Storage→day1

CIA → Confidential, Integrating and Availability

Each company and each individual have business continuity plan

As of January 2024, the largest hard disk drive (HDD) available commercially is 32 TB. However, the capacity reported by an operating system to the user may be smaller than the manufacturer's stated capacity. This is because the operating system uses some space, as does data redundancy and file system structures.

## **Types of Interfaces**

* Parallel Advanced Technology Attachment (PATA)
* Serial Advanced Technology Attachment (SATA)
* Small Computer System Interface (SCSI)
* NVMe (Non-volatile Memory Express)

Which harddrive used in servers?

Hard drive manufacturer → hp, wd, seagate, kingston technology

NVMe (**Non-Volatile Memory Express**) is a protocol designed to use the PCI Express (PCIe) bus to connect SSD (solid-state drive) storage to servers or CPUs.

RAID stands for Redundant Array of Independent Disks. It's a data storage technology that combines multiple physical disk drives into logical units to improve performance and data redundancy.

RAID works by storing the same data across multiple drives in the same system. This protects data in case a drive fails, and allows another node in the system to take over. Different RAID configurations, such as RAID 0, RAID 1, or RAID 5, offer different benefits, such as increased performance or fault tolerance.

Minimum harddrive required for raid5, raid1, raid0

Hot swappable there is option for we can replace the hardware.

Command

→lsblk

→apt-get install mdadm