

Parallel Computing Facilities for Engineering Students

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- 32 node beowulf cluster
- gigabit network
- mpich



what is a cluster?

- now - network of workstations
- name of first such cluster was beowulf
- uses standard computer and network hardware
- con: communication is slower than “real” supercomputers
- pro: much cheaper!



Dell PowerEdge 750 1U rackmount

- 3.2GHz Pentium 4, HT
- 512kb/1Mb cache
- 1Gb RAM
- 40Gb SATA (os, swap)
- gigabit ethernet
- names n01 - n32

Dell PowerEdge 1750 1U rackmount

- dual 3.2GHz Xeon HT
- 2Mb cache
- 2Gb RAM
- 2x 143b SCSI, software RAID mirror
- 3x gigabit ethernet
- NFS, job control, interface to outside world
- x12.eng.uah.edu

no jobs on the server! enforced with cpu time limit

network

- Dell Powerconnect 5224 / 5324
- managed layer 2 switch
- 24 gigabit ports
- connected with aggregated link, 4Gbit total

power

- 3x APC SmartUPS 2200VA
- good for a only few minutes
- intended for short duration outages, brownouts
- online monitoring / remote control

SunFire T1000



- Sun Niagara T1 processor
- 8 core UltraSPARC
- 32 threads
- 8Gb RAM
- 2x 72 Gb iSCSI
- 4x gigabit ethernet
- mpich, shared memory, threads

venus vs. bragg



Support Web	support.eng.uah.edu
NUT status page	eng.uah.edu/cgi-bin/upsstats.cgi
Jason's home page	www.eng.uah.edu/~jdw