

Lecture 10 Doing some work

- Two assessments
 - First a comparison of different features
 - Second a programming exercise

First

- Compare Globus, Legion and HARNESSE with regard to services offered, naming, communication types and support as well as how users write/develop applications for each (legacy, parallel languages, MPI, HPF, RPC etc).
 - Write 1/2 page on each as a summary
 - 1 page as a comparison of features
- Comment on the future of using Java as a front end to high performance computing and give an example application (I.e. look it up on the web)
 - ½ page that names a couple of systems and if it is the way to go or not

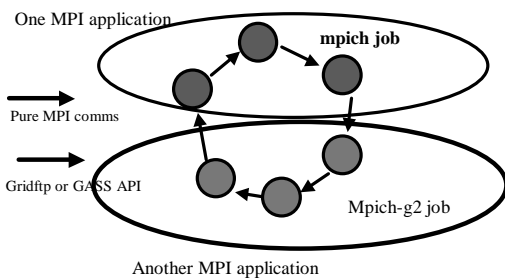
Second

- Run MPI Applications across multiple systems using grid based methods to inter-operate
 - This is almost the same as the previous homework
 - So very little extra coding needed
 - Just some practice at using globus tools and mpich-g

Inter-operating two halves

- Run two MPI applications
- They then find each other, exchange contact data.
- They then pass data from one application to the other using either gridftp or the GASS API.

Application Examples



Bonus points

- Bonus points:
 - Can you make it automatic ?
 - Use the GASS library and a TCP library?
 - Contact info stored in GRIS? LDAP? A webserver or name server, using XML or ASCII or binary?
 - Does GASS handle heterogeneous systems and data correctly?
 - Can you translate data faster?

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Write up

- Write a side on any design issues you had and mention any problems encountered.