

University of Florida Pioneers Grid Computing and High-Speed Networking With Cisco High Performance Computing Solutions

High Performance Computing Center Supports Multidisciplinary Teams and Collaborative Research

SAN JOSE, CA -- (MARKET WIRE) -- November 14, 2006 -- Cisco® (NASDAQ: CSCO) today announced that the University of Florida High Performance Computing Center (HPCC) successfully deployed solutions from Cisco to support its campus-wide grid computing. The HPCC and campus grid serve six major areas of research: high-energy physics, chemical physics and materials science, coastal and estuarine modeling, medical physics, computational biology, and computer science and engineering.

The Cisco technologies have enabled the University to combine its next generation computing grid with high-speed networking to produce a 100-fold increase in campus compute power and network throughput. Technologies included in the solution are Cisco SFS 7000 and 7008 InfiniBand Server Switches, SFS 3012 Multifabric Server Gateway, Catalyst 6500 Series Switches, MDS 9000 Storage Fabric Switches, and 7600 Series Routers.

Today, complex science and engineering simulations can easily grow into hundreds of Terabytes or even Petabytes of data. For example, one University of Florida project involves the study of Alzheimer's, Mad Cow Disease, and other diseases that result from misfolded proteins. A single protein-folding simulation used to take more than a year to complete, but can now be accomplished in less than ten weeks. Combined with high-speed access to national computing resources across the Florida LambdaRail and the National LambdaRail, the University's on-campus grids enable it to tackle problems using enormous data sets, and also share the data among collaborative teams applying multiple viewpoints and parallel approaches.

"By bringing together our experts in HPC and data management with Cisco's best networking architects and engineers, we have accomplished something extraordinary and worth boasting about," said Erik Deumens, director of the HPC Center at the University of Florida. "Our on-campus capabilities have been increased by a couple orders of magnitude, and our collaborative findings will help improve future generations of commercially available solutions."

One important component of the HPCC computing grid is its server cluster, which delivers 1.4 Gigabytes per second of processor-to-storage throughput today, with upcoming enhancements expected to raise it to 2.5 Gigabytes per second. This exceptional performance was achieved by the joint University-Cisco team,

allowing a parallel file system to be deployed across an InfiniBand fabric of unprecedented scale and achieving performance that is near 10 Gigabits per second Infiniband wire rate.

In addition, the University of Florida HPC and Cisco are collaborating to investigate new solutions for high performance computing environments, including research on server fabric interconnections, high-speed cluster-to-cluster connections and links to Florida LambdaRail (FLR) and National LambdaRail (NLR). The University's campus grid also provides a platform for researchers to enhance their participation in the Open Science Grid (OSG). OSG members collectively deploy and own the shared infrastructure, which spans more than 40 sites in the United States, South America, and Asia. High-speed networks will eventually link more than 20,000 processors to provide a collaborative platform for multiple sciences. The University of Florida, and Cisco as its partner, can use the OSG for both production and research projects in the sciences to test new grid technologies.

"Our Campus Grid computing and networking initiatives directly benefit the university as a whole by enriching our research programs, demonstrating our leadership in HPC, and improving our ability to compete for funding and top researchers," said Marc Hoit, CIO for the University of Florida. "Together with Cisco, we have learned how to design and build better solutions."

About the University of Florida

UF is a major, public, comprehensive, land-grant, research university. The state's largest and most comprehensive university, Florida is among the nation's most academically diverse public universities. Florida has a long history of established programs in international education, research and service. It is one of only 17 public, land-grant universities that belongs to the Association of American Universities.

About Cisco Systems

Cisco (NASDAQ: CSCO) is the worldwide leader in networking that transforms how people connect, communicate and collaborate. Information about Cisco can be found at <http://www.cisco.com>. For ongoing news, please go to <http://newsroom.cisco.com>.

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