

# **Memorandum of Understanding**

## **For Using the Boise State Beowulf Cluster**

**15th October , 2007**

1. The Beowulf Cluster Lab was sponsored by a National Science Foundation Major Research Infrastructure grant. One of the goals of the project was to facilitate technology transfer. As a means of supporting that goal, this document lays out how external entities may use the Beowulf Cluster. All funds that are raised through this means will be used for maintaining and upgrading the Beowulf Cluster Lab and to support students and staff for specific help to external entities.
2. The main Beowulf Cluster has 130 2.4 GHz Xeon processors in 65 nodes, 112 GB memory, private Gigabit network connection and about 13TB of disk space. Of these, 50 nodes (with 100 CPUs) are available for general use. PVM and MPI parallel libraries are available on both clusters. GNU C/C++/F77 /F95 compilers and PGI C/C++/F77/F90/HPF compilers are available on the clusters.
3. The terms and conditions of cluster usage:
  - a) The Beowulf cluster is a shared resource. The external user will agree to abide by terms and conditions established in a memorandum of agreement with Boise State University as well as those established by the system administrator. The system administrator duties are now being shared by the following:
    - i. Dr. Amit Jain Phone: 208-426-3821 Email: amit@cs.boisestate.edu
    - ii. Marty Lukes Phone: 208-426-5623 Email: mlukes@cs.boisestate.edu
  - b) If a user needs to purchase any specialized system software or hardware that we do not provide, the user is required to obtain it for the cluster. Any such purchase becomes part of the cluster installation and the property of Boise State University.
  - c) An initialization fee of \$100 will be assessed to open an account on the cluster. Payment of the initialization fee provides the user with an account on the cluster with 2 GB of permanent disk space. More space can be allocated if needed. This space is periodically backed up. However, users must copy any critical data to their own systems. We cannot be responsible for loss of critical data. The users can also use available amount of temporary space on the cluster.
  - d) A fixed charge of \$12 per hour will be assessed for the use of main cluster for external users. That implies 100 processors being scheduled for one hour. If a user schedules less processors, the charge will be pro-rated accordingly. When a user schedules a processor, the user gets exclusive use of the processor for the duration.

- e) Staff, student and faculty programming and systems help will be charged based on the appropriate salary rate in accordance with standard charges associated with grant proposals.
- f) The main cluster has a job scheduling system that uses priorities. University researchers will have priority in the usage of the cluster.
- g) This agreement is valid until 31st May, 2008. The above terms may change by mutual agreement of parties. It is possible for users to pay in advance. Periodic billings will be sent with payment required within 30 days of invoice. This contract is not to exceed \$10,000 without prior authorization from the Vice President for Finance and Administration at Boise State University.

Signature	Date	Signature	Date
<p><b>Cheryl B. Schrader</b>            Dean, College of Engineering             Boise State University            1910 University Drive            Boise, Idaho 83725-2100            Phone: 208.939.2976            Fax: 208.426.4466</p>		<p><b>Pete Gombert</b>            CEO, Baliwoo Inc.             Baliwoo Inc.            404 South 8th Street, Ste. 400            Boise, Idaho 83702</p>	