2020 Vision: Game-Changing Data Storage Trends for the Year Ahead

By Sean Derrington on February 5, 2020

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As data proliferates at an exponential rate, companies must not only store it. They must approach Data Management expertly and look to new approaches. Companies that take new and creative approaches to data storage will be able to transform their operations and thrive in the digital economy.

How should companies approach data storage in the years to come? As we look into our crystal ball, here are important trends in 2020. Companies that want to make the most of data storage should be on top of these developments.

A Data-Centric Approach to Data Storage

Companies today are generating oceans of data – and not all of that data is equally important to their function. Organizations that know this – and know which pieces of data are more critical to their success than others – will be in a position to better manage their storage and better leverage their data.

Think about it. As organizations deal with a data deluge, they are trying hard to maximize their storage pools. As a result, they can inadvertently end up putting critical data on less critical servers. Doing so is a problem because it typically takes longer to access data on slower, secondary machines. It's this lack of speed and agility that can have a detrimental impact on businesses' ability to leverage their data.

Traditionally organizations have taken a server-based approach to their data backup and recovery deployments. Their priority is to back up their most critical machines rather than focusing on their most business-critical data.

So, rather than having backup and recovery policies based on the criticality of each server, we will start to see organizations match their most critical servers with their most important data. In essence, the actual content of the data will become more of a decision-driver from a backup point of view.

The most successful companies in the digital economy will be those that implement storage policies based not on their server hierarchy but on the value of their data.

The Democratization of Flash Storage

With the continuing rise of technologies like IoT, artificial intelligence, and 5G, there will be an ever-greater need for high-performance storage. This will lead to the broader acceptance of all-flash storage. The problem, of course, is that flash storage is like a high-performance car – it's cool and sexy, but the price is out of reach for most.

And yet traditional disk storage simply isn't up to the task. Disk drives are like your family's old minivan – reliable but boring and slow, unable to turn on a dime. But we're increasingly operating in a highly digital world where data has to be available the instant it's needed, not the day after. In this world, every company – not just the biggest and wealthiest ones – needs high-performance storage to run their business effectively.

As the cost of flash storage drops, more storage vendors , are bringing all-flash arrays to the mid-market and more organizations will be able to afford this high-performance solution. This price democratization will ultimately enable every business to benefit from the technology.

The Repatriation of Cloud Data

Many companies realize that moving to the cloud is not as cost-effective, secure, or scalable as they initially thought. They're now looking to return at least some of their core data and applications to their on-premises data centers.

The truth is that data volumes in the cloud have become unwieldy. And organizations are discovering that storing data in the cloud is not only more expensive than they thought but It's also hard to access that data expeditiously due to the cloud's inherent latency.

As a result, it can be more beneficial in terms of cost, security, and performance to move at least some company data back on-premises.

Now that they realize the cloud is not a panacea, organizations are embracing the notion of cloud data repatriation. They're increasingly deploying a hybrid infrastructure in which some data and applications remain in the cloud, while more critical data and applications come back home to an on-premises storage infrastructure.

Immutable Storage for Businesses of All Sizes

Ransomware will continue to be a scourge to all companies. Because hackers have realized that data stored on network-attached storage devices is extremely valuable, their attacks will become more sophisticated and targeted. This is a serious problem because backup data is typically the last line of defense. Hackers are also attacking unstructured data. The reason is that if the primary and secondary (backup) data is encrypted, businesses will have to pay the ransom if they want their data back. This increases the likelihood that an organization, without a specific and immutable recovery plan in place, will pay a ransom to regain control over its data.

It is not a question of if, but when, an organization will need to recover from a 'successful' ransomware attack. Therefore, it's more important than ever to protect this data with immutable object storage and continuous data protection. Organizations should look for a storage solution that protects information continuously by taking snapshots as frequently as possible (e.g., every 90 seconds). That way, even when data is overwritten, older objects remain as part of the snapshot – the original data. That way, even when data is overwritten,--there always will be another, immutable copy of the original objects that constitute the company's data that can be instantly recovered … even if it's hundreds of terabytes.

Green Storage

Global data centers consume massive amounts of energy, which contributes to global warming. Data centers now eat up around three percent of the world's electricity supply. They are responsible for approximately two percent of global greenhouse gas emissions. These numbers put the carbon footprint of data centers on par with the entire airline industry.

Many companies are seeking to reduce their carbon footprint and be good corporate citizens. As part of this effort, they are increasingly looking for more environmentally-friendly storage solutions,

those that can deliver the highest levels of performance and capacity at the lowest possible power consumption.

In 2020, organizations of all sizes will work hard to get the most from the data they create and store. By leveraging these five trends and adopting a modern approach to data storage, organizations can more effectively transform their business and thrive in the digital economy.

The 'Prevention Era' Will Be Overtaken by the 'Recovery Era'

Organizations will have to look to more efficient and different ways to protect unstructured and structured data. An essential element to being prepared in the 'recovery era' will involve moving unstructured data to immutable object storage with remote replication, which will eliminate the need for traditional backup. The nightly backup will become a thing of the past, replaced by snapshots every 90 seconds. This approach will free up crucial primary storage budget, VMware/Hyper-V storage, and CPU/memory for critical servers.

While data protection remains crucial, in the data recovery era, the sooner organizations adopt a restore and recover mentality, the better they will be able to benefit from successful business continuity strategies in 2020 and beyond.

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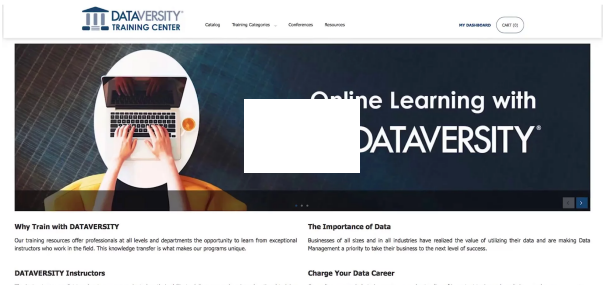

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