Secretary of the Interior to take action to reduce the risk of wildfire in the wildland urban interface areas. Then, in September 2008, Secretarial Order 3278 transferred the responsibility for the department's Wildland Fire Management appropriation from the Bureau of Land Management to OWF.

There are approximately 500 million acres of land that could require wildfire response. These acres encompass national parks, wildlife refuges and preserves, Indian reservations and tribal lands, as well as other public areas. These diverse locations include historic and cultural sites, commercial forests, rangelands, and valuable wildlife habitats, as well as some lands managed by other federal and state agencies.

“The Office of Wildland Fire is actively engaged in supporting the development of emerging technologies in all facets of wildland fire management.”




We manage a large budget that supports all fire operations and land management activities for the department. We coordinate OWF's Wildland Fire Management program with federal agencies, tribes, states, and external partners to establish policies and budgets that are consistent with and support the goals of the National Cohesive Wildland Fire Management Strategy.

OWF provides strategic leadership and oversight to advance the three goals of the National Cohesive Strategy, which are to:

- Restore and maintain fire-resilient landscapes
- Create fire-adapted communities that will withstand the effects of a wildfire without the loss of life and/or property
- Safely and effectively respond to wildfire

How does your office fit within the Federal Wildland Fire Management Organization?

 **Bryan Rice:** The U.S. Department of the Interior and the Department of Agriculture (USDA) each manage an arm of the Federal Wildland Fire Management Organization (FWFMO). Interior's arm comprises my office and four land management bureaus with wildland fire management responsibilities, including the Bureau of Indian Affairs, Bureau of Land Management, U.S. Fish and Wildlife Service (FWS), and National Park Service. The Bureau of Reclamation also has limited protection responsibilities for its lands. The Office of Aviation Services provides aviation support to FWFMO.

The U.S. Geological Survey (USGS) plays an integral role in preparing for and responding to wildfires. It provides tools and information before, during, and after incidents to identify risk and reduce subsequent hazards, while offering real-time firefighting support during events. Each Interior land management bureau is responsible for its respective land base and is expected to manage and protect the natural and cultural resources entrusted to it in the safest, most efficient manner possible.

Interior and U.S. Forest Service both follow the Federal Wildland Fire Management Policy and work closely together prior to, during, and after wildland fire and all-hazard incidents. Interior supports the National Response Framework Emergency Support Function (ESF), Wildland Fire, during wildland fire and all-hazard incidents. The U.S. Forest Service is the ESF Coordinator and Primary Agency for ESF 4. Both departments work closely with the Federal Emergency

Management Agency (FEMA) when the President of the United States issues a Federal Disaster Declaration and ESF 4 support is required.

Would you elaborate on your role and the challenges you face as the leader of OWF?



Bryan Rice: I am responsible for the department's budget for fighting wildland fire, deciding how those funds are spent, and I manage how policies are developed to address wildland fire, both from a national perspective and as tailored by individual bureaus and programs. Important missions come with many challenges—and I'll identify a few that I face. They involve the workforce, IT infrastructure, and external stakeholder engagement.

On the workforce side, historically, those who worked in the fire program tended to come from a natural resources background such as foresters, forest rangers, or wildlife biologists. Today, we have a much different dynamic with folks coming from different backgrounds and expertise that are outside natural resources management.

In terms of our external stakeholders, the way the public perceives fire, the way it has grown around fire, and the way we've seen urbanization across the country, creates a different dynamic. There's a nostalgic view that cabins in the woods are great places to relax. But we've found that many of those places are built in fire-prone areas. It's critically important to get key information out to the right people so they can practice proper fire safety and understand how to survive in case they find themselves in such a situation.

Technology can make a serious contribution to battling wildfires. Leveraging technological advances and making sure our IT infrastructure can support such efforts is challenging as it is important to the success of our efforts.

What role does fire play in natural resource land management?



Bryan Rice: Fire is very important to the ecosystem. Wildland fires are both natural and inevitable, and they play an important ecological role in managing the nation's landscapes. These fires have long shaped the composition of forests and grasslands, periodically reduced vegetation densities, and stimulated seedling regeneration and growth in some species. It cleans out the lower, smaller vegetation and allows trees to grow healthier and stronger. Wildland fires can be ignited by natural causes such as lightning or by humans, either accidentally or intentionally.

Every fire has some type of response. That may be just to monitor it to ensure that the fire is not threatening public safety or infrastructure. Roughly 97 percent to 98 percent of all fires are stopped right away. We call that our “initial attack success rate.” They are typically stopped within twenty-four to thirty-six hours. We call that timespan the “first operational period.” All fires outside this period are the ones we battle and use all available resources to fight.

Roughly 90 percent of all of our fires are caused by humans. The majority of fires happen on state land with a smaller percentage on federal and tribal lands across the country. If we have a fire that starts on federal land, burns onto tribal land and then over to state land, the lead agency usually follows the fire’s origin.

How do you keep the safety of firefighters front and center?



Bryan Rice: Our mission is to ensure that we have safe and effective fire management activities. Firefighter safety is paramount. There was a time when firefighters were expected to go out and work nonstop for days. That’s changed dramatically. Fighters now follow a “work-rest ratio,” which means for every set of hours worked there is a required period of rest. We’ve made other changes. Along with fire shelters and other protective equipment, our fire pants and shirts are now made of Nomex. We are also focusing on enhancing training and providing better ways to communicate.

Alongside these efforts, we are pursuing greater interoperability of systems and assets to help firefighters on the frontlines. Fuel management projects that influence wildfire behavior and promote the safety and effectiveness of wildfire response are also being considered, and we are looking to utilize emergent and innovative technologies such as Unmanned Aircraft Systems (UASs), or drones.

All of this is being done with an express purpose to safely and effectively fight wildland fires. The greatest losses during the 2016 wildfire season involved the fatalities of fifteen wildland firefighters who made the ultimate sacrifice to protect the lives of others and the lands and resources we are entrusted to manage.

How is OWF supporting the development and use of emerging technologies in Wildland Fire Management?



Bryan Rice: OWF is actively engaged in supporting the development of emerging technologies in all facets of wildland fire management, from planning and suppression operations to post-fire burned area rehabilitation. The use of technology is extensive. For example, Interior’s Office of Aviation Services (OAS) has successfully carried out a number of demonstration projects documenting the effectiveness of using UASs and optionally-piloted aircraft to improve wildland fire management operations and the safety of firefighters. The department has also successfully integrated small UAS technology to support wildland firefighting.

One potential near-term use of UASs is to detect and map wildfires in heavy smoke conditions, particularly during evening and nighttime operations. Aircraft equipped with infrared technology have the ability to take action despite low visibility, and the UASs may be deployed to multiple fires while they remain small, with relatively low operational cost. In the long term, larger unmanned aircraft have the capability to deliver fire retardant or cargo in a cost-effective manner and in environments that may prohibit the use of larger piloted aircraft. In each of these cases, firefighter safety remains a primary focus, both for those on the ground and those who might otherwise be in aircraft deployed on incidents.

Building on recent initiatives to prevent privately operated UASs from interfering with federal, state, and local wildland firefighting operations, OAS has expanded “Current Wildland Fires,” a program that provides location data on any wildland fire reported in the last eight days. The data is presented as a map and is accessible through the Geoplatform ArcGIS Online Organization. This initiative informs drone operators where not to fly so they avoid intruding on wildland fires, which is a growing problem.

Innovative uses of technology do not always require unfamiliar, expensive, or extremely sophisticated components. One example that may save firefighter lives is the use of Global Positioning System (GPS) technology. The FWS used GPS transmitter collars to monitor the locations of multiple firefighters, vehicles, equipment, and aircraft during wildfires and prescribed fires. The system proved itself as an important safety tool during its first field trial amid heavy fuels when it was used to direct a firefighter lost in unfamiliar terrain to safety.

“Interior has one of the most incredible missions that you can find in government . . . It is a great place to work.”



How important is collaboration and coordination in Wildland Fire Management?



Bryan Rice: The National Cohesive Wildland Fire Management Strategy was built upon the need for collaboration between federal agencies, tribes, state and local governments, and other partners. Collaboration is fundamental to wildfire planning and suppression operations, to the identification and mitigation of wildfire hazard and risk, and to post-fire treatments that stabilize soils and restore lands. The majority of issues in wildland fire management arise from the ground up, and most are managed at a local level, across ownerships and among interested stakeholders.

For example, the National Park Service and the State of Alaska worked together to create fuel breaks on federal and state administered lands to protect the McCarthy community after being threatened by the 2009 Chakina Fire.

The department has also actively supported the preparation of Community Wildfire Protection Plans (CWPPs), as directed by the Healthy Forests Restoration Act (HFRA), not just on lands treated under HFRA authorities, but wherever communities are near department landholdings.

While the Cohesive Strategy and CWPPs represent collaboration and partnerships at the local, tribe, and state levels, the Wildfire Leadership Council (WFLC) helps coordinate issues at the national or multi-state level. WFLC's mission is to ensure the consistent implementation of wildland fire policies, goals, and management activities. The council provides strategic recommendations to help ensure policy coordination, accountability, and effective implementation of federal wildland fire management policy in support of fire-adapted communities and resilient landscapes.

What does working for Interior mean to you?



Bryan Rice: Interior has one of the most incredible missions that you can find in government. Anything that is done across government, you can find done at the department. In the late 1980s, a group of National Park Service historians put together a document that they called the “Department of Everything Else,” noting that many federal agencies have their roots in this department. Most recently, Interior has been referred to as “America’s Department.” It is a great place to work. Public service is as rewarding as it is challenging. I’m thankful to be a part of it and to be able to talk about its important mission. ■

To learn more about Interior’s Office of Wildland Fire, go to doi.gov/wildlandfire.



To hear *The Business of Government Hour* interview with Bryan Rice, go to the Center’s website at www.businessofgovernment.org.



To download the show as a podcast on your computer or MP3 player, from the Center’s website at www.businessofgovernment.org, right click on an audio segment, select Save Target As, and save the file.



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Trade Facilitation and Enforcement: Insights from Brenda Smith, Executive Assistant Commissioner, Office of Trade, U.S. Customs and Border Protection

By Michael J. Keegan



The mission of U.S. Customs and Border Protection (CBP) is highly complex. It enforces nearly 500 U.S. trade laws and regulations on behalf of 47 federal agencies. It also facilitates compliant trade, collects revenue, and protects

the U.S. economy and consumers from harmful imports and unfair trade practices.

CBP efforts help enable 30.4 million commercial transactions annually, which represent approximately \$2.4 trillion in imports and generate more than \$40 billion in duties, fees, and taxes.

CBP plays a vital role in supporting the U.S. trade agenda. It seeks to strengthen its enforcement capabilities and streamline trade for low-risk legitimate shipments. It will also continue to advance risk-based targeting by working with partners to enhance trade intelligence, detect and resolve unfair or unlawful trade practices, and develop solutions to promote legitimate trade and protect the U.S. economy.

What is CBP's national strategy to facilitate legitimate trade? How is CBP strengthening comprehensive trade enforcement? What trends are disrupting the facilitation of trade? Brenda Smith, Executive Assistant Commissioner, Office of Trade, U.S. Customs and Border Protection, joined me on *The Business of Government Hour* to share her insights on these topics and more. The following is an edited excerpt of our discussion, complemented by additional research.

What is the mission of CBP's Office of Trade?



Brenda Smith: We are charged by the CBP Commissioner to carry out the agency's trade mission, which is to ensure the compliance of goods coming into and going out of the U.S. as well as to collect \$46 billion a year in duties, taxes and fees.

CBP's Office of Trade consolidates the trade policy, program development, and compliance measurement functions of CBP into one office. It provides uniformity and clarity in the development of CBP's national strategy to facilitate legitimate trade. And it manages the design and implementation of results-driven strategic initiatives for trade compliance and enforcement. It directs national enforcement responses through effective targeting of goods crossing the border as well as strict, swift punitive actions against companies participating in predatory trade practices.

Through coordination with international partners and other U.S. government agencies, we direct the enforcement of intellectual property rights and the identification of risks to detect and prevent the importation of contaminated agricultural or food products. We also manage the enforcement of free trade agreement eligibility. By promoting trade facilitation through partnership programs, we work to streamline the flow of legitimate shipments and foster corporate self-governance as a means of achieving compliance with trade laws and regulations. A risk-based audit program is used to respond to allegations of commercial fraud. It is also used to conduct corporate reviews of internal controls to ensure importers comply with trade laws and regulations.



"I always look forward to getting up in the morning and going to work. Of course, there have been days when it's a little more challenging. But I've always had the opportunity to take on new challenges and learn new things."

Finally, we provide the legal tools to promote compliance with customs, trade, and border security requirements. This includes the issuance of all CBP regulations, legally binding rulings and decisions, and informed compliance publications. In addition, we provide structured programs for external CBP training and outreach on international trade laws and CBP regulations.

Could you tell us more about your responsibilities as Executive Assistant Commissioner of the Office of Trade?



Brenda Smith: I see myself as the primary advocate for CBP's trade mission. It goes back to the legacy customs mission. In 1789, the Fifth Act of Congress established the U.S. Customs Service to essentially pay for revolutionary war debt. Ever since, we have been on the frontline on the borders protecting the U.S. as well as collecting those duties, taxes, and fees.

On a day-to-day basis, I'm not only an advocate for compliance with those laws that protect the country, but I am also responsible for outreach to the trade community. We have more than 350,000 importers and more than 13,000 customs brokers—along with carriers and freight forwarders. These are household names responsible for managing supply chains that make sure safe goods come into the country. I work with my team and this community to make sure not only that they're following the law, but when they're bringing in compliant goods they can do so quickly, easily, and cheaply.

I want to make sure we are carrying out our security mission. Economic security is a key part of homeland security. From the Office of Trade's perspective, our role in economic security is not only making sure that people's quality of life is supported by the goods that travel into and out of the country, but also that the domestic industry is able to run its businesses on a level playing field and compete actively in the global economy.

Could you elaborate on CBP's national strategy to facilitate legitimate trade? What are your key priorities?



Brenda Smith: There is an inherent tension in what we do every day between the facilitation and enforcement of trade. Yet, what we've learned over the last couple of years is that it doesn't have to be this way; facilitation and enforcement complement one another. If we get one right, then the other is easier to do. We often use the metaphor "the needle in a haystack"—and we're trying to make that haystack smaller. We do this by leveraging our industry expertise, analytical

skills and the ability to use data appropriately. A key priority is looking at the ability to integrate the data that we have and use it to make good risk-based decisions. This involves investment in automation as well as having the right skills to analyze the data and then act on it.

Another priority is cultivating our relationship with the private sector. We want to collaborate with this group to come up with solutions. This involves focusing on cost reduction through streamlining processes and eliminating barriers to collaboration with public and private sector partners. We are also working on harmonizing processes across the ports of entry to support the adoption of a unified facilitation and enforcement posture. Along with these priorities, CBP is expanding risk-segmentation using advanced technology that can facilitate the flow of low-risk trade and travel.

What are the most serious threats and critical trends shaping your strategy?



Brenda Smith: Trade is a high-profile issue. And information integration is a significant challenge we're trying to manage. We collect serious amounts of information on goods crossing the border. We want to use this information to predict and identify issues. We are dealing with an explosion of information coupled with technological advances that make understanding the data possible.

Another challenge is the explosion in the actual volume of trade. We've seen a steady increase as we've become more globally connected. For example, people think nothing of going online and ordering something from halfway across the world and expecting it to show up on their doorstep in twenty-four hours. It happens all the time.

This increase in the volume of trade leads to a change in the trading pattern. The internet and e-commerce has introduced more players into the trade supply chain, resulting in a significant increase in the speed of trade and in the number of actual transactions. In the late 1950s, trade was burlap-wrapped bundles placed on big ships into containers. Today, we're seeing mountains of small packages being shipped from around the world. This flow of goods is very dispersed, introducing new players—people who have never done this before and are now importing or exporting goods. This change impacts the operational processes we use to manage the flow of goods.

“The Single Window initiative has dramatically altered the process of obtaining approval. During a four-year period, we organized the implementation of the Single Window via the Automated Commercial Environment (ACE), an online portal that allows businesses to deal with all regulatory agencies in one place.”



CBP continues to focus on simplifying and facilitating cross-border commerce while reducing the cost of importing and exporting goods. One way you're doing this is through the implementation of the International Trade Data System—or the Single Window. Could you tell us more about this initiative?



Brenda Smith: We needed to develop an efficient and cost-effective trade processing infrastructure, such as the International Trade Data System (ITDS), to modernize and simplify the way that executive departments and agencies interact with traders. We must also improve the broader trade environment through the development of innovative policies and operational processes that promote the effective application of regulatory controls. They must also promote collaborative arrangements with stakeholders, as well as a reduction in unnecessary procedural requirements that increase costs and undermine our nation's economic competitiveness.

On average, more than \$10 billion worth of traded goods enter or exit the U.S. each day and must first be approved by our officers. Traditionally, importers and exporters had been required to submit information to multiple federal agencies, often on paper forms. They would sometimes wait days before getting the go-ahead to move their products across U.S. borders.

There's an international standard that calls on governments to establish a single location for all information about goods crossing borders. It is literally a single window in some countries where paper forms about exports get submitted to the teller behind a window and in other places it is an electronic portal, like we've just built here in the U.S.

The Single Window initiative has dramatically altered the process of obtaining approval. During a four-year period, we organized the implementation of the Single Window via the Automated Commercial Environment (ACE), an online portal that allows businesses to deal with all regulatory agencies

in one place. Implementation of the Single Window via the ACE in December 2016 has eliminated more than 250 paper forms and hundreds of redundant data requests. It has greatly reduced wait times for import and export decisions.

We established an interagency council comprising 47 agencies to build consensus and help solve problems. We also collaborated extensively with private industries ranging from mass retailers to automotive and electronics firms. To create the technology and infrastructure to support the initiative, Phillip Landfried, Assistant Commissioner of the Office of Information Technology, adopted an approach that relied on innovative methodologies such as Agile. It also relied on government and private-sector partnerships to build, test, and deploy the user-friendly automated system. We're now presenting one face at the border, and our private sector partners can get information and decisions from one place.

The ACE is now the backbone of CBP's trade processing and risk management activities, providing a single, centralized access point to connect CBP, partner government agencies, and the trade community.

As an enabler and regulator of trade, can you tell us more about efforts to strengthen trade enforcement?



Brenda Smith: Over the last decade, we've experienced a culture change. Before, we may have said we worked closely with the private sector—but frankly, we didn't. Now, our collaboration approach is guided by the word “co-creation.” Very often, we will identify a problem and put it on the table with representatives from the private sector and other federal agencies as well as CBP. We solve issues together—understanding that each of us has motivations, needs, and limitations that must be addressed. At the end of the day, we are looking for solutions that work for all of us. This has led to more effective enforcement and a streamlined trade process.

Moreover, the National Targeting Center (NTC) is one of the agency's crown jewels. It analyzes traveler data and threat information to identify high-risk travelers before they board flights bound for the U.S. We've learned from the NTC effort and have applied that knowledge and approach to the trade portfolio. We have established an Integrated Trade Targeting Network (ITTN). We work to enhance CBP's strategic trade targeting capabilities to quickly detect, deter, and disrupt high-risk financial and illicit trade networks. We're also working to combat criminal organizations that illegally exploit American trade.

How does the Trade Facilitation and Trade Enforcement Act help you with that mission?



Brenda Smith: The Trade Facilitation and Trade Enforcement Act (TFTEA) of 2015 was the first comprehensive authorization of CBP since the Department of Homeland Security was created in 2003. Its overall objective is to ensure a fair and competitive trade environment. The guidance we received from our congressional stakeholders was that the enforcement of trade laws and trade facilitation is critical to the economy. The law also provided us with some new tools and new ways of thinking about enforcement challenges.

Since its enactment, we've made tremendous progress. We continue to improve upon our mission to enforce trade laws and to facilitate the lawful trade that keeps the engine of our economy running smoothly. The TFTEA also directed enhanced enforcement of antidumping and countervailing duty (AD/CVD) laws in order to ensure a level playing field for U.S. companies. In FY2016, CBP enforced 364 AD/CVD Orders covering around 150 products. In addition, during that time period, \$13.9 billion of imported goods were subject to AD/CVD laws, and CBP collected \$1.5 billion in AD/CVD deposits. The TFTEA provided CBP with new authority to investigate allegations of AD/CVD evasion through the enactment of the Enforce and Protect Act. Companies can now file allegations of evasion via our e-allegations web portal.

The TFTEA also helps CBP enforce laws that guard intellectual property rights, protecting consumers against counterfeit goods. To coordinate these efforts, CBP's Trade Enforcement Task Force works closely with partner government agencies. The Task Force focuses on detecting high-risk activity and disrupting illicit trade networks that hurt our economy and U.S. consumers.

Turning to trade facilitation, the TFTEA extended funding to complete the development and implementation of the ACE, which we mentioned earlier. The TFTEA also formally recognized and promotes CBP's Centers of Excellence and Expertise. All ten Centers are fully operational, increasing uniformity at the ports, facilitating the timely resolution of trade compliance issues nationwide, and strengthening our knowledge about industry practices. It has helped us to refine and strengthen the execution of our broad trade mission—a mission that is critical to our nation's economic security and vitality.

What makes an effective leader?



Brenda Smith: One of the key characteristics of a successful leader is the ability to scan the environment, see around corners, prepare your organization, and get it in a position to address the challenges it faces. I think back to one of my early mentors, a gentleman named Ed Kwas, who was a senior leader at the U.S. Customs Service. At the time that I knew him, he set up the first Office of Strategic Trade—which took customs into the environment of risk management and used data to make good risk-based decisions. Mr. Kwas was one of the smartest men I knew. He had a knack for seeing ahead. He would use capabilities that we had available at the time, then fortify them in such a way as to anticipate—and be ready for—challenges five years out.

Passion is another characteristic. I always look forward to getting up in the morning and going to work. Of course, there have been days when it's a little more challenging. But I've always had the opportunity to take on new challenges and learn new things. ■

To learn more about CBP's Office of Trade, go to cbp.gov/trade.



To hear *The Business of Government Hour* interview with Brenda Smith, go to the Center's website at www.businessofgovernment.org.



To download the show as a podcast on your computer or MP3 player, from the Center's website at www.businessofgovernment.org, right click on an audio segment, select Save Target As, and save the file.



To read the full transcript of *The Business of Government Hour* interview with Brenda Smith, visit the Center's website at www.businessofgovernment.org.

Transforming Government Through Technology

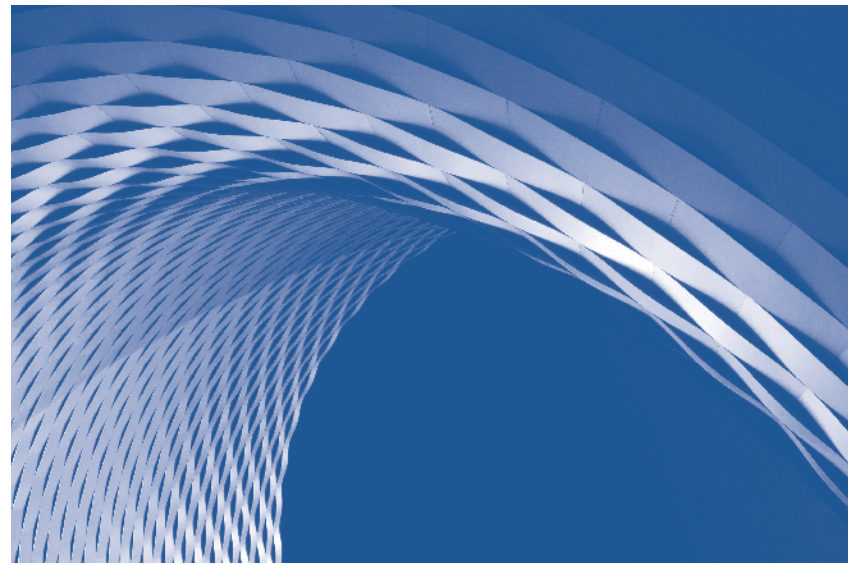
Michael J. Keegan, Forum Editor

By implementing private sector cost-reduction strategies and technologies, the federal government can reduce costs while improving services. This cost-saving objective is highlighted in *The Government We Need* released by the Technology CEO Council (TCC) and supported by the IBM Center for The Business of Government. The report detailed how, if implemented effectively, technology-based reforms could reduce federal costs by more than \$1 trillion over the next decade.

This forum highlights the insights presented in the TCC report and the IBM Center's *Transforming Government Through Technology*—a companion piece to the more detailed TCC report. It presents the key insights and recommendations that can assist government leaders in understanding how to best leverage and scale past successes to benefit citizens and taxpayers today and in the future. These insights are confirmed by many of the Center's past studies and reports; that similarly examine opportunities for improving government operations by applying private sector strategies and innovations.

Right now, the federal government spends roughly 30 percent on operations that support mission delivery. Efficient private-sector organizations spend roughly 15 percent for similar overhead. While government will always have unique demands and obligations that prevent it from reaching the efficiency levels of the private sector, it can significantly improve operations.

Driving change in the federal government requires more than new policies or the infusion of new technology—it requires a sustained focus on implementation to achieve positive and significant results. The practices and recommendations outlined in this forum provide government leaders with a path for raising performance and becoming more cost-efficient at all levels over the next decade.



Strategies for Transforming the Way Government Does Business

The U.S. operated at a \$587 billion budget deficit in fiscal year (FY) 2016. This represents approximately 3 percent of gross domestic product (GDP) and adding to the over \$19 trillion in existing federal debt. Over the long term, this debt will have ever greater impact on the economic health of the nation—it is projected to continue to grow unless actions are taken to change how the federal government operates.

However, meaningful spending reductions will require an aggressive, disciplined, multi-faceted cross-agency approach integrated into early budget proposals and strategic plans. Technology-enabled capabilities can fundamentally transform the way government does business, allowing agencies to avoid across-the-board cuts that do not relate to an analysis of what works. Indeed, modern interconnected technologies

and processes (such as those used in the private sector), offer the opportunity to realize sustainable cost reductions of more than \$1 trillion over the next ten years.

Yet achieving lower costs will require technological innovations that support improved processes and decision-making. As the TCC report indicated, the government’s existing technology infrastructure is widely outdated, expensive to maintain, not secure, and incompatible with new innovations. The government needs to expand current efforts to modernize its IT portfolio and associated processes. This will add value by enabling agencies to meet their missions more quickly and completely, with fewer overheads, lower costs, and reduced risk.

In addition to the tangible cost reductions that can be achieved by using existing technologies, the government has other opportunities to drive innovation, facilitate improved operations, and provide benefits to the public. For example, agencies can avoid significant costs by preventing problems before they occur, such as those incurred from cybersecurity attacks.

This forum introduces four strategies that are key to transforming the way government does business:

- Improve resource management
- Improve government decision making
- Invest in modern technology
- Optimize processes

The table details the findings from the Technology CEO Council report, *The Government We Need*. It details the performance improvement and cost-reduction opportunities in each set of strategies. These cost-reduction estimates were derived through analyzing specific examples that were featured throughout this report and extrapolated to reflect the size and scope of the federal government. Cost-reduction figures reflect the total estimated opportunity over a ten-year period (assuming effective implementation), and they may necessitate additional investments in people, processes, and technology.

Ten-Year Cost-Reduction Opportunities

Cost-Reduction Area	Est. 10-Year Cost Reduction
Improving Resource Management	
Shared Services	\$47 Billion
Fraud and Improper Payments Prevention	\$270 Billion
Improving Government Decision Making	
Analytics and Cognitive Computing	\$205 Billion
Investing in Modern Technology	
IT Modernization	\$110 Billion
Cybersecurity, Mobile, Internet of Things	Cost Avoidance and Improved Efficiencies
Optimizing Processes	
Supply Chain and Acquisition	\$500 Billion
Energy Use	\$3 Billion
Total Ten-Year Cost-Reduction Potential	\$1.1 Trillion

The remainder of this forum highlights opportunities to improve government in each of the above areas.

Cost-Reduction Opportunities

The world is in the midst of a digital revolution, which is fundamentally transforming the way people access and use information. Technology is no longer used merely to automate previously manual processes. Technology today is user-centric, integrated across platforms, ubiquitous, smart, and agile. It can disrupt previously entrenched business models, drive up service quality, and reduce costs.

Improving Resource Management

Technology can enable data-driven management decisions and establish cross-agency, enterprise-wide perspectives. Too often, critical data exists in disparate systems across disconnected agencies or operational areas, hiding the overarching operational picture and hindering effective coordination. The government can identify cross-agency opportunities and recognize risks that are not otherwise evident by integrating across domains and networks, and by raising the level at which decisions are viewed and organizational investments aligned. Integration still allows for the continued confidentiality, security, and the protection of privacy. By taking an enterprise perspective, the government can leverage technology enablers to drive the consolidation of core services and improve analytical capabilities.

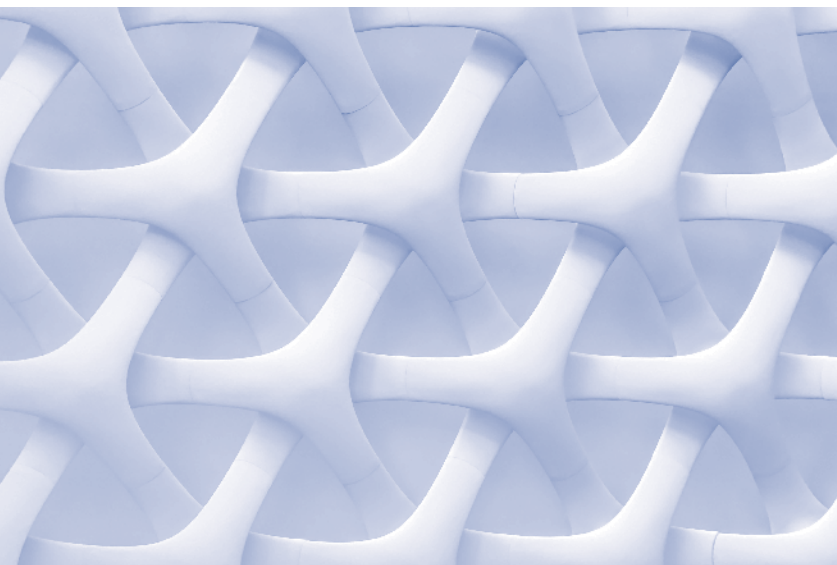
Shared Services

Transitioning common administrative agency functions to shared service centers is a proven method to reduce costs while increasing service delivery effectiveness and efficiency. Shared services represent an opportunity to transition agency resources from focusing on administrative tasks (e.g., processing human resources and finance transactions), toward strategic, value-added activities. The *OMB Federal Information Technology Shared Services Strategy*, published in 2012, recognizes the opportunity of shared services for agencies, “to innovate with less given current fiscal constraints, increasing mission requirements, rising customer expectations, and the ever-evolving landscape of IT.”



This is done by providing enterprise-wide services from a set of specialized providers. A shared services provider can offer more cost-effective services at scale and reduce duplicative services across the enterprise. For example, a shared services provider in the federal government, the Human Resources Line of Business (HR LOB) in the Office of Personnel Management, consolidated twenty-six agency payroll systems into four payroll shared service centers. It also migrated agency HR systems into one of six federal and four private sector HR shared service centers. As a result, the HR LOB reduced payroll and HR costs by an estimated \$1.6 billion between FY 2004 and FY 2015.

While agencies have traditionally set up shared services to support their internal departments, many in the shared services community have come to support a new “twenty-first century delivery model.” In this new model, components will be provided with a focus exclusively on service and price to enable agency clients to shop for the provider best aligned with their service preferences. The General Services Administration’s (GSA) Unified Shared Services Management (USSM) office has established a framework based on this model in the hopes of creating a dynamic, competitive marketplace that includes common standards, interoperability, and the opportunity for agencies to change providers if services do not meet agreed-upon performance levels.



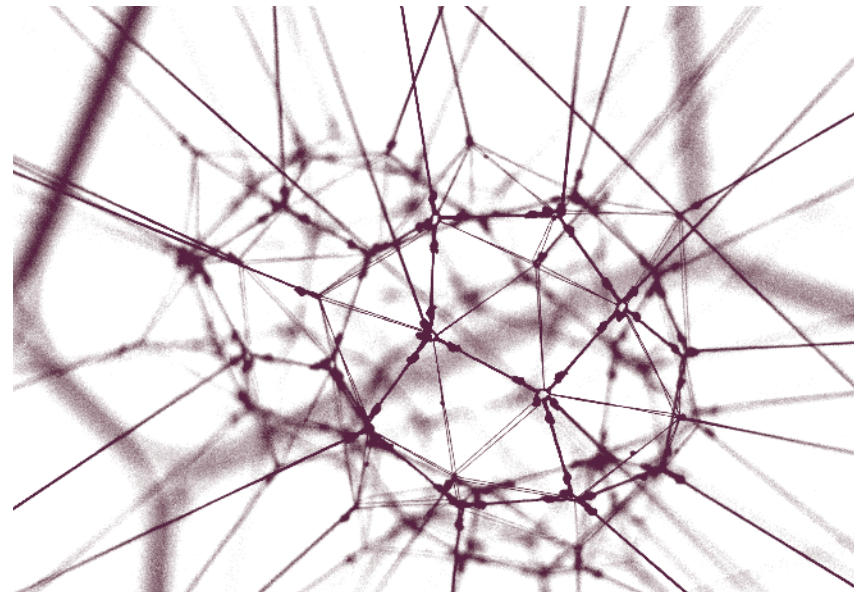
In March 2015, the Partnership for Public Service, supported by commercial and government participants, released a Shared Services Roundtable report. This report estimated up to \$47 billion in cost reductions over the next ten years through the increased use of shared services in six administrative categories.

Fraud and Improper Payments Prevention

As estimated by the Association of Certified Fraud Examiners, approximately \$3.5 trillion is lost to fraud globally each year—and the federal government is not exempt. The number of improper payments by the government continues to rise despite recent efforts to reduce such payments. Federal agencies made an estimated \$137 billion in improper payments in FY 2015, and \$144 billion in FY 2016. The government should take advantage of advanced analytical models that have shown a strong capability to predict and prevent fraud.

The New York State Tax Administration implemented predictive modeling and advanced algorithmic capabilities that stopped \$1.2 billion in improper or questionable refunds from being paid. At the federal level, the Return Review Program (RRP) of the Internal Revenue Service (IRS) identified over \$10 billion in fraudulent tax returns in 2014 that otherwise would have been granted. Furthermore, the Centers for Medicare and Medicaid Services (CMS) has established a fraud detection unit to help identify and stop fraudulent healthcare claims.

Federal agencies should work together to share fraud detection services and investments to produce greater economies of scale, reduce duplicative investments, develop best practices, and ultimately lower costs and improve performance. The New York experience demonstrates how leveraging predictive analytics could help identify and prevent 20 percent of improper or fraudulent payments across the federal government. Given the current level of improper payments identified above, federal agencies have the potential to reduce improper payments by approximately \$270 billion over ten years.



Improving Government Decision-Making

Before an investment can be made, a project launched or services delivered, the government must decide what to do with its limited resources. Where do we invest? When do we invest? How do we make the investment? In an environment with complex considerations, tight budgets, and increasing time constraints, improved decision-making capabilities are critical.

Decision-making is not just about having more data. It is about how to most effectively mine available data and use it to make better decisions. Technology-enabled decision-making has the potential to “raise the tide” and grow the national economy (rather than simply identifying opportunities to cut from the existing budget).

Analytics and Cognitive Computing

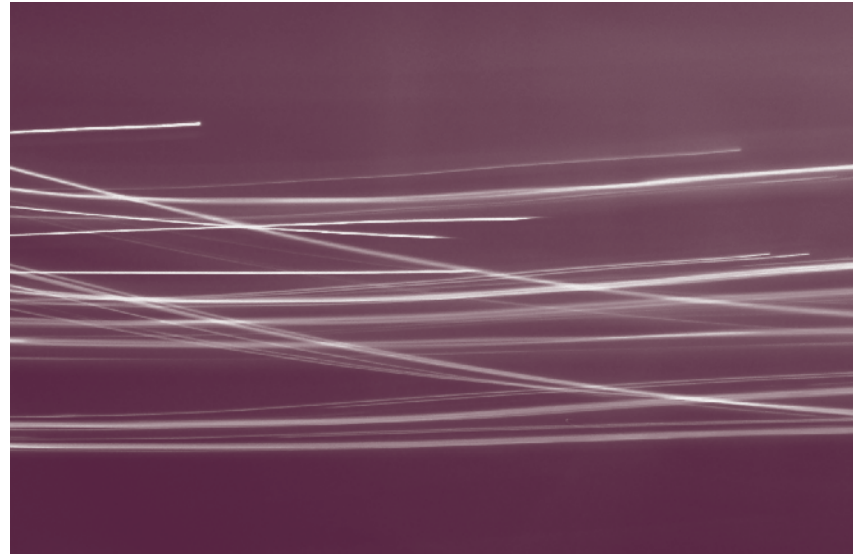
Some 2.5 quintillion bytes of data are created every day, while more than 50 percent of stored data is considered “dark” data whose value is unknown and untapped (the vast majority of this data is not effectively used). Clearly, government can better leverage the available data to make informed choices. Making existing data visible is a first step toward applying analytics, enabling better decisions, standardized performance management, and improved outcomes.

Decisions based on better use of data and evidence have clear benefits. CMS set out in 2011 to reduce hospital-acquired infections by 10 percent. Assessing over 1 million such cases a year, analytics helped identify patterns, trends, and priorities to allow targeted interventions. And the approach is working. The U.S. Department of Health and Human Services has estimated that 50,000 fewer patients died in hospitals from 2010 to 2013 and approximately \$12 billion in healthcare costs were avoided as a result of fewer hospital-acquired infections.

The U.S. federal government must continue to build on the efforts of the Government Performance and Results Modernization Act of 2010 (GPRAMA) to apply a fact and evidence-based approach to budgeting. This could help the government reduce costs while delivering the same or better services to its citizens. There is broad agreement that investment in and adoption of analytics throughout the government is critical to addressing budgetary issues in the current fiscal environment.

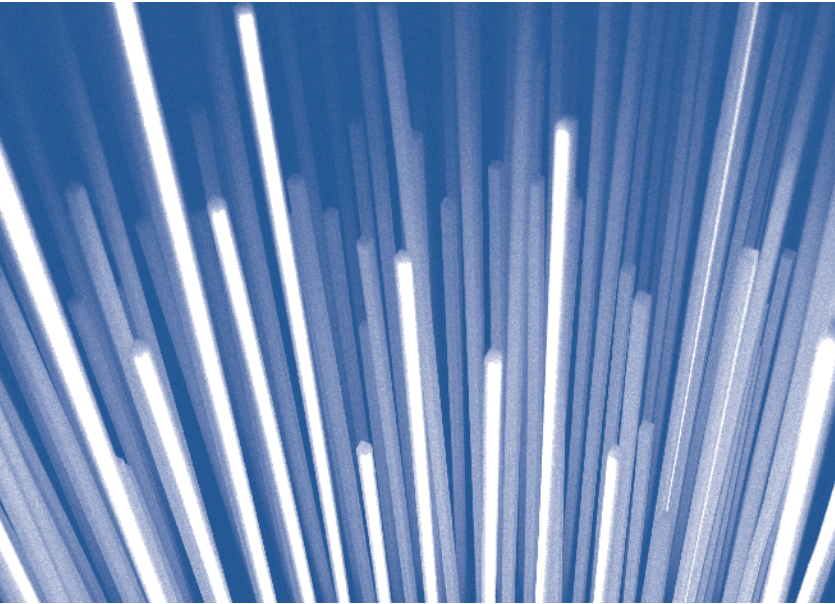
Cognitive computing systems build knowledge, learn, understand natural language, reason, and interact more naturally with people than traditional programmable systems. Cognitive capabilities can help agencies identify meaningful and actionable information from both structured and unstructured data sets—and transform the data into useful insights. That allows officials to reason and learn in a way that produces faster, more consistent decisions and optimizes the use of limited resources.

Cognitive technologies can digest unstructured information (maps, images, etc.) and produce valuable real-time insights. These insights can supplement traditional analytics and improve human decision-making to solve some of the most challenging and mission-critical problems facing the government today.



Using cognitive systems, the Federal Emergency Management Agency (FEMA) can leverage weather data to build knowledge that can help experts better predict natural disasters and make planning and response decisions. The Centers for Disease Control and Prevention (CDC) can use public health data to help officials quickly learn from a wide variety of data sources and determine how best to mitigate the risk of epidemics. The U.S. Department of the Treasury and the U.S. Securities and Exchange Commission (SEC) can identify real-time trends in the financial markets and proactively take steps to reduce the likelihood of a financial crisis, therefore providing a more stable economy.

The opportunity exists for the federal government to save an average of 10 percent on its operations and maintenance costs by implementing cognitive monitoring technologies. The U.S. Department of Defense alone spends over \$200 billion per year on operations and maintenance costs. Add that to the equipment maintenance per year for other large “power-user” agencies, such as the Department of Transportation or the GSA, and the opportunity to reduce costs by over \$20 billion per year (or \$205 billion over ten years) becomes evident.



Investing in Modern Technology

Well-planned but bold and innovative investments must be made to overcome challenges in the current federal environment. It is imperative for the new administration to capitalize on the pockets of innovation that exist today, and take the necessary risks to transform the government into a modern, efficient enterprise. While promoting an innovative culture involves accepting elements of risk and tolerating some level of failure, a resilient organization anticipates these failures and learns from them as part of empowering employees to develop truly paradigm-shifting solutions.

Private sector experience has demonstrated that strategic investments are key to achieving long-term cost reductions and can have a significant return on investment. It is imperative that the government invests in and capitalizes on innovation, and that it continues to transform into a modern, efficient enterprise. Identifying and prioritizing efforts for investment, integrating these priorities into agency and federal budget-planning cycles, and applying appropriate measures to track the success of key efforts will enable new and revolutionary solutions. Furthermore, strategic investments in modern, cloud-enabled IT infrastructure, cybersecurity, and mobile services also have substantial cost-saving potential.

IT Modernization

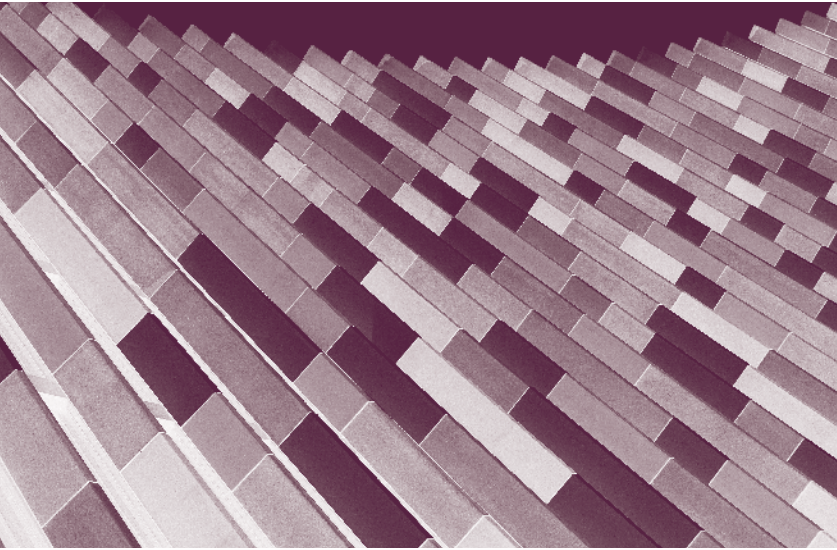
Federal IT infrastructure is aging and in need of modernization, yet federal IT spending is at an all-time high. According to the Government Accountability Office (GAO), in 2016 about 75 percent of spending on IT was allocated to the operation and maintenance (O&M) of legacy systems that already are, or are rapidly becoming, obsolete. The Office of Management and Budget (OMB) has estimated that \$3 billion worth of federal IT equipment will reach end-of-life status in the next three years.

Duplicative and obsolete legacy systems should be eliminated wherever possible, and necessary systems should be replaced with modern technologies on more cost-efficient platforms. Many in Congress have recognized the challenge and expense posed by legacy systems, and lawmakers have considered legislation that would authorize working capital funds for federal agencies to upgrade and modernize IT systems.

Two agency examples demonstrate the feasibility of modernization efficiencies. The Federal Communications Commission (FCC) began its transition by moving from a capital expenditures model to an application model. Making a relatively small up-front investment, it enabled a move from legacy infrastructure to managed services, which left room in the FCC budget to effectively and implement other necessary changes (migration, rationalization, etc.). In another example, the U.S. Army Materiel Command Logistics Support Activity (LOGSA) migrated its procurement operation to an on-premises hybrid cloud model that now processes 40 million unique daily data transactions and is used by more than 150 Army suppliers around the world. LOGSA is saving more than \$2 million per month over previous contract—a reduction of 40 percent to 50 percent while delivering greater levels of service to Army customers.

A 2015 report by the Information Technology and Innovation Foundation (ITIF) suggests that state governments could collectively save \$11 billion over the next five years through increased productivity resulting from technology investments and adoption. Another report cited in ITIF's analysis estimates that every \$1 increase in new IT spending by a state government CIO led to as much as a \$3.49 reduction in overall state expenditures. Applied to the federal government, investing in new IT systems could yield billions in reduced costs. This in turn could increase productivity by shifting

spending from legacy O&M to modern systems. At the cost-reduction rate identified by ITIF, and assuming a shift of only 5 percent of approximately \$65 billion of federal O&M IT spending, the government could cut costs by over \$110 billion during the next decade.



Cybersecurity, Mobile, and the Internet of Things

As government modernizes by leveraging commercial technology, agencies will benefit from improved performance and cost reduction in numerous areas. Three areas that can yield near-term results include cybersecurity, mobile, and the Internet of Things (IoT).

Cybersecurity

The importance of strengthening and maintaining effective cybersecurity technologies and best practices for government cannot be overstated. The 2016 Ponemon Cost of Data Breach Study found the average consolidated total cost of a data breach grew to \$4 million. It also highlighted that the average cost incurred for each lost or stolen record containing sensitive and confidential information increased to \$158. For example, OPM's 2015 personnel records data breach that compromised approximately 21.5 million personnel records has cost the government more than \$350 million so far. Based on the Ponemon figures, this breach could ultimately cost more than a staggering \$3.3 billion.

The government must be proactive in preparing for and identifying cyberattacks by modernizing its infrastructure. With the estimated average cost of a distributed denial-of-service (DDoS) attack at \$40,000 per hour (and an average total cost of \$500,000 per incident), the cost avoidance potential for federal agencies is highly significant.

Clearly, preventing cybersecurity attacks government-wide can lead to large-scale cost avoidance. However, it's much more difficult to assign specific cost-reduction estimates to these opportunities, let alone "scoreable" savings. If expensive breaches continue, the impact of cost-reduction initiatives will almost certainly be reduced and, therefore, avoiding these attacks is equally as critical.

Mobile Computing

Mobile devices continue to transform the way Americans live and how all enterprises do business. Continued expansion of mobile self-service and supporting infrastructure is essential to meet the needs and expectations of the federal workforce and the American public.

Mobile technologies are already critical to agencies that have agents and first-responders in the field. FEMA represents such an example. Often it has employees in remote or disaster locations. FEMA's CIO Adrian Gardner noted, "Our strategy focuses on getting mobile technologies into the hands of those at the end of the spear . . . We want to ensure they have the tools to quickly get information and data incorporated into devices and transmitted." Improving and expanding mobile capabilities for these types of specialized roles has the potential to save lives.

In addition, several cities have begun applying mobile technologies not only to provide valuable services to employees and citizens, but also to help governments explore opportunities to:

- Reduce transportation spending
- Improve sustainability
- Manage infrastructure
- Monitor public health and safety

The TCC report noted that, on average, return on investment in mobile initiatives results in a 7 percent increase in revenue and a 6 percent decrease in costs.

Mobile technologies remain an essential component of the foundation for future government innovations.

IoT

By adopting IoT technologies and supporting the interoperability that enables systems to work together, substantial cost savings are possible across a range of applications and industries. The TCC report suggested that strategic IoT deployment could potentially grow the global economy by \$4 trillion to \$11 trillion per year by 2025. This could be achieved through improvements, including better operations management in industrial production, enhancements in retail sector productivity, and more efficiencies in city services.

Cities around the world are using IoT to deliver services at lower costs, among a host of other benefits. For example, Barcelona's adoption of numerous IoT technologies has resulted in:

- An estimated \$58 million in savings from the reduced use of water
- Increased parking revenue of \$50 million per year
- Decreased lighting costs of \$37 million per year

Applying similar technologies and capabilities to U.S. federal resources would likely yield similar benefits, but potentially on a much larger scale.

Optimizing Processes

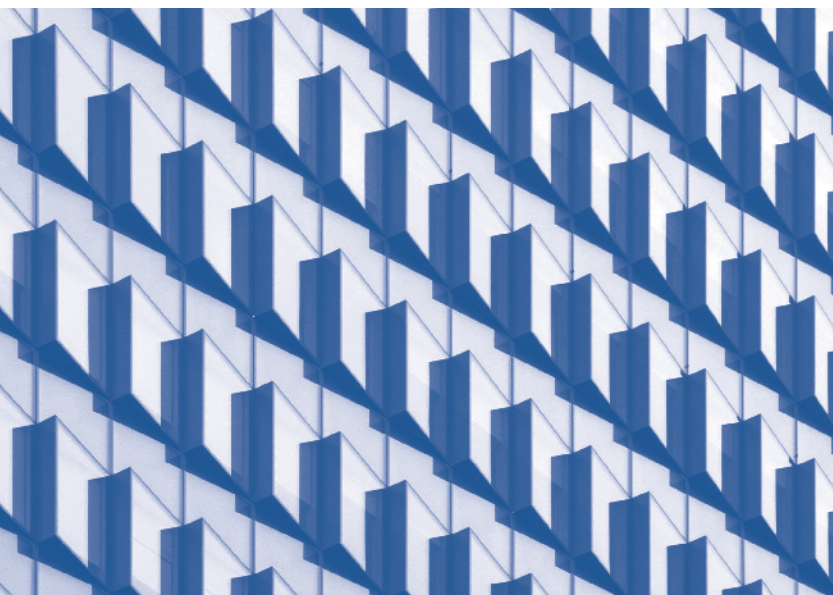
As effective management, decision-making structures, and processes take shape, it's critical that the government reinforces the need to continually improve operations. Optimizing the federal supply chain and procurement processes and enabling more efficient energy consumption has the potential to:

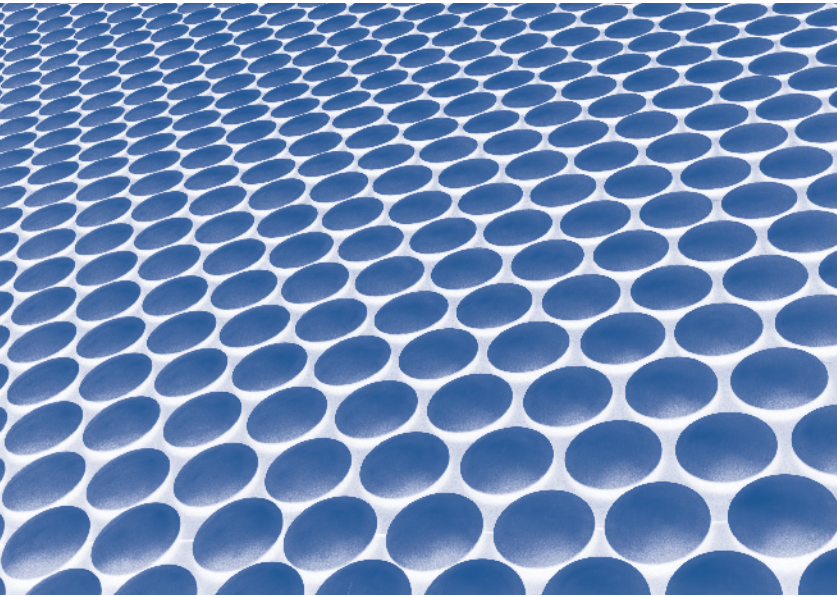
- Unlock substantial cost reductions
- Ensure timely delivery of quality goods and services
- Streamline the use of existing resources

Supply Chain and Acquisition

Federal agencies purchase more than \$450 billion of goods and services annually. Despite trying to consolidate acquisition efforts across the federal government, these activities continue to be performed through a range of independent department and agency processes. The opportunity to leverage the collective buying power of the federal government remains largely untapped. Cognitive tools can capture and use structured and unstructured data about suppliers, markets, and prices from internal and external data sources. This can assist and accelerate the market intelligence process for procurement agents. Furthermore, these tools can capture seemingly unrelated data (e.g., the weather) and correlate them to potential supply chain risks. Such approaches have also helped to simplify access to complex procurement regulations, including the Federal Acquisition Regulations (FAR) and Defense Federal Acquisition Regulations (DFAR), enabling federal acquisition specialists to receive guidance through a Virtual Agent Assistant. Most importantly, these cognitive tools learn from every interaction. This enables more targeted and relevant data capture and the ability to offer better advice, consistent with how a supply chain practitioner would address a problem.

The government's recent shift to considering category management a Cross-Agency Priority (CAP) goal is a positive step toward reforming federal procurement. The government can continue this progress by using category management to coordinate the acquisition of common IT and support services through standard platforms. The UK has demonstrated success implementing similar programs. Over the course of five years, the UK reduced costs by over \$13 billion using category management to streamline its supply chain.





In the commercial industry, similar efforts have enabled substantial savings with firms reducing supply chain costs by 10 percent to 20 percent through:

- Strong category management
- Better use of supply chain assets
- Leveraging cognitive approaches and advanced analytics
- Making process improvements

By implementing similar improvements effectively, and assuming a cost reduction impact at the low end of the commercial range (10 percent), the federal government could see spending efficiencies of more than \$500 billion over the next ten years.

Energy Use

Although the government's energy use has been declining since its peak in the 1970s, there's an opportunity to reduce it further. Using flash technology, the Indiana Office of Information Technology realized a 69 percent reduction in power and cooling costs and a 70 percent decrease in floor space as well as improved operational efficiency. Similarly, the Transportation Security Administration (TSA) removed on-site server racks, which decreased cooling costs and

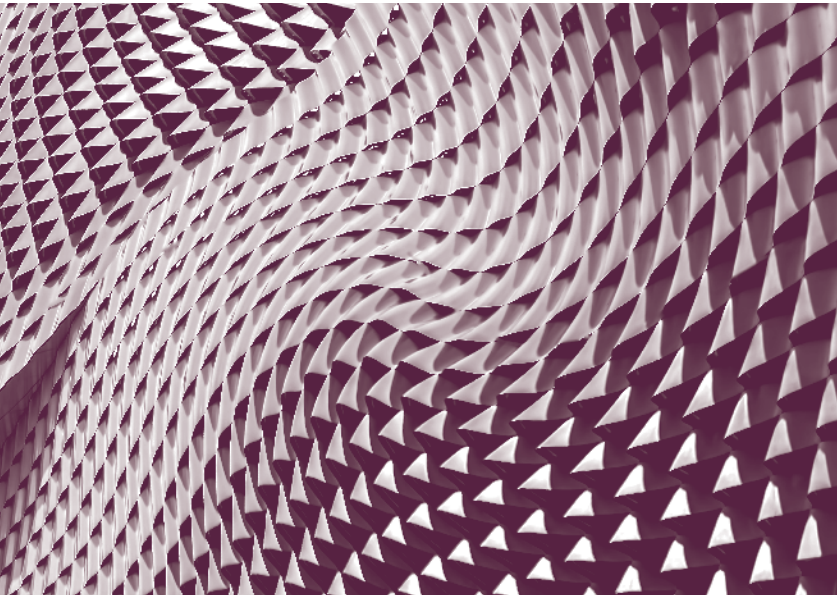
reduced floor space needs to save \$2 million annually. In the private sector, companies are using cognitive technologies to reduce fuel consumption, cut costs, and optimize transport routes (which also yields significant environmental benefits from reduced emissions). Real industry experience demonstrates that applying efficient technologies can achieve a 10 percent reduction in power and cooling costs. Based on current government estimates for its energy expenditures, the government can reduce non-petroleum-based energy costs by approximately \$3 billion over ten years.

Key Recommendations

The recommendations highlighted in this forum, which are based on both the TCC report, *The Government We Need*, and the IBM Center's companion special report, *Transforming Government Through Technology*, are not hypothetical suggestions based on hopes for the future. The opportunities are real. The capabilities have been demonstrated. And the benefits have been realized in both commercial and public-sector applications.

- **Manage the federal government** from an enterprise perspective using technology enablers to drive consolidation of core services and improve analytical capabilities
- **Use analytics and cognitive capabilities** to identify meaningful and actionable information from both structured and unstructured datasets and to transform that data into insights. This will allow officials to reason and learn in a way that enables faster, more consistent decisions and optimizes the use of limited resources
- **Make strategic investments** in modern, cloud-enabled IT infrastructure, cybersecurity, and mobile services, which offer substantial cost-saving potential across the federal government and can establish the foundation for paradigm-shifting innovation
- **Optimize the federal supply chain and federal procurement processes** to unlock substantial savings across the federal government, while enabling better, more reliable and more timely delivery of goods and services

Cumulatively, the opportunities highlighted in this report represent a potential cost reduction of over \$1 trillion over the next ten years. This is in addition to other benefits to the government and public that would result from their implementation.



- **Incorporate industry best practices** through consulting with private sector leaders on tech-enabled change management and leveraging emerging commercial technologies
- **Prioritize and sequence implementation**, including early actions that start with the 2018 budget, as well as promoting multi-year cost estimates that allow small up-front investments to catalyze large changes

In the end, the insights and recommendations highlighted in this forum are to be instructive to the government leaders working to transform government through technology—transitioning it to an efficient, modern federal IT environment that directly improves the way government does business. A more in-depth exploration of the reports introduced in this forum can be found at businessofgovernment.org. ■

Implementation: How to Get It Done

Cost-reduction opportunities are valuable only to the degree that they can be successfully implemented. Understanding how, where, and when to engage will be critical to incorporating these opportunities into government-wide priorities and realizing the benefits.

The following actions would help with the implementation of recommendations made in the TCC report and highlighted in the IBM Center's companion special report:

- **Empower the federal CIO** to advise the OMB Director with input on all budget areas impacted by IT and prioritize coordination of efforts across all agency CIOs
- **Take an enterprise/cross-government perspective** by empowering the CIO Council as the implementing body for technology deployment, with the President's Management Council serving as a board of directors and working closely with the Chief Financial Officers Council, Chief Acquisition Officers Council, and Chief Human Capital Officers Council to ensure alignment

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Cross-Agency Priority Goals: Do They Matter?

By John M. Kamensky

This year marks the tenth anniversary of the iPhone. Over the past decade, it has dramatically revolutionized how the world works by offering apps that ease interactions among individuals and businesses.

At about the same time, Professor Donald Kettl of the University of Maryland highlighted in his book, *The Next Government of the United States*, a growing divide—the divide between how government is organized to deliver services versus how citizens want services to be more like the apps on their mobile devices. He also identified gaps in both the authority and capacity of government to act nimbly across organizational boundaries.

In 2010, with the passage of the Government Performance and Results Modernization Act of 2010 (GPRAMA), Congress granted the executive branch the authority to begin bridging this gap. Among a number of amendments to an earlier version of the law, Congress authorized a new tool for easier interactions between government agencies—and ultimately the public. This new tool was the authority to designate cross-agency priority goals in a small handful of areas for a four-year period, along with the designation of a leader and the requirement for quarterly progress reviews and public progress reviews posted on performance.gov.

The federal government has reached the end of the first four-year cycle of cross-agency goals. What's been accomplished? Has the use of this tool made a difference? Are there ways to improve its use as the new Administration develops its own set of priority goals?

While this new tool was not quite as dramatic as the introduction of the iPhone, it too improved interactions between agencies.



Background

The Office of Management and Budget (OMB) developed interim Cross-Agency Priority (CAP) goals during the fiscal years (FY) of 2012 and 2013, with the first full set of designated CAP goals established for FY 2014-2017 (see text box on page 66).

During the interim period:

- Fourteen goals were identified (seven mission-support and seven mission-focused)
- Five of these “interim” goals were carried over to the full set of CAP goals
- This resulted in fifteen designated CAP goals (eight mission-support and seven mission-focused)



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Cross-Agency Priority Goals: FY 2014-2017

Mission-Support CAP Goals

1. Delivering World-Class Customer Service
2. Delivering Smarter IT
3. Buying as One through Category Management
4. Expanding Shared Services to Increase Quality and Savings
5. Benchmarking to Improve Mission-Support Operations
6. Opening Data to Spark Innovation
7. Bridging the Barriers from Lab-to-Market
8. People and Culture

Mission-Focused CAP Goals

1. Strengthening Federal Cybersecurity
2. Service Members and Veterans Mental Health
3. Job Creating Investment
4. Cutting Red Tape in the Infrastructure Permitting Process
5. STEM Education
6. Insider Threat and Security Clearance Reform
7. Climate Change (Federal Actions)

Source: performance.gov

The Government Accountability Office (GAO) is charged with monitoring the implementation of the new provisions of GPRAMA. In a 2016 report, it observed that “CAP goal teams are meeting a number of GPRAMA requirements, including identifying contributors, reporting strategies for performance improvement, and quarterly results.” It also noted that most of the CAP goal teams that it reviewed “have not established quarterly targets as required.” However, CAP goal teams were reporting quarterly progress on activity-based milestones.

In addition to the processes developed to organize the CAP goals and monitor their progress, OMB undertook a series of initiatives to develop the capacity of the CAP goal teams. An article in the Summer 2016 issue of *The Business of Government*, “Creating a Cadre of Enterprise-Wide Leaders,” describes these initiatives, including the creation of a White House Leadership Development Program which helps to staff CAP initiatives. Also, Congress provided OMB in March 2016 the authority to create a \$15 million fund to support CAP goal initiatives.

Have CAP Goals Made a Difference?

The wide range of initiatives undertaken makes it difficult to fully gauge the impact of the fifteen CAP goals. There is no single scorecard. The progress of each goal is typically described on performance.gov in qualitative terms, and there were no plans to sum up the status of the CAP goals at the end of the four-year period which ended September 30, 2017.

However, in a review of the publicly available status reports and discussions with CAP goal staff, there has been demonstrable progress across the board. Furthermore, it should be noted that assessing progress and outcomes differs between the mission-support vs. mission-focused CAP goals.

Mission-Support CAP Goals

Mission-support CAP goals progress can typically be assessed in terms of achieving greater standardization, consolidation of services, and cost savings. For example:

Smarter IT. The CAP goal team set three objectives:

- Create a critical mass of IT talent
- Develop a digital IT acquisition community
- Develop accountability tools and processes

It met each of these objectives. It created the U.S. Digital Service—a cadre of nearly 200 top tech talent that works with agencies to resolve design and implementation problems. It streamlined IT purchasing from an average of 110 days to 35 to 45 days, and it provided a closer oversight of tech projects via PortfolioStat reviews, which led to savings of \$3.4 billion since FY2012.

Category Management. This initiative encourages agencies to buy common items or services from common contracting vehicles. By managing purchasing decisions more centrally, specialists can leverage the government's buying power and therefore reduce contract duplication. Ten “super categories” were created for services such as travel, medical supplies, and IT products. For example, by standardizing the purchase of desktops, commercial software, and mobile devices, prices have dropped by 50 percent for personal computers, and savings are estimated to be \$3.5 billion by the end of 2017.

Shared Services. This is where agencies move their common administrative or operating functions to a provider that already performs those functions for other agencies. Typically, they focus on administrative services that are common across agencies such as financial management, human resources, payroll, and travel.

Shared services exist in different forms in different places across the government and the aim is to dramatically scale up such initiatives. The CAP goal team formed a government-wide governance council, and developed policy guidance and a framework for best practices for migrations. Currently, more than thirty agencies are going through a system and/or service migration, with a 2015 report estimating potential savings of up to \$47 billion over the coming decade.

Mission-Focused CAP Goals

Mission-focused CAP goals progress and outcomes tend to be more diffuse, but measurable in some cases. For example:

Cybersecurity. The 2015 data breach of personnel records at the Office of Personnel Management put this CAP goal in the spotlight. It focuses on three risk management initiatives that are a subset of a broader set of cyber efforts. The performance metrics for these three initiatives are tracked by each agency and used by the Department of Homeland Security to monitor statutory risk requirements. This effort resulted in the appointment of a federal chief information security officer and the hiring of an additional 6,000 cybersecurity specialists in 2016 alone. Furthermore, this CAP goal contributed to the latest presidential directive on cyber strategies.

Job-Creating Investments. A 2011 executive order created an initiative to attract high-impact investments from foreign investors that drive the creation of jobs, R&D spending, and exports in the U.S. Designating this initiative as a CAP goal in 2014 provided much needed high-level visibility, and the opportunity to focus attention on a smaller set of priority goals among a handful of agencies. It also contributed to a shift in strategy from chasing individual investments to creating greater policy coherence across government. As a result, this led to more agency collaboration and contributed to a record increase in foreign investments of \$23.1 billion.



Infrastructure Permitting. Efforts to untangle thirty-five sets of statutory permitting and review responsibilities across eighteen agencies began in 2011, but the focus was one-off “heroic efforts” for individual projects. The CAP goal designation of this effort in 2014, along with a strategic effort to create a more systematic approach, led to the creation of a program management office and governance framework, with legislative support by early 2016. The capacity is now in place to streamline permits and reviews, but the metrics are still being developed to determine whether this is sufficient to meet the expectations of the new Administration.

How Can the CAP Goal Process Be Improved?

Based on reviews of the progress of the CAP goals as well as reports from GAO, academics, and insights on similar approaches being taken in other countries, four areas for potential improvement stand out.

Goal Setting. Consider bigger, bolder goals that capture the imagination of leaders and the public. To date, the criteria for selecting CAP goals has focused on those areas where progress has been slow or floundering, and additional resources and attention would increase performance. So, areas such as improving infrastructure permitting or foreign investment were selected. Progress was made in some cases, but not big enough to be noticed. For example, customer service improvement initiatives were fairly small pilot efforts.

Leadership. Designate someone to provide overall leadership of mission-focused goals. Currently, OMB and the President’s Management Council are closely involved in leading the mission-support CAP goals, but there is no overall leadership for mission-focused goals; their leadership is dispersed among various White House policy councils. However, their core strength is in policy development, not policy implementation.

Authority. Areas designated as CAP goals should have some “authority” behind them to establish legitimacy to act by the agencies involved, and be reflected in ongoing plans of key stakeholders. Each of the first round of CAP goals had at least an executive directive supporting their efforts. Some had legislative mandates, but few had any direct appropriations. Furthermore, agency strategic plans, and the strategic plans of the cross-agency councils (e.g., the Chief Human Capital Officers Council), typically did not incorporate these initiatives into their mission.

Capacity. OMB and the President’s Management Council should continue capacity-building at a government-wide, cross-agency level—such as the Performance Improvement Council and the White House Leadership Development Program. In addition, more capacity and best practices should be developed at the CAP goal team level—such as the development of collaborative relationship skills among stakeholders, program management skills, and a full-time program management office.

Conclusion

The new statutory tool for increasing collaboration across federal agencies to address complex challenges that span organizational boundaries works. The elements of the tool—a governance system, administrative processes, resources, and staff developmental capacities—have taken years to put into place. The efforts to date have resulted in demonstrable improvements in challenges that have been facing federal agencies for years, such as improving federal buying strategies and cutting red tape in infrastructure permitting and review processes. The processes and capacities developed to support this new tool can now be applied with greater confidence to a new set of challenges to be defined in coming months by the new administration when it proposes its set of cross-agency priorities goals in early 2018. ■

Managing Mission-Critical Government Software Projects: Lessons Learned from the HealthCare.gov Project

By Dr. Gwanhoo Lee and Justin Brumer

Background

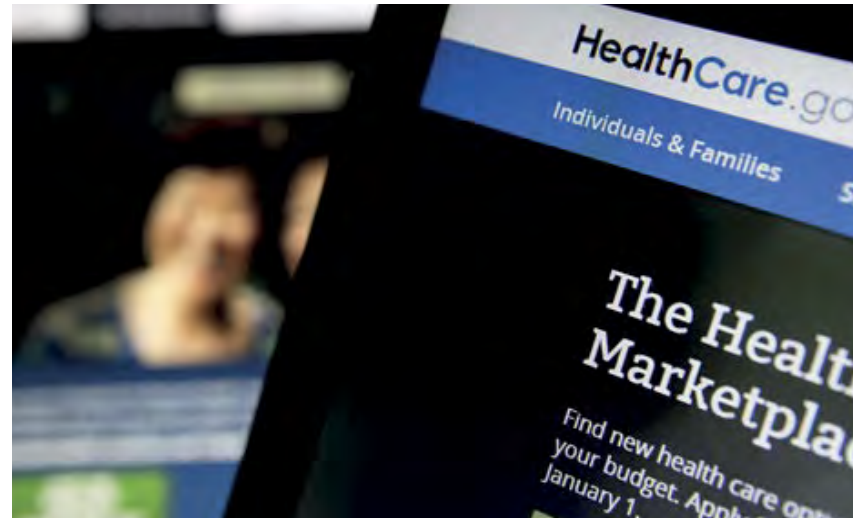
Recognized as one of the most politically contentious laws in American history, the Affordable Care Act (ACA) became law on March 23, 2010. However, ACA's implementation was soon threatened by the serious missteps of HealthCare.gov, specifically the launch of the federally facilitated marketplace (FFM).

Overseeing the implementation and management of HealthCare.gov, the Centers for Medicare and Medicaid Services (CMS) (an agency within the U.S. Department of Health and Human Services [HHS]) was charged with the responsibility to ensure website functionality. However, when enrollment began, users nationwide encountered difficulties in accessing and using the website. It would soon be discovered that the launch was a catastrophic failure with only six people signing up for health insurance on the first day.

After investigating the roll-out, many experts identified a lack of project management fundamentals as a key reason for the failure. In this article, we analyze the project challenges, the factors that contributed to the failed website launch, and the lessons learned that may help future government software projects avoid such failures.

From Policy Formation to Program Implementation

Upon enactment of the ACA, the Obama administration needed to shift from policy formation to program implementation. The law required nearly all Americans to obtain health insurance. It also created health insurance exchanges, known as marketplaces, where consumers could shop for health plans. Even though the ACA gave states the option to create their own exchange¹, only sixteen states and the District of Columbia would go onto establish their own marketplace, in part, due to issues like political partisanship, marketplace sustainability concern, or operational capacity.²

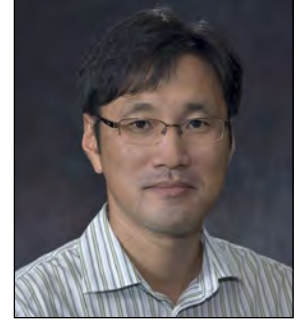


Since only a few states opted to design their own marketplace, it became mission-critical for HealthCare.gov to function effectively in order to ensure the sustainability of the ACA. The aim of the HealthCare.gov portal website was to give Americans an online platform to shop for health plans—providing a similar experience to that of purchasing services and commodities online. Without an efficient online portal website, the successful implementation of the ACA would not be accomplished. To build the system, CMS hired fifty-five contractors.

Soon after the website's failed launch, investigations occurred nationally to discover what went wrong. The findings soon made national headlines on issues such as how the initial website development cost was expected to be \$292 million and reportedly surged to \$2.1 billion³. Or that only 26,794 people had been able to enroll through the federal exchange over the entire first month, 90 percent fewer than the Obama administration had planned.⁴



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Facing the difficult choice whether to repair HealthCare.gov or completely redesign the website from scratch, the Obama administration turned to White House senior staff, to “find fresh eyes who could decide whether [HealthCare.gov] was actually salvageable.”⁵ Convinced that the website could be repaired, the Obama administration sought a “tech surge,” bringing a team of troubleshooters from Silicon Valley to fix the website.⁶ Six weeks after the initial implementation, HealthCare.gov was beginning to work better.⁷ Although the tech surge eventually made the website operational, the disastrous initial launch of HealthCare.gov significantly disrupted the implementation of the ACA.

Challenges Faced by HealthCare.gov

Designing and implementing new government policies and programs are often met with many difficulties. How an organization responds to those challenges will determine its success. Charged with designing and implementing the creation of HealthCare.gov, CMS was confronted with a barrage of political and programmatic issues from the project inception that included:

- Project complexity
- Uncertainty
- Compressed timeframe high-risk contracts
- Lack of senior leadership

Project Complexity. CMS and its contractors worked to develop a complex mission-critical IT system in a relatively short period of time. Obviously, coordinating all those organizations is a daunting task. Although CMS had experience in designing health programs like Medicare and Medicaid, their project planning was not effective enough to cope with the high complexity of the HealthCare.gov project.⁸

Uncertainty. The constant and abrupt policy changes contributed toward a high level of uncertainty, which significantly affected project direction and the ability to plan effectively. CMS invested substantial time resolving policy issues that should have been dedicated toward actual implementation. To add to these problems, uncertainties around project funding made it difficult to determine and prioritize the scope in contracting, staffing, and the overall direction to the project.

Compressed Timeframe. Despite CMS awarding funding to contractors in September 2011, the contractors did not receive substantial website specifications to start designing software until March 2013, just a few months before the release of HealthCare.gov. As a result, the contractors had very limited time to design, build, and test the system.

High-Risk Contracts. The contract setup with the website developers made it difficult for CMS to effectively manage them. The decision by CMS to enter into business partnerships with developers on cost-reimbursable contracts led to a lack of contract management, as well as financial restraint and control over their contractor partners.⁹ A major issue for these contracts according to the U.S. Government Accountability Office (GAO) is that they “create additional risk because agencies like CMS are required to pay the contractors’ allowable costs regardless of whether the [project] is completed.”¹⁰ Consequently, cost-reimbursable contracts have the ability to quickly run-up project expenses without actually fulfilling deliverables. This explains why the overall cost for building HealthCare.gov would result in over \$2.1 billion.¹¹

Lack of Senior Leadership. The development of HealthCare.gov suffered from the lack of central leadership and involvement from CMS’s top administrators. For example, the White House chief technology officer had been kept out of the planning of the HealthCare.gov system. As a result, it was difficult for the project team to navigate

the complex technical and political landscape. Furthermore, this lack of senior leadership also made it difficult to manage the repair process later.

Initial Failure of the Website Launch—the Key Factors

Delegated with a monumental task to design and implement HealthCare.gov, CMS made major missteps early on that would affect the website development and usability.

Lack of Dynamic Alignment between Policy and Technology Development

Enacting policy programs that can impact over 300 million people has far-reaching complexities. It must incorporate diverse economic, cultural, social, and political values, and HealthCare.gov demanded substantial policy development and decision-making to inform technical design and website implementation. This included not only writing regulations to govern the marketplaces, but also establishing partnerships with other entities involved in implementation, such as other governmental departments, states, and insurance policy issuers. This policy work was made more difficult and protracted by a lack of certainty regarding the mission, scope, and funding for the FFM (caused in part by varying expectations for the marketplaces and a contentious political environment). The time spent developing regulations resulted in further project delays later in the process, such as states deciding whether to join the FFM and technical needs for website contracts.¹² Perhaps one advisor to Obama's campaign said it best about the mismanaged design and implementation of HealthCare.gov, "it's very hard to think of a situation where the people best at getting legislation passed are [also] best at implementing it . . . they are a different set of skills."¹³ With inadequate leadership, technical expertise, strategic plans, communication, and CMS refusing to delay the initial HealthCare.gov launch despite all the early project mishaps, it was almost as if the website was doomed for failure.

Poor Project Scoping and System Requirements Analysis

Early in the federal marketplace project, CMS did not adequately assess the technical and operational tasks required, which led to bad decisions that included:

- Underestimating operational requirements
- Selecting technical components not previously tested on a similar scale
- Not securing technology capable of increasing website capacity
- Not fully assessing the project's IT needs and not strategizing in a way that emphasized innovation¹⁴

It can be argued that in the earliest stages of the project design, CMS did not understand the project scope enough to assess the website's technical tasks. And as a consequence, they were continuously correcting problems. According to many staffers at the time, it appeared that CMS's management was dismissive of technical setbacks and unwilling to listen to the experts who were flagging concerns that so many consumers would go onto experience. Had CMS leadership involved more technical experts earlier in the planning process, then they may have better understood the challenges of designing the website and avoided technological issues.¹⁵



Inadequate Risk Management

CMS was continually using resources to make up ground rather than move forward. Although problems with complex projects are almost inevitable, the crafting of contingency plans for high impact risks was almost nonexistent prior to the breakdown.¹⁶ Contingency planning would have created the opportunity to identify potential risk mitigation strategies in advance. Ultimately, the refusal by CMS's leadership to adjust implementation plans upon these setbacks due to a lack of risk planning exacerbated the hardships and in turn, led to failure.

Lack of Clear Leadership

CMS failed to assign and establish a clear project leader. As a new project with staff spread across CMS, the HealthCare.gov team needed unity and identity within the larger organization (especially since there were so many contractors working on multiple project platforms). The various teams all working

to create a functioning website lacked a central leader who had a holistic understanding of the project and was able to make apt decision-making. Effective leadership would've enabled a comprehensive view across the project to better assess progress, identify problems, and determine priorities.¹⁷ Leadership was also lacking beneath CMS's senior executive level, with a high turnover among officials within the agency which led to knowledge transfer issues.

Time Mismanagement

As discussed earlier, the compressed timeframe for the technical development significantly affected the design and implementation of HealthCare.gov. CMS made unexpected last-minute changes to system requirements and technical specifications. As a result, the final months of development and implementation for HealthCare.gov were chaotic. This lack of discipline in change management, combined with mismanagement of project resources, left little time for system developers to adequately test website functionality and security.¹⁸ CMS should have revised the project timeframe to accommodate the last-minute changes. Their failure to do so caused website defects, security vulnerabilities, and limited the data processing capacity.

Go/No-Go Decision

As the project degraded further and problems became more well-known, CMS officials appear to have become desensitized to bad news. The development problems were layered and complex, the data unwieldy, and with so many project components going wrong, even the ability to prioritize became difficult. CMS officials failed to recognize the extent of problems with HealthCare.gov¹⁹ and its leadership took little action to respond to internal warnings, remaining irrationally optimistic about the launch. According to the U.S. House of Representatives Oversight and Investigations Subcommittee Chairman Tim Murphy, "CMS was under no obligation to launch the website on October 1, 2013, yet did so anyway, despite the government's own programmers warning that the site was full of bugs, security holes, and well behind schedule."²⁰ Despite the many grave signals that HealthCare.gov was heading for an implementation disaster, CMS stuck to the initial October 2013 release date and refused to budge.

Rigid Organizational Culture

CMS's organizational culture negatively impacted project progress. According to a CMS contractor, "we were never fully accepted by CMS as a whole" and because of that many contractors' website perspectives often went unheard.²¹ Contractors' input were often left out of CMS's decision-making process, and this was also compounded by a toxic

organizational environment in which expert perspectives were routinely dismissed. One explanation offered by several officials was that the "development of the HealthCare.gov website required a 'start-up' mentality that encouraged creativity and innovation to support something new and unique."²² Yet, the CMS organizational culture was more of a traditional government bureaucracy, based on rigid management methods and an established hierarchy.²³

Project Management Fundamentals

CMS's management struggled with executing established project management practices. In fact, according to the reports by the Software Engineering Institute as well as the Government Accountability Office (GAO), CMS leadership rejected well-established project management practices which included:

- Robust schedule development
- Comprehensive budget estimates
- Data management monitoring practices
- Milestone project reviews²⁴

For example, the initial CMS project schedule did not have a plan for comprehensive activities, even though the CMS requirements management plan dictates that planning documents should estimate the effort needed to complete a project. The organizations involved in the creation of HealthCare.gov were well aware of project management fundamentals, but seemed to dismiss them regardless.



Recommendations: How to Avoid Software Development Project Failures

Our analysis of the HealthCare.gov project reveals lessons learned that can be useful for future software projects. In the effort to implement and manage information technology enabling national policy goals and government missions, our analysis of the HealthCare.gov project reveals lessons learned that can be useful for future software projects. In the effort to implement and manage information technology enabling national policy goals and government missions, we find that it is essential to ensure the disciplined execution of project management principles that include leadership, alignment, change management, rigorous testing, disciplined decision-making, and vendor management. Our observations and recommendations are presented below:

Clearly Define Leadership Roles

When it comes to a large-scale and complex mission-critical project, it's not easy to clearly define senior leadership roles. This is in part because numerous organizations are involved in the project execution and many stakeholders may have a politically motivated interest in the project outcome. Unfortunately, the HealthCare.gov project could not overcome this challenge. It was quite revealing that no senior executive could even tell if the website was functioning in the White House meetings that took place soon after the website crashed. No one was in charge. Clearly defined leadership can provide clarity to project decisions, and enhance project coordination, consistency, and cohesion.

Align Policy and Technical Solution

When developing an information system that enables a new policy such as the ACA, it is important for project leaders to monitor ongoing policy modifications and ensure that the system stays aligned with it. While developing the HealthCare.gov website, the development team had to deal with constant policy changes. Seemingly small changes to the policy may cause profound impacts on the design and implementation of the technical solution. It is crucial for the project team to understand the dependencies between the technical solution and the policy modification to ensure that the two elements remain aligned throughout the project.

Manage Changes with Discipline

While it is important to accommodate important requirement changes, the project team should avoid major changes in a later phase of the project without fully understanding their impact. For example, the last-minute change to the method of creating a user account with the HealthCare.gov

website resulted in a dramatic increase in the number of simultaneous users and the volume of network traffic. Unfortunately, this impact was not fully understood by the project team. If a major change needs to be incorporated into the system in a later phase, a careful analysis of its impact on system performance should be conducted.

Never Take a Shortcut in Software Testing

Testing a software system thoroughly with real-world data is crucial for a successful launch. The development team should stress test the software with greater than realistic data volume under extreme network conditions. In part due to last-minute changes to system requirements, the HealthCare.gov development team did not have adequate time to fully test their website. They took a shortcut by testing it with a small scale of data rather than using realistic data volume. As a result, the system that worked fine in a lab setting could not endure the larger volume of network traffic and user access. After working on a project for years, it is tempting to bypass some of the testing procedures. However, a disciplined project team should resist this. Furthermore, a shared dashboard that shows current bugs in the system would also be helpful.

Remember Murphy's Law When Making Go/No-Go Decision

Making a go/no-go decision for a mission-critical project is a nerve-racking task, even for the most experienced managers. If the project manager (PM) receives mixed signals about the readiness of the system, the PM is better off by erring on the side of caution. Remember and be mindful of Murphy's Law that anything that can go wrong, will go wrong.



Once the software is launched with critical defects, the damage is difficult to recover from, so don't hold unrealistic expectations that somehow the system will be fine despite early warnings. Before the launch of the HealthCare.gov website, the project leaders received numerous warnings about various issues of the website as well as positive assessments that the system was ready to go. When making a go/no-go decision for a mission-critical software system, it is recommended that project leaders take a cautious approach rather than an optimistic one. It's also important that the project leader should create a safe environment in which team members can communicate openly, and challenge the project leader's opinion. In turn, this would help the project leader avoid bias.

Manage Service Providers Effectively

As the number of external service providers rises, the complexity of coordinating them increases exponentially. The large number of service providers was a significant factor for the failure of the HealthCare.gov launch. In the past, other large-scale mission-critical projects suffered from the similar problem with Boeing's 787 Dreamliner project—a case in point. Integration of the work done by different providers is often challenging, and it is important to put in place communication and coordination processes that enable all participating organizations to work effectively.

Conclusion

The HealthCare.gov website was arguably one of the most publicized failures in the history of government software development. The botched launch awakened the American public about their government's capabilities, and as a result, forced President Obama to make multiple apologies. The website's rescue team was featured in a cover story on the March 2014 issue of *Time* magazine. Although the project faced daunting challenges, effective project management would have prevented the devastating failure. The lessons learned from the HealthCare.gov project should not be wasted. These lessons should be used to improve the outcomes of future government software projects to benefit the public, because we cannot afford to let another mission-critical project go awry. ■

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A New Research Agenda to Drive Government Transformation

By Daniel Chenok

In 2018, the IBM Center for The Business of Government will mark its twentieth year of turning research into action to help improve government. Given this significant milestone, it's time for the Center to reinforce its ultimate mission: to assist public sector executives and managers addressing real-world problems with practical ideas and original thinking to improve government management and leadership. For almost two decades, the IBM Center has supported leading researchers to identify trends, new ideas, and best practices—crafting approaches that support government leaders in addressing mission delivery and management challenges with strategies and actions that promote efficiency and effectiveness.

The IBM Center has now released a refreshed set of priorities for future research that address key challenges and opportunities facing the public sector in the next several years, reflecting input from a broad cross section of current and former government leaders, industry and nonprofit stakeholders, and academic experts. Based on this new research announcement, forthcoming IBM Center reports will continue to provide insightful findings and actionable recommendations for government leaders and public managers.

Our research addresses the following areas of interest:



Insight—Using data, evidence, and analytics to create insights that influence decision-making, actions, and results

Policy-makers, agency leaders, and frontline staff regularly find themselves having to make sense of data and information, drawing out insights to inform decisions. The language around performance-related data in government decision-making has evolved over the last quarter of a century, which today includes constant references to “evidence-based” decisions, “strategic analytics,” and “data-driven” reviews of progress. In addition, policy-makers in recent years have promoted more use of “open data”—both within and outside government. At the same time, evolving technologies have reduced the cost of collecting and reporting such data. Yet the original challenge remains: how can government make sense of vast and growing amounts of data in a way that informs better decisions?

Multiple approaches exist to address this challenge, including processes for transforming data into actionable insight, increasing the availability of data, pursuing evidence-based policy initiatives, and building analytic capacity to act on evidence. Agencies can embed these approaches in their reform plans and budget requests. To achieve the goal of a government that uses data to extract insights for better decisions, researchers can help public leaders and stakeholders better understand and adopt promising practices. Such studies can drive data and analyses that help support policy or program decisions that measurably improve government operations and results.





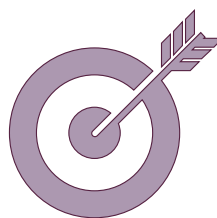
Daniel Chenok is Executive Director of the IBM Center for The Business of Government.



Agility—Adopting new ways for government to operate, using Agile principles, and putting user experiences and program results at the forefront

Given the pace of change across all facets of society, government must keep abreast of inevitable shifts in the economy, advances in technology, and increases in citizen expectations. Government often appears slow to adapt, while citizens expect services that mirror their experiences with the private sector. Agencies can accelerate change by adapting “Agile” methods from the field of software development. Agility across public sector operations can improve program management and ultimately help achieve mission outcomes. Approaches that demonstrate how to embed agility into agency cultures and improve the way government operates will add value to citizens in the future.

Research can help leaders and stakeholders understand promising strategies and practices. A shift from a linear to a more interactive approach to developing and delivering programs represents a significant shift in policy, culture, roles, and responsibilities, as well as program oversight. By understanding Agile techniques and identifying and overcoming potential obstacles, agencies can embed agility in how government works on behalf of the public.



Effectiveness—Applying enterprise approaches to achieve better outcomes, operational efficiency, and a leaner government

The goal of making government more effective, both in terms of its operations and results, has had bipartisan support across multiple administrations. Many governments have introduced initiatives to improve operations, including the adoption of enterprise approaches to delivering mission-support services seamlessly across program and organizational boundaries. In addition, bipartisan initiatives to expand the use of data and evidence, such as those explored by the Commission on Evidence-Based Policymaking, have led to more rational resource allocation decisions. As noted in the IBM Center report, *Building an Enterprise Government*, the future of government performance relies not simply on greater efficiency, but on increasing the capacity to work together effectively from an enterprise perspective to improve operations. This can be a result of action taken by leaders from the top down, and by practitioners who collaborate across networks from the bottom up.

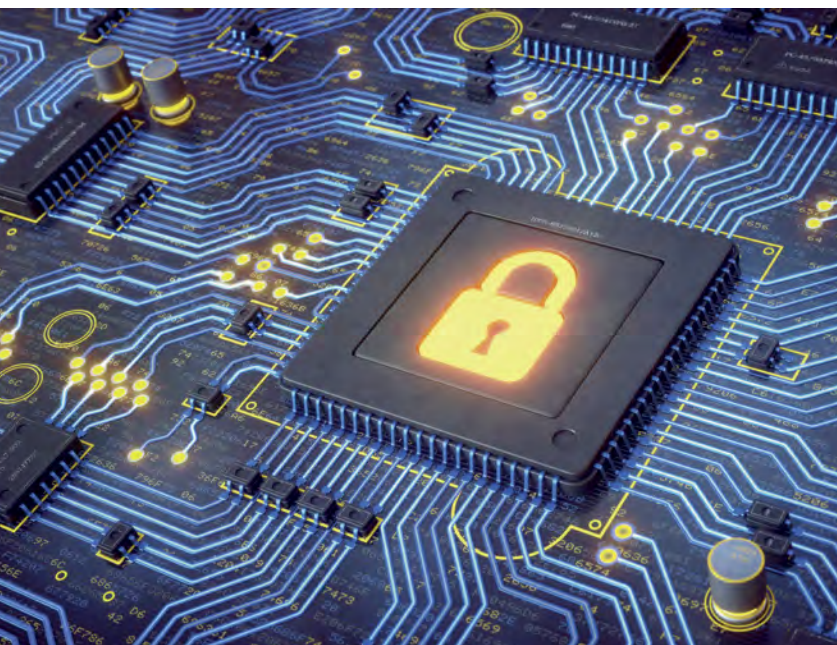
Cross-boundary challenges facing government today rarely fit into neat bureaucratic boxes, and often require cross-boundary responses—compelling government to build such capacity to reduce costs, increase efficiency, and streamline citizen services. Research into enterprise approaches that leverage modern management and technology systems, and practices can enable progress across the public sector.



Risk—Mitigating risks, managing cybersecurity, and building resiliency to meet the mission of government

The safety and security of the nation face threats from an array of hazards, including acts of terrorism, malicious activity in cyberspace, pandemics, manmade accidents, transnational crime, and natural disasters. Federal agencies must stay ahead of these risks and mitigate their impact in order to carry out missions successfully. In addition, government leaders responsible for managing complex and high-risk missions must address and mitigate internal threats.

Within this context, government leaders operate within an environment of increasingly intricate and complex systems. Devices have become smarter and more connected to the external world. In this environment, government leaders must build the capability and capacity to identify, understand, and address risks and potential threats. Assessing, responding to, and mitigating the inherent risks facing the public sector—both physical and online—can promote effective management of programs and missions. It can also facilitate the successful transformation of operations.



Federal executives must understand the spectrum of risks, develop actions to mitigate them in compliance with law and policy, and communicate risk response strategies to appropriate target populations. All of these steps are key elements of enterprise risk management.

More importantly, assessing the inherent risks facing the public sector, and acting accordingly, can drive change in government and promote sound management of government programs and missions. Public sector leaders need research that points to understanding and applying a set of tools and techniques, and adapt them to their specific operating environment, based on best practices and lessons learned in addressing common as well as unusual risks. Enterprise risk management is not simply a compliance exercise—it goes to the core of agency mission delivery.



People—Cultivating people; reforming processes for hiring, developing, and retaining workers; and leveraging data and technologies to build the workforce of the future

Many disruptive forces and trends changing the way government does business impact those charged with executing the business of government—the workforce. Government workers play a critical role in meeting mission and achieve outcomes, even as rapid change affects the workplace, workers, and work itself. Government must reform its human capital processes to meet the new demands of the digital age.

Building the future workforce represents a strategic priority for all levels of organizational leadership. Recognizing this reality also points to a new kind of dynamic, team-centric, connected government workforce. One where leaders and staff keep pace with technology, adapt to the disruption of the digital economy, and recognize that shifting demography calls for new ways of leading.

Enabling this new type of government leader involves research on how best to build and grow talent with a serious focus on talent management, leadership development and succession planning to prepare for workforce transitions. Tomorrow's leaders will also benefit from ideas for revamping antiquated HR practices to meet the needs and expectations of a changing workforce—and to compete successfully for new recruits. Success rests on creating a culture that values and engages people in meaningful ways while leveraging technology, data, and new processes to improve operations.



Engagement—Fostering a citizen-driven government through real-time interactive feedback, data visualization, and other tools to engage, co-create, and co-produce services and programs

Public sector organizations face challenges in how best to harness the potential of citizen/customer engagement. With citizens increasingly receiving an outstanding experience from the private sector, they perceive a growing gap between expectation and experience from government.

To close this gap, agencies must look to transform the design of services, the allocation of resources, and the models used for measurement and accountability. Moreover, government leaders must integrate user experience to guide all citizen interactions. Citizens are looking for new opportunities to engage with governments on how to approach problems, develop policies and programs, receive services, and create collaborative online and in-person relationships. Digital services, cognitive solutions, and open approaches to technology and data can create channels that bring the two parties closer together. This fosters a “citizen-driven” government based on real-time, multi-party communications to develop programs, as well as personalized transactions in receiving services.

Research into new technologies and innovative processes can help government transform and expand engagement with citizens, businesses, nonprofits, and other stakeholders. Government leaders will benefit from an understanding of how engagement comes from more than simply making



a mobile app or updating a website. It comes from an understanding of program design and execution that meets end-user needs in how they wish to interact. Finally, key to understanding the impact of this trend will be the collection and analysis of data and metrics to assess progress.



Digital—Optimizing new technology and infrastructure models, focusing on the user experience, and incentivizing innovators to modernize how government does business

In general, governments have followed the private sector in adopting digital technologies and new ways of doing business. Today's digital challenges involve more than putting information up on the web and creating secure transactions for citizens and businesses. Digital governments can now leverage the promise of open networks in the cloud. Given the technological advances such as mobility, cognitive computing, and the Internet of Things, mechanisms now exist to collect, distribute, and access vast amounts of data in various formats from a variety of sources. All of this can help government leaders make better decisions.

The digital revolution can enable the transformation of government in multiple ways. Successful digital organizations in government will leverage new technologies and drive the modernization of IT. The digital government of the future will no longer simply automate previously manual processes. Rather, citizens will help drive agencies to modernize, and agencies will work together to integrate systems and applications across platforms. They must collaborate to build the modern infrastructure needed to support digital government efforts. They must also leverage the federal government's buying power to enhance service quality and reduce costs.

Research can help define opportunities to drive efficiency, effectiveness, and performance improvements. Public sector leaders will look for ideas on how best to harness the power of technology to help create a twenty-first century digital government—one that focuses on meeting the challenges of today while seizing the opportunities of tomorrow.

Conclusion

These seven drivers draw on significant insights shared during a research roundtable in spring 2017 that brought together government, academic, industry, and nonprofit leaders. Through research into these areas, the IBM Center will continue to help communicate what leading experts know about effective practices and lessons learned to government leaders and stakeholders.

Governments in the U.S. and across the world will continue to focus on controlling costs while improving the performance of their operations. Driving meaningful and sustained change in government requires innovative, effective, and efficient decision-making. It requires the implementation of positive, significant, and lasting results.

We look forward to continued collaboration with academic and nonprofit experts around the world in releasing reports that address these imperatives. ■



Digital Service Teams: Challenges and Recommendations for Government

By Dr. Ines Mergel

Over the past six years, digital service offices have emerged in government departments around the world. Known as "tech surge teams," they repair urgent technology failures and offer an alternative approach to rethinking processes and implementation strategies in government digital transformation projects.

This report shares insights about three types of digital service teams:

- **Centralized teams** that directly support national priorities such as the U.S. Digital Service (USDS), or the UK's Government Digital Service
- **Enterprise teams** who support IT acquisition innovation and internal consultancy services such as 18F, an office within the Technology Transformation Service at the General Services Administration (GSA) that states it is a "services company and product incubator" with the goal of providing digital development and consulting services for other federal government agencies or programs
- **Agency-level teams** which include agencies pioneered in the U.S. such as the Digital Service at the Department of Veterans Affairs, the Environmental Protection Agency, and the Department of Defense

Insights

The insights provided in this report are based on a review of relevant literature and interviews with:

- Founding members
- Current directors
- Line managers of digital service teams
- Their counterparts in the offices of the chief information officer (CIO) and chief technology officer (CTO) at the agency level

- Private-sector representatives aiming to collaborate with digital service teams

The interviews focused on:

- Team structure
- Use of agile and human-centered design processes
- Changes to HR processes to attract IT talent from the private sector
- Incentives for IT professionals to join the U.S. federal government
- Alterations made to federal IT acquisition processes

One of the catalysts that led to the creation of such various digital service units was the inability to deliver an operational HealthCare.gov website on time in late 2013. This failure was symptomatic of a broader federal challenge in delivering large-scale IT projects. A post-mortem assessment found that the government's existing IT expertise did not reflect private-sector industry practices, and that there was a gap between the needs of program managers and the technical capacity available to implement large projects effectively. A key contributing factor was that over three-quarters of the current IT budget for the federal government is earmarked to maintain outdated legacy IT systems. Consequently, this leaves little room to exploit the potential for adopting innovative technology approaches and capacities.

A short-term solution to this lack of technical capacity and innovation was the introduction of so-called "IT start-ups" within government (also known as "digital service teams"). These small teams typically operate outside existing agency IT organizational structures and recruit IT talent directly from the private sector.

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Six Challenges to Creating Digital Service Teams

Challenges occur in these innovative settings on a procedural, organizational, and cultural level. Many of these teams aim to attract talent from the private sector (specifically from Silicon Valley), and to preserve a similar “start-up” culture inside of government. However, the bureaucracy often contradicts the “just do it” mentality when it comes to acquisition rules and regulations, hiring, or the compliant use of technology. Outlined below are six major challenges to creating and maintaining digital service teams that might help other teams understand how their efforts can be grasped by the bureaucracy.

1. Embracing an Agile Development Approach

Private sector technology-based companies have rapidly embraced the tenets of “agile” software development. This is characterized by a rapid development of functionality that focuses on the needs of the end users or clients. However, this method is seen as antithetical to traditional software development approaches in government and has met some resistance.

2. Attracting IT Talent

Making use of flexible hiring policies has become an important cornerstone to build and scale up teams such as 18F or USDS (often labelled as start-ups within the government). Top IT talent is recruited mostly from outside the government, including:

- Other local and state government agencies
- Civic hacking teams
- NGOs and nonprofits
- Former contractors

Several high-profile hires hail from technology companies in Silicon Valley such as Google or from the computer animation film studio Pixar, which is where GSA’s Technology Transformation Service recruited its associate administrator.

Hiring policies were not changed to make these hires possible, instead existing underutilized policies were activated to make direct hiring possible. One example is the use of the U.S. Office of Personnel Management’s direct hiring authority (Schedule A, Subpart R) that grants agencies the authority to hire people on short-term appointments.

3. Maintaining and Scaling a Start-Up Culture in Government

The most challenging aspect of digital transformation is the notion that the internal bureaucratic culture of government has to dramatically change, and existing processes have to be redesigned to fit the changing needs of its citizens. Culture does not refer to standard operating procedures, but the concept of “how we do things around here.” With the agencies involved in this study, digital transformation happens as a result of a shift in how technology and technological operations are viewed. IT is no longer seen as something that happens to the organization which it must adapt to. Instead, IT is seen as “a tool in the toolkit,” yet often, the real transformation occurs when you change the method and the process by which you do things.

4. Improving IT Acquisition Results by Using Agile and Open Methods

Several Government Accountability Office (GAO) reports point to major IT acquisition problems in the U.S. federal government (U.S. GAO 2011, 2015). For example, a 2011 report highlighted that, “Federal IT projects too frequently incur cost overruns and schedule slippages while contributing little to mission-related outcomes.” However, solutions do exist. Two novel strategies successfully adopted in the private sector are to:

- Apply agile methods to the acquisition process
- Adopt an “open by default” approach to project management

But for these fundamental changes to the traditional government IT acquisition approach to be successful, the government’s contractors must first buy into these strategies.

5. Funding Digital Service Teams

In many instances, practices can only be changed by hiring additional external skills and capabilities not readily available inside government. Existing personnel authorities can hire Presidential Innovation Fellows for short tours-of-duty in government which will temporarily increase competencies. However, as soon as the PIFs leave government and return to their previous positions in the private sector, their knowledge and resources are lost (The White House 2015a). Currently, the main part of the IT budget is used for legacy systems, which either leaves newly founded digital service teams with only ad hoc appropriations from Congress, or having to carve out money from existing budgets to address urgent IT problems. What is needed are long-term plans and higher hiring and spending budgets.

6. Addressing Whether Innovation Should Be Bought or Built

When it comes to innovation in government, a 2016 House Committee on Oversight and Government Reform hearing revealed that some representatives of private-sector providers of government technology services have many concerns about the role of in-house digital service teams (U.S. Congress 2016). They even went so far to pose the question, “Why do we have 18F and USDS?”. In turn, this raises larger questions about how digital transformation may evolve in the federal government:

- a. Where should innovation of government services and processes come from?
- b. Is government capable of innovating or should government focus solely on service delivery?
- c. Is the private sector the only place where innovation can occur?

It’s these questions that are challenging the current status and potential future support of digital service teams.

The Need for Digital Transformation, Not Incremental Change

Two things are missing from the current conversation about moving to a digital government. The first is how these systemic problems need to be tackled beyond the individual project level. The second is that the strategy needs to shift from digitizing existing processes to fundamentally rethinking and transforming business processes.

Emerging digital transformation approaches used in the private technology sector could be adapted and used by governments to improve their operations and services. Common private-sector approaches include:

- The strategic management of innovation processes
- The adoption of user-centric design approaches
- Using cross-institutional and cross-functional teams to implement initiatives. This includes software engineers allowed to use agile methods, contractors who promise to deliver using agile processes, and most importantly, clients who see the benefits

In order to adapt these private sector approaches to the public sector, cutting-edge government leaders found that they needed to:

- Rethink existing government acquisition policies and practices
- Initiate institutional changes in their relationships with external contractors
- Change the government’s inherent risk-averse culture
- Recognize organizational champions who promote such changes

Recommendations for Agencies

Agencies considering or in the process of setting up their own digital service teams should:

- Understand that government digital transformation is not a “software problem”—it requires a holistic and strategic approach
- Use “outside-the-box” thinking to infuse innovation with acquisition strategies
- Phase in new cost models to support digital service “start-up” teams
- Include non-technical government employees as part of digital service teams

- Challenge the perception that “innovation can’t happen here”
- Enlist leaders to champion digital transformation
- Promote greater collaboration among digital service teams and agency IT stakeholders

Recommendations for Policy-Makers

The report advises that policy-makers take steps to ensure the long-term sustainability of digital transformation with digital service teams. The recommended actions are to:

- Align the priority of digital transformation with other national mission-driven and agency-level priorities
- Address the legacy IT problems of the federal government
- Scale up digital service team activities where they demonstrate value
- Expand agency authority to use innovative personnel tools to attract IT talent into government
- Adopt a new approach toward third-party service providers that reduces procedural acquisition burdens in favor of a demonstrated capacity to deliver results

Beyond the traditional digitization efforts of the past, digital transformation uses a holistic approach to rethink and change the core processes of government organizations. This new method requires cultural, managerial, process, and developmental changes by the organization as a whole. Based on interviews and case studies, the report concludes that successful digital transformation is dependent on systemic changes beyond the scope of CTOs and CIOs. In essence, personnel and acquisition policy changes are required to encourage activities that support the ultimate outcome of transformation. ■

TO LEARN MORE

Digital Service Teams: Challenges and Recommendations for Government

By Dr. Ines Mergel



The report can be obtained:

- In .pdf (Acrobat) format at the Center website, www.businessofgovernment.org
- By e-mailing the Center at businessofgovernment@us.ibm.com
- By calling the Center at (202) 551-9342

Interagency Performance Targets: A Case Study of New Zealand's Results Programme

By Dr. Rodney Scott and Ross Boyd

Around the world, governments divide their operations into smaller administrative units (also known as agencies). Each agency has a narrower focus and is therefore thought to be easier to manage. However, some problems cross boundaries and addressing them requires agencies to work together. Most governments struggle to do this effectively. That's why New Zealand is a pertinent case study for exploring this phenomenon, as it has a large number of single-purpose agencies which have historically found it difficult to effectively collaborate.

Governments also look for different ways to improve the performance of each agency. Performance targets have been shown to be effective at improving performance in a variety of contexts. However, they are also criticized for promoting siloed working and discouraging cooperation with others. Helping others often doesn't help achieve an agency's own targets; as a result, agencies respond by turning inward.

In 2012, the New Zealand government tried something new. The aftereffects of the 2008 global financial crisis constrained spending and New Zealand's government needed to find ways to make public services more effective without spending more money. Government leaders were frustrated by persistent cross-agency problems, and they wanted to push public servants to actively and creatively overcome the challenges of collaboration.

The New Zealand government created a system of interagency performance targets. Ministers chose ten crosscutting problems that were important to New Zealanders, each with challenging five-year targets. Crucially, they then held the leaders of relevant agencies collectively responsible for achieving those targets. It has been described as the most significant change to how government services were delivered in New Zealand in twenty years.

The changes that the government was looking for became known as the 10 Results:

- Reduce the number of people continuously receiving Jobseeker Support benefits for more than twelve months
- Increase participation in early childhood education
- Increase infant immunisation rates and reduce the incidence of rheumatic fever
- Reduce the number of assaults on children
- Increase the proportion of eighteen-year-olds with high school diploma or equivalent qualification
- Increase the proportion of twenty-five to thirty-four-year-olds with advanced trade qualifications, diplomas, and degrees
- Reduce the rates of total crime, violent crime, and youth crime
- Reduce the criminal reoffending rate
- New Zealand businesses have a one-stop online shop for all government advice and support they need to run and grow their business
- New Zealanders can complete their transactions with government easily in a digital environment

The original targets would be achieved by 2017, with progress reported publicly every six months. This new approach proved remarkably successful, with dramatic improvements in all ten areas. Several evaluations revealed that the successful design features, management innovations, and adaptations came from the public servants responsible for achieving the targets.

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Ross Boyd is a Principal Policy Analyst in New Zealand's State Services Commission.

This report describes these practice insights which are organized into four categories:

- Selecting results
- Designing accountability
- Managing collaboration
- Reporting on progress

Selecting Results

Given that the attention of senior leaders is limited, greater progress can be made when governments focus on a small number of priorities that citizens and public servants regard as important. This also increases the relative consequence of failure in any one problem, which makes public servants more committed to ensuring each priority succeeds. While the problems were ultimately chosen by the cabinet, the selections were the result of lengthy dialogues with agencies. As a result, the agencies felt more committed to solving problems they were involved in selecting. Additionally, the best progress was made around problems where agencies had already built trusting relationships with each other.

Setting effective objectives is a difficult task. The New Zealand targets were most effective when they were set at an intermediate-outcome level, balancing intrinsic value with minimising the delay between actions and observed effects. In order to focus effort, the desired results, targets, and method of measurement all needed to be carefully aligned.

The New Zealand government then declared the targets publicly and committed to reporting on them every six months. Public programmes are frequently discontinued, which can discourage public servants from fully committing to anything new. But New Zealand's method of public reporting increased the potential exit costs from the program. It sent a message to public servants that the targets were here to stay.

Designing Accountability

New Zealand has experimented with various methods of holding leaders responsible for shared work. Such strategies included appointing a group leader and holding them responsible for influencing peers, as well as attempting to assess individual contributions. Through trial and error, New Zealand now uses a system of "blind" collective responsibility. This is where problems span multiple agencies and a small group of leaders will be collectively held responsible for solving them. This system is not "fair" as it does not distinguish between the contributions of individuals, but it does seem to result in the best outcomes—as committed individuals do whatever it takes to ensure the group achieves something of value.

The New Zealand government generally let each group of agencies determine how best to achieve its target, with the exception of requiring all agencies to prepare and submit an initial action plan. The action plans covered intended activity in the first six months of the program and were mandatory because of previous collaboration attempts struggling to get started.

Managing Collaboration

One benefit of the measurement system was that agencies could see the consequences of their actions and adapt if necessary. As agencies made progress, often initially through small and simple changes, it built a sense of momentum that fueled further cooperation.

Furthermore, commitment appears to decline as group size increases. Consequently, the most successful groups limited the core participants to two or three agencies. Other agencies were kept informed and involved as needed without forming part of the core group.

These core groups then worked to carefully engineer a sense of equal responsibility. This included jointly resourcing secretariat groups. Agencies also faced trade-offs between the commitments made to each other and to their political leaders. The most successful cases established new ways of communicating with ministers, including jointly reporting to informal ministerial groups.

Reporting on Progress

The methods used to publicly describe the program appear to have contributed significantly to its success. Reporting consisted of trend data which showed progress over time (presented as line graphs). In target regimes in other jurisdictions, targets tended to be seen as a passing grade (achieving above the target is good and below the target is bad). However, public servants viewed such schemes negatively. Instead, progress tended to be described relative to the baseline rather than the target. This meant a huge improvement that just fell short of the target was a reason for celebration, not punishment.

At the end of each six-month reporting period, New Zealand highlighted small changes and how they had made a difference to New Zealanders. Showing such successes in human terms also proved strongly motivating for public servants.

Lessons for Other Governments

The New Zealand experience described in this report is intended to help government executives elsewhere on how New Zealand addressed persistent cross-cutting problems. The practice insights developed in this report offer tested steps for:

- Selecting results
- Designing accountability
- Managing collaboration
- Reporting on progress

While these practices may need to be adapted to fit local context, they offer useful and practical guideposts for others to follow.

The Road Ahead

After almost thirty years of trial and error, the change to New Zealand's Results Program has been a remarkable success. And in discussing the program with various public sector leaders, one theme has become clear: success has not come easily. These leaders note that many of the obstacles they faced in working across boundaries remain. Much of the

literature on working across agency boundaries focuses on the transactional costs associated with coordinating multiple parties and, unfortunately, these costs largely remain. In previous efforts, such costs were sufficient to derail a cross-agency initiative. When public servants ran into issues, they stopped. The recent New Zealand experience differs from previous efforts in that collaborative efforts forged ahead despite the barriers. The programme has had sufficient impetus to jump over obstacles or to smash through them, and providing this catalyst has been a sustained joint commitment of all participating parties.

At the time of writing, many of the results will soon be achieved. The New Zealand government is considering which to continue and what new results should be introduced to solve other difficult problems over the next five years. Further work is underway to explore how the approach may be duplicated for solving regional or local problems. ■

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Effective Leadership in Network Collaboration: Lessons Learned from Continuum of Care Homeless Programs

By Dr. Hee Soun Jang, Dr. Jesús N. Valero, and Dr. Kyujin Jung

Cross-sector collaboration has become a prevalent form of governance for tackling difficult problems that can't be addressed by a single organization or sector. A scarcity of resources and efforts to reinvent the way governments function has also conditioned many public managers to pursue new approaches that go beyond organizational boundaries. To date, the assumption has been that collaboration is good and that pooling resources will automatically result in positive outcomes. Because the benefits of collaboration are too often assumed, there is little research about what effective collaboration means or looks like. Collaboration requires effort, coordination, and most importantly, effective leadership. Therefore, it is essential to understand the scope of leadership behaviors that lead to successful collaboration.

Leaders have choices in how they engage with member agencies and how they achieve the mission and objectives of collaboration. Different styles of leadership will lead to different outcomes that will either enhance or reduce effective partnerships. A key reason for this is because a public manager who leads a collaborative network plays an incredibly important role in the process. Among other responsibilities, they are commonly tasked with bringing organizations together, securing the necessary resources to achieve network goals, and articulating a common vision. Scholarly research has usually treated network leaders as agents of underlying organizational decisions, driving the management of collaboration. But public managers leading collaborative efforts are real people who possess leadership qualities and skills that will influence effective collaboration in numerous ways.

As a result, the report focuses on answering two practical questions:

- What does effective collaboration look like and does leadership matter?
- If leadership is important, what specific skills and qualities are valuable for leaders to possess and/or develop in order to lead successful collaborative efforts?

To answer these questions, we studied collaboration within the context of homelessness policy networks (an area receiving significant policy attention in recent years). This report specifically investigates the role of managers leading continuum of care homeless networks and the leadership behaviors that matter in achieving successful collaborative outcomes.

Understanding Continuum of Care (CoC) Homeless Networks

A CoC is a collaborative system for planning and providing services to a specific person or group of people on an ongoing basis. In effect, it involves tracking the progress of the services provided. The term is commonly heard in healthcare, but it can also apply to other fields employing an integrated service program. It is frequently used in social services contexts such as homelessness mitigation programs.

A public service network is defined as a structure of cross-sector organizations working to jointly implement public policy. A homelessness network is a structure of multiple organizations representing public, private, and nonprofit sectors that work together to address homelessness within their community. The creation of homeless networks across U.S. communities has been promoted by federal policy. The Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act of 2009 was key in stimulating federal activity in this area.

Local communities that establish a homeless network are eligible to apply for competitive HUD funding on a yearly basis. In 2014 alone, over \$1.8 billion was awarded to CoC homeless networks to implement a variety of programs and services to end homelessness in the United States. The underlying assumption in the promotion of CoC homeless networks as a tool to reduce and eliminate homelessness is that collaboration is the most effective way of tackling this difficult and complex problem.

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According to the interim federal rule that governs the CoC approach, the primary purposes of a CoC homeless network are to:

- Promote community-wide goals to end homelessness
- Establish a board that oversees the operations of the network
- Design and operate a Homeless Management Information System (HMIS) that tracks client data and service provision
- Engage in collaborative planning activities such as yearly counts of homeless people

The analysis of CoC homeless networks helps to develop a deeper understanding of what effective collaboration looks like and the conditions that lead some networks to be more effective.

Report Objectives

Based on data collected from a nationwide survey of U.S. continuum of care (CoC) homeless networks and in-depth interviews with network leaders, this report has the following objectives:

Develop measures of effective collaboration

The report describes measures of effective collaboration that public managers can use to assess performance at two levels—the network and the community. They are a reflection of the competing interests of network members and community stakeholders.

Offer a network leadership model

The report outlines a model of network leadership that highlights important leadership behaviors in collaborative governance within the context of homeless policy. The model consists of two leadership styles found to impact effective collaboration:

- Task-oriented behaviors—focused on facilitating network goal achievement
- Relationship-oriented behaviors—focused on building positive social relations

Findings

Our findings discuss the degree to which networks perceive that they are being effective, the key leadership behaviors in networked collaboration, and the impact of leadership on effective collaboration.

Networks have positive impacts

Public managers can realize important benefits through network collaboration—namely, reducing the duplication of services by pooling resources, coordinating efforts in the community to increase the range of services, and increasing member agencies of the CoC.

Networks raise awareness of homelessness

Public managers should continue using the various tools and methods to educate and engage the community about what homelessness is and what can be done to resolve the problem.

Leaders enhance internal capacity of the network

Public managers should focus on establishing and building CoC homeless network capacity by ensuring that it has the necessary resources and involves the right people in collaborative efforts (e.g., potential leaders and members).

Leaders foster idea and information sharing

Cultivating a culture of sharing ideas and solutions can prove to be rewarding for networks that are looking for new ways to eradicate homelessness. In addition, including the voice of network members will send a clear message to members that their thoughts and values matter. In turn, this will encourage member commitment and support for the network.

Six Recommendations for Successful Collaborative Policy Arrangements

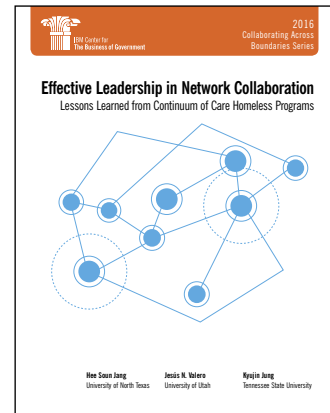
From our survey, interviews with network leaders and review of literature, we have generated six recommendations. In general, our findings indicate that leadership matters in explaining the effective implementation of cross-sector collaboration. It is important to note that these recommendations include both the leadership skills and leadership qualities that public managers should aim to possess and/or develop, especially in the context of homeless policy.

1. **Develop Expertise** – Managing networks requires the development of expertise in a subject matter policy area. This recommendation is centered on the idea that managers need to be equipped with extensive knowledge, expertise, and best practices to be effective network leaders.
2. **Cultivate a Collaborative Culture** – The collaborative process is about constant communication, building trust among network members and, just as importantly, cultivating a culture that welcomes both competition and collaboration.
3. **Take Risks** – Network leaders should not be afraid to risk relationships with other members of the network when necessary, particularly when enforcing shared norms, rules, and expectations. Risking relationships means being a bold leader and communicating expectations to network members, whether some members like hearing those expectations or not.
4. **Be an Inclusive Leader** – Research shows that homelessness is a multidimensional problem, requiring a cross-sector strategy that engages a wide array of supportive programs and services. As a result, any intervention to eradicate homelessness will take real coordination and a diverse group of stakeholders. The same is likely for other types of public services in response to difficult social problems. This reality requires network leaders to be inclusive of community stakeholders such as local governments, nonprofit shelters, food pantries, church-operated soup kitchens, and school districts.
5. **Be Agile and Adaptive** – Networks evolve over time—sometimes the network evolves for good and other times it does not. Network leaders must stand ready to accept the reality of their network's status and adapt as necessary. Effective leaders must understand reality and adapt quickly to the new normal for the best interest of the community.
6. **Use Performance Indicators Effectively** – Network leaders must realize the advantages in having access to data and information, and they must use them properly. This allows the network to make a stronger case for why funding is needed and important for a new area of service. ■

TO LEARN MORE

Effective Leadership in Network Collaboration: Lessons Learned from Continuum of Care Homeless Programs

*By Dr. Hee Soun Jang,
Dr. Jesús N. Valero,
and Dr. Kyujin Jung*



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Risk Management and Reducing Improper Payments: A Case Study of the U.S. Department of Labor

By Dr. Robert A. Greer and Dr. Justin B. Bullock

Throughout the early 2000s, there has been a history of legislation to lower the number of improper payments within the U.S. federal government. This is a case study of how the U.S. Department of Labor (DOL) developed and implemented strategies to reduce improper payments in the Unemployment Insurance (UI) program. This study details the DOL's innovative approach to improve outcomes and performance related to improper payments, which is an area of operational risk that has been identified as a legislative priority. One prominent agency within the DOL is the Employment and Training Administration (ETA), which administers the UI program.

The UI program plays key roles in supporting businesses, communities, and the economy. The program is a jointly administered federal-state program that has helped to soften the impact of economic downturns and bring economic stability to communities, states, and the nation since its creation in 1935. The UI program provides unemployment benefits to eligible workers who are unemployed through no fault of their own and meet other state law eligibility requirements.

The DOL's Unemployment Insurance and Federal Improper Payments

Federal agencies make more than \$2 trillion in payments to individuals and a variety of other entities each year. Due to the size and complexity of the UI program, and its role in disbursing funds directly to individual claimants, it faces significant challenges in managing risk. One specific type of risk that has become a major focus for government at all levels has been errors in making payments to individuals or other organizations. These errors are typically referred to as improper payments. An improper payment can be any of the following:

- Incorrect amounts paid to eligible recipients
- Payments made to ineligible recipients
- Payments for goods or services not received
- Duplicate payments
- Payments with insufficient or no documentation

During the normal course of operating large and complex organizations, there are a set of internal organizational risks that arise from operational systems or organizational disruptions. One important aspect of a holistic Enterprise Risk Management (ERM) strategy that the U.S. federal government among others has identified is recognizing, evaluating, and mitigating the risk of making improper payments. The DOL has devoted significant resources over the last six years to reducing improper payments and managing the associated risks.

Following an increase in improper payments in 2010, Jane Oates, then Assistant Secretary of the ETA, issued an Unemployment Insurance Program Letter. This communication encouraged ETA partners in state workforce agencies to adopt its national strategic plan to target improper payments, and in particular, overpayments.

Four Main Causes of Improper Payments in the UI Program

In the program letter, the assistant secretary addressed the four main causes of improper payments in the Unemployment Insurance program:

- **Root Cause One** – Payments made to claimants who continue to claim benefits after returning to work and failing to report (or underreporting) their claims
- **Root Cause Two** – Untimely and incomplete job separation information (this is data about the laid-off individual, also known as an individual experiencing job separation, that was delivered late or incomplete to Unemployment Insurance agents)
- **Root Cause Three** – The state's inability to validate that claimants have met the state's work search requirements (i.e., the state workforce agency cannot adequately prove that the laid-off individual is meeting the state's requirements for looking for a new job)

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- **Root Cause Four** – The claimants’ failure to register with the state’s employment service or the agency’s failure to process the employment service registrations

Oates set forth a multipronged approach to reduce these improper payments. In the years that followed, state workforce agencies began implementing specific strategies from the assistant secretary’s strategic plan. These strategies include:

- Using national and state databases that allow the cross-matching of new hires
- Increasing direct communication between state agents and employers concerning reasons for job separation
- Improving the uniformity of communicating programmatic information from state agents to both employers and claimants

The goal of this report is to use a risk management framework to better understand how federal agencies manage operational risks and improve performance. Risk management has become an increasingly common tool used by federal agencies, but there’s been few attempts to analyze and implement strategies to mitigate risk. We provide an analysis of the DOL’s innovative strategic initiatives to improve risk management and lower improper payments. These strategies represent an attempt by the DOL to use information technology and communication tools to:

- Lower the improper payment rate
- Improve overall performance
- Help maintain program integrity, accountability, and efficiency

Risk Management Strategies for Combating Improper Payments

The DOL identified eight different strategies for minimizing financial and reputation risks to the program:

- Developing UI Performance Measures
- Developing the National Directory of New Hires (NDNH)
- Increasing Messaging with Claimants and Employers
- Increasing Collaboration with “High-Impact” States
- Providing Supplemental Funding
- Developing a State Information Data Exchange System (SIDES)
- Developing State Quality Service Plans
- Creating an Unemployment Insurance Integrity Center of Excellence

The complex institutional arrangement between the DOL and state workforce agencies results in a unique risk management strategy. The DOL, through the program letters and tools discussed above, has laid out its strategic vision for reducing improper payments. Because it does not have administrative control over the state workforce agencies, it incentivizes states using supplemental funding to implement these strategies. The DOL’s management of improper payments in this complex governance system requires innovative risk management that may be of use to other agencies or programs in similarly complex institutional environments. Furthermore, the Department of Labor provided numerous specific and flexible tools that can aid in the state workforce agencies’ pursuit of lowering improper payments. The Department of Labor identified and classified the root causes of improper payments, and then designed tools that directly addressed them.

We have reviewed the risk management framework with specific attention paid to operational risks. One crucial operational risk that has received a considerable amount of both administrative and legislative attention in recent years has been improper payments. We have reviewed the history of improper payments in the federal government before focusing on one program that has a history of being high risk: Unemployment Insurance. UI presents a unique risk management challenge because the DOL must work with state workforce agencies to reduce improper payments.

Recommendations

This report reviews the DOL's efforts to manage operational risks across the states using a detailed content analysis of program letters, a case study of one state implementing these strategies, and a descriptive analysis of time trends of improper payment rates and their root causes. Through these analyses, we present four recommendations for managing operational risks in complex institutional arrangements.

- Establish clear metrics for measurement and evaluation – To achieve an overall reduction in improper payments, agencies should first start by identifying the root causes of improper payments. For the DOL this included: benefit year earnings, separation issues, work search requirements, and employment services. Specific strategies can then be targeted to those root causes.
- Take advantage of recommended strategies and resources and don't be afraid to innovate – Gathering evidence from our descriptive empirical and content analysis, it became clear that the DOL took an effective approach in providing the necessary assistance to states. The DOL provided several national tools and strategies for state workforce agencies to use, but it also allowed for tool customization and further encouraged the development of state-specific strategies.
- Provide relevant and timely information to stakeholders – The DOL strategy of targeted messages to claimants was found to be an effective method to combat improper payments that were caused by work search requirements, (one of the identified root causes of improper payments). There have also been attempts to encourage the communication of best practices among the states through the UI Integrity Center of Excellence.
- A broad range of strategies is needed when the causes of operational risks are varied – To address the complex and varied effects of operational risks like improper payments, a variety of tools and strategies are needed. Some of these strategies, like the NDNH or SIDES databases, require information technology infrastructure and buy-in from a variety of stakeholders. Other strategies, such as the messaging toolkit, advocate effective communication and are relatively easy to implement.

Public managers faced with operational risks, and more specifically, improper payments, can use the information presented in this report to improve, create, or adopt risk management strategies. The DOL strategies provide managers with examples of how they can propose and implement tools that address a variety of complex root causes of improper payments. It also highlights the administrative challenges in solving complex policy problems that require cooperation between federal and state agencies. Understanding the strategies and methods the DOL employs to address rising improper payment rates will enable other managers to develop similar practices and improve organizational performance. ■

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Risk Management and Reducing Improper Payments: A Case Study of the U.S. Department of Labor

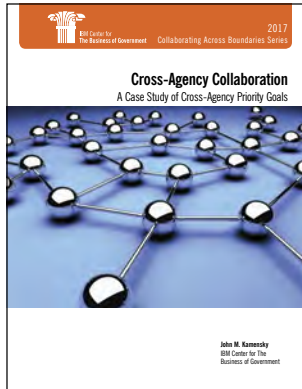
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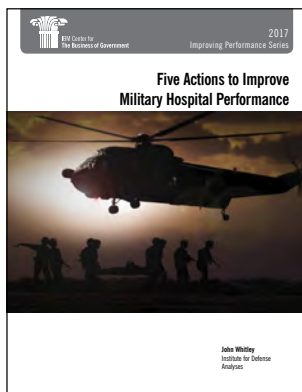
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Cross-Agency Collaboration: A Case Study of Cross-Agency Priority Goals

John Kamensky

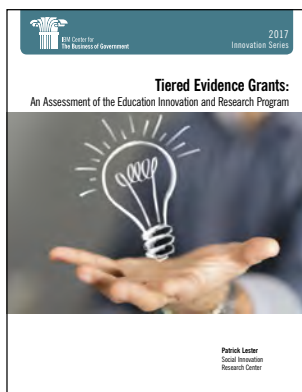
This report assesses the implementation of the fifteen Cross-Agency Priority (CAP) Goals put in place for the period of fiscal years 2014–2017. The federal government has faced increasingly complex challenges over the past two decades that require greater collaboration across traditional organizational and program boundaries. As a result, the executive branch established and implemented cross-agency priority goals in a handful of mission-support and mission-related areas over a four-year period. This report provides concrete evidence of the value of an institutional mechanism that supports working across agency boundaries and also provides insights on ways federal leaders can improve this mechanism in the future.



Five Actions to Improve Military Hospital Performance

Dr. John Whitley

This report underscores the central role the U.S. Department of Defense's (DoD) direct care system plays in the readiness and beneficiary missions of DoD. The rising costs of healthcare in DoD have placed a spotlight on the importance of sound management of DoD's Military Treatment Facilities (MTFs) in recent years. This report identifies five specific actions the DoD can take to improve MTF performance and costs.



Tiered Evidence Grants: An Assessment of the Education Innovation and Research Program

Patrick Lester

This report examines the evolution of the Education Innovation and Research (EIR) program (one of five tiered evidence grant programs in the federal government) since 2009 when it was first established as the "Investing in Innovation" (i3) program, and later reauthorized and renamed by Congress in 2015 as the EIR grant program. Lester describes the results of a series of evaluations on different aspects of the program, concluding that their "rates of success appear to exceed those in other areas of education research." He then offers several recommendations on ways to fine-tune the program. His analysis of the program and its evolution since 2009 provides an instructive and objective description of how a tiered evidence grant program works.

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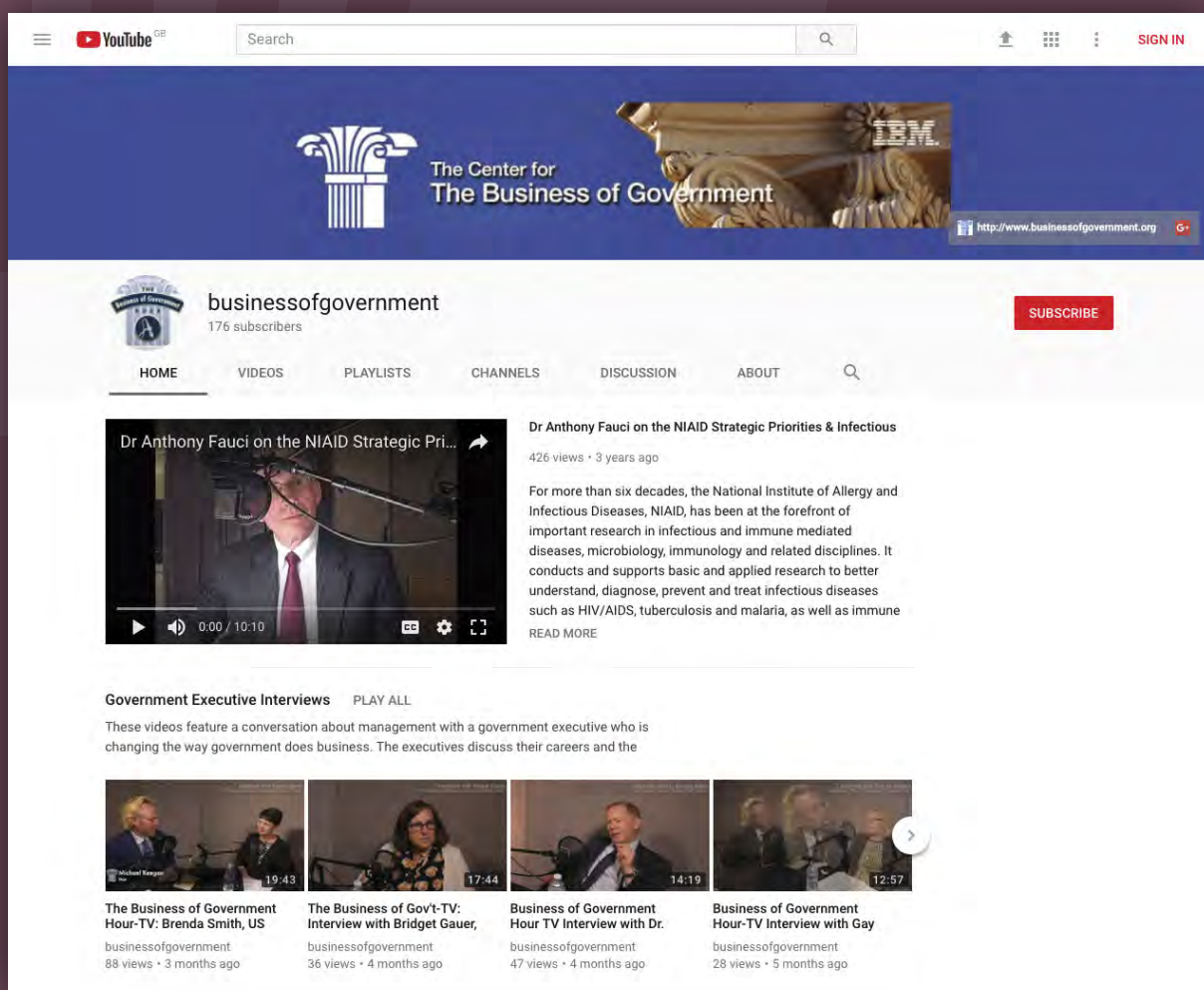
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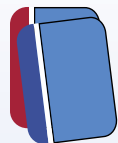
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