INFORMATION SERVICES DIVISION

Research Computing Governance Group

Tuesday 8th April 2014 at 10.00am
South Wing G14 Committee Room
Gower Street, London WC1E 6BT

Chair:
1. John Brodholt [JBr] – Dept. of Earth Sciences

Present:
2. Mat Disney [MD] – Dept. of Geography
3. Clare Gryce [CG] – Head of Research Computing and Facilitating Services, ISD
4. Nik Kaltsoyannis [NK] – Chair of Computational Resource Allocation Group (CRAG)
5. Jacky Pallas [JP] – Research Platforms, OVPR
6. Alberto Roldan Martinez – Dept. of Chemistry

Apologies:
7. Nick Achilleos [NA] – Dept. of Physics & Astronomy
8. Richard Catlow [RC] – Dept. of Chemistry and Dean of MAPS
9. Peter Coveney [PC] – Computational Life and Medical Sciences (CLMS)
10. Nora H De Leeuw [NDL] – Thomas Young Centre (TYC)
11. David Jones [DJ] – Bloomsbury Centre for Bioinformatics (BCB)
12. Angelos Michaelides [AM] – Thomas Young Centre (TYC)
13. Christine Orengo [CO] – Institute of Structural and Molecular Biology
14. Bruno Silva [BS] – Research Computing Platforms Team, ISD

In attendance:
1. Owain Kenway [OK] – Research Computing Platforms Team, ISD
2. Michael Marques [MM] – Project Manager, Project Delivery Services, ISD
3. Corrinne Frazzoni [CF] – Administrative Services, ISD (Minutes)

Minutes

1. **Welcome and introduction [Chair]**
   The Chair welcomed the group to the meeting.

2. **Approval of Minutes of previous meeting and matters arising [Chair]**
   The minutes of the meeting held on 4th February 2014 were approved with no matters arising.

3. **Review of current Action Items [Chair]**
   The list of current actions from the previous meeting was reviewed (see attached table).

4. **Current Year Projects and Budget [CG/OK]**

4.1 <u>Legion IV Stage 3 – 2013/14 budget update</u>
   - £207k allocation from central funds (via RIISG)
   - £293k contribution from MRC Chapter / Farr research grant
   - £129.5k of compute procured from additional research grants (3 PIs)
   - Implementation by end Feb
   - New release of additional £140k (via Finance and RIISG)
     - 120k 13/14 –14/15 swap with other projects to move funding into next year's capital budget
     - 20k to cover overspends on main project
   - £37k contingency
     - Propose to spend on additional nodes by end July. Spend by end July 2014. Agreed that ISD Project Team should refer to the CRAG for guidance on node types to purchase.

- Legion HPC nodes
  - All hardware purchased in the last Legion IV phase installed
  - There were delays in delivery of network equipment
  - Integration with software stack has now started
  - Testing has now started
  - 108 nodes (U)
  - 8 nodes (S)
  - 3 nodes (T)
  - All nodes expected to be in production right before the start of the Easter break
- Legion HTC nodes
  - 108 nodes (Y)
  - 4 nodes (Z)
- Legion High Memory nodes
  - 6 nodes (T)
- Legion Grid
  - 18 4k nodes (proof of concept)
- Legion Storage
  - Lustre (scratch)
  - NFS (home)
- Dedicated allocations (nodes)
  - All funded by PI or group
  - End date is guaranteed span; after 3 years funder can remove nodes or leave in estate with allocation policy reverting to standard CRAG terms.

    Action: OK to provide 1-line info about each Legion node type, for information
    Action: JP to check Farr contract dates on dedicated allocation

4.2   e-Infrastructure South Operational Value-Add
- £15k for software, website, miscellaneous items etc
- Proposal from Nik Kaltsoyannis to extend ADF license for 1 year = £3,946
- New website for CfI and SES being funded from EPSRC grant
- Other possibilities
  - Poll for paid software request
  - Funding to enable other service administration/management enhancements

Decision: It was agreed that CG should use own discretion in allocating the balance of funds.

5.   14/15 and future Project Proposals [CG]

CG gave a recap of the proposed three year investment plan for the Research IT domain as presented to the RIISG meeting on 20th January 2014. The group was asked to consider the following proposals for approval:

5.1   Centrally provided iPython notebook service
To provide a UCL-hosted iPython notebook service to researchers, offering a centrally supported user-friendly environment for software development and explorative data analysis.
Decision: Endorsed

5.2   Unix-like Desktop Computing Environment
Exploratory and investigative work to consider the need for a standardised Linux based 'desktop' environment at UCL, supporting common research applications and with integrated functionality to support a diverse range of computational tasks, including assembly and launch of jobs to Legion and other HPC environments.
Decision: Not endorsed. Further clarification required.

5.3   Legion and Research Data Storage integration
A project to investigate the tight integration of the Research Data Service (RDS) with the Legion HPC cluster.
Decision: Not endorsed. Further clarification on scope required.

5.4   Major UCL HPC Refresh and Expansion
A multi-year project to deliver a major technology refresh and expansion to UCL's HPC capability.
Decision: Endorsed in principle though concern expressed regarding some proposed non-equipment costs

6.   Report from the CRAG [NK]

NK gave an update on the CRAG:

–   Legion priority access to go ahead.
–   Web page created, offering 3 options. Termly calls
–   New account application process - annual re-application
–   Consortia to be dissolved, replacing with research themes using REF Units of Assessment
–   KPI for core availability – decision required
Decision: KPI for core availability to be set at 95%. Approved.

7.   Datacentre Update [MM]

Long-term datacentre strategy
- On-site (NHS/Bloomsbury campus)
    – Primary (200 racks 4MW max)
    – Secondary (30 racks max)
- Off-site
    – Primary (200+ racks, 4 MW, highly scalable)
- Costs
    – MRC funded invoices have all been paid (£441K)
    – Design and Build Budget increased to - £2.25M (1.9M)
    – IT Enablement
      Latest Cisco Nexus 9500 technology - £98K (Chassis Received)
      External Fibre/Cooper cabling Upgraded to OM4 and Cat6a
      External OM3 Fibre link to Legion Core Network
- Torrington Place 2 (Tactical On-site DC)
    – Build Start Date – Mid Dec 2013
    – Internal data Cabling – 17 March 2014
    – Primary Contractor - ISD Handover – 25 April 2014 (Network Installation then starts)
    – First Systems – Early May 2014
    – Staff OxyReductTraining and TP2 induction is being finalised with OH
    – Legion V3 Migration and Test plan is being finalised.
    – Legion Hardware maintenance to be renewed
- TP 3 Strategic On-site DC
    – HS2's Property Acquisition representatives from Montagu Evans visited the Wolfson House datacentre and other affected UCL properties on Wednesday 2nd April. They will feed back any questions through HS2
    – A phased conceptual design has been submitted to UCL Estates. This shows a Phase 1 build of a like-for-like WH datacentre in Torrington Place and subsequent Phases 2 + 3 for expansion up to 200 racks
    – Draft IT move plan completed and sent through to UCL Estates. This shows how long it would take to move equipment from Wolfson House to TP3. Current timeline shows an end date of June 2016
- Off-site DC
    – Tender box closed on Friday 28th March. 12 bids received
    – Currently reviewing against Mandatory Requirements (MRs), initial view is that 3 bids fail to meet the MRs – waiting for confirmation from Janet (UK)
    – Remaining 9-10 tenders will be reviewed by the review committee
    – Results to be announced by Janet(UK) on Friday 2nd May

Action: MM to circulate business case to group with summary of process

The following items were not covered due to lack of time:

8.   Research Computing Strategy [CG]

9.   Date and agenda for next meeting [Chair]

List of Current Actions

Shaded actions will be deleted after next meeting. New actions in bold type.

No	Date	Minute	Owner	Action	Status and Notes
18	27/04/12	6.3	CG/JP/JB	Consult Research Services to confirm what costs can actually be put on grants, also with regard to need to align allocation periods and processes with the research services costing. To establish what was included in the fixed estates costs for Research Computing.	27/4 – Action opened 21/11/13 – CG working with JP to plan workshop. Ongoing 04/02/14 – Combine with Action 37. Ongoing **08/04/14 - Ongoing**
33	3/10/13		JB/JP/ RC	RC - ToRs: report back on strategies relevant to research computing at faculty level & produce statement of current role and future strategy.	03/10/13 – Action opened 04/02/14 – Ongoing **08/04/14 – Ongoing; John to chase with JP and RC**
35	21/11/13	2.1	CG	CG to look into obtaining quarterly HECToR utilisation report from EPCC.	21/11/13 – Action opened 04/02/14 – CG awaiting response from EPCC - Ongoing **08/04/14 – Ongoing; some data have been provided by EPCC, others outstanding**
36	21/11/13	2.2	BS/NK/ CRAG	NK/CRAG to report back on new unified Research Computing Resources Access Policy. BS to prepare document for next meeting.	21/11/13 – Action opened 04/02/14 – Ongoing **08/04/14 - Ongoing**
38	21/11/13	3	CG	To create a first draft of a new Research Computing strategy document based on meeting outcomes, and noting that £2M in 15/16 is an inadequate level of investment, for review and further work by the group.	21/11/13 – Action opened 04/02/14 – Ongoing – see previously attached Paper (Item 5) **08/04/14 – Ongoing; an analysis document has been drafted and circulated for comment**
39	21/11/13	3.7	CG	To collate information on annual capital investment in Research Computing each year since the first SRIF investment.	21/11/13 – Action opened 04/02/14 – Ongoing **08/04/14 – Completed; closed**

40	21/11/13	5	CG	To obtain top-line data from Research Services on income	21/11/13 – Action opened 04/02/14 – Ongoing **08/04/14 – Ongoing;pending new account application**
42	21/11/13	5	CG	To ask that the business case for an onsite Datacentre to be distributed to the working group	21/11/13 – Action opened 04/02/14 – Ongoing **08/04/14 – Completed; closed**
43	04/02/14	4	BS	To prepare a report on the current Legion estate for the next meeting	04/02/14 – Action opened **08/04/14 – Completed; closed**
44	04/02/14	5	CG	To poll members for 'Awayday' to discuss further development of the Strategy.	04/02/14 – Action opened **08/04/14 – Closed (superceded)**
45	04/02/14	5	CG	To draft short 2-page strategy proposal and circulate to members.	04/02/14 – Action opened **08/04/14 – Closed (duplication)**
46	04/02/14	6	CG	To draft the proposal for Finance dept	04/02/14 – Action opened **08/04/14 – Closed**
47	**08/04/14**	**4.1**	**CG/OK**	**Provide 1-line info about each Legion node type, for information**	**08/02/14 – Action opened**
48	**08/04/14**	**4.1**	**JP**	**Check Farr contract dates on dedicated allocation**	**08/02/14 – Action opened**
49	**08/04/14**	**7**	**CG**	**Re-circulate Data Centre business case to group with summary of process that was followed to produce report**	**08/02/14 – Action opened**