Product Spotlight
Improving Data Protection with Data Virtualization - Actifio

Storage Switzerland, LLC

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Anyone in IT these days is painfully aware of the challenge organizations face dealing with ever-increasing amounts of data they need to properly store and protect. The irony is that the majority of data growth is not just the new data per se but the multiple copies of data the organization needs to meet many specific needs such as daily backups, snapshots, copies that feed analytics systems, disaster recovery (DR), and test/dev work, to name just a few. In many cases the ratio of copy data to the original are approximately 20 to 1.

The Real Problem

In order to store, protect and distribute all this data, organizations invested heavily in expensive, complicated storage solutions. Storage systems eventually evolved to provide features that address limitations in data protection solutions such as long intervals between backups, long backup windows and lengthy recovery times. Features like RAID, Erasure Coding, replication and snapshots provide data protection while deduplication and compression reduce the data footprint.

However, while these features increase data durability and persistence, they also increase storage system cost and complexity since different systems implement and manage these functions differently. Additionally, moving data to the cloud further increases this complexity since organizations must also protect and manage their data in the cloud in addition to their on-premises data.

Solving the Problem

In a recent discussion on these issues, my colleague George Crump accurately observed that, "For the last ten years we've been talking about how primary storage is transforming data protection. However, what primary storage has actually been doing all that time is trying to compensate for data protection deficiencies, which has made storage extremely complex. But if we can fix the data protection deficiencies, then we don't need all the things that have been added to primary storage."

Clearly, there is a need for a new approach that simplifies storage complexity, drastically reduces copy data proliferation, while significantly improving management and protection of an organization's data. Just as virtualization of server, compute and network resources improved the efficiency and management of these resources, virtualizing data presentation can achieve similar results.

Actifio specializes in data virtualization, or what many in the industry call copy data management (CDM), which delivers robust data protection and disaster recovery functionality. Actifio's platform is a simple, SLA driven CDM solution that decouples data management from storage, network and server infrastructure while eliminating copy data redundancy.

At Actifio's core is its patented Virtual Data Pipeline (VDP) software, which is delivered in a virtual appliance for hypervisors and clouds, and a purpose built hardware appliance. Actifio's hybrid cloud oriented data virtualization approach results in a more efficient use of storage, infrastructure and bandwidth. Compared with traditional backup and DR approaches, Actifio provides almost instant access to large quantities of data, regardless of location, at lower costs. By virtualizing data management, Actifio may eliminate the need for traditional siloed data protection applications.

How it Works

Actifio's CDM solution creates and maintains one immutable copy of data, called a "gold copy", which is stored on a storage pool behind their appliance. Actifio then leverages snapshots in tandem with change block tracking to efficiently capture and protect changes to the data. Actifio can create an unlimited number of virtual point-in-time copies of data on demand without increasing the data footprint. Users can easily mount point-in-time copies of production data as needed.

Additionally, Actifio replicates data for DR in three different ways. These include its bandwidth-optimized Dedup Async Replication, StreamSnap, and OnVault. These features enable near instant recoveries and the ability to write to cloud object storage targets like AWS S3, Azure Blob or IBM (Cleversafe). OnVault can instantly mount images from object storage, without moving the data. Actifio also provides Resiliency Director, a DR orchestration engine that provides 1-click automated DR failovers and automated DR tests. This also permits rapid data and application recovery tests without disrupting business operations.

Actifio supports heterogeneous environments, including Windows, Linux, Unix variants, VMware, Hyper-V, Oracle, SAP, SQL Server, Exchange and Isilon. Actifio also can easily scale to petabytes of data.

StorageSwiss Take

Actifio is an enterprise class CDM virtualization platform that works across enterprise applications, all forms of enterprise storage, the full lifecycle of application data and any enterprise use case. Actifio's comprehensive solution provides a new data protection model addressing current data protection deficiencies thus ensuring data is continuously protected and always available. It enables organizations to eliminate copy data redundancy and truly manage data cost effectively while eliminating the need for various expensive and complex point solutions. In short, Actifio provides data protection, business resilience, compliance, data mobility, security, and analytics capabilities that all organizations need today.

About Actifio

Actifio's founding vision – optimizing the copy data within the data center – has helped establish the $46 Billion global copy data management market, becoming one of the fastest growing enterprise technology companies from inception ever. We've built a culture that not only values excellence and skill, but also our desire to do something meaningful in taking responsibility for our customers' success and for each other. Because, if you take care of people, they'll take care of the results. Visit Actifio to learn more https://www.actifio.com

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