

- Hybrid storage system is developed to improve the I/O performance in HEP environment with low cost.
- Hybrid storage system consists of Hard Disk Drive and Solid State Drive which are integrated into a hybrid drive for caching.
- Hybrid storage system integrates the advantage of capacity in Hard Disk Drive and the advantage of I/O performance in Solid State Drive.
- Comprehensive tests about I/O performance have been made to show the availability of hybrid storage system and find the suitable parameter configuration of hybrid storage system.
- Results show that:
  - The hybrid storage system has better I/O performance with low cost.
  - The high cost-effective storage system can be obtained with suitable parameter configuration.
  - The suitable parameter configuration of hybrid storage system can be applied not only in HEP environment but also in other large data-intensive computing environment .