



Enabling Grids for E-science

Site configuration and tools

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- **1st workshop developed recommendations**
 - Publish supported flavours and versions of MPI
 - On **CE** as GLUE SoftwareRuntimeEnvironment
 - So users can locate sites

 - On **WN** as environment variables
 - So **mpi-start** can set up paths etc.
- Use mpi-start to encapsulate MPI setup
 - Paths for requested MPI flavour
 - Correct invocation of mpirun/mpiexec
 - Distribution of binaries if required
- mpi-start installed on WNs or submitted with job

- **Recommendations implemented immediately in Quattor and deployed quickly at QWG sites (FR, BE, IE)**
 - Most (all) already used shared home FS and pbs jobmanager
- **YAIM development**
 - Started at 1st WS based on work by CERN summer students
 - Then stalled ...
 - Picked up and reworked for modular YAIM
 - Incorporated yet more workarounds for broken middleware
 - Now should cater for most EGEE site configurations
- **YAIM release**
 - Meta-package gLite-MPI_utils including YAIM, mpi-start, mpich
 - Certified and released in gLite 3.1 update 14

- **Configuration on CE**
 - Add GLUE runtime flags for enabled MPI flavours
 - Create Torque submit filter for MPI

- **Configuration on WN**
 - Set environment variables for MPI flavours, shared home, etc.
 - Create dummy mpirun to work around RB limitation
 - Set sticky bit permissions on `$EDG_WL_SCRATCH/.mpi` to work around RB limitation

- **Site configuration variables**
 - MPI_{\$FLAVOUR}_ENABLE to activate flavour
 - MPI_{\$FLAVOUR}_PATH
 - MPI_{\$FLAVOUR}_VERSION
 - MPI_SHARED_HOME: “yes”, path, unset
 - MPI_SSH_HOST_BASED_AUTH: yes/no
 - MPI_{\$FLAVOUR}_MPIEXEC: full path to external mpiexec
- <http://www.grid.ie/mpi/wiki/YaimConfig>

- **Need to keep an eye on Quattor configuration**
- **YAIM module needs a maintainer who uses YAIM**
 - Where can I find a volunteer?