

Glossary of Terms

ISCSI

Internet SCSI (Small Computer System Interface) Uses IP as a transport mechanism to request and transfer files.

This is an IP-based storage networking standard for linking data storage facilities, developed by the Internet Engineering Task Force.

RAID – (Redundant Array of Independent Disks)

A means of storing the same data in different places providing redundancy and performance. There are at least nine types of RAID plus a non-redundant array (RAID-0)

SAN – (Storage Area Network)

A high-speed special-purpose network (or sub network) that interconnects different kinds of data storage devices with associated data servers on behalf of a larger network of users.

NAS - (Network Attached Storage)

This is hard disk storage that is set up with its own network address rather than being attached to the department computer that is serving applications to a network's workstation users.

Serial ATA - (Serial Advanced Technology Attachment or SATA)

This is a new standard for connecting hard drives into computer systems. It is based on serial signaling technology, unlike current IDE hard drives that use parallel signaling.

Fibre Channel

This technology offers point-to-point, switched and loop interfaces. It is designed to interoperate with SCSI, IP and other protocols. Fibre channel is more flexible; devices can be as far as ten kilometers (about six miles) apart if optical fibre is used as the physical medium. Optical fiber is not required for shorter distances, however, because Fibre Channel also works using coaxial cable and ordinary telephone twisted pair.

Logical Unit Number

(LUN) is a unique identifier used on a SCSI bus that enables it to differentiate between up to eight separate devices (each of which is a logical unit). Each LUN is a unique number that identifies a specific logical unit, which may be an end user, a file, or an application program.

Virtualization

This is the pooling of physical storage from multiple network storage devices into what appears to be a single storage device that is managed from a central console. It is commonly used in a SAN.

Information Life Cycle Management (ILM)

This is a comprehensive approach to managing the flow of an information system's data and associated meta data from creation and initial storage to the time when it becomes obsolete and is deleted.

Disk-to-disk-to-tape

This is an approach to computer storage backup and archiving in which data is initially copied to backup storage on a disk storage system and then periodically copied again to a tape storage system.

Tiered storage

This is the assignment of different categories of data to different types of storage media in order to reduce total storage cost. Categories may be based on levels of protection needed, performance requirements, frequency of use, and other considerations. Since assigning data to particular media may be an ongoing and complex activity, some vendors provide software for automatically managing the process based on a company-defined policy.

Continuous Data Protection - (CDP)

Also called continuous backup, This is a storage system in which all the data in an enterprise is backed up whenever any change is made.

Backup

This is the activity of copying files or databases so that they will be preserved in case of equipment failure or other catastrophe.

The Sarbanes-Oxley Act of 2002 (often shortened to SOX)

This legislation was enacted in response to the high-profile Enron and WorldCom financial scandals to protect shareholders and the general public from accounting errors and fraudulent practices in the enterprise.

HSM (Hierarchical Storage Management)

This is policy-based management of file backup and archiving in a way that uses storage devices economically and without the user needing to be aware of when files are being retrieved from backup storage media.

SCSI

This is a set of ANSI standard electronic interfaces that allow personal computers to communicate with peripheral hardware, such as disk drives, tape drives, CD-ROM drives, printers and scanners faster and more flexibly than previous interfaces.

ATA (Advanced Technology Attachment)

This is the official name that ANSI group X3T10 uses for what the computer industry calls IDE.

Disk Duplexing

This is a variation of disk mirroring in which each of the multiple storage disks has its own SCSI controller. This is the practice of duplicating data in separate volumes on two hard disks to make storage more fault-tolerant.

Linear Tape-Open (LTO)

This is an open-format tape storage technology developed by HP, IBM and Certance. The term "open-format" means that users have access to multiple sources of storage media products that will be compatible.

Storage Snapshot

This is a set of reference markers, or pointers, to data stored on a disk drive, on a tape, or in a storage area network (SAN). A snapshot is something like a detailed table of contents, but it is treated by the computer as a complete data backup. Snapshots streamline access to stored data and can speed up the process of data recovery.

JBOD - (for "just a bunch of disks," or sometimes "just a bunch of drives")

This is a derogatory term - the official term is "spanning" - used to refer to a computer's hard disks that haven't been configured according to the RAID.

Array

This is a method for storing information on multiple devices. In general, an array is a number of items arranged in some specified way - for example, in a list or in a three-dimensional table.

Network File System - (NFS)

This is a client/server application that lets a computer user view and optionally store and update file on a remote computer as though they were on the user's own computer.

DLT - (digital linear tape)

This is a form of magnetic tape and drive system used for computer data storage and archiving. A special compression algorithm, known as Digital Lempel Ziv 1 (DLZ1), facilitates storage and retrieval of data at high speeds and in large quantities.

Disk Striping

This is the process of dividing a body of data into blocks and spreading the data blocks across several partitions on several hard disks. Each stripe is the size of the smallest partition.

Near Line Storage

Near-line storage is the on-site storage of data on removable media (tapes, CDs, DVDs). The removable storage idea dates back to the mainframe computer and, in the age of the smaller computer, remains popular among individuals, small businesses, and the large enterprise.