To build cases against polluters and other environmental offenders, the Department of Justice’s Environment and Natural Resources Division (ENRD) depends on secure, easy, and fast data access. The ENRD turned to NetApp Cloud Volumes ONTAP to manage the data needed to drive prosecutions.

Using Cloud Data to Fight Environmental Offenders

When companies endanger U.S. natural resources, government prosecutors depend on data storage, management, and analytics to prosecute the offenders. The Environment and Natural Resources Division of the U.S. Department of Justice subpoenas or collects volumes of data, analyzing that data around the clock to prepare its cases. When the department needed to shut down a data center and move ENRD’s 300TB of backed up data to the cloud, it had to find a process and a solution that could guarantee secure and constant access, with only 2 months to complete the task.

- **Improved security** over other data storage solutions
- **Simplified interface**, reducing complexity over other options

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“I have worked in IT for 32 years and I’ve done lots of storage migrations. This was the easiest storage migration that I’ve had. The transition was very simple, very seamless.”

Richard Tayman
CIO and Director of IT for the Environment and Natural Resources Division of the U.S. Department of Justice

The ENRD doesn’t want to be in the business of IT. “Our mission is not ‘to do IT,’ it’s ‘to do litigation’—so our solutions need to be seamless. We need solutions that don’t require a lot of care and feeding,” says Richard Tayman, ENRD’s CIO and director of IT.

The department’s data solutions must also be secure enough to protect valuable evidence and powerful enough to handle big data demands. The litigation support data, which is largely unstructured, constitutes all of the supporting evidence for cases. The department’s attorneys and paralegals use litigation tools—like full-text search, index tools, deduplication tools, and other analysis tools—to discover valuable information needed to build a case.

Because the need to access this data is constant, Mr. Tayman was concerned about speed and security in complying with a government-mandated move to a cloud-based backup solution.

Mr. Tayman saw that most cloud backup solutions would require third-party products to access and manage the new cloud storage, with separate interfaces for the on-premises storage. “Other vendors came in and said, ‘We’ll be sort of a storage target, and you can use some kind of third-party file copy utility to copy the files.’ It sounded very unreliable, and much too slow,” he says.

Mr. Tayman knew that his division’s small staff had no time to learn complex solutions with multiple interfaces, and they had no time to wait. “I don’t have circuit and routing problems when data is on the premises. It’s served up on a LAN and its highly available, fast, efficient, and with low latency. I do not want to reduce that level of service just because I’m moving something to another location. I have to give them the same level of service or better, so I need some assurances and some proven capabilities before I just put all my data into a cloud service,” he says.

FINDING THE SAFEST CHOICE AND THE SIMPLEST SOLUTION
He and his team met with consultants to find alternatives and different options. “We wanted to see what new innovations, applications, or solutions have been offered before we committed to any purchases or any direction for the cloud,” Mr. Tayman says. “It was a pretty easy choice, after we looked at the landscape of options that were available to us—the NetApp solution was by far the best.”

To complete the migration quickly and securely, the department initially moved its data center hardware to an Equinix data storage swing space. A NetApp® Professional Services engineer worked on site, helping to complete the physical move to Equinix within hours rather than days. Equinix became the temporary backup site, while it also started replicating data out to the final location on Microsoft Azure. When the replication was complete, the department connected directly to the Azure location.

“I have worked in IT for 32 years and I’ve done lots of storage migrations. This was the easiest storage migration that I’ve had. The transition was very simple, very seamless,” Mr. Tayman says.

Once the department was connected directly to the new cloud backup, NetApp Cloud Volumes ONTAP® SnapMirror® uploaded any changes to make sure that everything was up to date before shutting down the Equinix interim storage.
We used SnapMirror to get data very efficiently from on-premises storage to Azure cloud storage. It was not a difficult process, once we had a virtual NetApp controller running in Azure that presented just like the NetApp controller that was on premises, so the transition was simple. I would just set up a snapshot and walk away,” Mr. Tayman says.

RESULTS SURPASSED EXPECTATIONS
The solution has been able to handle the large volume of unstructured data without corruption. “We had a lot of data corruption issues with past storage vendors. We have so many files in these folders and directories—all types of loose data that includes PDFs, TIFFs, Word documents, scanned images, court transcripts, etc. Storage systems couldn’t handle it, and we had lots of problems,” Mr. Tayman says. “But with NetApp, we’ve never had any issues with throwing all that data at the storage.”

In practice, the NetApp Cloud Volumes ONTAP Cloud Manager interface has been even easier than Mr. Tayman expected. He can now easily see all of his NetApp storage regardless of where it is.

“I can move content back and forth very easily. I can replicate data from Azure back on premises again if I need to reverse it. It just became a fairly seamless and simple process when Azure no longer looks like this cloud entity—for our storage, it just looked like a NetApp controller.”

NetApp OnCommand® Cloud Manager also provides a high-level web interface into NetApp controllers, both on premises and in the cloud, that is “very simple—very easy,” he says.

Now Mr. Tayman’s team has secure data access with an easy interface, highly responsive speed, and cloud flexibility for the future. The department was able to close down the physical data center on schedule, assured that users have the data they need to drive prosecutions.

SOLUTION COMPONENTS

NETAPP PRODUCTS

- NetApp Cloud Volumes ONTAP
- Azure NetApp Files
- NetApp OnCommand Cloud Manager
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