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Dynamic Cloud Storage Solutions for Service Providers

Scalable. Secure. Simple.

The 451 Take

Organizations face a wide range of challenges in meeting their data storage needs, and what makes matters worse is that rapid data growth makes each of these challenges more difficult to overcome. Flexible consumption models and managed services have the potential to help organizations handle the incoming data wave while offsetting their limited human resources. Although cloud storage has emerged as a key technology both for cloud-native applications and for hybrid and multicloud infrastructures, service providers need to offer more than just basic data retention and storage performance.

Based on our survey findings, customers will need service providers to help them with data management and data protection issues. Service providers can create differentiation by their ability to use cloud to help customers consolidate multiple storage silos and to simplify or even eliminate migrations. To do this efficiently, organizations need to have a better understanding of the workload requirements for the data they are managing. For example, the ability to identify active and inactive data can have a major impact on workload efficiency and cost control since archive and secondary storage is typically a fraction of the price of high-performance NVMe flash storage.

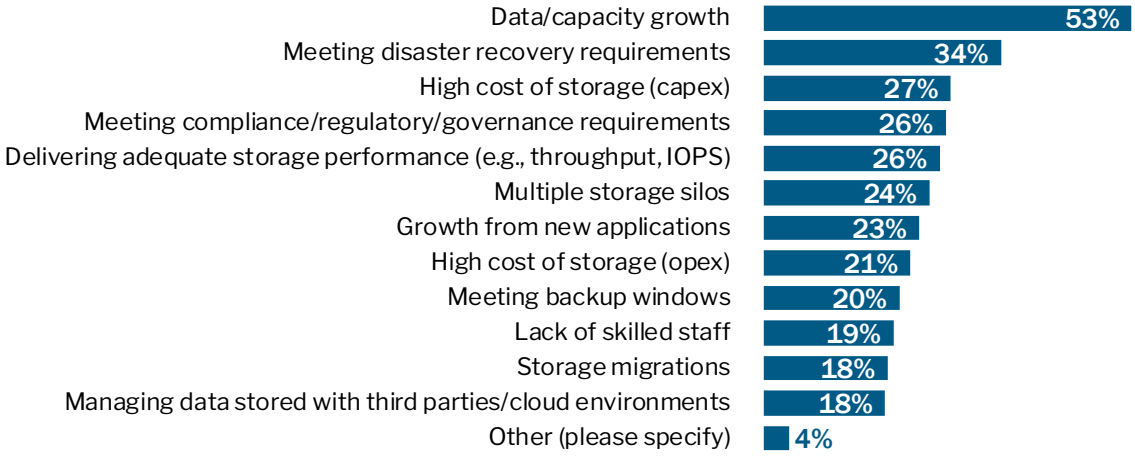
Providers can also deliver value by offering integrated and automated backup and disaster recovery since such services can offload the management responsibility from IT staffers and allow them to focus on their production workloads. Flexibility to seamlessly deliver and provide data access using multiple storage protocols (file, block and object) is key since many production applications still require block or file-level storage access, and they will likely not be rewritten to support the object storage protocols that are common in public cloud repositories.

Top Storage Pain Points

Source: 451 Research's Voice of the Enterprise: Storage, Budgets and Outlook 2020

Q: What are your organization's top pain points from a storage perspective? (Please select all that apply.)

Base: All respondents (n=451)



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Data growth is the top storage-related pain point for organizations, and the problem will only get worse. According to 451's Voice of the Enterprise: Budgets and Outlooks 2020 survey, data grew 20% in 2019, and **data growth is expected to approach 25% in 2020**. In contrast, the budget for on-premises storage is only expected to increase by 10% on average. As a result, organizations clearly need to be able to squeeze more value out of their precious storage budgets. It is notable that for the 59% of respondents who indicated flat to declining storage spending in 2020, the primary reason for the budget cut was the **spending shift from on-premises to cloud storage services**. To run an efficient infrastructure in the modern area will likely require robust on-premises storage resources used in conjunction with public cloud storage services.

Business Impact

Cloud storage is growing for several reasons, including the gradual shift to opex for infrastructure purchases and the need for flexibility to meet changing business needs. These transitions will not be easy since there is a learning curve in migrating to cloud, and moving data is still a challenge for organizations, especially if they do not want to disrupt production operations. Cloud storage offerings, whether they are sold as services or as on-premises systems managed by service providers, need to provide intelligence not only to boost efficiency but to avoid potential outages and performance drops. Organizations need to factor in a few elements when making cloud storage decisions:

THE STRUGGLE TO DELIVER ADEQUATE PERFORMANCE. IOPS, throughput and latency continue to be a major issue for many organizations. While all-flash storage has become mainstream, it is still considered expensive relative to disk and hybrid flash arrays, and the expenditure is questionable if applications are not heavily utilizing the performance of these systems. Cloud storage services have a major advantage over on-premises resources because they can be provisioned on demand and, more importantly, can be released when they are no longer needed to reduce costs.

END-TO-END DATA MANAGEMENT. Organizations are struggling with managing multiple data silos and the migration of operations between these siloes. This clearly shows there is a strong need for data management capabilities that can stretch across various storage systems and services.

INTEGRATED DISASTER RECOVERY AND GOVERNANCE REQUIREMENTS. Organizations are turning to cloud-based disaster recovery and backup services as an alternative to running secondary datacenters for disaster recovery. Cloud is attractive for DR due to the elasticity of services, which allows customers to add resources only when they need them – a site failure, for example, or if performance or capacity needs exceed the capabilities of on-premises resources.

Looking Ahead

Customers need to get more value out of their storage investments while reducing risk caused by legacy contract terms and vendor lock-in. Data protection/resiliency and storage management are two key areas organizations should be focusing on for improvements. Going forward, customers will need to have flexible infrastructure resources that can deliver consistent performance regardless of where a workload resides – a company-owned datacenter, colocation datacenter or public cloud. In hybrid and multicloud scenarios, the ability to compress and deduplicate data is important because it reduces the amount of data that needs to be transferred over WAN links between on-premises sites and cloud providers.

Storage vendor lock-in was a major issue for customers because it prevented them from switching vendors, but with storage virtualization and other technologies, it is now easier to migrate data to new platforms when switching to a new vendor. A growing number of organizations are looking to use operational expenditures to acquire storage resources for their infrastructure. Opex models appeal to organizations because they allow consumption to scale up, scale down or hibernate on demand, which provides organizations with the flexibility required for digital transformation.