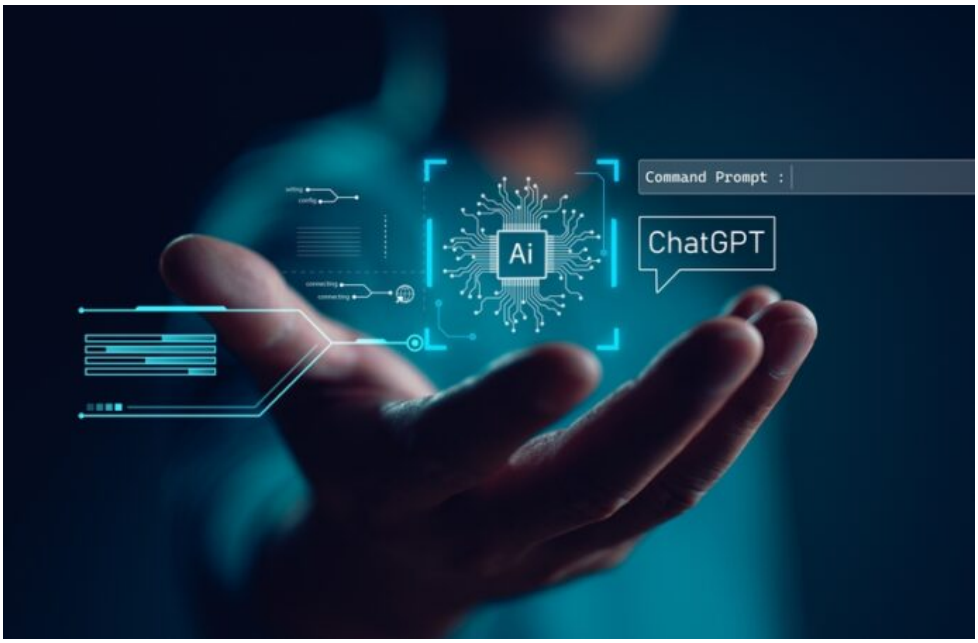
# How AI is Changing the Way the Government Does Business

In Federal, State & Local May 15, 2023 Ryan Schradin




Since it became available to the public in late November of last year, more than 100 million users have raced to test out the capability and functionality of ChatGPT. They've asked it to plan out the perfect vacation to the nation's capital. They've asked it to tell them jokes and funny stories. They've even tried to leverage the tool to get out of work – with mixed results.

Many that have read these stories about the ChatGPT artificial intelligence (AI) chatbot might think of it as a novelty – a fun toy to play with around a table with some friends or a neat tool that can explain difficult topics. But others see the potential that this AI technology has for changing the way large organizations and enterprises handle everyday tasks and functions.

Someone with a real vision for how AI solutions like ChatGPT could revolutionize the government is Jon Stresing, an account manager at NVIDIA who works with the U.S. Department of Defense (DoD). We recently had the opportunity to sit down with Jon to discuss the ways in which NVIDIA

is opening the door to the wide adoption of AI tools and solutions in the federal government.

During our discussion, Jon explained some of the use cases that he envisions for AI solutions in the government, and why he thinks that AI will change the way the government functions in the not-too-distant future.

**GovDataDownload (GDD):** *Can you tell our readers a bit about how the government is looking to leverage AI? What benefits can the technology deliver?*

**Jon Stresing:** People don't often recognize that every government agency and organization – every federal civilian agency, military organization, and state and local agency – has the exact same business functions as a large enterprise. Every single one has a supply chain, an HR function, an IT department, an IT help desk, and other business functions that they need to manage and support.

Think about every AI use case that you read about in the news. Think about every way that you've heard of private enterprises leveraging AI in their business to help increase operational efficiency or eliminate low-value, redundant tasks. Every one of these AI use cases could be applicable to the government – helping them to do more with less.

**GDD:** *Is AI something that we're mostly seeing the DoD pursue, or are there federal civilian use cases for AI, as well?*

**Jon Stresing:** Both federal civilian agencies and the military are embracing it. While, in many instances, they're embracing it in the same way and for the same reasons, they're also embracing AI differently and for different reasons.

Most of the federal civilian agencies are providing a service to the taxpayer and are looking for ways to deliver services in a more efficient and cost-effective way.

A great example of a federal civilian AI use case can be seen in the work that NVIDIA has done with the United States Postal Service (USPS). There was a time when individuals sending hazardous packages through the mail was a significant problem that the USPS had to worry about.

The agency reached out to NVIDIA to help them establish an AI-driven computer vision solution at the edge that would enable them to identify potentially hazardous letters and packages in advance of processing and delivering them to customers. This helped to boost safety and efficiency for the USPS and its customers.

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Since the origins of that program – which ran on NVIDIA GPUs – it has been expanded significantly to other areas. Today, the NVIDIA-powered computer vision solution is leveraged across practically every letter processing and sorting facility to help increase the accuracy and efficiency of mail processing, sorting, and delivery.

**GDD:** *You said that the DoD is using AI in some of the same ways as federal civilian agencies.*



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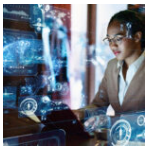

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*Care to elaborate on that?*

**Jon Stresing:** Certainly. The DoD is one of the world's largest logistics organizations. But so is the USPS. While one might be sending humanitarian aid to countries that have experienced a natural disaster, and the other might be sending a care package to a college student from their mother, the underlying tasks are very similar. The use cases may be different, but many of the same processes exist.

AI can play a valuable role in both of those scenarios. For example, AI could be used to identify the best and most efficient way to pack a plane. An AI solution could help both the DoD and the USPS to get the most cargo onto a single jet and do so without damaging the contents. The use cases are very similar. But there are some other use cases that are unique to the DoD.

Another federal civilian AI use case that could be hugely beneficial to the DoD is in contracting and acquisitions. The Department of Health and Human Services (HHS) is leveraging AI to help them write, check, and audit their contracts. That use case can easily be applied to the DoD. In fact, this is one area where generative AI could be used with great results.

**GDD:** *Generative AI? What is that, and how could it play a role in contracting and acquisitions?*

**Jon Stresing:** Generative AI includes tools that can be used to create new data or content. You've probably seen news stories about AI solutions that can be used to create pictures and images – that is generative AI. But another example of generative AI that's probably even better known is ChatGPT.

The DoD spends a massive amount of money on acquisitions and requires a massive acquisition staff to meet its acquisition and provisioning needs. This workforce functions to pull requirements, draft RFPs, and solicit responses to those RFPs. They then write up the contracts and handle all other formalities. Unfortunately, the acquisition workforce is horribly understaffed right now.

A generative AI solution could be trained to do something very similar to what HHS is doing – write, check, and audit contracts. Not only would this help ease the burden on an understaffed DoDacquisition workforce, but it could make it easier for the DoD to work with small businesses.

**GDD:** *Small businesses? How so?*

**Jon Stresing:** Let's say you're the DoD and you have $1 billion to spend. You could give that $1 billion to just a small handful of large government contractors, or you could split it up among a larger ecosystem of small and medium-sized businesses.

The DoD doesn't have an acquisition workforce large enough right now to write 30, 40, or 50 different contracts. They simply can't handle the workload. So, the preference would be to work with a small handful of large government contractors with much higher capacity to deliver products, services, and other solutions.

> ***"I honestly believe that generative AI will change the world and the way that the DoD and federal government do business."*** **– Jon Stresing**

However, if a generative AI solution was helping to write and audit the contracts, it would be much easier to create contracts for a larger ecosystem of smaller companies. I honestly believe that generative AI will change the world and the way that the DoD and federal government do business.

**GDD:** *How are NVIDIA's solutions empowering government AI initiatives like the ones you've discussed? What role does NVIDIA technology play in AI programs and implementations?*

**Jon Stresing:** AI has finally reached an inflection point. ChatGPT captured the attention of organizations worldwide, including our federal customers, who understand how NVIDIA has enabled and powered the AI revolution.

After investing in AI computing hardware and software for 10 years, we are the recognized leader in the space. We deliver the highest performance, most energy efficient AI platforms in the world. These solutions are in great demand, because the world needs more compute capability to process data – in the data center, in the cloud, and at the edge –as organizations produce more data. NVIDIA provides the accelerated computing platform for all of these data analytics and AI workloads.

That being said, NVIDIA isn't just a hardware company. We actually have more software than hardware engineers. We invest significantly in AI software. We build pre-trained models and software packages that allow developers to build AI from the ground up, if they want, or to pull down a 70-80 percent complete solution for certain AI use cases that they can then take across the finish line.

We also offer services for government agencies and organizations that need help in their AI journey. Similar to how we partnered with the USPS, we can help them design solutions around their particular AI use cases. We provide training through our Deep Learning Institute.

Ultimately, we're working on the backend with the customer every step of the way. Most of the AI use cases have never been done before, which presents daunting challenges for our customers. That's why partner closely and work with them every step of the way.

**GDD:** *I understand that NVIDIA's solutions integrate with NetApp's ONTAP solution. What does this integration enable?*

**Jon Stresing:** At the end of the day, AI is a data challenge. And data can be very difficult to manage and secure. You need speed of data to drive insight in a timely manner and need data to be secure.

NetApp is a secure data platform with end-to-end encryption of data, and that is essential for some DoD and government AI use cases. It's imperative that sensitive AI models not be intercepted or compromised.

When training AI models, the DoD and government need an absolutely incredible amount of data. NetApp is there every step of the way – helping to pull data in from the sensor to the retraining environment. NetApp provides a safe and rapid way to get sensor data to the retraining environment without the data getting compromised.

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Another exciting capability that NetApp's solutions enable is the ability to revert back to earlier data. For example, let's say a DoD AI model is dynamically changing – it's being trained and retrained – and they realize that it's actually getting worse. Maybe the data was corrupted or the data labeling is off. NetApp's solutions enable them to revert to a previous snapshot and undue that damage to the model.

**GDD:** *What challenges did government technologists and data scientists face that this integration helps to eliminate? How does this make AI easier to implement?*

**Jon Stresing:** First of all, as we discussed, security is paramount. NetApp provides the most secure solutions for data management.

While security is essential, there's also a need to manage and make data easy to access. Computer scientists that need access to data want files to have a tremendous amount of metadata and data labeling, so that it's easy to identify and aggregate the data needed to train their models. Both security and data labeling are things that NetApp is 100 percent always going to bring to the table.

Then there's the ease of deployment. NetApp's solutions are just easy to use. I am not a technical engineer. But, that said, I have played around in NetApp's OnTap. I have deployed OnTap for and with customers. I have turned on security features in OnTap. And, if I was able to do it, then a data scientist should be able to do it without the help of a network architect.

Combining the ease of use of NetApp's OnTap with the AI tools delivered by NVIDIA makes it incredibly easy and user-friendly for government agencies and the DoD to get started with AI.

***To learn more about how the government could benefit from advanced AI technologies and solutions, click HERE to download a complimentary copy of the eBook, "AI in Government."***

AI | artificial intelligence | ChatGPT | Department of Health and Human Services | DoD | generative AI | GPU | HHS | Machine Learning | ML | NVIDIA | U.S. Department of Defense | U.S. DoD | U.S. Postal Service | USPS

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