

Shifting Data Management into Overdrive

The year 2020 found federal agencies continuing to implement sweeping modernization plans to help streamline operations and citizen services. This included shifting much of their infrastructure to the cloud and eliminating older legacy systems that have sometimes been in operation for many years. And all of this was accomplished in the face of unprecedented challenges.

One of the biggest hurdles has been the fact that most agencies generate a massive amount of data every day. The critical data stores at some agencies can reach into the petabytes, which makes safely moving it over to new systems or the cloud all the more difficult.

And of course, cybersecurity was challenging, as it always is for a highly targeted sector like government. In 2020, there was a cyberattack every 11 seconds on average. Certain kinds of data-hunting attacks, like ransomware, increased by over 750%. Agencies need to keep their data safe in order to transfer it over to new systems, and then must actively protect it both at rest and in transit.

Cyber experts on the frontlines of those battles stopped by FedInsider's Feds at the

Edge podcast to share some key lessons learned while protecting data and evolving federal networks this year.

1. DATA IS NOW A STRATEGIC ASSET FOR AGENCIES

Even when considering everything that an agency owns and controls, data is still one of the most important assets. It needs to be thought of as strategic and treated appropriately. While new systems and platforms in government like cloud computing get most of the spotlight, one of their core functions is to serve up and protect the data that resides in them. Agencies should consider their data first and build systems around it that will best serve their needs.

"This is this emerging theme that we continue to see coming out of the federal government and the DOD," said Public Sector CTO for Rubrik Jeffrey Phelan. "Agencies are trying to reduce the complexity and the number of tools used, and it's been very exciting to see how agencies have developed a solution in this area like ClearShark. They are bringing in solutions from Rubrik and NetApp that jointly streamline backup and recovery of data in a secure, robust, fast, and economical fashion."

Contributors:

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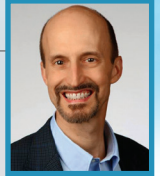
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In addition to protecting data, the new systems need to be able to serve it up to users on demand, no matter where they are located or what platform they are using. This is where the joint technologies of NetApp's data fabric approach, ClearShark solutions, and Rubrik data backup and recovery capabilities support users having highly available data accessible in any location at any time.

"We are helping customers use their data, no matter where it is, whether it's at the edge, in the core or in the cloud," said ClearShark Systems Engineer Rob Wagoner. "Data mobility and workload migration is a very important step to begin to do that for a variety of reasons. And they should be able to manage their data in the same way, no matter where it lives."

2. DATA CONTINUES TO GROW, BUT IT CAN BE MANAGED WITH THE RIGHT TOOLS

The pools of data being generated at agencies these days are massive. And while some of that information might never be needed again, at least some

of it is important to operations, or may one day become critical. Because organizations never fully know what is important or will be important in the future, they generally need to safely store everything. Figuring out how to do that in the most efficient and cost-effective way can be challenging.

“Data growth is a huge problem, and companies and organizations have to get to the cloud sooner than later,” said ClearShark Solutions Architect Melissa Fields. “Then the issue becomes how do you migrate to the cloud, and what do you migrate to the cloud? And also, how do you keep data mobility to ensure optimal and secure operation with minimal cost?”

One of the tools being used successfully in government is NetApp Cloud Services. NetApp has a long history of helping government agencies optimize their data management, security, and operations. NetApp has been evolving its offerings to include hybrid solutions across environments and cloud providers so that frequently used data can be accessed quickly while data at rest is safely and securely stored and retrieved when needed.

“About 30 years ago, NetApp released its first enterprise-class storage system. It was reliable, dependable and simple to manage,” Fields said. “And while NetApp still offers these robust solutions, they have also become a leader in hybrid cloud data services. NetApp gives customers a choice of how to securely store and manage their data and will orchestrate data mobility between various offerings.”

3. PROTECT AND RECOVERY ARE POWERFUL DUAL DEFENSES FOR DEALING WITH RANSOMWARE

Ransomware continues to be a huge problem for everyone, especially for government and other public institutions. According to the Verizon 2020 Data Breach Investigations Report, it was responsible for 27% of all malware attacks over the past year. It's especially dangerous for government agencies because it targets the strategic asset that is their data.

A key strategy in fighting ransomware is to work to protect systems so that they can't be attacked in the first place. But also, agencies need to be prepared to recover should some malware still slip through.

“If you implement a defense in depth security posture and have a strong contingency and remediation plan for business recovery continuance, that's going to help out,” Wagoner said. But ultimately, agencies also need to have good, immutable backups to help with recovery after ransomware hits.

Jim Cosby, NetApp CTO for Public Sector Partners and Federal Civilian, added “In summary, we need to prevent and be able to quickly recover from any cyber-attacks on data. Using NetApp data fabric protection with built-in Snapshots and recovery tools, backup and protection capabilities from Rubrik, and ClearShark's innovative solutions that combine all of these will help prevent cyber attacks and provide quick recovery capabilities.”

The NetApp data fabric provides flexible, robust, cost-efficient and secure data

management capabilities from edge to core to cloud and multi-cloud. These capabilities support file, block and object storage for any application and can be secured at rest and in transit with AES-256 encryption. Further file protection is provided with file policy whitelist capabilities (Fpolicy) which provides instant actions to be taken to allow, deny, scan and quarantine files based on policy. NetApp also has numerous ways to manage time-based, versioned Snapshots/copies of data, which enables data recovery to a specific point in time before the ransomware attack. These security capabilities can be applied to any zero-trust framework as desired to help prevent cyber-attacks and support instantaneous data recovery in minutes instead of hours or days.

In addition, Rubrik provides innovative ways of modernizing and automating data backup and recovery, which helps safeguard data from ransomware, and supports robust data recovery to undo cyber-attacks.

Using the combined capabilities of NetApp, Rubrik, and an innovative, solutions-based partner like ClearShark makes for the best solution to help government agencies prevent ransomware attacks and be able to recover back to a safe and productive operating environment, which virtually undoes the cyberattack.

To learn more about how to shift agency data management into overdrive, you can [listen to the entire podcast](#) on this critical topic at FedInsider.



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