Block-level storage is a type of storage commonly deployed by larger businesses and enterprises in storage area networks (SANs) and similar large-scale storage systems. Each block in a block-level storage system can be controlled as an individual hard drive, and the blocks are managed by a server operating system.

Block-level storage protocols like iSCSI, Fibre Channel and FCoE (Fibre Channel over Ethernet) are utilized to make the storage blocks visible and accessible by the server-based operating system. This is in contrast with file-level storage, in which the storage drives are configured with a storage protocol like NFS or SMB/CIFS

File Level Storage - This storage technology is most commonly used for storage systems, which is found in hard drives, NAS systems and so on. In this File Level storage, the storage disk is configured with a protocol such as NFS or SMB/CIFS and the files are stored and accessed from it in bulk.

- **The File level storage is simple to use and implement.**
- **It stores files and folders and the visibility is the same to the clients accessing and to the system which stores it.**
- **This level storage is inexpensive to be maintained, when it is compared to its counterpart i.e. block level storage.**
- **Network attached storage systems usually depend on this file level storage.**
- **File level storage can handle access control, integrate integration with corporate directories; and so on.**
- **"Scale Out NAS" is a type of File level storage that incorporates a distributed file system that can scale a single volume with a single namespace across many nodes. Scale Out NAS File level storage solutions can scale up to several petabytes all while handling thousands of clients. As capacity is scaled out, performance is scaled up.**
- **Click here to view StoneFly products featuring File Level Storage.**

Block Level Storage - In this block level storage, raw volumes of storage are created and each block can be controlled as an individual hard drive. These Blocks are controlled by server based operating systems and each block can be individually formatted with the required file system.

- **Block level storage is usually deployed in SAN or storage area network environment.**
- **This level of storage offers boot-up of systems which are connected to them.**
- **Block level storage can be used to store files and can work as storage for special applications like databases, Virtual machine file systems and so on.**
- **Block level storage data transportation is much efficient and reliable.**
- **Block level storage supports individual formatting of file systems like NFS, NTFS or SMB (Windows) or VMFS (VMware) which are required by the applications.**
- **Each storage volume can be treated as an independent disk drive and it can be controlled by external server operating system.**
- **Block level storage uses iSCSI and FCoE protocols for data transfer as SCSI commands act as communication interface in between the initiator and the target.**