

USDA Simplifies Data Management, Saving Staff 30 Hours a Week



IT modernization is driving efficiencies in government. Within the U.S. Department of Agriculture, five agencies—including the Digital Infrastructure Services Center and Animal & Plant Health Inspection Services—are simplifying data management with Cohesity. Strong Cohesity platform advantages, partnership with WWT, and in some cases integration with Cisco Unified Computing System (UCS), are empowering the USDA to improve backups and address other data management challenges such as target storage and object services for even greater gains.

The Challenge

A government-to-government service provider, the U.S. Department of Agriculture (USDA) Office of the Chief Information Officer (OCI) at the Digital Infrastructure Services Center (DISC) supports the critical data management needs of internal departments and other federal agencies. Previously, DISC's staff of three used Veritas for backup and Data Domain for deduplication to support its multi-petabyte environment across two data centers. Yet rising costs and the underlying issue of increasing data silos exacerbated by exponential data growth and stringent long-term retention requirements, made operations challenging and customer self-service difficult.

The team's customer-focused staff had to manage three or four different appliances at each site and spent unnecessary time on capacity planning, risk management, and performance checks when fulfilling backup requests. For example, choosing a target required knowing its capacity and if it could scale. Lack of uniform schedules prevented workflow automation so the team had to manually create and manage multiple policies for customers with different long-term data retention needs.

Operational inefficiencies and long procurement cycles—causing IT to overbuy hardware it might need to serve customers' data management performance and capacity needs—frustrated USDA OCIO DISC's Storage Management Branch Chief, George Strother. If DISC did not find a better, more flexible approach to backup data on-premises and in the cloud, "We would have had to buy more appliances onsite or stand up a virtual or physical appliance gateway to be able to target backups to anything other than a local disk target. And with the government procurement cycle that could take six plus months," Strother explains.

The Solution

After conducting a broad vendor landscape review and participating in WWT's virtual labs, DISC narrowed its choices to Veritas, Cohesity, and Rubrik before deploying Cohesity. "The install was super easy because Cohesity is well architected," said Strother.

Today, DISC delivers on-prem cloud services and managed cloud services through [Amazon Web Services \(AWS\)](#) or [Microsoft Azure](#) to its customers. Primary workloads mostly run in the onsite data center with others in the offsite [backup](#) and [disaster recovery](#) facility. Because the USDA now uses [Cohesity](#), it is easy to migrate data between sites. After filling up its Cohesity nodes quickly with [database workloads](#), the agency simply added a cloud archive tier for AWS.

"In the course of a few hours, we got [AWS GovCloud](#) connected to Cohesity in our primary site and started archiving data to AWS S3. Then we tested restores from our DR site without that cluster knowing about the backup, which showed the solution's flexibility. The whole cloud archiving task took us just 4–6 hours to set up and test. That timeline is foreign to us from legacy vendors," says Strother.

Now instead of over-procuring hardware, DISC can scale to meet short-term needs via cloud archiving or cloud tiering. Staff can then add high-performance nodes, a small amount of capacity, or large capacity nodes with less performance per node. Restores with Cohesity enable DISC to select QoS policies according to SLAs. Critical ones get additional SSD or CPU preference, ensuring that the line of business that needs to be up fastest can be.

Although the DISC has been working on greater customer self-service, Cohesity APIs will accelerate the effort. For example, customers are able to perform VM restores and other tasks simultaneously via APIs—which used to be impossible without manual intervention. Cohesity APIs also will help move DISC closer to achieving SLAs of zero for routine requests, without waking staff up at night. DISC is looking to enable S3 directly from the Cohesity cluster for a direct object service to help it recoup costs and tiering with its NetApp appliance, targeting snapshot data to Cohesity for true global deduplication across many storage clusters. With Cohesity Helios supporting access to the API, DISC can target its two sites now and site "N" later while discovering root-causes sooner via telemetry data.

"It will be a tremendous help to have one platform that handles backups for physical servers and database servers which also manage snapshots for other NAS and SAN devices. And then it also can be our object store directly to customers," said Strother. "Cohesity is all these different use cases in one solution that everyone on our staff can easily learn—with no additional training and maintenance contracts."

The Results

With Cohesity, the USDA is experiencing operational wins. DISC is enabling self-service capabilities for customers which was a high priority. The same amount of staff can manage more storage because they're not managing different interconnected data silos. The Cohesity platform has a single API and a single management console, simplifying tasks and redirecting 10 hours of three people's time into customer service and architectural designs that drive future success.

"Cohesity gives us the flexibility to right-size our environment and contain costs. No more emergency procurements or fights with the budget office about funds today to get the hardware needed yesterday. And we don't have to say no because we can service customers for a few months using OpEx and AWS," says Strother.

Key Benefits

50% Lower TCO—One platform for many use cases without extra hardware, support contracts, staff training, and data center resources

30-hour time savings among three IT staff each week, enabling more time for proactive response

Eliminated over-purchasing and long procurement cycles

Cut policy management time in a third

Automated set-it-and-forget-it upgrades have no SLA impact and provide peace of mind

Continuous customer service with the ability to add nodes or burst to cloud

About USDA

DISC is among the largest U.S. federal government data center service providers. It has provided services as a federated data center since 1973 and performed data center migrations for decades. DISC serves other USDA departments as well as nearly 20 other federal departments. A working capital fund, DISC depends on inter-agency agreements to operate.