Performance Analysis and Comparison of MPI, OpenMP and Hybrid NPB – MZ

Héctor J. Machín Machín Texas A&M CS Department REU Summer 2008 hjmachin@cs.tamu.edu

Weekly Report (June 6 – June 14)

Main Tasks:

- Gain knowledge in the area of parallel processing:
 - 1. Continue reading information about MPI, OpenMP and NPB MZ.
 - 2. Learn how to compile and submit OpenMP and NPB MZ codes to DataStar in San Diego Supercomputer Center.
 - 3. Practice running the NAS Parallel Benchmarks with Multi-Zone application on p655.
- Research Plan submitted.
- Visited the Texas A&M Supercomputer Center.
- Get an account with TAMU's supercomputer Hydra.

Main Goals for future:

- Scalability Analysis on up to 1024 processors (with increasing number of processors and problem sizes).
- Write a document about scalability analysis.

Need Help:

• I need some explanation how I am going to develop this scalability analysis.