

High-performance IO

Storage has become a key component in HPC systems, and the challenges for the Exascale era are huge. In this research line we address such problems both for data and metadata.

Objectives

- **Parallel File System Optimization.** Using techniques developed to optimize local storage, we are investigating under the [JLESC](#) umbrella, the utilization of such techniques to optimize the I/O Scheduler selected in a PFS.
- **Research using new devices.** Devices like NVRAM and Kinetic drives are included in our research. We are using them to create new dynamic and multi-paradigm filesystems. We use them into data schedulers research to improve the I/O Stack. We also built hardware and software to know the energy used on storage devices with different workloads.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

Source URL (retrieved on 28 Mar 2023 - 05:18): <https://www.bsc.es/ca/research-development/research-areas/big-data/high-performance-io>