

OSG

Area Coordinator's Report: Workload Management

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Workload Management: Overview

- **Areas of Activity:** ITB, Engagement , upgrade of Panda monitoring
- **Current Initiatives**
 - Panda/ITB:
 - expanded ITB job submission to as many sites as we could (see next slide for status)
 - Atlas: ran new release of Atlas software on ITB platform for validation
 - Engagement:
 - DUSEL Long Base Neutrino Experiment (LBNE), and Daya Bay: Working out file system access on RACF (they work on the RHIC side of BNL cluster)
 - Ongoing support of CHARMM and expansion of job submission to more sites, new project starting
 - SBGRID – performed initial Panda setup, starting testing
 - UW Milwaukee – project didn't get funding, canceled effort
 - Upgrade of Panda monitoring system
 - Renewed focus in ATLAS, weekly meetings
 - VOs expressed interest in a simpler, leaner monitoring interface, we need to accommodate this
 - Mics:
 - Panda section of the “OSG Job Submission Document” in preparation



Workload Management: Panda/ITB

- **Panda ITB Status:**

- Standing by for set up at 3 sites, 5 operational
- Allows for convenient monitoring of ITB jobs execution from one central Web location
- Access to logs and output files stored in Panda Monitor makes the process self-documenting
- Better overall organization

Notes	ITB Site Name	Panda Queue Name	Job Manager
Operational	BNL_ITB_Test1	BNL_ITB_Test1-condor	gridtest01.racf.bnl.gov/jobmanager-condor
Operational	UC_ITB	UCITB_EDGE7-pbs	uct3-edge7.uchicago.edu/jobmanager-pbs
Operational	LBNL_DSD_ITB	LBNL_DSD_ITB-condor	grolsch.lbl.gov/jobmanager-condor
Operational	OUHEP_ITB	OUHEP_ITB-condor	osgitb1.nhn.ou.edu/jobmanager-condor
Operational	TTU_TESTWULF_ITB	TTU_TESTWULF_ITB	testwulf.hpcc.ttu.edu/jobmanager-sge
MyProxy client needs installation	FNAL_FERMIGRID_ITB	FNAL_FERMIGRID_ITB-condor	fgitbgkc2.fnal.gov/jobmanager-condor
WN setup issues resolved on site	LIGO_CIT	LIGO-CIT-ITB-condor	osg-itb.ligo.caltech.edu/jobmanager-condor
Setting up Condor on site	UW_VDT_ITB	UW_VDT_ITB	vdt-itb.cs.wisc.edu/jobmanager-condor

Workload Management: Engagement

- **Setting up Panda for feasibility tests by SBGRID**
 - Currently this is a test on a limited number of priority sites
 - Does not require significant diversion of effort on either SBGRID or OSG side
 - Useful discussions at All-Hands Meeting at FNAL
 - Initial Panda setup done since then (table below)
 - Testing to commence within days

Site nickname	Job Manager
Nebraska_SBGRID	red.unl.edu/jobmanager-condor
Harvard-East_SBGRID	osg-east.hms.harvard.edu:2119/jobmanager-condor
Harvard-Exp_SBGRID	abitibi.sbggrid.org:2119/jobmanager-condor
Firefly_SBGRID	ff-grid3.unl.edu/jobmanager-pbs
Prairiefire_SBGRID	pf-grid.unl.edu/jobmanager-condor
UFlorida-HPC_SBGRID	iogw1.hpc.ufl.edu:2119/jobmanager-pbs
USCMS-FNAL-WC1_SBGRID	cmsosgce3.fnal.gov/jobmanager-condor
WQCG-Harvard-OSG_SBGRID	tuscanymed.harvard.edu:2119/jobmanager-condor

- **CHARMM**
 - Currently ramping up production levels
 - Need 250k CPU-hours for the current run
- **Daya Bay/LBNE (2 groups at BNL)**
 - Resolving site, pilot generator and file system set up issues (slightly different mechanism required in Panda)



Workload Management: Panda Monitoring upgrade

- **Cooperation with CERN:**

- Personnel changes and a renewed focus on the design of the Dashboard, and Panda data feed into it
- Weekly meetings held
- Previous effort in investigating Google Web Toolkit indicates that a different platform needs to be chosen (too much overhead and learning curve)
- Our approach has always been that any development effort we undertake in monitoring area, will serve the needs of not only Atlas but other VOs using Panda
- Based on our previous design work, we continue with AJAX/JSON approach for the API, and view Panda monitoring as a Web service delivering data to multiple other clients and services on demand
- In a nutshell, our preferred solution is Django serving JSON

Overview

Workload Management

- **Accomplishments since last report:**

- Completion of Panda/ITB setup (the so-called Panda Robot) and readiness to quickly expand to more sites as they become available
- Support of the new CHARMM production run
- Started working with SBGRID. Panda setup done for main SBGRID sites, testing commencing
- Panda section of the “OSG Job Submission Document” close to final (effort led by D.Fraser)
- Better documentation of Panda usage for non-Atlas VOs
 - http://www.usatlas.bnl.gov/twiki/bin/view/AtlasSoftware/PandaExtensions#Current_activities

- **Issues / Concerns**

- Carryover from previous report: Panda monitoring upgrade likely to have a scope that would require more manpower to get it right, and such upgrade does remain a priority according to feedback we get
- Need for specialized setup for Daya Bay/LBNE