# MandrakeClustering

## For exceptional HPC performance and ease-of-use

MandrakeClustering: the power and speed of a Linux cluster combined with the stability and ease-of-use of the world-famous Mandrake Linux distribution. A unique blend for incomparable HPC performance.

Crash simulations, acoustics, treatment of seismic modeling, flow modeling, medicine development, MonteCarlo simulations, risk analysis, etc. The needs for high computing are varied and numerous. Simple to install, MandrakeClustering addresses these needs with a complete offering, user-friendly and high-performance tools and excellent hardware support.

Built in two versions, MandrakeClustering is available for 32-bit x86 and AMD Opteron™ processors.

#### Fast and powerful:

The high speed connections (SCI) included in MandrakeClustering offer an extremely low latency period and an incredible speed of connection between nodes. Moreover, the software has been optimized with Intel® Pentium® IV Xeon compilers in order to offer improved performance on Intel® processors while GCC has been used for AMD processors.

#### **User-friendly:**

In order to ensure an optimal environment, MandrakeClustering has a graphical interface with several administration utilities. You can add or remove nodes with a simple click, create virtual partitions with ease, allocate users to specific partitions and configure the cluster. An efficient graphical tool, Ganglia, ensures constant monitoring of the cluster's activities.

#### **Easily to install:**

MandrakeClustering is installed in record time thanks to PXE technology, Clusterautosetup and ka-deploy. DrakCluster helps configure the cluster with ease and MandrakeClustering is then deployed across your system in just a few minutes. Moreover with the new URPMI Parallel technology, you can update your software on all nodes simultaneously.

### **Excellent hardware support:**

MandrakeClustering benefits from the advanced hardware support assured by MandrakeSoft. The installation on each node will self adjust to your specific hardware (SCSI, network, file system, etc.), which will allow the best support even for the most heterogeneous configurations. In addition, MandrakeClustering supports both mono et multi processor systems with up to 4Gb memory for 32-bit architectures and 16Gb for AMD Opteron<sup>TM.</sup>

## A complete and coherent offer

Mandrake Clustering is a complete and coherent environment, based on Mandrake Linux, the world-famous operating system. It benefits from SCI drivers, several message parsing interfaces (Mpich, Lam, Pvm) and a multitude of calculation utilities (mathematic libraries). Moreover, your whole system is easy to maintain thanks to graphical monitoring utilities (Ganglia), efficient parallel commands (Ka-tools, Gexec...) and DrakCluster.

