Chair: Francesco Prelz

**Introduction**  F.Prelz

Francesco gave feedback from the recent PTB meeting. The recent focus of the PTB has changed towards production of late deliverables (The RB was officially delivered, using Globus 1.1.3, on October the 28th) and producing the demonstration for the March EU review. This has interrupted the day to day operation of the testbed, and Francesco thought that there would be little advancement of the testbed until after the EU review. However we need to keep in contact with comments from the field.

Francesco then showed a presentation given by F. Carminati (see slides) which summarised the feedback from the experiments. The presentation described the successes and problems encountered by the experiments. All experiments acknowledged that WP 1 had provided a good service in following up problems.

**Discussion:** There was some discussion about the various points raised by the experiments.

**Discussion:** There was some discussion as to who should be present at CERN for the EU demonstration. It was decided that Elisabetta will be there and it would be better if Salvo and an LB expert were also there. All component experts should be “on call” during the preparation for the demonstration as should Fabrizio Pacini.

Francesco then continued to describe the project status. Multiple VO SEs is now under control. The suggested digest of error messages seems a good idea.

The copyright statement will be added to all code modules. This will be done by the CVS managers. This involves adding one line that points to a website to each module.

There in no uniform document as to which components go were etc. To rectify this the ATF is being reformed and Fabrizio Pacini will be the WP 1 representative on this taskforce.

WP 1 has been instructed to use EDMS (edms.cern.ch) for document publication. People wishing to use EDMS to publish document need to register. It was noticed that documents that, in draft form, were openly critical of WP 1 software were freely available from EDMS.

**Network information**  T. Ferrari (see slides)

Tiziana described changes since the Prague meeting. She described two scenarios that could be influenced by network metrics. These were where best to run a job, and when data transfer should be triggered. She then described how network metrics could influence these decisions.
Discussion: There was some discussion about how data transfer should be triggered. This is work that should be carried out between WP 1 and WP 2.

Tiziana described the cost (closeness) function, and went on describe possible definitions of closeness. She applied these definitions to the two scenarios that she had described earlier. The closeness function could be both temporally and job dependent. The parameter, alpha (defined in slides), could be part of the job description and would depend on the IO profile of the job. There maybe tools available to help the user profile the IO of their job.

Triggering data transfer has slightly different characteristics and issues.

Future work and open problems:
There may be performance issues associated with acquiring the amount of information required to make intelligent decisions. More scenarios are required. There needs to be a refinement of the closeness function and how it varies according to job IO profile.

Tiziana wishes to publish a paper on this work and welcomed contributions.

Advanced Reservation  S. Cammarata (See slides)

Currently only CEs support advanced reservation (AR). To run a job that requires both computation and storage requires co-allocation. A job that requires both computation and other actions is a dependent jobs.

Discussion: There was a discussion of QoS issues. SEs do not support AR, however networks might support AR in the future.

Salvatore outlined a proposed framework for AR. He then defined how an AR request could be described in the ClassAds. If a user acquires a reservation then he/she is returned an advanced reservation ticket.

There is a proposed Grid AR API proposed by GGF.

GARA is being rewritten, however it is not yet finished. GARA works with PBS and the new features may include network reservation.

Discussion: There was discussion as to whether it is worth providing AR functionality, and whether it is good to collaborate with GARA development? Will they also do co-allocation aswell?

CVS reorganisation  Ales Krenek  via vrvs (see slides)

Ales gave a brief summary and described life in the WP 1 CVS repository. He outlined what CVS does and does not provide, and defined the common terms used in CVS. Ales then defined the WP 1 current practice. We have become split
between release maintenance and further development. This produces a problem in as much as there is no clear relationship between an rpm release and a given snap shot of the CVS repository. Maintenance is interfering with development

**Discussion:** During a network break there was some discussion of the versioning numbers, and dependency on third party software. It was concluded that we would rely on the WP 6 database.

Currently all rpm releases are tagged (and the tag is the same as rpm version). Ales proposed a new structure, were a new branch is created with each official release (1.1,1.2,etc). He then described how these should merge into the main trunk.

**Discussion:** There was some discussion about the version numbering (whether we should adopted the even stable odd unstable convention). A suggestion to bug fixes into old releases was rejected. The question of shared libraries was also raised (by Flavia). It was expressed (by Ludek) that we should change the version number whenever it is unsafe to keep old code together with new code.

Ales described the frequent tasks as outlined in their document “WP1 CVS Guidelines” and it was decided to adopt these guidelines and procedures.

**Meeting with WP 4**  F. Prelz.

Francesco described a meeting between WP 4 and WP 1, which had been initiated by WP 1. WP 1 asked four questions of WP 4

1. **Question:** Will the gatekeeper provide network tunnelling? **Answer:** FabNAT is a regular NAT with additional functionality to connect between inside/outside world. However this is not the network tunnelling that we would need.

2. **Question:** What features will exist within the gatekeeper/job manager? **Answer:** They are re-writing it in close communication with Globus. This will be called the RMS. There are no plans to incorporate features such as advanced reservation, MPI jobs etc.

3. **Question:** How will WP 4 deploy sensors for accounting? **Answer:** They had some ongoing activity in this area, however nobody is actually working on it now. They are going away and to think about it and will talk about it at Paris.

4. **Question:** How will information about special queues be published? **Answer:** They have few plans at the moment for special queues except for very fast queues for fast turn around.

**Meeting with WP 2**  F. Prelz & M. Sgaravatto

WP 2 asked for a meeting with WP 1 to discuss the internal API proposal. Query optimisation is defined in some loosely defined economic model. The WP 2 software will rank file access and network information. It would be an advantage if we could access this information for charging. (Flavia added that they are working with the security group to create a service to control access to storage element, this may be more general)

WP 2 is supposed to provide a description of file access characteristics. WP 2 are also working providing file access using posix calls
It is possible that our method of extending proxies would be useful in file pinning.
There was a discussion with WP 2 as to how the local footprint will be specified, as
there will be a WP2 cache and effort must be given to make sure that the user has
enough space. One proposal is to manage local disk as a SE.

Massimo then showed the API proposal for the access cost (see slides)

Discussion: There was much discussion about the details of the API, followed by a
discussion as to how Tiziana’s stuff could fit in with this. The question re-arouse
again as to who was going to trigger file transfer.

**Accounting in DataGrid**  A. Guarise (See Slides)

Andrea gave a description of the activities. They have worked out how the accounting
will interact with the RB. The RB will take pricing into account in the matchmaking
process.

Discussion: Francesco added a point as to how useful in would be if we could make
the symantics of the matchmaking to be truly symmetric. This could be useful for other
Grid projects.

The WP1 software will be used to manage the economic model of the WP2.

They have received first feedback about sensors.

He stated that the role and architecture of the PA is under investigation.

Discussion: It was confirmed that the HLR would be deployed in July, however there
are manpower problems in Turin. It was emphasised that the code must be ready for
integration by the beginning of June at the latest.

Discussion: There was further discussion as to where this work was heading, for
example should this consider the commercial arena aswell?

Discussion: Even further discussion followed about how the sensors will work. It was
decided to ask for some part of the installation to be on the worker nod.

**Datamat Status Report**  F. Pacini (see slides)

Fabrizio gave an overview of Datamat activities since Prague (see slides).

Discussion: There was discussion about in what language the GUI should be written.
Java was the preferred option. It was decided not to have a demonstration of the GUI
in Paris. It was decided to allow small groups of friendly users to test the
functionality of the current GUI implementation, but **only** to obtain feedback.

The UI API specification document is to be released to everybody so that comments
can be received by the Paris meeting.
Fabrizio then discussed what language documents should be written in. Fabrizio suggested html (This was agreed after Massimo had checked the rules).

Fabrizio then outlined future work.

**Dependent Jobs** F. Giacomini (see slides)
(Work carried out by Elisabetta Ronchieri and Francesco Giacomini)

They are using DAGman from the Condor project. Francesco described how DAGman actually works.

He described the needs for “pipelining” described by WP10.

DAGman does not use ClassAd, although it is moving this direction.

*Discussion: There was hope that this could be discussed in Paris.*

**Logging** L. Matyska (see slides)

Ludek gave an overview.

He classified different sorts of multiple jobs, and the problems that they might cause.

He then described a possible solution to the naming problems that they cause. This solution involves job groups. He then described possible modifications of the job_id.

*Discussion: There was some discussion about the various problems that this might cause e.g. job cancellation. Should the API allow you to submit jobs to an existing group? There should be a discussion about this in Paris.*

Ludek also described other problems in the logging and book keeping. In particular messages that are received out of order, and suggested a solution involving message numbering.

Ludek then described a number of open issues.

**User Attributes** L. Matyska (see slides)

Ludek described how user attributes might be defined in the JDL and in an API.

**Job Partitioning and Checkpointing** A. Gianelle

Alessio described a document that they have written, which describes the user requirements and job partitioning characteristics. He pointed out there is no general solution to the problem of job partitioning. Alessio then addressed the problem of job partitioning in the framework of Checkpointing, the problem then becomes to specify the state of the job. He described the appropriate class and associated methods. He then described how this could be used to parallelise jobs.

**A.O.B.**
**Proxy renewal:** There are some patches to the globus software and CESNET people are in touch with Condor-G people.

**Deliverable D1.4:** This is to be written by CNAF and Padova, with the editor to be provided by Padova.

**WP 2 general issues meeting on storage elements:** They want to have a mapfile to allow access to resources in general not just SEs. The minutes of the workshop will be circulated to the WP 1 mailing list. There were two authorisation people at this workshop and they are going to produce a paper on this.

**Next Meeting:** March 5 in Paris

Minutes taken by D. Colling