



Enabling Grids for E-science

Deployment at sites

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- **MPI configuration deployed rapidly at Quattor sites**
 - Integrated into core configuration templates
- **Worked with a number of YAIM/cfengine sites**
 - Actually configured manually (before YAIM release)

- **Brunel**
 - No shared home
 - No passwordless ssh between worker nodes
 - Developed solution which uses mpiexec to distribute files
 - tar up contents of job directory
 - cat the tar file over a pipe duplicated to all nodes
 - use mpiexec to untar on all nodes
 - This solution now integrated into mpi-start
 - Site configuration (GLUE, env) done manually

- **Glasgow**
 - No ssh between worker nodes
 - No shared homes
 - Shared area available from worker nodes:
 - `MPI_SHARED_HOME="/cluster/share/mpi"`
 - Sticky bit directory permissions set (a la /tmp)
 - Developed “cptoshared” file distribution
 - Tar up job directory and copy to shared area
 - “Relocate” job to shared area before execution
 - Now integrated into mpi-start
 - Also hit problems with directory creation in “.mpi” directory
 - Becomes owned by first user
 - Solution is to set permissions on .mpi (now in YAIM)

- **Wide variation of details at sites**
 - ssh config, shared homes, MPI locations, mpiexec, etc.
- **Need to integrate workarounds into basic config tools**
 - YAIM and mpi-start can hide nasty details