

PRESS RELEASE



SGI Enables Harvard Medical School and Massachusetts General Hospital to Improve Patient Care and Accelerate Medical Breakthroughs

Center for Advanced Medical Imaging Sciences (CAMIS) Radiology Department leverages in-memory system for real-time imaging and research

MILPITAS, CA – April 30, 2014 – SGI (NASDAQ: SGI), the trusted leader in high performance computing and Big Data, today announced that Massachusetts General Hospital and Harvard Medical School's Center for Advanced Medical Imaging Sciences (CAMIS) Radiology Department has selected SGI to enhance research capabilities for diagnostic medical imaging.

CAMIS was faced with an aging computational and storage legacy architecture that inhibited the organization from obtaining the high-quality, real-time diagnostic imaging necessary for innovation in neurology, cardiac, and related medical research departments. Imaging applications deployed by CAMIS utilize large amounts of memory to perform the necessary calculations that produce high-quality images, however the increased complexity of data sets required the calculations to be made in multiple pieces thus slowing the rate the medical center was able to produce innovative findings.

After securing a funding award from the National Institute of Health (NIH), CAMIS researched several offerings from a number of system vendors to replace its legacy architecture. Thanks to its proven ability to solve large-scale, data-intensive problems with industry-standard components while providing ease-of-use benefits, CAMIS ultimately chose industry standard SGI®UV™ 2000 and SGI®UV™ 20 large shared-memory systems and SGI® InfiniteStorage™ 5000. CAMIS purchased the solution through ComnetCo, an SGI channel partner specialized in providing high performance computing solutions to technical markets across the United States.

The comprehensive, highly scalable shared-memory technology from SGI has enabled CAMIS to update their current research infrastructure with increased computational power, enabling higher-quality, real-time Magnetic Resonance (MR) and Positron Emission Tomography (PET) images not possible with other platforms. SGI's UV architecture also allows CAMIS to explore new techniques for the diagnosis and treatment of many life-threatening illnesses, reduce radiation exposure for at-risk patients, and foster new insights in diagnostic medical imaging research.

"In the last decade we have seen tremendous advances in imaging technology in part thanks to the innovations in data intensive computing technology. As a result of these advances and research we are doing at CAMIS, scientists and doctors will be able to utilize high-quality, real-time diagnostic imaging to increase diagnostic accuracy and decrease risks to patients," said Dr. Georges El Fakhri, director of CAMIS at Massachusetts General Hospital. "With the help of technology like SGI's, radiology research is

able to take a route that will facilitate increased knowledge about patients and fuel remarkable advances in the medical industry.”

The need to balance a desire for a powerful computational architecture with better accessibility for researchers and a decreased administrative burden positioned SGI as the standout enterprise-grade vendor to advance CAMIS’ research and diagnostic capabilities. Scaling to 2,048 cores, 4,096 threads, and up to 64 terabytes (TB) of globally shared memory, the UV 2000 system delivers more than twice the price/performance of competitor’s offerings, while using industry-standard components, including the Intel® Xeon® processor family and standard Linux® distributions.

To increase ease of management for its scientists, CAMIS researchers were able to design a research solution around the SGI UV 2000 platform that enables scientists to seamlessly move the same code from their laptop to a much larger computational environment efficiently and with ease. Not having to adapt application development for alternative CPUs or port code to work better with proprietary operating systems enables CAMIS’ researchers to rapidly prototype new software, lowering their administrative IT burden, increasing research workflow capabilities, and retaining the flexibility to operate much like a traditional scale-out compute/storage solution. With SGI UV solutions CAMIS researchers are able to continue consolidating multiple jobs to run in parallel, in a scheduled batch mode similar to traditional Linux cluster architectures.

“The life sciences have increasingly shifted toward a data-first model to drive breakthroughs across every aspect of medical research. The data surge has created a strong demand for scalable computing and storage solutions that help drive real-time insights and improve the quality of research,” said Jorge Titinger, president and CEO for SGI. “High-resolution imaging is just one of many medical research disciplines that will benefit from advances in scalable, real-time data capture – we are honored to have Massachusetts General Hospital and Harvard Medical School’s Center for Advanced Medical Imaging Sciences Radiology Department choose [ComnetCo](#) and SGI to power their world-class research efforts.”

About SGI

SGI, the trusted leader in high performance computing (HPC), is focused on helping customers solve their most demanding business and technology challenges by delivering technical computing, Big Data analytics, cloud computing, and petascale storage solutions that accelerate time to discovery, innovation, and profitability. Visit sgi.com (sgi.com/) for more information.

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