

DOSAR VO ACTION AGENDA

ACTION ITEMS AND GOALS

CARRIED FORWARD FROM

Our Biweekly meeting on August 20, 2009

and

THE DOSAR VII WORKSHOP AT LSU

APRIL 2-3, 2009

Action Items (Short Term)	Responsible persons
Deploy OSG and commence Tier 3 analysis in all DOSAR sites: (and also support D0 MC) –Actively participate in computing grid efforts in LHC experiments:	Horst, Michael, David, Jim
Turn on new LONI_OSG site with storage & local DQ2	Michael
Write note for setting up D0/ATLAS and CMS computing site: dosar.org	Michael, Horst, Dick
Create Co-Linux OSG/CMS facility at USA (and contribute to Co-Linux documentation)	Horst, Romulus, Merrill
Document the Univ. Of Okla. Co-Linux setup. Try out at UT-Arlington, other DOSAR institutions	Horst, Jae
Virtual computing and Panda	Alden, Box, Noon
Analysis : ATHENA + PANDA + Virtualization + GPGPU	Pat, Mark, Amir, Alden, Dick
Non-HEP participation in OSG/DOSAR/OSCER	Horst + Henry
Communicate with OSG concerning DOSAR participation in next large proposal	Dick, Jae, Pat

DOSAR Roadmap Revised

Joel Snow
Langston University

6th DOSAR Workshop
University of Mississippi
April 17–18, 2008

LHC Tier 3 Efforts
Bringing Additional Large Resources
The Color of DOSAR

LHC Tier 3 Efforts

- Establishment of T3 sites at DOSAR institutions
 - Equipment?
 - Infrastructure → Space with adequate power and cooling?
 - Software stacks and preparations?
 - Human resources?
 - Funds?
 - Training students and increasing skilled manpower?
 - Bringing up additional institutions to OSG based MC production level
 - ISU - done
 - OleMiss - done
 - Other institutions? Tata?
 - Allow cross gridding between ATLAS and CMS

Roadmap Goals and Milestones

- Write up step-by-step instruction on how to bring up a site to become LHC MC production level from scratch → MB+HS, assisted by DS,BQ and JC
 - OS installations and machine configurations
 - OSG implementations
 - ATLAS/CMS software stack implementations
 - MC verification processes
 - DDM implementations
 - Make the note a D0/ATLAS and CMS computing note
 - Still to be done
 - Place the link on DOSAR home - done
- OleMiss and ISU start CMS and ATLAS MC Production: Present steps and procedures to take to accomplish this goals at the upcoming DOSAR bi-weekly meeting
- DOSAR sites should be open to ATLAS and CMS for cross grid computing

Bringing in Large Additional Resources

- Implementation of the LAW project
 - Need to provide clear path to establishing, managing and continually maintaining the system
 - Must be easy to update any software stack
 - Must provide a few metrics to gauge performance and security impacts
- Follow OU's lead on co-Linux implementation
 - Vision? → Bring up to and over 10k computers
 - Do this in an moderate pace but very carefully
 - Testing reliabilities, robustness and scalability
 - We can start with moderate goals
 - Prepare for MRI 2009 → JC lead
 - Seek funds for human resources → ZDG lead

Roadmap Goals and Milestones

- Write up step-by-step instruction on implementing the LAW on a site → HS, HJN
 - Condor installation notes at Condor web site
 - OSG stack installation at OSG site
 - co-Linux ISO image at OU web site
 - Must be made D0, ATLAS and CMS notes - to be done
 - Establish a Web link of doing this → DOSAR - done
 - UTA get >100 CPUs added → by next DOSAR workshop Sep. '08 – in progress

The Color of DOSAR

- What make DOSAR unique? – Grassroots org.
- How do we distinguish DOSAR from HEP or other grids? – One of few cross disciplinary VOs
- Utilize the LAW project as part of the first step toward bringing grid down to the campus – expand to state grids
- Promote students' pride in participating in privileged cutting edge scientific endeavor
- Open research computing to wider range of participants
- Keep abreast of OSG MPI implementation deployment

Roadmap Goals and Milestones

- What do we bring to OSG table that is uniquely DOSAR? – grassroots, cross disciplinary
- DOSAR membership to different disciplines than HEP or CSE
 - Each institution bring in at least one non-HEP or CSE DOSAR member in 1 year – to be done
- What is the DOSAR grid in one word? – Enabling
- Explore wider use of machine virtualization
 - Bring in additional resources
 - Enable “drop in” server replacement for portability, redundancy, fault tolerance, jump start physics analyses
 - HEP and non-HEP applications

Two Year Roadmap (from Sept. 17, 2005 DOSAR Workshop at Sao Paulo)

Action Items (Long Term)	Responsible Person
Fully engaged in LHC experiments: DOSAR should not become a Tier 2. It contains institutions from different Tier 2's (Atlas, CMS...) and will collaborate with others	IAC Reps.
Continue participating in D0 MC and refixing according to our own priorities	Joel, Joe
Play a leadership role in Grid computing in the corresponding states	IAC Reps
Extend our participation in other areas like education and outreach	IAC Reps
Collaborate in software development with other non-DOSAR institutions	IAC Reps
Leverage regional OSG support centers	IAC Reps

Future Conferences and Meetings

US ATLAS Tier2-Tier3 Meeting, Univ. Of Chicago	August 19-20 2009
ATLAS Analysis Jamboree, ANL *	September 9-11 2009
IEEE Cluster 2009 , New Orleans http://www.cluster2009.org/	August 31-September 4 2009
DOSAR VIII Workshop at Sao Paulo	September 24-25 2009
First International Conference on Cloud Computing , Munich, Germany www.cloudcomp.eu	October 19-21 2009

* (9 Sept. and morning 10 Sept.) Hands-on sessions with experts on ATLAS analysis software. Beginners as well as more advanced users will benefit. The examples will culminate with an analysis using the recent ATLAS cosmic data.
(afternoon 10 Sept and morning 11 Sept) Tier3g (T3g). Being able to analyze one TB of ATLAS data overnight at a small local cluster will change the way you think about how you will get your results. Prototype T3g at ANL will be explained and demonstrated. The participants will be able to run jobs at the T3g PC Farm for themselves.

AOD/DPD analysis on multiple cores.

Full MC and reconstruction.

C++/ROOT compiled program on multiple cores (ntuple analysis)

Run fast MC simulation + on-the fly analysis (without making AOD).