

## OPTIMIZATION OF CLOUD STORAGE

Cloud storage is a cloud computing model that stores data on the Internet through a cloud computing provider who manages and operates data storage as a service. It's delivered on demand with just-in-time capacity and costs, and eliminates buying and managing your own data storage infrastructure. Cloud storage is a model of computer data storage in which the digital data is stored in logical pools. The physical storage spans multiple servers (sometimes in multiple locations), and the physical environment is typically owned and managed by a hosting company. These cloud storage providers are responsible for keeping the data available and accessible, and the physical environment protected and running. People and organizations buy or lease storage capacity from the providers to store user, organization, or application data. Cloud storage services may be accessed through a co located cloud computing service, a web service application programming interface (API) or by applications that utilize the API, such as cloud desktop storage, a cloud storage gateway or Web-based content management systems. Cloud storage is based on a virtualized infrastructure with accessible interfaces, near-instant elasticity and scalability, multi-tenancy and metered resources. Cloud-based data is stored in logical pools across disparate, commodity servers located on premises or in a data center managed by a third-party cloud provider.

Security is the single most cited factor that may make a company reluctant -- or at least cautious -- about using public cloud storage. The concern is that once data leaves a company's premises, the company no longer has control over how it's handled and stored. Cloud providers address these concerns by making public the

steps they take to protect their customers' data, such as encryption for data in flight and at rest, physical security and storing data at multiple locations. Access to data stored in the cloud may also be an issue and could significantly increase the cost of using cloud storage. A company may need to upgrade its connection to the cloud storage service to handle the volume of data it expects to transmit; the monthly cost of an optical link can run into the thousands of dollars. A company may run into performance issues if its in-house applications need to access the data it has stored in the cloud. In those cases, it will likely require either moving the servers and applications into the same cloud or bringing the necessary data back in-house. If a company requires a lot of cloud storage capacity and frequently moves its data back and forth, the monthly costs can be quite high. Compared to deploying the storage in-house, the ongoing costs could eventually surpass the cost of implementing and maintaining the on-premises system. Distributed storage is a distributed computing model that stores information on the Internet through a distributed computing supplier who oversees and works information stockpiling as a help. It's conveyed on request with without a moment to spare limit and costs, and disposes of purchasing and dealing with your own information stockpiling framework.