Apple Previews Xgrid Technology

Apple has previewed Xgrid, a computational clustering technology from Apples Advanced Computation Group (ACG). Xgrid helps scientists and others working in compute intensive environments to fully utilise all IT resources, including desktops and servers, by creating a grid enabled virtual IT environment that takes advantage of unused computing capacity to run batch and workload processing. Available as a free beta download today from www.apple.com.au, Xgrid brings Apples legendary ease-of-use to computational clustering by providing the easiest way to run compute intensive applications, such as the popular gene-sequencing application BLAST, on multiple Macs using Apples Rendezvous networking technology. Xgrid makes it easy to turn your Mac cluster into a supercomputer, said Philip Schiller, Apples senior vice president of Worldwide Product Marketing. The new Xgrid software agents use Apples breakthrough Rendezvous networking technology to automatically discover, connect and manage tasks across available systems in a Mac cluster. With Xgrid running on Xserve G5 servers (also announced today) in a 42U industry-standard rack, up to 84 Power PC G5 processors can be clustered to create a supercomputer with 1.5 teraflops of processing power dedicated to solving compute intensive problems. Management is simple with Xgrid. The Xgrid Console has an intuitive Aqua interface that makes it easy to execute UNIX commands, run shell scripts or feed applications across a cluster. Xgrid ships with built-in support for the popular gene-sequencing application BLAST and comes with a software developer kit that makes porting custom compute intensive applications to Xgrid easy. Customers from NASA, Genentech, Simon Fraser University, Reed College and Virginia Tech have been testing the new technology on clusters of Mac desktops, portables and servers. Mathematical researchers led by Dr. Peter Borwein at Simon Fraser University in Burnaby, British Columbia, have used Xgrid in their exploration of the difficult problem of finding low autocorrelation binary sequences.With the help of Xgrid, the group has harnessed the computing power of machines in student labs at the university to create a system capable of processing data at more than 30 GHz. The Xgrid BLAST application enables bioinformatics researchers to perform distributed BLAST searches on a cluster running the Xgrid software, said Richard H. Scheller, Ph.D., senior vice president of Research, Genentech. We tested Xgrid BLAST by querying DNA sequence files for matches against multi-gigabyte genomic databases on a cluster of four dual-processor Xserves. Xgrid was tested at NASA Langley Research Center in Hampton, Virginia. The FORTRAN-based jet noise prediction code Jet3D was run across a distributed cluster of Power Mac G5, Power Mac G4 and Xserve G4 systems. A total of eight G4 and two G5 processors were run, resulting in performance of approximately 32 gigaflops.

Contacts

John Marx
+61 2 9641 8399
mailto: jmarx@asia.apple.com