Lecture no.26
Department: Information and Library Science
Subject: Information Storage & Retrieval
Name of the lecture: Cloud Storage: definition
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# cloud storage

## Defintion:

Cloud storage is a service model in which data is maintained, managed, <u>backed up</u> remotely and made available to users over a network (typically the <u>Internet</u>). Users generally pay for their cloud data storage on a per-consumption, monthly rate. Although the per-<u>gigabyte</u> cost has been radically driven down, <u>cloud storage providers</u> have added operating expenses that can make the technology more expensive than users bargained for. Cloud security continues to be a concern among users. Providers have tried to deal with those fears by building security capabilities, such as <u>encryption</u> and <u>authentication</u>, into their services.

There are three main cloud-based storage architecture models: public, private and hybrid.

<u>Public cloud</u> storage services provide a <u>multi-tenant</u> storage environment that is most suited for <u>unstructured data</u>. Data is stored in global data centers with storage data spread across multiple regions or continents. Customers generally pay on a per-use basis similar to the <u>utility payment model</u>. This market sector is dominated by Amazon Simple Storage Service (<u>S3</u>), <u>Amazon Glacier</u> for <u>cold storage</u>, <u>Google Cloud Storage</u>, <u>Google Cloud Storage Nearline</u> for cold data and <u>Microsoft Azure</u>.

<u>Private cloud</u>, or on-premises, storage services provide a dedicated environment protected behind an organization's <u>firewall</u>. Private clouds are appropriate for users who need customization and more control over their data.

<u>Hybrid cloud</u> is a mix of private cloud and third-party public cloud services with <u>orchestration</u> between the platforms for management. The model offers businesses flexibility and more data deployment options. An organization might, for example, store actively used and structured data in an on-premises cloud, and unstructured and archival data in a public cloud. In recent years, a greater number of customers have adopted the hybrid cloud model. Despite its benefits, a hybrid cloud presents technical, business and management challenges. For example, private workloads must access and interact with public cloud storage

**providers, so compatibility and solid network connectivity are very important factors. An enterprise-level cloud storage system should be scalable to suit current needs, accessible from anywhere and application-<u>agnostic</u>.**