

8X faster

solver runs compared to Lustre file system.<sup>1</sup>

“With an OpenFOAM code with high amounts of I/O, we used Intel Optane persistent memory as a file system on the node. We used some of our tools to get data into and out of the node and used the persistent memory as the datastore. The solver ran over 8X faster—12 percent of the original run time—compared to going to the Lustre file system for data.”<sup>1</sup>

**Adrian Jackson, Senior Research Fellow, EPCC**

# NEXTGenIO Research Cluster Helps Solve Exascale I/O Challenges at EPCC

EPCC is the supercomputing center based at the University of Edinburgh. Its mission is to accelerate the effective exploitation of novel computing throughout industry, academia, and commerce. As core-counts have increased over the years, the performance of I/O subsystems have struggled to keep up with computational performance and have become a key bottleneck on today’s largest systems. EPCC’s new research cluster built by Fujitsu provided computing resources for NEXTGenIO research. Work at EPCC focused on the overall technical and architectural needs to maximize the potential of Intel® Optane™ persistent memory. EPCC’s new Intel Optane persistent memory cluster delivered promising benefits for the NEXTGenIO project.

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<sup>1</sup> For more complete information about performance and benchmark results, visit <https://www.intel.com/content/www/us/en/customer-spotlight/stories/edinburgh-parallel-computing-center-customer-story.html>