

Steve Jones June 28, 2010





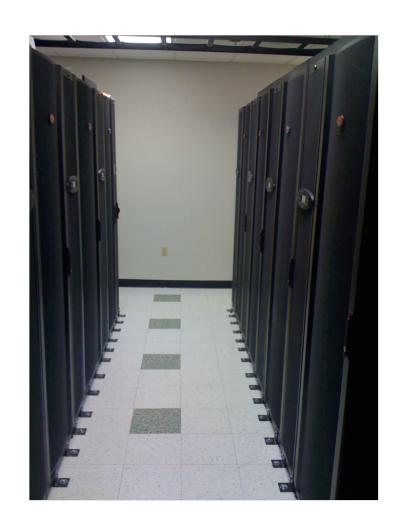
- Create your SUNetID at http://sunetid.stanford.edu
- •Send hardware address to ctrsp-2010@lists.stanford.edu
- Large Memory Workstations
 - Dual Quad-Core Intel Westmere-EP Processors
 - •32 GB Memory per workstation
 - •2 TB disk space
 - High Speed Graphics Adapter
 - •Located in conference room on mezzanine level in Terman and CFD Lab (Bldg 500)
- Printers located in or near each major work area
- •Contact ctrsp-2010@lists.stanford.edu for all support issues
 - •VPN, Printer configuration, Applications, SUNetID
- Drop-in support available at CTR 101
- •Web site http://ctr.stanford.edu (summer program)





Certainty Compute Cluster

- •560 Compute Nodes
- 6-Core Intel Westmere-EP (24core/node)
- •36GB Memory/Node
- QDR Infiniband
- •High Speed Parallel File System
- •Intel Compilers/OSU MVAPICH







Connect to Certainty:

\$ ssh sunetid@certainty-a

Interactive Session:

\$ qsub -I

(-Inodes=[n]:ppn=[p]

Submit Job Scripts:

\$ qsub job.pbs

```
Ismjones@ihf bounce]s mpif90 -o bounce bounce.f
bounce.f(80): (col. 7) remark: LOOP WAS VECTORIZED.
[smjones@ihf bounce]s mpif90 -o bounce bounce.f
bounce.f(80): (col. 7) remark: LOOP WAS VECTORIZED.
[smjones@ihf bounce]s qsub -i -lnodes=10:ppn=B
qsub: waiting for job 215.jhf.stanford.edu to start
qsub: job 215.jhf.stanford.edu ready

[smjones@compute-2-40 ~]s /share/apps/mvapich-1.0/intel/bin/mpirun_rsh -np 80 -hostfile $P8S_NODEFILE bounce/bounce
Number of processors = 80
msglen = 80 bytes, elapsed time = 0.0245 msec
msglen = 80 bytes, elapsed time = 0.0396 msec
msglen = 800 bytes, elapsed time = 0.0396 msec
msglen = 80000 bytes, elapsed time = 0.1821 msec
msglen = 8000000 bytes, elapsed time = 0.1821 msec
msglen = 8000000 bytes, elapsed time = 24.4642 msec
latency = 2.4 microseconds
bandwidth = 327.008444993092 MBytes/sec
(approximate values for mp_bsend/mp_brecv)
[smjones@compute-2-40 ~]$ exit
logout
```





Connect to Certainty:

\$ ssh -X sunetid@certainty-a

TotalView Interactive:

\$ qsub -I -X

(-Inodes=[n]:ppn=[p])

Run TotalView:

\$ mpirun_rsh -np [n] -tv -hostfile \$PBS_NODEFILE [cmd]







Web site http://hpcc.stanford.edu
Select HPCC Wiki from the menu bar





Questions?

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