HLT tests

For all the machines there are 2 types of figures are gathered:

Performance of CPU *and* compiler, memory, operating.

There is no possibility to isolate the raw CPU performance so the figures will represent the system as a whole. This also implies that all tests are not done per CPU or core.

Maximum power consumption under load (Real Power and Apparent Power)

The maximum power consumption is calculated as an average for a *short* period of time by all measurement equipment. Also the values are measured while the machine is running in normal mode, not at boot time.

Three benchmarks are used:

- SPECINT2006

All tests are compiled using gcc (version 3.4, -02 -fPIC flags, 64 bits). These are the default cmt compile parameters for Gaudi software. No other compilers (icc) or arhitecture special options are used.

- Moore vXXX

This release is used as the code was proven to be stable and there already exist performance figures based on this sotfware.

- Moore v1r8

The latest Moore release. Should be usefull to estimate the total number of servers needed. Not all machines will be tested with this benchmark. Results can be extrapolated from the relative vales of SPECINT2006 and Moore vXXX on the target servers compared to existing results.

Results:

System description	SPECINT	Moore vXXX (events/s)	Moore v1r8 (events/s)	Real Power (W)	Apparent Power (VA)
Intel Xeon X3210 (Kentsfield), 1 CPU, 2.13 GHz, 4 cores, 2 GB RAM	10.9	???	???	120 W	130 VA
Intel Xeon E5310 (Clovertown), 2 CPUs, 2.66 GHz, 8 cores, 4 GB RAM	???	???	907	???	???
Intel Xeon 5100 (Woodcrest), 2 CPUs, 3 GHz, 4 cores, 4 GB RAM	???	???	761	???	???
Intel Xeon (Nocona), 2 CPUs, 2.8 GHz, 1core, 1 GB of RAM	???	???	182 (32 bits)	???	???

-- RaduStoica - 25 Sep 2007

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