

Object Storage Developments

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What has been missing



HIGH PERFORMANCE INNOVATION

- Since the dawn of the 1st file system over 40 years ago file systems manage both access and allocation of storage
 - Access function is really authentication of what you can read and write much of which is really an OS function
 - Allocation function has been done by file systems as storage is addressed by blocks in the disk drive
- If allocation could be done at the disk drive then allocation could be made more intelligent
- The disk drive can know its topology better than a file system on a server

- Many systems have with some success over the years but there were limits
 - Mainframes have done this for decades and still do, but not at the disk drive
 - Cray, CDC and others had I/O offload but not at the disk drive 1970-1990s
 - T10 OSD (Object Storage Device) was an attempt in the late 2000s to offload at the disk but between the recession and objects failed in my opinion ☹️
- Object interfaces are going to be more successful with an integrated I/O stack including disks that support object interfaces than without one