Turn Data Into Outcomes:

A Briefing on Data Management & Protection for You

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Introduction

Data, like any tool, is only helpful to the extent that you know how to use it.

Imagine having a power tool in your hands after years of relying on a screwdriver. You're vaguely aware that this tool can save you time and energy, even allow for more creative projects. But if you don't know how to use it, it's virtually useless. It loses all functionality and practicality and just becomes a heavy brick at the bottom of your toolbox.

How do you ensure that you can use data as the power tool it is?

At GovLoop's Briefing Center "Remote Data Protection and Management in Gov," a two-hour collection of online trainings, government and industry experts shared their experiences and insights around managing data to drive mission outcomes. The event was sponsored by AWS Amazon Web Services (AWS), CrowdStrike and Commvault, IT providers that help government protect and manage data.

In Virginia, for example, Chief Data Officer Carlos Rivero was able to rally a data movement focused on tracking the opioid epidemic. At the Census Bureau, tapping into the power of people outside government enhanced its data efforts. And at the U.S. Patent and Trademark Office, data is being thought about as a decision-making asset, not just an IT asset.

Watch the recorded sessions:

Part 1: Enabling Secure Remote Work in Education

Part 2: Data Management Without Duct Tape

Experts

Scott Beliveau, Branch Chief of Advanced Analytics, United States Patent and Trademark Office

Sol Bermann, Executive Director of Information Assurance and Chief Information Security Officer, University of Michigan

Carlos Rivero, Chief Data Officer, Commonwealth of Virginia

Tina Thorstenson, Senior Director Public Sector Industry Solutions and Strategy, CrowdStrike

Drew Zachary, Managing Director, Census Open Innovation Labs | Director, The Opportunity Project

Kevin Zawodzinski, Vice President of Federal Sales and Americas Sales Engineering, Commvault

How to Get Data Buy-In: Focus on the Outcome

Talking tech can get pretty dry and dull at times, even for those who make a living in the field.

So when many of the country's top technologists and data scientists discuss what they do, the first words out of their mouths won't be about the technical daily grind. Rather, they'll hail the end result.

"Technology is the easiest part. That's the last mile,"

Carlos Rivero
Chief Data Officer, Commonwealth of Virginia

The hardest part is getting people to buy in, and then teaching them the skills they need to capitalize on data, Rivero said.

How Virginia rallied a data movement wasn't about 100,000 state employees suddenly choosing a new hobby. Instead, the state set out to beat back the opioid crisis, and data was a major weapon in its arsenal.

That one high-profile project garnered interest across the board. Rivero established connections with a number of agencies, all with a part to play and data to analyze tracking opioid usage in communities.

And while that project remains an ongoing priority, that was just his "in" at many organizations – a starting point for broader use of data. Since demonstrating the process for turning data into insights, Rivero's solidified the prominence of data projects for the commonwealth.

"I'm not going to lie to you. It's a lot of work to hold their hand through the entire process, especially for folks who are a little skeptical at first," Rivero said.

The U.S. Census Bureau has a similar story. Everyone knows the census – a government-mandated survey to which people report general information that's aggregated for a whole population count. But how the bureau markets the survey reinforces that agencies view data as a means to an end, not a standalone outcome.

What those at the Census want people to know – just watch the commercials – is that the survey determines funding and resources for local communities, including for schools and hospitals.

"Engaging outside of our walls: That is the crux of Open Innovation," said Drew Zachary, Managing Director for Census Open Innovation Labs, which is a small branch of the bureau that uses data, technology and human-centered design to glean insights and apply them to problems at the agency.

One initiative, the Opportunity Project, converts federal open data into usable technology for agencies to mobilize toward problems – one being the opioid epidemic. The Opportunity Project includes a publicly open **toolkit** for product development using open data. It will be rolling out another about tech sprints soon.

"In 2020, we cannot disseminate data on our own," Zachary said.

Recognizing that, Virginia has reached out to communities of all kinds to get them involved in the data generation, curation and analysis. The efforts are twofold: focusing both on the public sector workforce and engaging up-and-coming students to get them interested in data early on. One state initiative even reaches out to rural IT specialists.

A final component that both the Census Bureau and Virginia consider with every data move is trust. Virginia worked with the state attorney general office to build its Commonwealth Data Trust, which maintains a standard for state data.

"We have to initiate trust."

Carlos Rivero
Chief Data Officer, Commonwealth of Virginia

How Tapping Into Wisdom Outside Government Can Improve Government

The census is one of the oldest and most impactful data sets nationwide. How does the Census Bureau ensure this precious data set, as well as scores of others, remain accurate, trustworthy and relevant to all?

The Census Open Innovation Labs **(COIL)**, a small organization within the agency, ensures the Bureau can solve key challenges surrounding this question. Specifically, it aims to ensure enough data is collected and more data is used innovatively by extending the pool of contributing expertise beyond agency borders.

This year, COIL did this through two avenues:

1. Collecting data

COIL turned to **grassroots marketing** to ensure high response rates for the 2020 Census. With so much information – and misinformation – vying for people's attention, the challenge lay in how to get the census to register on people's radars this year.

"Of course, the Census Bureau undertakes a major national campaign for marketing and communication. But there's really no substitute for someone in your neighborhood whom you trust, or [social media] content that genuinely resonates with you," Zachary said.

By tapping into the larger creative community, it was able to cast a wider net for higher response rates.

2. Disseminating data

The open data push a few years ago encouraged hundreds of thousands of data sets to be shared on public repositories like **data.gov**. But even if data is available, are people enabled to turn raw data into critical information or create value for the public?

That is where the **Opportunity Project** comes in. It's a program that helps people outside of government turn government data into data solutions.

The idea was, if it could expose data to people in industry for example, they could likely build a number of creative tools that were much more impactful than the Census Bureau on its own, and it would be cost-effective for the agency too.

"Five years later, it's become an advanced model for pairing industry, government and communities to develop user-centered, useful digital products that put open data to work," Zachary said.
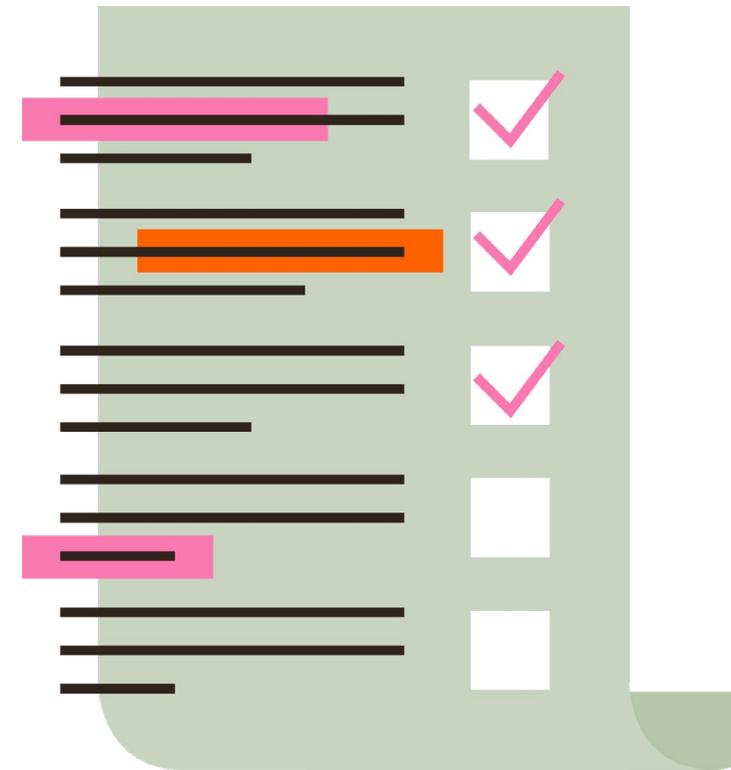
Why Data Management Is Not Just an IT Concern

To realize the full benefits of their massive and growing stores of data, government agencies need to think in new ways about data management.

Rather than coming at data management strictly from a technology perspective, they need to look at how they can get that data into the hands of their decision-makers, according to two subject matter experts.

The experts – Scott Beliveau, Branch Chief, Advanced Analytics, at the United States Patent and Trademark Office, and Kevin Zawodzinski, Vice President, Federal Sales at Commvault – suggested three points of focus for agencies going forward.

Think Beyond Data Visibility

One of the most common concerns about government data is the problem of "dark data" — data that is in the system and potentially useful but that is not readily visible or accessible to the people who might use it.

Beliveau noted that the concept of visibility has evolved in recent years. Initially, agencies focused on making data more accessible, both internally and (where appropriate) externally. Now the task is to make that data more "constructive," that is, easier to use in the decision-making process, he said.

Zawodzinski agreed, saying it was less about making data generally accessible and more about making sure the right data gets into the right hands. "We need to ask, what do people need, and how do we help facilitate that?" he said.

Create a Single Source of Truth

The term "single source of truth" refers to the goal of ensuring that everyone in a decision-making process is looking at the same data. This is essential to the concept of data-driven decision-making.

But if "single source" is taken to mean a single store of data, agencies are not likely to achieve that in the foreseeable future, given the countless legacy systems and data formats in their data centers. Instead, the challenge is to find a "ubiquitous way to connect dots across different infrastructures," Zawodzinski said.

For example, while the cloud is taking an increasingly important role in making data available, it is still just one distribution channel among many that agencies will use, both speakers said.

Elevate the Discussion

Discussions about data management have a tendency to gravitate toward technical concerns. In short, data is seen as the providence of the IT department and data scientists. That needs to change.

For example, consider data security and privacy. Obviously, the IT department is responsible for ensuring the security and privacy of data. But what level of security is appropriate for a given data set, and what privacy concerns are associated with it? IT needs to look to the business or operational side of the house to get that context.

"It is the business owners who really can make those decisions, and IT is the facilitator of that," said Zawodzinski. "It is important to have everyone at the table."

In the same way, IT experts and data scientists need to work with decision-makers and data consumers to understand what data is contextually relevant to the work they are doing, he said. "People have really woken up to the fact that we can't do this in a bubble."

Those kinds of discussions reflect the growing understanding that data is a strategic asset, and not just a data center resource, said Beliveau. "We are trying to get away from that 'Tower of Data Babel' and allow the decision-makers to focus on the value of the decisions they need to make," he said.

"It is important to have everyone at the table."

Kevin Zawodzinski
Vice President of Federal Sales and Americas Sales Engineering, Commvault

3 Things Colleges Can Teach You About Data Security

Government and higher education overlap in many ways.

For starters, both institutions serve the public. Next, agencies and universities each aim to improve their communities. Finally, cybersecurity is quickly becoming a chief concern for academia and the public sector alike.

The COVID-19 pandemic, meanwhile, has only increased the similarities between agencies and schools nationwide. As the crisis continues, organizations in both categories are relying on more remote work than before. Ultimately, the number of cybersecurity risks only grows as the size of the attack surfaces agencies and schools expands.

"I think of security tools as guardrails rather than stop signs," said Tina Thorstenson, Senior Director, Public Sector Industry Solutions and Strategy at CrowdStrike. CrowdStrike is a cybersecurity solutions provider who sponsored Thursday's event. "Security should keep us moving, not hold us up."

Here are three takeaways about remote data security from Thorstenson and Sol Bermann, Executive Director of Information Assurance and Chief Information Security Officer (CISO) at the University of Michigan (U of M).

Change Culture and Technology Simultaneously

New tools cannot help agencies whose employees will not try them. Whether tools aid cybersecurity, remote work or something else, technology transformation cannot occur without cultural reinvention too.

For instance, Thorstenson recommended agencies appoint officials responsible for cybersecurity and data.

"Having someone responsible for it elevates the need," she said of concerns such as cybersecurity. "It is essential for changing the culture."

According to Bermann, the technology vendors agencies collaborate with should match their internal cultures.

"It may be the best tool, but it may not fit your culture, operation or business," he said. "Having a notion of your constituency and community and what's palatable to them should really inform your technology choices."

Master the Basics

According to Bermann, government and higher education struggle with fundamental cybersecurity and data protection.

"For goodness sake, patch your systems on time," he said. "Do your updates routinely and automate it when possible. If you don't have two-factor authentication in place, you are two, three or four years behind the times."

Automation involves machines performing simple manual tasks with little to no human input. Increasingly, cybersecurity teams rely on automation to assist with their duties.

Two-factor authentication, meanwhile, forces users to provide two pieces of evidence – such as a password and a code randomly generated by a user's smartphone – before gaining access to resources such as websites.

Do Your Part

Unfortunately, no single person or tool can protect agencies from cyberthreats. According to Bermann, the result is that everyone must contribute to greater security agencywide.

"It is all of our job," he said. "**If you're not part of the solution, you're part of the problem.**"

Thorstenson added today's threat landscape means agencies and schools must pay attention to security or risk potential consequences.

"If you don't take these practical steps, reality will set in eventually," she said. "Get out in front of it before something like that happens to you."

How AWS Can Help

With over 2,000 government agencies using AWS, we understand the requirements government agencies have to balance: economy and agility with security, compliance and reliability. In every instance, we have been among the first to solve government compliance challenges facing cloud computing and have consistently helped our customers navigate procurement and policy issues related to adoption of cloud computing. Learn more here.

How CrowdStrike Can Help

CrowdStrike, a global cybersecurity leader, is redefining security for the cloud era with an endpoint protection platform built from the ground up to stop breaches. With Crowdstrike, customers benefit from better protection, better performance and immediate time-to-value delivered by the cloud-native Falcon platform. Learn more here.

How Commvault Can Help

Commvault provides customers with a comprehensive data management platform that enables data protection, workload migration disaster recovery, and eDiscovery/compliance capabilities across on-premises environments and Amazon Web Services (AWS). Protect your data with the same policies and SLAs whether it's in your datacenter or in the cloud. And control all your data – all from a single, secure, easy to use, web-based interface. Learn how Commvault enables intelligent cloud data management with tight integration into AWS. Stop by our virtual interactive booth today!

Concluding Takeaways

Here are some boiled-down best practices to think about in your next data move.

1. Data is a means to an end. Focus on the end when you leverage data.

- Mobilize buy-in by hailing the cause or end result, not the tech or solution itself.
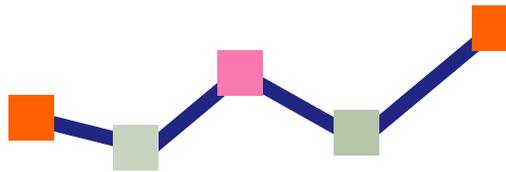
2. Don't manage data in a bubble. Get the decision-makers and data consumers at the table.

- Adjust your mindset to think about data as a tool that can impact beyond a single entity.

3. Do your part in securing data. Think of security as guardrails, not stop signs.

- Ensure the assets you use are secured by following best practices for cybersecurity.

About AWS

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With CrowdStrike, customers benefit from better protection, better performance and immediate time-to-value delivered by the cloud-native Falcon platform. Learn more: **www.crowdstrike.com/public-sector**

About Commvault

Commvault provides customers with a comprehensive data management platform that enables data protection, workload migration, disaster recovery, and eDiscovery/compliance capabilities across on-premises environments and Amazon Web Services (AWS). Protect your data with the same policies and SLAs whether it's in your datacenter or in the cloud. Move your workloads to AWS with the click of a button with built-in migration & conversion tools. Test and orchestrate advanced disaster recovery scenarios with workflow automation for true 'DR on demand'. Control all your data -- all from a single, secure, easy to use, web-based interface.

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About GovLoop

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