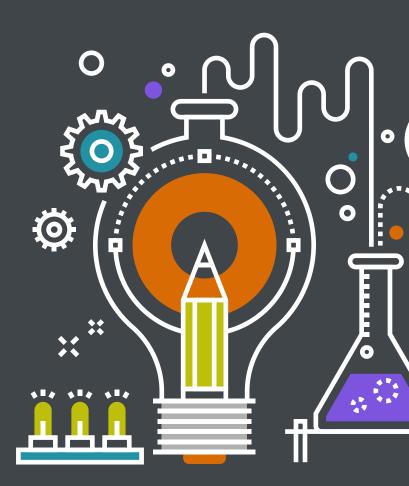# Putting Your Agency's Innovation into Action

With hybrid work, the "new normal" is no longer new. But many agencies are still learning the best way to operate with talent split between on-site and remote employees. No matter their makeup, these workforces must continuously improve and deliver on their agencies' missions amid fluid circumstances.

Going forward, the ability to innovate can help agencies adapt to change in real time and pursue success. To put innovation into action, agencies must embrace flexible people, processes and technology in their daily operations.

During GovLoop's recent virtual event — Innovation in Real-Time: How Gov Is Pushing Forward — government and industry experts shared best practices for innovating successfully. The event was sponsored by Amazon Web Services (AWS), a cloud computing platform provider. AWS enables robust innovation through cloud-based, on-demand web services.

Read on to hear how your peers are continuously innovating and collaborating with public and private sector partners on hybrid work.

WATCH THE RECORDED EVENT

How to Drive Your Agency's Innovation

Carlos Rivero
Virginia

People cannot drive gas-powered cars without fuel, and agencies cannot innovate without data. Much like cars need keys to start their engines, agencies also need tools that let them capitalize on insights from their data. What is this crucial enabler?

Using data, cloud computing can accelerate agencies toward mission wins like mapping constituent demographics. The cloud's decentralized IT offers agencies computing resources like data storage as needed. Agencies can then collect and analyze large amounts of data to make the best possible decisions.

"The cloud is first and foremost because it becomes the level playing field which we can all engage with," said Carlos Rivero, Virginia's former Chief Data Officer (CDO), while discussing innovative technologies.

Why Workplace Culture Counts

With data, the cloud can provide agencies with everything from analytics to collaboration. Yet workforce buy-in for cloud-based tools is not automatic. To fully embrace the cloud's capabilities, government workforces must understand the technology first.

"It doesn't matter how awesome your technology or solution is," Rivero said. "If the culture isn't willing to adopt it, it's not going to go anywhere."

To avoid setbacks, Rivero suggested agencies train their employees about how to leverage cloud-based tools that support remote work, for example.

"It is the people part that is really sticky and that we need to pay a lot of attention to," he said. "It is their adoption that is going to make or break whatever innovative solutions we have."

Perfecting Processes

Processes are the second part of successfully combining the cloud and data. To draw meaningful conclusions from their data, agencies need cloud-based workflows that effectively handle this information.

"If they are not generating data of value, you need to re-engineer those processes," Rivero said. "You need to look at the utility of the processes."

Leveraging Data in the Real World

To illustrate the cloud's ability to innovate with data, Rivero cited Virginia's COVID-19 mitigation and vaccine administration efforts.

Throughout 2021, Virginia used the cloud to examine data about the virus from multiple sources. This information guided Virginia's determinations about how to fairly distribute its limited supply of COVID-19 vaccines.

No matter how agencies utilize the cloud, Rivero recommended that leaders put the needs of their employees and constituents first.

"Modernization, innovation, technology implementations — these are all just tools that we are going to use to improve the capabilities that we have in the Commonwealth to serve our constituents and stakeholders," he said.

PETs Can Expand Government Data Usage

Dr. Ellison Anne Williams
Enveil

The language of IT often includes four-syllable words that seem divorced from everyday understanding. One exception is the friendly acronym PETs, or privacy enhancing technologies — tools that help agencies enable, enhance and preserve the privacy of data throughout its lifecycle. When agencies use sensitive data in digital environments, PETs can help protect this information as well as the interests and intent of the person using the data.

PETs have been around for 30 to 40 years, said Dr. Ellison Anne Williams, the founder and CEO of Enveil, a firm that provides modern-day PETs solutions. Interest in PETs has grown in the last few yearsand the technologies are now being leveraged by a number of industries.

The Takeaway

In past decades, PETs were too slow to be useful. They could encrypt sensitive data searches, but the process was "completely impractical for any kind of real-world use case," said Williams. In recent years, there have been dramatic breakthroughs in PET capabilities, and they are now faster and more logical data protection options.

Subsequently, a market has formed around them, thanks primarily to three movements:

- A growing worldwide demand for data privacy
- An increased need to share data electronically
- A more widespread perception that data is an asset

It is no surprise that PETs are now considered a "top strategic tech trend," according to Gartner.

Thought Leadership

"What does it mean to secure the usage of data? Well, if you think about it, the way that business or governmental organizations will most meaningfully process data to extract its insights or intelligence is by running some kind of search or analytic. **So when we talk about securing the usage of data, we mean being concerned about the security and privacy posture of that analytic, as it's being performed,"** Williams said.

How Enveil Helps

Enveil provides PETs-powered solutions that allow for the secure usage, collaboration and monetization of data — an approach that is the "holy grail" of data encryption, Williams said. Enveil's solutions allow organizations to securely derive insights from, cross-match, search and analyze data without revealing the contents of the search itself or compromising the security or ownership of the underlying information.

Learn more: www.enveil.com/faq

Bringing Legacy Systems Into a New Era

Tom Zlockie
Stromasys

When companies and governments first venture into the cloud, it can feel like they are entering a wilderness with numerous tests and trials.

"In the cloud, we don't have clear sunny days made for the beach," said Tom Zlockie, Director of Aerospace, Defense and Government Sector at Stromasys. **"We have the wilds of legacy applications that are still built on fragile hardware and third-party software."**

The Takeaway

These legacy systems are often the main impediment to innovation. But it's almost impossible to update and modernize each one. So, what are agencies' options? Zlockie offered three:

1. Agencies can keep the status quo. But this is hardly an option when the goal is putting innovation into action. As Zlockie said, "If you want to innovate, you better do something. The status quo will not cut the mustard."

2. Agencies can rewrite and refactor their applications. But this is an expensive proposition — not only in terms of cost, but time. Many agencies have hundreds of interconnected applications. To re-engineer one may require re-engineering others, stretching a modernization project into months or even years.

3. Agencies can re-host their legacy apps in the cloud via cross-platform virtualization. This offers the least disruption for a low overall ownership cost and a high return on investment. Emulation technology "lifts and shifts" agencies' data without the need for writing new software or requiring fresh user training. Subsequently, agencies don't have to rip and replace when modernizing their legacy systems. Through emulation, mission-critical apps can be mission-ready within days.

Thought Leadership

It's almost impossible to update every legacy system in government. But that doesn't mean modernization is impossible. Emulation is one way to bring legacy systems into a new era.

Emulation can give agencies "the ability to introduce new innovation without having to go back in time" and start over on their legacy systems, Zlockie said.

How Stromasys Helps

Stromasys is a leading provider of enterprise-class, cross-platform virtualization solutions for legacy systems. The Stromasys-AWS emulation solution Charon helps agencies migrate legacy applications to a modern platform. Employing a "lift and shift" process, it negates the need for application recertification or retraining of end users. Stromasys can help agencies extend the lifecycle of mission-critical applications through virtualization.

Learn more: go2.stromasys.com/govloop-AWS or go2.stromasys.com/govloop-cloud

How Real-Time 3D Insights Can Reduce Loss of Life

John South
Patrocinium Systems

Three seconds is all it took to locate roughly 75,000 devices on 100-plus floors in a 9/11 re-enactment at the new World Trade Center in New York City.

In this scenario, emergency responders wasted no time gathering insights to save lives. Those in danger, meanwhile, received instructions within seconds about getting to safety.

This is the power of hyper-contextual technology, which stitches together real-time location data and communication capabilities to respond to unpredictable emergencies like terrorist attacks as they unfold.

The Takeaway

"Historically in government or public safety, we've used multiple tools, and we try to use them at the same time. What ends up happening is we can only focus on one at a time to get real results," said John South, CEO of Patrocinium Systems and a former law enforcement officer.

Hyper-contextual solutions allow agencies to use multiple capabilities at once. These tools carry out real-time communications while integrating with other data feeds like location. Agencies can even use 3D modeling with certain solutions to get a clearer picture of an event, South added.

"What that does from a first-responder standpoint is you can hyper-focus on your response to reduce loss of life at the end of the day," South said.

Thought Leadership

"The way that the Intellectual Property is built and our relationships with Google and iOS is [that] the system is only used for emergencies. So I can't see anybody's information. We use the location data that already exists on a device related to an application, and that information is accelerated based on our IP to provide location awareness for the responder. But at the same time, the end user [can] see it. So there's this mutual understanding that if something's wrong and it's near me, I want to be aware of it. ... When things go wrong, everybody wants to be safe first," South said.

How Patrocinium Systems Helps

Patrocinium stitches together disparate systems and location assets in real time to reduce risk, increase response times and lower liability in emergency scenarios. It started with the simple but innovative idea of empowering people near danger with information from a common technology – smartphones. Patrocinium Systems' platform can provide the public and responders with a flexible, cloud-based tool that reduces recovery time, cost and loss of life.

Learn more: www.patrocinium.com

Agencies Must Seize the Moment and Drive Change

Chaeny Emanavin
California

Gerald Caron
HHS

While there's nothing like crises to spark innovation, innovative thinking does not often happen naturally — it must be cultivated.

One key factor is psychological safety, said Chaeny Emanavin, Director of the California Health and Human Services (CalHHS) Center for Data Insights and Innovation (CDII) in the state's Office of Innovation. Psychological safety creates an environment of trust so that each team member feels that their ideas will be heard and respected.

"It's important to have that conversation to create those norms, create that psychological safety," Emanavin said.

The Takeaway

Now is a great time to get people thinking in new ways. So many things that were inconceivable two years ago are now commonplace, creating fresh opportunities for agencies.

With remote work, for example, many systems administrators have worked from home, which rarely happened previously, said Gerald Caron, CIO and Assistant Inspector General for Information Technology in the Office of the Inspector General at the Health and Human Services Department (HHS).

But agencies found ways to work remotely and securely. That's just one way the status quo has changed.

During the COVID-19 pandemic, **"we've learned what our new risk tolerances are,"** Caron said. **"And now it's like, 'Wait, how far can we go?' We've opened up a Pandora's box of possibilities here. I really think you want to take advantage of that"** and try new things.

Thought Leadership

To get users behind new initiatives, it helps if they see initiatives as opportunities rather than burdens.

Many times, existing work processes have evolved to fit the constraints of legacy systems, Caron said. As part of modernization initiatives, agencies can work with their end users and business owners "to understand what the ultimate process is, and then find the tools to fit that process," he said.

Case Study

One way to stop innovation is by moving so quickly that people get spooked and dig their heels in.

Emanavin's team kept that in mind when the state launched a program called California Health Corps, an initiative that invited active and retired doctors, nurses, medical and nursing students and others with health expertise to bolster the state's response to COVID-19.

California needed systems to support managing and coordinating volunteers — and it needed to happen quickly, so they decided to apply agile methodology, developing the necessary capabilities in an iterative process. But agile was a new concept for many people, and Emanavin didn't want to scare people.

Instead of talking in agile terms, "we just phrased it in terms that were easy to understand and friendly, like 'Let's just do a quick proof of concept, let's just see if we can get one function to work,'" Emanavin said. "So, we did an agile process, but we didn't [directly] say, 'Now we're going to do agile, and you will be an agile team;' we just did it."

Reducing Your Agency's Stress About Security Risks

Baan Alsinawi
TalaTek LLC

Agencies are entrusted with the public's private information, so the pressure to keep details like tax records and personal identifiable information (PII) protected is immense. Yet government security is growing harder. Agencies must frequently learn about new tools and regulations while their workforces are geographically dispersed.

Risk management can give agencies the insights they need for innovative security. This process helps agencies effectively manage their resources by identifying and prioritizing risk. **"Think of risk management as a bigger, ongoing solution rather than a one-time fix for the problem,"** said Baan Alsinawi, founder and Managing Director of TalaTek, an integrated risk management firm.

The Takeaway

Not all assets are equal, and the same holds true for risks. For agencies at every level, strong risk management involves deciding which risks to their assets they can tolerate. Take data for example. Medical data is more sensitive than publicly available data, and both resources deserve different management. Risk management can help agencies determine the best way to protect their most critical information. "You can look at your critical risks across the board and say, this is where I'm going to focus my efforts for the next six months,'" Alsinawi said.

Thought Leadership

Regulatory compliance adds another wrinkle to risk management. If agencies do not comply with the latest regulations, their critical data may face escalating risks. Consider the need for the Federal

Risk and Authorization Management Program (FedRAMP) cloud program. FedRAMP mandates which cloud computing services can host federal data, otherwise, an entity may be in violation of their required compliance requirements.

To help track compliance for agencies, TalaTek offers TiGRIS, a FedRAMP-accredited continuous monitoring software as a solution that is preconfigured with a variety of frameworks to meet agency needs via predefined workflows, risk metrics, dashboards, and reports.

Much like security pitfalls, risk management can also help agencies avoid compliance challenges. "One of the bigger problems is that while we're managing compliance, we're forgetting about risks," Alsinawi said. "Our hair is on fire trying to fix all of the problems all at once."

How TalaTek Helps

TalaTek's risk management services can ensure that agencies have a handle on issues like potential compliance red flags. Using real-time data, TalaTek can assist agencies with measuring risk and then factoring them into their operations for the best possible business outcome through its TiGRIS solution. With customizable risk scoring tailored to each agency's unique risk appetite and mapped to system-specific, inherited, and hybrid security controls, TiGRIS is designed to help determine an agency's residual risks.

Learn more: talatek.com/contact-us

How Digital Transformation Empowers Intel Analysts

Stuart Booth
Cogility

Digital transformation is the umbrella that seamlessly marries innovation and real-time data. Consumers and producers benefit from this transformation due to improved operational performance, user experience (UX), organizational agility, reduced costs, improved security and increased mission effectiveness.

This is especially true for intelligence community (IC) professionals. They're tasked with making sense of massive amounts of fragmented data — often through a patchwork of manual steps — and informing decision-makers.

"We want to change their lives in terms of their ability to do their jobs efficiently [and] effectively," said Stuart Booth, Chief Operations Officer at Cogility.

The Takeaway

For the IC, digital transformation is synonymous with continuous intelligence, or the ability to proactively monitor all data, gain insights, track trends and mitigate risks. Cogility partners with agencies to reduce the friction that silos create and embrace the power of cloud-based tools and platforms that enhance analysts' performance.

The first step is defining the mission and intelligence outcomes that are needed to better inform enterprise decision-makers.

Booth highlighted three use cases that show how Cogility's predictive intelligence work is benefiting organizations:

1. **Countering insider threats** for the federal government by continuously monitoring personnel and contractors for warning signs of potential threats.

2. **Automating cyber insurance underwriting** for commercial entities trying to understand how to underwrite the risks for companies' risk exposures.

3. **Facilitating cyberthreat intelligence** by monitoring millions of cybersecurity events and doing correlations to understand IP addresses, and then blocking the malicious ones.

Thought Leadership

"We're so connected that speed is becoming the driver in terms of making timely decisions so you can affect the outcomes or mitigate risks," Booth said. "Reducing the silos and these barriers to collect that information, to understand it and make informed decisions is becoming time-sensitive. And, therefore, these kinds of solutions are necessary in order to make that happen."

How Cogility Helps

Cognyt, Cogility's software solution, fully embraces the digital transformation movement by delivering an advanced predictive intelligence platform providing real-time situational awareness and decision support that can be easily adapted for agencies' intelligence missions. Cognyt is unique in that it continuously monitors the evolution of behaviors, at the human or entity level, delivering real-time risk and opportunity assessments. The Cognyt platform is a highly flexible, scalable and tested continuous intelligence platform that is currently being used by the DoD.

Learn more: cogility.com

Data Management in a Digital World

Rick West
Progeny Systems

There is an unfathomable amount of data that resides in the digital universe, sitting on individual servers and passing from one network to another. Keeping track of this information, especially for an entity as vast and complex as the federal government, is challenging.

Records management is a critical topic that doesn't get enough attention, said Rick West, Business Development Manager with Progeny Systems and 12th Master Chief Petty Officer of the Navy (MCPON). Most organizations lack a standard process for handling their information, and that negligence comes with a cost.

For instance, West noted that employees waste a large portion of their work weeks searching for records. Companies without a records management system, meanwhile, misfile or mislabel up to 20% of their records. These statistics are concerning when considering the quantity of the records and data that agencies are responsible for safeguarding.

The Takeaway

Research shows that **"Poor records management results in financial, legal, productivity and data loss,"** said West. Organizations cannot afford to do nothing, but that's what many of them do.

An enterprisewide content management system offers multiple benefits, including improved efficiency, reduced costs, mitigated risks, enhanced customer service, easier collaboration, faster turnaround times and competitive advantages.

There are various reasons why records management is complex besides the cumbersome nature of sifting through millions of digital documents. Data security, federal guidelines and security classifications also come into play.

Thought Leadership

A comprehensive, robust content management system "allows organizations to easily interact with, monitor and manage all aspects of compliant records governance, while reducing hardware infrastructure and providing significant savings across the organization," West said. "You're talking about increased tasking and workflow efficiency and visibility of records. You're talking about increased annual savings through advanced analytics ... and allow[ing] organizations a lot of flexibility as they operate."

How Progeny Systems Helps

Progeny Systems develops and produces hardware, software and technology solutions for the Defense Department and other government and commercial organizations. The company's TRACKER tool helps entities electronically manage tens of millions of records, case files, documents and emails in a high-availability, cloud-based system. The product consists of five modules: task and workflow management, document management, records management, reporting and search.

Learn more: www.progeny.net

6 Ways to Aid Innovation

How can you help your agencies' innovation efforts? Here are six steps that can make your agency more agile, creative and resilient:

1. Build bridges

Collaboration is an essential component of innovation, so agencies should nurture this quality whenever possible. The list of potential partners includes constituents, private sector companies, academic institutions and other agencies.

"My best advice is to play the long game by building relationships," Rivero said. "You have to focus interest on a common goal that's going to get you where you need to be."

2. Avoid easy fixes

Agencies should be wary of services and tools that promise to complete the heavy lifting for them. Rather than treating innovation as a one-time concern, agencies should assume that nurturing it will be an ongoing responsibility.

"Agencies go and look for a solution, product or tool," Alsinawi said. "They think it will solve the problem, but truthfully that alone will never solve the problem."

3. Reduce complexity

Silos are often the Achilles' heel to transformation. They create friction between end users and the goals they want to achieve, whether that's analyzing data or driving better decision-making. But if you can't eradicate silos, you can at least bore holes in them, Booth said.

"Digital transformation is to put some of those complexities underneath the covers, and allow the users to have that seamless digital experience," he said.

4. Address skills gaps

Agencies need to get employees up to speed on the disciplines that are driving modern service delivery. That includes human-centered design, product management and agile. If nothing else, they must learn to speak the language used by civic tech companies, the GSA's 18F and the U.S. Digital Service, said Emanavin.

"Getting people comfortable thinking in those ways … aligns us with how the new workforce coming in have been taught to think in school," he said. "It also gives longtime employees a fun new way to reframe their experience in how they do work."

5. Fuel the imagination

To help users define requirements better, IT teams must help them become more aware of key technology trends. The HHS OIG, for example, holds technology discovery days.

"It's showing: here's the art of the possible, here is where some of the technologies are going," said Caron. "It brings ideas, it may give us an idea of developing some requirements."

6. Embrace order

Agencies that cannot manage their share of information — by tracking, searching for, organizing, protecting or reporting it — are at a disadvantage. They must prioritize establishing protocols for accessing and using their data while adopting a more standardized, automated approach.

"Driven by the need to control the increasing amount of information that resides across any enterprise, many organizations can't help but create order among content chaos," West said.

Thank you to AWS, Cogility, Enveil, Patrocinum Systems, Progeny Systems, Stromasys and TalaTek for their support of this valuable resource for public sector professionals.

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

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