

HiPCAT Face-to-face Meeting 16-Apr-07

UTEP, El Paso, TX

Attendees

Jay Boisseau – TACC
Raed Daouri – UTEP
Borries Demeler – UTHSCSA
Nick Grishin – UTSW
Chris Hempel – TACC
Tsung-I Mark Huang – UH
Dave Levine – UTA
Andre Kerstens – UTEP
Jan Odegard– Rice
Lee Panetta – TAMU
Jerry Perez – TTU
Karl Schultz – TACC
Alan Sill – TTU
Phil Smith – TTU
Warren Smith – TACC
David Steffen – BMC
Michela Taufer – UTEP
Stephen Riter – UTEP

Notes

- Pat opens the meeting
- Phil mentions that we have to start discussing TIGRE in the group. David Steffen asks it's not clear to him where and who to get cycles. Jay: small portions of sharing resources at institutions. Cycle scavenging grids; allocate 5% of new TACC system to state of Texas.
- Steven Riter greets the group. Gives an overview of UTEP general and computing history.
- Dan Updegrave gives an overview of I2 and LEARN by telephone:
 - Borries is concerned about the merger and the fact that it could not go through. What will happen? Dan: many organizations could back out of the I2 initiative.
 - Alan asks what is the status for the rest of West-Texas and specifically Lubbock. Dan: TTU is holding off on the 2.5Gbps pipe, because they think they can do better.
- Alan Sill is giving an update on TIGRE.
 - The TIGRE team is trying the fit the tools to the community as best as possible.

- Borries asks if condor-G is the main scheduler component. Alan: no, there will be a central scheduling mechanism, but condor-G has been setup initially to have something to work with.
- Jan asks how the cycle scavenging works in TIGRE; which schedulers are supported? Alan, Warren: condor, boinc, UD will all be possible because of the TIGRE layer on top.
- According to Lee, for air-quality modeling, the scale is larger than what Alan shows. Hurricanes might wipe out all or part of the measuring stations and so distributing the data/computation is a good thing.
- Jan has some Eclipse contacts at Rice and will contact them.
- Borries: any plans to demo TIGRE at SC'07? Any plans to take it out of Texas? Alan: already talking to NM and OK people, interactions with SURA and OSG.
- Lee: how much progress is being made in porting the software stack to SURA? Jerry: TIGRE has developed an automatic installing software stack and Jerry has recently brought it to SURA. SURA uses other authentication mechanism than TIGRE.
- Short coffee break
- Jay gives an overview on Ranger, the new Sun equipment acquired by a NSF TRACK2 grant recently;
 - www.tacc.utexas.edu/petascale for distinguished lecture series on petascale computation.
 - Gaussian software not installed at TACC.
 - Similar performance on a per core basis when compared to Lonestar.
- Jack Chessa presents HPC in Mechanics
 - Most of the simulations have been run on the Sacagawea cluster.
- Sarala Arunagiri presents I/O research done in the DAiSES project
 - Disk fragmentation is a problem that many people see at some point on their systems. Different file systems fight fragmentation at different levels. Jerry mentions that D-Cache is a solution that is used on grids.
- Michela Taufer presents RNAVLab
 - Nick mentions that more methods are necessary to get more accurate predictions and find more structures.
 - Jerry asks if the code is available for deployment on the condor pool at TTU. Michela says that that would definitely be a possibility.
- Jay talks about HPC courses at UT Austin.
 - Added 4 science and engineering classes to the CS program. Requests for simpler introduction class to scientific computing.
 - UT Austin has a new division of statistics and computational science.
 - Michela mentions courses by Aiichiro Nakano of USC.
 - HiPCAT should work towards developing more integrated courses in HPC.
 - The idea of a HiPCAT summer institute was brought up by Jay: 1 week courses in scientific computing.
- Pat presents the SC07/08 workshops to the group. The goal of these workshops is to integrate scientific computing in undergraduate programs.
- Steve Riter presents some of the GIS research going on at UTEP.

- Jerry Perez discusses the current and future release of the INSORS video conferencing software.
 - New release for Windows and Mac. There is talk that a Linux version will be released at SC this year.
 - Borries has an AccessGrid installation with a bridge. Version 3.x can tunnel all traffic over one port.
 - There is echo-canceling hardware available to make sure the sound quality is acceptable.
 - Jerry will work with Borries to work out a scheme to bridge Insors to AG and make the system workable for the whole group.
- TIGRE discussion
 - How should TIGRE continue after its initial deployment? Alan mentions membership. Should it expand to embrace all HiPCAT institutions?
 - According to Alan, TIGRE will be ready to go into production mode in the next couple of quarters, but it is up to the HiPCAT group to decide what are the next steps.
 - Jerry is in the process of finalizing a condor pool of about 1000 machines at TTU. This could potentially be wired into the TIGRE grid.
 - Jay mentions that there is no requirement to enhance TIGRE, but there should be something in place at the end of the funding cycle that can be used.
 - Alan says that the mode of grid computing is changing from technology-centric to scientist-centric: workflows are getting increasingly more important.
 - There is the possibility of lining up TIGRE with other grid initiatives like OSG or Teragrid.
 - Alan says that we should make sure that people write science proposals that contain TIGRE as a way to enhance that science.
 - Jay proposes that all institutions that want to participate in TIGRE could donate 500,000 hpc cycles/year to the grid (approx. 16 nodes running for a year), 500 desktop resources, some storage resources and possibly some human resources.
 - Need to write policies for TIGRE.
- Meeting adjourned at 2:50 pm.