Upgrade to visualization and analysis system eases path for beginning supercomputer users

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Nautilus, the supercomputer at the heart of the University of Tennessee's Remote Data Analysis and Visualization (RDAV) Center, has recently been upgraded.

RDAV has added four SGI UV 10 units to the existing SGI UV 1000. This upgrade adds an additional 128 cores and 512 GB of memory to the system, bringing the overall total to 1152 cores and 4.5 TB of memory. This upgrade will allow more researchers to use high-performance computing (HPC) to analyze data. These new UV 10 nodes, named "Harpoon," will be available to users of the system starting on Friday, November 30.

Funded by the National Science Foundation (NSF), Nautilus is housed on the campus of the Oak Ridge National Laboratory (ORNL) and is used by researchers all over the United States for visualizing and analyzing data sets in ways that are not possible on smaller systems.

"These nodes will allow us to bridge the gap between novice and expert users, providing a pathway by which beginning users can gain the skills and knowledge necessary to scale to the largest datasets on the full Nautilus machine," said RDAV Director Sean Ahern.

RDAV associate director Jian Huang added, "On these nodes we anticipate that novel application fields that traditionally have not utilized

HPC platforms would start their transition to join the HPC communities using well equipped, well support and easy-to-access computing infrastructures with a much shortened learning curve."

In addition to providing a space where researchers can experiment with new analysis codes, these SGI UV 10 units can provide scientists with access to a dedicated machine with no contention from other users. This upgrade will also allow users of the Nautilus system to take advantage of all 16 of RDAV's NVIDIA Tesla GPUs.

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