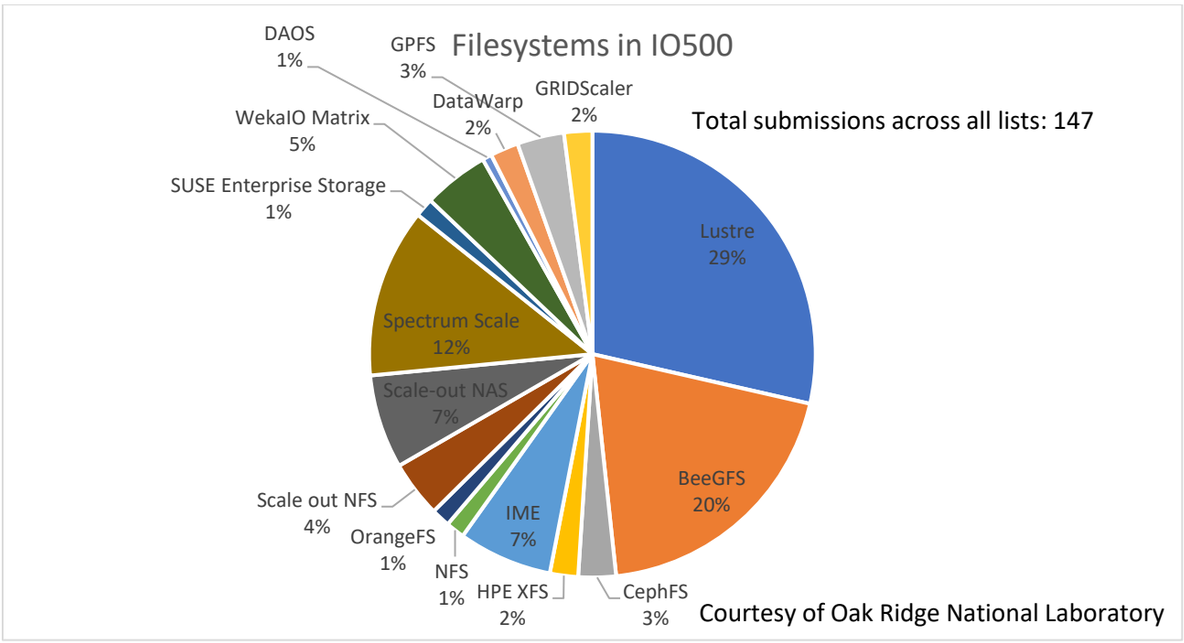
Lustre and IO-500

The Lustre® parallel file system has a long tradition in appearing as the file system of choice for many of the Top500 [1] supercomputer systems. A new IO-centric benchmarking project known as the IO-500 [2] has been created. The IO-500 was developed as a community led effort to highlight the importance of I/O in HPC systems as well as drive storage system vendors to look at I/O patterns other than block-aligned large I/O requests. Lustre features prominently in the IO-500 with 29% of the overall submission listing Lustre and six of the top ten ranked systems are using Lustre from the September 2019 Supercomputing edition of the list.

Submitting to the IO-500 challenge helps to bring attention to Lustre platform and promote the use of open software. Andreas Dilger provided a guide to understanding the IO-500 benchmark and tuning changes as part of the Lustre Users Group 2019 conference. [3] Please take a look at the presentation for ideas on how to improve your Lustre file system performance. The IO-500 also offers a simplified submission known as the “10-node Challenge”, requiring only 10 client nodes to perform the test.



About OpenSFS

Open Scalable File Systems, Inc. is a strong and growing nonprofit organization dedicated to the success of the Lustre® file system. OpenSFS was founded in 2010 to advance Lustre development, ensuring it remains vendor-neutral, open, and free. Since its inception, OpenSFS has been responsible for advancing Lustre and delivering new releases on behalf of the open source community, initially via centralized and ongoing funding initiatives. Presently, OpenSFS harnesses the power of collaborative development to fuel innovation and growth of Lustre worldwide through working-groups, events, and coordinating dialogue between Lustre vendors and users.

References

[1] www.top500.org
[2] https://www.vi4io.org/io500
[3] http://cdn.opensfs.org/wp-content/uploads/2019/07/LUG2019-IO500_Storage_Benchmark_for_HPC-Dilger.pdf

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