EXERCISE # 4: Compare MPICH vs LAM implementations

DESCRIPTION:

In this exercise your group will compare communication performances of two well know MPI implementations: MPICH and LAM. OSCAR installed by default both implementation on your cluster and therefore you can easily test them on some benchmarks. In this exercise we will use the Pallas MPI benchmarbk.

During this exercise the group will:

1. Download a specific MPI benchmark
2. Compile this benchmark using both the MPI libaries
3. Run the benchmark using the executables produced using the different implementations
4. Compare the results

In the following Guide all the main steps are described.

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1.Download the mpi_cfr.tgz package from the server

2.Untar it and then go in the mpi_cfr directory

3.Take a look at the makefiles here provided: make_mpich and make_am; verify that all is ok..

4. Copy make_mpich in pmb/SRC dir ; go there and modify the Makefile to include the make_mpich file; type make ; place the executable so produced (PMB−MPI1) in the mpi_cfr directory calling it a different way (i.e PMB_mpich)

5. Do the same (changing the names accordingly) for the LAM case.

6. Run the two executables using Pbs. A pbs script is provided just for the LAM case. Check it out to see what you need in order to use LAM

7. Compare the output of the two different runs. This should be done using some graphical tool.