Business News

■ SGI Linux Supercluster

SGI released the SGI Altix 3000 family of servers and superclusters. SGI Altix 3000 systems combine SGI's supercomputing architecture with Intel Itanium 2 processors and the Linux operating system.

For users in physical and life sciences, manufacturing, oil and gas, government and defence markets, SGI Altix 3000 superclusters offer scalability and performance increases over traditional Linux-based clusters and UNIX OS-based servers.

Each node runs a single Linux operating system image with up to 64 Itanium 2 processors and 512GB of memory. With multiple nodes using the SGI built-in cluster interconnect, data is transmitted up to 200 times faster than with conventional clustering methods, enabling SGI Altix 3000 to scale to hundreds and eventually thousands of processors.

Supercomputers typically require massive amounts of global shared memory to tackle complicated models, like global climate prediction or wind tunnel simulations for aircraft design, which cannot be easily solved in smaller pieces.

The marriage of global shared memory and the Linux operating system creates opportunities for technical users on a standards-based platform that is built like a cluster yet works like a supercomputer. The foundation of this system is the balanced system architecture provided by the SGI NUMAlink system interconnect fabric.

Common to both the SGI Origin 3000 server and the new SGI Altix 3000 family, NUMAlink delivers memory and communication information between cluster nodes up to 200 times faster than standard clustering switches.

Data crosses over an SGI NUMAlink switch, round-trip, in as little as 50 nanoseconds-less time that it takes a beam of light to travel 50 feet – enabling balanced, sustained application performance on supercomputing workloads. The ultra-fast NUMAlink connection's low latency and high bandwidth provides the basis for global shared memory.

The SGI Altix 3000 family of servers and superclusters are available in both desk-side entry-level and the scalable supercluster models. The entry-level server is available in the first quarter of 2003 and starts at US $70,176 (U.S. list) at four processors with up to 32GB of memory and scales to 12 processors and 96GB of memory.

The supercluster model, also available this quarter, scales to hundreds of processors and over 1TB of memory, with future scalability to 2,048 processors and 16TB of global shared memory. A 64-processor SGI Altix 3000 system starts at US $1,129,262 (U.S. list), roughly one-third the price of a 64-processor IBM eServer pSeries 690-based system and less than half the HP Superdome. ■

http://www.sgi.com

■ LinuxVille

The German city of Schwäbisch Hall (population 36,000) will build its IT infrastructure entirely on SuSE Linux – replacing a more costly Windows installation.

The town will deploy SuSE Linux on IBM Intel-based servers as well as up to 400 PCs – saving the city an estimated amount of more than Euro 100,000 over the Windows installation.

"My decision for Linux is based on three factors," said Hermann-Josef Pelgrim, Mayor of Schwäbisch Hall, Baden-Württemberg, Germany. "First, I expect a considerable reduction of our IT expenses due to lower software license fees. This will contribute to the consolidation of our municipal budget. Second, based on Linux's excellent grades from the experts on security, our IT structure will become more secure. Third, the choice of open standards ensures interoperability among different technical offerings."

"Schwäbisch Hall's decision reflects the strongly growing acceptance of Linux in enterprises and governments around the world," said Boris Nalbach, CTO of SuSE Linux AG. "With the lower software licensing fees, as well as the lower administrative costs associated with Linux, the town will be able to provide the most cost effective civil services to its citizens."

Initially, the project includes the migration from Windows and Microsoft Office to the SuSE Linux Enterprise Client and OpenOffice.org for 120 client PCs, which will increase up to 400 client PCs in the final stage. On the server side, SuSE Linux Enterprise Server will be deployed on IBM's eServer xSeries systems.

The overall project is accompanied by an innovative financing package that enables the Municipality to accommodate customized extensions. ■

http://www.suse.de/uk/company/press/

■ Embedded market grows

MontaVista Software Inc., has released MontaVista Linux Consumer Electronics Edition 3.0 (CEE) – a Linux operating system and cross-development environment specifically designed for consumer electronics applications such as mobile phones, digital televisions, set-top boxes and automotive telematics.

Recently, several global consumer electronics companies, including Sony, Panasonic (Matsushita), Toshiba America and Yamaha, have taken equity positions in MontaVista.

CEE targets consumer device-specific processors and will initially support the TI OMAP 1510/5910 (and the associated Innovator Development Kit) and the IBM PowerPC 405LP (and the associated Arctic II Reference Board). Other processing platforms will be supported in the future.

CEE forms the foundation of solution stacks from software partners in key

mobile, home and automotive vertical markets. It includes the fully preemptive MontaVista Linux kernel and real-time scheduling, small footprint targets and flash-based journaling file systems.

Consumer Electronics Edition 3.0 also incorporates dynamic power management features, file system enhancements and new tools to measure performance, system timing and memory size. It features support for XIP (eXecute In Place) of the kernel and applications, as well as streaming media optimizations.
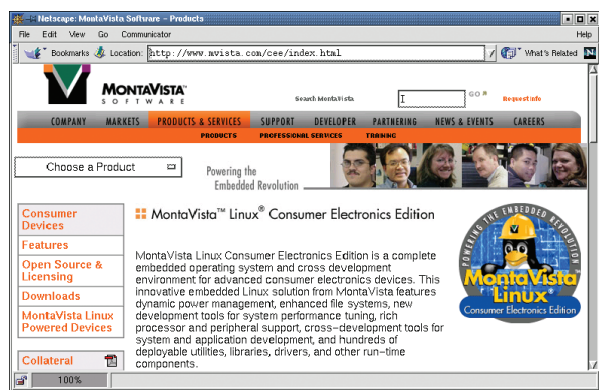
CEE integrates with consumer market middleware such as the J2ME compatible WebSphere Micro Environment from IBM, and graphics packages such as QT/E from and MontaVista Graphics. Companies like Holland-based Zintec Holding and Araneo in Israel have also chosen MontaVista Linux for their digital television market products.

Linux is becoming essential for many mobile and wireless applications because of its flexibility and ease of use. Texas Instruments' wireless customers will benefit from the power management, file system and new tools.

Consumer Electronics Edition 3.0 will be available in the first quarter of 2003.   ■

http://www.mvista.com

■ Red Hat for governments

Red Hat, Inc. announced the appointment of Tom Rabon as executive vice president of Corporate Affairs. Rabon brings more than 25 years of experience working in the government and the private sector.

Tom Rabon worked extensively with governments around the world to create market opportunities in emerging markets such as China and South America. Rabon will lead Red Hat's government affairs and public policy initiatives.

Rabon most recently served as vice president of Global Government Affairs at Lucent for six years. He led a team of government professionals in the U.S. and other countries who were responsible for representation of Lucent with all local, state, federal and international governments.

Prior to that Rabon spent 13 years as a state vice president of Law and Government Affairs at AT&T. Before working in the private sector, Rabon was a member of the North Carolina State Legislature. Rabon received a BA in political science from the University of North Carolina.

As many governments deploy open source technologies so their nations can participate in the global knowledge based economy. Red Hat has the international presence, and with its skills and ambition hopes to lead this trend.   ■

http://www.redhat.com/about/

■ Easier clusters

Platform Computing Inc. has said that it will offer a £75-CPU, entry-level version of Platform Clusterware for small-scale Linux compute clusters.

The Clusterware can be deployed in a matter of minutes on smaller clusters of up to 64 CPUs running Linux on 32-bit hardware. Small workgroups, startup businesses or departments can roll out low-cost industry standards-based clusters faster and so reduce operational costs. Platform also support Clusterware Pro, which supports both Linux and Unix environments with more than 64 CPUs.

This product is an entry-level integrated software package for the use and

administration of clusters, providing a range of commercially-supported, easy to implement cluster management solutions. Incorporating workload management, system monitoring and administration through an easy to use browser-based interface, Clusterware supports multiple scheduling policy centers.

Clusterware provides a standards-based architecture and is easy to extend with SOAP/XML interfaces for web services and open APIs, and runs on a variety of Linux distribu-

tions including Red Hat, Debian and SuSE Linux. Platform technical support is available via email and through the Platform website.   ■

http://www.platform.com/clusterware

Typical hardware architecture for a compute cluster