ENSURE DATA PROTECTION WITH DATA BACKUP

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What is the purpose of data protection?

Storage technologies for protecting data include a disk or tape backup that copies designated information to a disk-based storage array or a tape cartridge. Tape-based backup is a strong option for data protection against cyber attacks. Although access to tapes can be slow, they are portable and inherently offline when not loaded in a drive, and thus safe from threats over a network..

Organizations can use mirroring to create an exact replica of a website or files so they're available from more than one place.
Storage snapshots can automatically generate a set of pointers to information stored on tape or disk, enabling faster data recovery, while continuous data protection (CDP) backs up all the data in an enterprise whenever a change is made.

What are the three elements of data protection?

When we discuss data and information, we must consider the CIA triad. The CIA triad refers to an information security model made up of the three main components: confidentiality, integrity and availability. Each component represents a fundamental objective of information security.

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Data portability

The ability to move data among different application programs, computing environments or cloud services presents another set of problems and solutions for data protection. On one hand, cloud-based computing makes it possible for customers to migrate data and applications among cloud service providers. On the other hand, it requires safeguards against data duplication.

Either way, cloud backup is becoming more prevalent. Organizations frequently move their backup data to public clouds or clouds that backup vendors maintain. These backups can replace onsite disk and tape libraries, or they can serve as additional protected copies of data.

Effective way to backup data

Backup has traditionally been the key to an effective data protection strategy. Data was periodically copied, typically each night, to a tape drive or tape library where it would sit until something went wrong with the primary data storage. That's when organizations would access and use the backup data to restore lost or damaged data.

Backups are no longer a standalone function. Instead, they're being combined with other data protection functions to save storage space and lower costs.

Backup and archiving, for example, have been treated as two separate functions. Backup's purpose was to restore data after a failure, while an archive provided a searchable copy of data. However, that led to redundant data sets. Today, some products back up, archive and index data in a single pass. This approach saves organizations time and cuts down on the amount of data in long-term storage.