

User Board Meeting, RAL, 13th September 2006

Present: *Chris Brew, Jeremy Coles, Matt Hodges, Dave Newbold (Chair), Glenn Patrick (Chair-Elect), Dave Sankey, Andrew Sansum.*
 By telephone: *David Grellscheid, Roger Jones, Peter Richardson*
 Apologies: *Iain Bertram, Gavin Davies, David Evans, James Ferrando*

1. PREVIOUS MINUTES

These were accepted without alteration. All previous actions completed except for:

Action 1: Resurrect list of experiment representatives - Dave Newbold

Status - complete except for ILC.

Action 2: Tier 2 accounting - Jeremy Coles

Status - Progress made, but numbers need improvement/verification (see discussion under 3.5).

2. STATUS OF TIER 1 RESOURCES

Andrew circulated a hardware deployment spreadsheet prior to the meeting. The cpu profile is:

TIER 1	Sept 2006	Oct 2006	Nov 2006	Dec 2006	Jan 2007	Feb 2007	March 2007
CPU (KSI2K)	1031	1030	1028	1028	1528	1528	1528

An extra ~10-13% (so-called non-capacity) is available for other facilities like Castor srm.

In January 2007, an extra 500 kSI2k is scheduled to turn on. It was noted that an additional 851 KSI2K could be purchased with money saved from the previous procurement (assuming it was not spent on anything else like disk).

The current disk profile is:

TIER 1	Sept 2006	Oct 2006	Nov 2006	Dec 2006	Jan 2007	Feb 2007	March 2007
Disk (TB)	174	327	336	345	323	323	556

The good news is that the problems with the new disk deployment had been solved and the drives had been replaced. As the new form factor was 500GB (previously 400GB), this meant a 25% increase in the extra disk that was installed.

The kit from the new order (233TB) is expected to arrive at the end of October and to be in service by March to give a total 556TB.

It was noted that an additional 150TB could be purchased with money saved from the previous procurement (assuming it was not spent on anything else like cpu).

The current tape profile is:

TIER 1	Sept 2006	Oct 2006	Nov 2006	Dec 2006	Jan 2007	Feb 2007	March 2007
Tape (TB)	532	532	532	532	532	532	532

The profile remains constant until the purchase of new media is justified by experiment use.

3. EXPERIMENT REQUESTS FOR 2006 Q4.

3.1 Tier-1 CPU Use

On the Tier 1 cpu front, it was noted that in August BaBar had only used 150.2 KSI2K compared to their allocation of 550 KSI2K. MINOS had essentially not consumed any cpu, but this may have been connected with the fact that their disk had not been deployed.

Phenogrid had used 11 KSI2K(out of 50 KSI2K). Peter Richardson pointed out that once there is a switch to Grid submission there will be no direct requirement for Tier 1 cpu (requires Phenogrid to be enabled at all GridPP sites, which is not currently the case), In the meantime, the requirement for 50 KSI2K remains. There was some discussion on whether theory users at RAL were included in the Phenogrid use and it was agreed that these two sets of users should be grouped together. Peter also wished to express his dissatisfaction with the way the VO server at Manchester had been switched from LDAP to VOMS without any notice.

Of the LHC experiments, in August ATLAS had only consumed 64.4 KSI2K (allocation 255) and CMS had consumed 169.8 KSI2k(allocation 250). LHCb had ensured the farm ran full by consuming 404.4 KSI2K (allocation 175).

Action 3: Check that Phenogrid and RAL theory users are grouped together - Matt Hodges.

3.2 Tier-1 Disk Use

There was some discussion on how to present a coherent set of disk numbers, which will not be repeated here. However, the disk usage looked healthy.

In August, ATLAS had used 13.7TB out of their 14TB allocation and CMS had used 14.1TB out of their 14TB allocation. LHCb had used 7.5TB out of their 10TB allocation (20TB actually deployed) due to delays in their stripping - this disk will fill once data replication starts.

3.3 Tier-1 Tape Use

It was noted that the Dteam was still using 40TB of tape.

BaBar had used 275.5TB of tape compared to their allocation of 200TB.

A total of 455TB of tape was being used out of a total capacity of 532TB.

3.4 Experiment Allocations for Tier-1

A comparison of the Tier-1 cpu requests with available capacity is given below:

TIER 1 - CPU(KSI2K)	Oct 2006	Nov 2006	Dec 2006
Requested - all expts.	1317	1397	1397
Available	1030	1028	1028

It was decided to implement the experiment shares on the basis of these numbers, but a review of the BaBar use and allocation (550 KSI2K requested) would be made in the middle of this period to determine whether this could continue to be justified.

A comparison of the Tier-1 disk requests with available capacity is given below:

TIER 1 - Disk(TB)	Oct 2006	Nov 2006	Dec 2006
Requested - all expts.	304.2	304.2	304.2
Available	327	336	345

The requests are dominated by ATLAS(31TB), CMS(80TB), LHCb(40TB) and BaBar(135TB). The disk capacity situation for 2006 now looks to be under control. However, the disk situation for early 2007 could be tight.

It was noted that the CMS request for 150TB from January 2007 could be reduced if Castor2 is fully functional at that stage.

A comparison of the Tier-1 tape requests with available capacity is given below:

TIER 1 - Tape(TB)	Oct 2006	Nov 2006	Dec 2006
Requested - all expts.	577	577	577
Available	532	532	532

The requests are dominated by ATLAS(56TB), CMS(120TB), LHCb(60TB) and BaBar(250TB).

Roger Jones pointed out that the ATLAS numbers are based on a T1 share of only 7.5% rather than what they really want.

It was felt that the tape situation for the remainder of 2006 is under control. Glenn Patrick pointed out that some of the data included in the tape user must be old and could be deleted to release capacity. BaBar have been exceeding their tape allocation by 55TB and should be willing to reduce their use when necessary.

For early 2007, the indications are that more tape will be needed (649TB in January, 675TB in February).

Castor will only be equipped with new tapes (currently 200TB capacity), but CMS are the only current production users. It was anticipated that ATLAS will also need to use Castor for their T1-T2 exercises.

3.5 Experiment Allocations for Tier-2

Jeremy presented various sources of Tier-2 information:

<http://www.gridpp.ac.uk/storage/status/gridppDiscStatus.html>

<http://goc02.grid-support.ac.uk/accountingDisplay/view.php?queryType=sto>

<https://www.gridpp.ac.uk/deployment/status/reports/reports.html>

<https://gfe03.hep.ph.ic.ac.uk:4175/cgi-bin/load>

Progress had been clearly made, but some capacity numbers were clearly wrong and they needed validating and the calculation procedures needed to be understood.

For the time being, it was agreed that Jeremy would aggregate the capacity/usage numbers from the Tier-2 quarterly reports.

In future, it was confirmed that the requirement was for Tier-2 disk capacity numbers (and use where available) to be provided for each VO and for each of the four federated Tier-2 centres in the UK.

The Tier 2 numbers for experiments are not currently compiled in the experiment spreadsheet and Dave Newbold will update this week.

Action 4: *Validate Tier 2 capacity numbers and calculations - Jeremy Coles.*

Action 5: *Progress provision of Tier 2 capacities (and use) for each VO and for each of the four federated Tier 2 centres - Jeremy Coles/Glenn Patrick.*

Action 6: *Update experiment allocation spreadsheet for Tier 1 and Tier 2 resources in time for T1 Board - Dave Newbold.*

4 FUTURE PLANS

Dave Newbold had reached the end of his stint as UB Chair, but would be staying until the end of December as "Associate Chair" because of his involvement with the GridPP3 proposal. Glenn Patrick is the new UB Chair (effective from the end of the meeting).

Glenn said that he would try and do more of the resource allocation outside of the meetings and try and take a longer perspective. To this end, he was planning to ask experiments for a first estimate of their complete 2007 profiles at the start of November. This should enable better planning to take place as we start to enter the exploitation phase of the LHC experiments. Hopefully, this would mean that the meetings would be less dominated by short-term resource problems.

It was also felt by those around the table that the meetings should be held away from RAL to encourage more external attendance.

Action 7: *Start estimating 2007 resource profiles (cpu/disk/tape) for November - all experiments.*

5 AOB

As one of the actions of the previous meeting, Andrew has been asked to review the management of disk allocations. Some internal changes had been made and Matt Hodges is now responsible for implementing disk allocations and should be contacted if there are any problems in this area.

Dave Newbold pointed out that Sarah Pearce has requested more news items from the experiments (especially those which have a "physics" flavour).

Peter Richardson asked where was the best place to express his dissatisfaction with the VO server changes at Manchester. It was agreed that he should send an email to Glenn who would bring it up at the PMB.

Action 8: *Send email on VO issue and raise with PMB. - Peter Richardson/Glenn Patrick.*

Action 9: *Send news items on Grid related work to Sarah Pearce - all experiments.*

6 NEXT MEETING

It was agreed to hold the next meeting at the start of December at a venue outside RAL.