## NEXTGenIO Workshop on applications of NVRAM storage to exascale I/O



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## Performance results of MONC using NVRAM

The I/O bottleneck is still a challenge to overcome when an HPC system is built. The NEXTGenIO project has investigated this issue over the past four years. A prototype hardware platform based around new non-volatile memory (NVRAM) technology has been designed and built. NVRAM is used to bridging the latency gap between memory and disk. In addition to the hardware, a full software stack has also been developed and deployed on the prototype.

One of the applications used to evaluate the platform's effectiveness regarding I/O performance and throughput is MONC, the Met Office/NERC Cloud simulator. This application is a large-eddy simulation code for cloud and atmospheric modelling. This application generates large diagnostic files at regular intervals as well as a checkpoint file at the end of the execution, allowing to continue the simulation from that point.

This poster will present and discuss the preliminary results of evaluating MONC on the NEXTGenIO platform. Several usage scenarios will be discussed.

## Keywords

MONC, NVRAM, IO

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