IBM Launches Storage-as-a-Service (STaas) for Hybrid Cloud Deployments

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The "as-a-service" model of delivering storage capability for the hybrid cloud is becoming more widely adopted as the world works to move beyond the COVID-19 pandemic. Storage delivered as a service really is the cloud expression of distributed storage, allowing customers to pull together data from separate "data hubs" as logical resources for the hybrid cloud.

As customers accelerate their cloud migrations of enterprise applications to hybrid clouds, as-a-service offers a new consumption model for acquiring and expanding storage resources – and doing so quickly. It supports data growth by scaling rapidly – and by charging based on usage. In June, 2021, IDC reported that worldwide enterprise storage capacity grew 20.6% year-over-year in 1Q21, totaling more than 118 exabytes worldwide in that quarter.

On July 20, 2021, IBM Storage announced its new "storage-as-a-service" (also known as STaaS) – a managed service for purposes of high availability, enhanced security, backup/restore and business continuity. The service, which can be installed on customers' premises or at the customer's co-location (co-lo) site, will become generally available in September, 2021.

IBM's STaaS offer supports block storage in an expandable IBM FlashSystem that can be deployed on-premises or off-premises (including co-lo sites). In this way, it helps customers' migration of enterprise workloads to the hybrid cloud. To support this managed service, IBM personnel maintain the storage systems and software, installing updates for system software as new versions become available.

The business model for storage-as-a-service will transform the traditional data-center setup, both from a financial and operational point-of-view. To support storage-as-a-service, IBM configures the storage hardware (e.g., IBM FlashSystem), then runs and manages it over the term of a contract. Initially, IBM delivers 50% more capacity than requested to enable growth. As capacity is used, IBM automatically delivers more when the margin falls to 25%. At all times, the customer pays for only storage capacity that they are actually using.

A Focus on Data Management and Automation

From a business perspective, the administration of the hardware is shifting from IT personnel to IBM itself. This is in-step with a broad industry trend to focus on the higher levels of the technology stack, and to automate repetitive maintenance tasks as much as possible. There is a person in the loop, as well: A technical account manager, which IBM calls a concierge, monitors the storage-as-a-service storage resources, and installs new system software to the latest release levels.

At first, customers may view this new storage service as a convenience, quickly converting Capex acquisitions to Opex operations. But it is more than that, because it allows customers to scale their data resources quickly, and to protect their data as it grows.

The underlying FlashSystem storage hardware supports 7-9s of availability (uptime), the new Safeguarded Copy function, and IBM FlashCore Modules for data compression and encryption with high performance. IBM delivers the storage as described above, maintains it, and manages the system on an ongoing basis.

The July 20 announcement included IBM's Safeguarded Copy software, which protects data through its use of immutable, unchangeable copies of data. The Safeguarded Copy software's immutable data snapshots cannot be accessed or altered by unauthorized users, IBM said. It can be integrated with IBM Security QRadar software, which monitors data centers for detection and identification of potential cybersecurity attacks.

Storage-as-a-Service: Analysis

Overall, this STaaS offer is primarily an Opex strategy for customers who are trying to keep pace with the need to backup/restore and maintain rapidly growing hybrid cloud data. For customers, it will change the model of storage acquisition from a CapEx expense to a pay-as you-go utility pricing plan that can be adjusted every pay period, based on use. That fits with the cloud usage model, which maps business applications and business processes to available storage resources, coupled with a pay-per-use utility plan.

The IBM Storage as-a-Service will compete in the marketplace with other as-a-service offers from other vendors (e.g., Dell-EMC and HPE). However, it will be differentiated by its leverage of IBM's FlashSystem hardware, IBM Spectrum Virtualize, and support for IBM's high-availability, data protection and security software. The new storage-as-a-service offer

will become available in EMEA and the Americas in September, with broader availability across the world's geographies following in CY2022.

Context

We've seen a variety of "as-a-service" offerings in recent months, as businesses moved to New Normal IT operations based on cloud-based utility payment models. Often, these "as-a-service" offers configure compute and storage together for customers' private cloud, often landing in on-prem installations for security and regulatory compliance reasons.

Driving the IBM offer is the option of rapid recovery from ransomware, malware or cybersecurity attacks -- and quick recovery from disruptions caused by natural disasters (e.g., earthquakes, floods and fires). Earlier this year, IBM announced and shipped its HCI hyperconverged compute/storage platform for Edge locations (e.g., bank branches, retail stores, factories and oil/gas production locations).

As more companies migrate their enterprise applications and data to the hybrid cloud, their need to manage distributed data will become vital to the business. This has become a high-priority goal for IT organizations, because storage is growing rapidly worldwide, at 20% a year or more, as IDC reported in its Worldwide Storage Tracker in June, 2021. This growth is being driven by a flood of unstructured data coming from Edge and Cloud applications, added to large data-sets in customers' data lakes and data warehouses.

Key Takeaways

IBM's announcement of Storage as a Service is significant, because it will expand the portfolio of flexible infrastructure "as-a-service" offers from IBM, moving into 2022 and beyond. For customers, as-a-service will reduce administrative costs and introduce more automated management – perhaps leveraging automated management for the first time at some small and medium (SMB) IBM Storage sites.

Customers will see storage-as-a-service as a new financial option for IT deployments, across their enterprise or organization, at a time when outlays for capital equipment are difficult. They will pay a single rate, regardless of the scale or pattern of deployment, based on the number of terabytes/month used – and the performance and capacity of the storage system infrastructure.