

# Orion - Hardware

Orion is built on a supply of Intel-based hardware made available to Clarkson by IBM as a part of a Shared University Research grant program.

The specs:

All Servers are running Red Hat Enterprise Linux (rhel) v6.8. We are using Torque (PBS) and Maui for our Queue Management and Job Scheduler. Nodes are deployed using ROCKS v6.

## **Head Node** (1)

IBM 3250 M3 with 8 Intel cores @ 2.8GHz, 16 GB of 1033MHz RAM, a pair of mirrored 300GB 15K RPM SAS drives and two 1Gbps ethernet interfaces

## **Compute Blades** (10 blades, 120 cores total) Theoretical TFLOPS: 19.008

IBM HS23 AC1 with 12 Intel E5-2640 cores @ 2.5HGz, 96GB of 1033MHz RAM, a pair of mirrored 146GB 15K RPM SAS system drives, four 10Gbps ethernet and 40Gbps Infiniband connectivity

## **Networking**

40Gbps Voltaire Infiniband switch

IBM RackSwitch G8052R ethernet switch

## **Storage**

5TB of iSCSI connected storage shared for users and software applications