

From Unstructured to Insights:

How Better Data Storage
Can Solve the Silo Problem





How Storage Solutions Can Help Government

These days, the mantra seems to be: the more data, the better. But data isn't useful unless it can be aggregated and analyzed effectively. Data silos can stand in the way of the valuable business insights that data can deliver when successfully paired with artificial intelligence — and government agencies are often rife with them. The answer to the problem of silos could come from a surprising source: storage.

Dallas Nash, Senior Director of Sales, Global Government, Unstructured Data Solutions at Dell Technologies, has spent more than 15 years in the space and understands how storage solutions can help the DoD leverage data effectively. Here, Nash offers his take on how scale-out data storage solutions can help agencies turn unstructured data into powerful — and potentially life-saving — insights.

1

Can you begin by speaking to today's data landscape for government entities, and for the DOD in particular?

We've been seeing rapid expansion in data in general, and unstructured data in particular. Some of the latest attempts to gauge the hyper-growth of data puts it in the zettabytes — and that's a number bigger than any of us can truly comprehend, particularly when it comes to government data. When we're talking about phones or personal devices, I think that resonates, but when we're talking about at-scale data inside the DoD, it's hard to picture. Government agencies understand that hyper data growth is constantly filling agency storage devices and often causing out-of-budget spend for more storage but many don't understand what that data is and if it truly provides mission value. The reality today is that most of that data is unstructured data which, as an example, is the type of data generated by audio, video or other sensors from geo-location devices that track troops or combatant vehicles. It is high volume and often requires as close to real time processing as possible to add the most value.

2

If utilized correctly, what can this unstructured data enable for the DOD and its counterparts, like the U.S. Army?

Ultimately, it's about finding ways to glean business value from unstructured data. What that means differs for every federal agency. The Army Research Lab, for example, is looking into a concept that uses AI in combination with a warfighter's own brain signals at the edge of the network to glean insight into a combat environment. You could have a platoon deployed, trying to ascertain where the enemy Humvees or combatants were, and their data could be instantly pooled together and analyzed to create a full picture of the battlefield and allow for an appropriate response.

There are other use cases as well. For the U.S. Air Force, we could aggregate and analyze data throughout an aircraft's lifecycle to help the maintenance team predict the cost of parts or long-term maintenance.

3

As data grows in volume, what challenges are government entities like the DoD running into as they look to make the most of data?

Data silos are a historical issue throughout the federal government. As unstructured data comes in, a department might have multiple storage vendors that don't or can't communicate with one another which means the data ends up in separate environments and can't be utilized holistically to drive the most value.

As technology providers to our federal military, we are looking to help our customers modernize so they can break down these data silos. Once you have the ability to collapse multiple silos into a consolidated data lake, you are in a position to have advanced AI concepts process the aggregated data to get a full picture.

4

How do Dell's Isilon and PowerScale solutions solve the problems of unstructured data management?

The way Dell Technologies has built this portfolio with Isilon and PowerScale allows the customer to run workloads on an all-flash, NVMe drive based system, helping them avoid the challenges of traditional scale-out data silos. Now, the customer can get access to a central repository that scales infinitely, and any financial limitations can be stripped away.

Additionally, Dell has an edge-to-core-to-cloud methodology, which means that we enable agencies to incorporate their edge networks and workers, along with their core data centers, and bridge them into commercial public clouds, like Google Cloud, Microsoft Azure or Amazon AWS, as well as their own private cloud installations.

5

As we look to a future with even more data, what can government leaders do today to ensure that they're prepared to not just handle this data, but use it to its fullest extent?

The DoD are always looking to do more with less. The fantastic story in storage has been greater density and higher capacity at lower cost. So, with this in mind, the most important thing that people can do is assess their data footprint from the perspective of where their data is living. That's going to require some work, but once we have that information, we can start making a plan for modernization and consolidation of that data, ultimately allowing them to glean greater business value from it and make the most of what they have. Isilon and PowerScale are really the preeminent technologies that allow our customers to do exactly that.

<u>Learn more</u> about how Dell's Isilon and PowerScale solutions, with help from Affigent, can help your agency make the most of data.