

SCIENTIFIC AND TECHNICAL ADVISORY COMMITTEE

Minutes of the 4th Meeting

Wednesday 28th September 2005

By Access Grid from UCL

PRESENT:

Richard Catlow (CRAC) - Chair
Patrick Briddon (PB)
Rudiger Esser (RE) - via AG from Juelich
Martyn Guest (MFG)
Damian Jones (DJ) - Secretary
Charles Laughton (CL)
Ralph Roskies (RR) - via AG from PSC
Linda Sayers (LS) - on behalf of Michelle Lascelles
Alan Simpson (ADS)
Lois Steenman-Clark (LSC)

APOLOGIES:

Michelle Lascelles (MV)
Mike Leschziner (ML)

1. Welcome (CRAC)

The Chairman, CRAC, welcomed the members of STAC.
The minutes of the previous meeting, held on the 1st March 2005, were accepted as a true record.

2. Minutes and Actions of the Previous Meeting

- Joint website between HPCx and CSAR to display the publications / scientific highlights information - The HPCx website is now live. Discussions with Manchester are ongoing as to how best to link the two websites. **ACTION ONGOING**
- MFG / ADS to speak to IBM about the progress of their actions from the IBM Workshop held in March 2004. MFG / ADS to raise STAC's concerns at the next Oversight Committee - To be discussed later in the agenda. **ACTION COMPLETE**

- ADS / MFG to discuss the metrics used to define capability computing with EPSRC - To be discussed later in the agenda. **ACTION COMPLETE**
- ADS to report back on outcome of Edinburgh Science Festival - To be discussed later in the agenda during ADS's presentation. **ACTION COMPLETE**
- ADS to move objective eight up the list of objectives in the Annual Plan - **ACTION COMPLETE**
- CRAC to pass on the conclusion of STAC's discussions to Hugh Pilcher-Clayton - CRAC had met with Hugh Pilcher-Clayton in April and had discussed STAC's conclusions about the Annual Plan. **ACTION COMPLETE**
- ADS to report on progress of the revised queue structure - This action never materialised given that the Oversight Committee & Hugh Picher Clayton decided to leave things as is until Capability Usage had been monitored over the subsequent months following the STAC meeting. **ACTION REMOVED**
- MFG to report on the progress of the site visits - To be discussed later in the agenda during MFG's presentation. **ACTION COMPLETE**

3. Upgrade to Power5 (ADS)

ADS delivered a presentation on the forthcoming upgrade from Power4 to Power5, which has been approved by EPSRC. He explained the new configuration, which will be known as Phase2a, and also how the configuration will change as HPCx enters Phase3 in 2006. The main benefit of Phase2a is the enhanced memory.

ADS outlined the timetable for the installation - the components will be delivered on 3rd October, they will be built alongside the current Phase2 system and then switched over on the 23rd and 24th November.

CRAC welcomed this development and commented on how the enhanced memory will be very useful to Users.

RR enquired as to where the extra funds for the Phase2a upgrade have come from. ADS explained that the savings in maintenance and power we will make with Power5 will mean that the difference in cost is not that great. The additional funds were provided by EPSRC following a proposal submitted by HPCx.

ADS confirmed LSC's thoughts that we will be the first site to use the p5-575. He also responded to a question raised by LSC about any anticipated software problems following the upgrade by explaining that no problems are anticipated.

CL enquired as to whether or not the acceptance tests for the upgrade would include any of the problems seen by Users with regard to memory to show the improvement with the upgraded system. ADS confirmed that there would be some tests but that they would not be part of the acceptance tests for the upgrade.

4. HPCx Usage (ADS)

Overall the usage figures are still good. Capability usage has risen back to the 25%-30% that we were seeing previously, following a slight fall in January and February 2005. Chemistry and Materials are still the main application areas on the system, although NERC usage has risen to around 10% of the total during recent months.

The Phase2 hardware has been very reliable.

CL asked about the 80% utilization figures and how they compare with other similar services around the world. ADS commented that 80% is good for a mixed service like HPCx - 50% to 60% would be normal for this type of service.

5. HPCx Events (ADS)

ADS gave a brief summary of the events that HPCx has been involved in since the last meeting. Arthur Trew had spoken at the Edinburgh Science Festival and the feedback had been very positive. EPCC had also recently hosted ScicomP11, alongside SP-XXL. The 3rd HPCx Annual Seminar is planned for Monday 5th December at Daresbury Laboratory. Speakers confirmed so far include Gert Hoffman from DWD, Germany and Rob Harrison from ORNL, USA.

6. Progress against the Annual Plan (ADS)

There had been some problems with EPSRC taking a long time to approve the Annual Plan. STAC had given its approval in March but there was no feedback from EPSRC until August. The delay could have left us at risk because we did not have an approved Plan to work to. It would also be useful to receive some feedback from EPSRC regarding their thoughts about the Annual Plan. LS was asked to feedback our concerns over this delay to Hugh Pilcher-Clayton.

ACTION: LS to feedback our concerns over the delay in approving the Annual Plan to Hugh Pilcher-Clayton.

ADS then went through the key objectives from the Annual Plan and reported on progress.

CL asked about the Technical Reports produced by HPCx. CL felt that Users should be approached to discover which topics should be used for Technical Reports. Users should suggest topics that would be most useful. Suggested topics could then be included in the Annual Plan and discussed at STAC. ADS will progress this action.

ACTION: ADS to canvas Users to discover which topics would be most useful if they were covered by a Technical Report.

RR enquired about the penalties we suffer if we do not meet targets outlined by EPSRC. The general feeling was that any targets should not inhibit the support that we offer the Users. CRAC and RR, supported by the rest of the committee, felt that STAC should comment forcefully on the level of the targets that are set in the Annual Plan for 2006.

ACTION: STAC to comment on the targets set in the 2006 Annual Plan.

CRAC concluded this section of the meeting by commenting that there has been very satisfactory progress over the last 6 months.

7. Applications Performance on Power5 (MFG)

MFG outlined the benchmarking exercise that had been undertaken in June. The main problem with the exercise was that, due to limited availability of suitable systems and access provided by IBM, the tests were only carried out on a single node system, with no HPS switch. The Power5 system will be dual core. MFG also gave a comparison of the performance figures between Power4 and Power5.

8. Outcomes from IBM User Group Meeting (MFG)

There has been little progress from IBM on the four main items discussed at their "HPCx Planning Workshop". They have provided some timetables for progress that they hope to make during 2006.

STAC agreed to send feedback to Ian Green (IBM) to ask for progress on this matter as a matter of urgency.

ACTION: CRAC to contact Ian Green on behalf of STAC.

9. Consortium Visits (MFG)

MFG provided an overview and some background information to explain the reasons for the visit programme. He outlined the areas examined by the visits - code performance and scalability, the capability incentive scheme, job scheduling, and available resources. Ten of the twelve planned visits have now been completed. MFG provided a summary of the findings so far and agreed that the final report would be included as an agenda item for discussion at the next STAC meeting.

ACTION: Include an agenda item to discuss the final visit report at the next STAC meeting.

MFG confirmed that the final report should be complete in time for the HPCx Annual Seminar on the 5th December.

10. Any Other Business

There was no other business.

11. Date of Next Meeting

It was suggested that the next meeting should take place in late February 2006 and that it would be held at UCL (by Access Grid). DJ will look for availability.

ACTION: DJ to look for dates in February 2006.

Damian Jones
30th September 2005