

Kohinoor cluster Specification

Specification:

- 12 compute nodes, 4 compute nodes with 2 GPU each node, 1 frontend/login node
- 8 core Dual CPU Intel Xeon E5-2665 2.4GHz 20MB cache
- IBM System Storage DS3512 Express Single Controller
- 25TB aggregate storage capacity
- NFS share over Infiniband
- Infiniband interconnect
- SGE (Open Grid Scheduler)
- OPENMPI-1.4.5

Hardware

Frontend Node

- IBM System x3650 M4 2U rack model
- 8-core Dual CPU Intel Xeon E5-2665 2.4GHz 20MB cache
- 64GB ECC DDR3 1600MHz LP RDIMM RAM
- 900GB 2.5in 10K RPM 6Gbps SAS
- Emulex 8Gb FC single-port HBA
- Mellanox Infiniband HCA

Compute Nodes without GPU

- 12 compute nodes without GPU
- IBM System x iDataPlex dx360 M4 2U rack model
- 8-core Dual CPU Intel Xeon E5-2665 2.4GHz 20MB cache
- 32 GB ECC DDR3 1333MHz LP RDIMM RAM
- 500GB 7.2K RPM 6Gbps NL SATA
- Mellanox Infiniband HCA

Compute Nodes with GPU

- 4 compute nodes with 2 GPU each node
- IBM System x iDataPlex dx360 M4 2U rack model
- 8-core Dual CPU Intel Xeon E5-2665 2.4GHz 20MB cache
- 32 GB ECC DDR3 1333MHz LP RDIMM RAM
- 500GB 7.2K RPM 6Gbps NL SATA

- NVIDIA Tesla M2090
- Mellanox Infiniband HCA

Storage

- IBM System Storage DS3512 Express Single Controller 2U rack model
- 3TB 3.5in 7.2K RPM NL SAS
- 8Gb FC 4 Port Daughter Card
- 25TB aggregate storage capacity
- NFS share over Infiniband from frontend node

Network

Interconnect

- Mellanox Infiniband 36 port Switch
- Infiniband 4X QDR

Administrative/ Management Network

- Gigabit Ethernet

Operating Environment

OS

- Rocks cluster toolkit 5U5 based on Centos 5U8

Job Scheduler

- Sun Grid Engine (Open Grid Scheduler)

MPI

- OpenMPI-1.4.5