**Work Items for Purdue University Deliverables to the Fermilab Open Science Grid program of work**

**CD105859**

Management/Oversight at Purdue: Preston Smith

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| **Task Name** | **Description** | **Start Date** | **Duration** |
|  |  | SD=9/1/08 |  |
| MPI advertising via add-attributes.conf | Add MPI attributes to GIP via add-attributes.conf. Bother custom and Glue ones. Test on ITB CE then Purdue resources. Them more widely | SD | 2 months |
| How to compile MPI jobs on OSG | How that a site supports MPI how does the user compile/link a job to run on it | SD | 1 months |
| PBS job manager changes for MPI | Add functionality to the PBS job manager to better support MPI. Support modern versions of PBS node selection syntax. Job manager should sepect correct ersion of mpirun, run appropriate comment to set up the environment, set up mpd etc, We want to be able to load mvamich-intel if we want to use IB nodes for example,. Submit changes to VDT and to globus. | SD+1month | 2 month |
| Add capability to NERSC site | All steps required for MPI advertising and running, do on NERSC as well | SD+3 | 1 month |
| Add capability to NCSA site | All steps required for MPI advertising and running, do on NCSA as well | SD+4 months | 1 month |
| User documentation | Contribute documentation on the user experience and guides. From site selection, through compiling for that site, to running, to debuggin. Add to OSG Twiki. | SD+1 | 6 months |
| Site administrator documentation | Document how to configure an OSG CE to advertise MPI installations.  Document how to configure PBS job managers to accept jobtype=mpi jobs. Document how to provide any infrastructure needed to compile MPI jobs. | SD+3 | 3 months |
| Support engagement users use of MPI resources on OSG end-to-end | Assist identified Engagement users to use Purdue,NERSC, NCSA for MPI work | SD+4 | 2 months |
| Feedback to and planning with OSG | Provide monthly reports and feedback to Fermilab OSG Organizational PI on work done and attend status, planning and feedback discussions with the OSG Engagement team and Executive Boards | SD+1 | Ongoing |