Multicore computing nodes for evaluation

As announced during the Advanced Seminar on Multicore Platforms, the organizers of the event decided to make the 3 special Intel multicore computing nodes available for a wider community during this month, June 2009. These include both types of Intel Xeons (with and without Hyper-threading, but only quad-core), and the one with the only available hex-core devices (without Hyper-threading). See features below. One of the computing nodes also contains a gpGPU with CUDA support (only for single precision FP).

If you are willing to run evaluation tests on any of these nodes, please send an email to the organization (to mcore@di.uminho.pt) with your identification and affiliation, briefly describing the tests that you aim to perform on any of these nodes.
We'll send you later the login and password data for remote access by SSH and to visualize graphics through X.11.

Hardware Configuration

- **Node with 2x Intel Xeon 5400 and NVidia GPU**

  CPU: Dual quad-core Intel Xeon E5420, 2.50 GHz
  RAM: 8GB
  GPU: NVidia 8800GT with 1GB RAM
  SSH address: mc5400.di.uminho.pt

- **Node with 2x Intel Xeon 5500** (*Nehalem*)

  CPU: Dual quad-core Intel Xeon E5520, 2.26 GHz
  RAM: 12GB
  SSH address: mc5500.di.uminho.pt

- **Node with 4x Intel Xeon 7400**

  CPU: Quad hex-core Intel Xeon E7450, 2.40 GHz
  RAM: 64GB
  SSH address: mc7400.di.uminho.pt

Software Configuration

All nodes are with CentOS 5.2 plus the following Intel software packages:
- Intel Compiler Suite Professional V. 11.0
- Intel Math Kernel Library V. 10.1
- Intel Threading Building Blocks
- Intel MPI Library
- MPICH, MPICH2 and OpenMPI.

The node with the NVidia GPU 8800GT also includes the following NVidia software:
- CUDA Toolkit version 2.1 for RedHat Enterprise Linux 5.x
- CUDA SDK 2.1 for Linux