



**Computational Resource Allocation Group (CRAG)
Monthly Meeting**

Tuesday 9th December 2014 at 13.00

Room 103, Podium Building, 1 Eversholt Street, London NW1 2DN

Chair:

1. Nik Kaltsoyannis (NK) – *Molecular Quantum Dynamics and Electronic Structure*

Present:

2. Nicholas Achilleos (NA) – *Astrophysics and Remote Sensing*
3. Dario Alfe (DA) – *Thomas Young Centre (Materials Science)*
4. Tom Couch (TC) - *Research Comp & Facilitating Services, ISD*
5. Clare Gryce (CG) – *Head of Research Computing and Facilitation Services, ISD*
6. Javier Herrero (JH) - *Research Department of Cancer Biology*
7. Owain Kenway (OK) – *Research Computing Analyst, ISD*
8. Jo Lampard (JL) - *Senior Research IT Services Facilitator, ISD*
9. Andrew Martin (AM) - *Structural & Molecular Biology*
10. Vincent Plagnol (VP) – *Next Generation Sequencing*
11. Sergey Yurchenko (SY) – *Atomic, Molecular, Optical and Positron Physics*

Apologies:

12. Thomas Jones (TJ) – *Research Platforms Team Leader (Infrastructure Lead), ISD*
13. Ian Kirker (IK) - *Research Comp & Facilitating Services, ISD*
14. Michail Stamatakis (MS) - *Chemical Engineering*

In attendance:

15. Corrinne Frazzoni (CF) – *Administrative Services, ISD (Minutes and meeting support)*

MINUTES

1. Approval of Minutes of last meeting held on 7th October 2014

The Group approved the Minutes of the last meeting.
There were no matters arising.

2. Update on status of current Actions

The list of current Actions (see table at end) was updated.

3. Review of any requests for additional resources on local HPC facilities

There were 2 new requests for additional resources

- a. Peter Harrison
 - i. Increased scratch space (200GB to 5TB) from 09/12/14 to 14/02/15
- Approved
- b. Rebecca Dean
 - i. Increased scratch quota to 500GB and extend wall clock time to 7 days from December 2014 to May 2015

- Approved if cannot use BLCR

4. Review of Legion usage statistics <http://gouf.rcdev.ucl.ac.uk:8888/>

The group reviewed the Legion usage statistics for November 2014.

Issues raised:

- Currently picking up on events due to planned-for data outage and overheating during TP shutdown
- Escalating to ISD problem management
- Underlines need for offsite datacentre
- Complaint from user who had to resubmit and ended up at back of job queue
- Would be useful to know the extent paid-for nodes are used by purchasers

Action: Add backfill issue on paid-for nodes to January agenda

5. Review of IRIDIS and EMERALD usage statistics

IRIDIS and EMERALD usage statistics for November 2014 were reviewed.

6. Presentation on plans for procuring a new machine in the offsite datacentre (OK)

IRIDIS service due to terminate at end of July 2015 - no possibility of extension owing to data centre closure at Southampton

- Emerald service funded in current form until end of July 2015 – discussions re costed extension of current service and possible development of successor service are under way and progressing well
- The hardware within Legion is between 1 and 8 years old, and older technology needs to be retired.
- There is no significant expansion capacity room at UCL and the Wolfson House datacentre is planned to be shut down late in 2015 owing to compulsory purchase for HS2
- UCL is a founding tenant of the new JANET datacentre in Slough.
- We have >£1 Million funded to spend on new hardware. Some cost for project management.

Decision: the CRAG recommended proposed solution 1 -

Direct Iridis capacity replacement

- 64 bit nodes
- Infiniband (or competitor)
- Parallel file system
- Linux (preferably as similar to Legion as possible)

Action: OK to identify top 10 users and write budget proposal for EMERALD

Action: CG to feed back CRAG recommendation to RCGG

7. Discussion on re-application process, stats for re-application and project account/publication data

Issues raised:

- Users are asked for data but few provide it
- Need to do more to promote impact
- Format to be amended post MyFinance
- Need to capture data – how to encourage users to provide

Action: OK Check with RITA to add to backlog and confirm usage

Action: CG/OK report back with plan on how to implement

8. Discussion on how to report Legion paid-for node use

Discussed earlier.

9. KPIs

Not discussed due to time.

10. AOB

There was no other business.

11. Next meeting date and agenda

Tuesday 13th January 2015 from 13.00-15.00

Venue: Room 103, 1st floor, Podium Building, 1 Eversholt Street, London, NW1 2DN.

Agenda (Items) for the next meeting:

Standing items:

1. Approval of Minutes of last meeting
2. Update on status of current Actions
3. Review of any requests for additional resources on local HPC facilities
4. Review of Legion usage statistics
5. Review of IRIDIS and Emerald usage statistics

Extra items:

6. KPI setting for Legion slowdown
7. New Desktop
8. Backfill
9. Emerald/Iridis

LIST OF CURRENTLY APPROVED EXCEPTIONAL REQUESTS

Requesting user	CRAG approval date	details of exception	start date agreed	end date agreed	date removed	Implementation Notes
Jenner	13/05/2014	Scratch quota extended for the requested period	13/05/2014	01/05/2015		
Piasini	10/06/2014	Scratch quota extended for the requested period	10/06/2014	31/12/2014	?	
Wright	10/06/2014	Extension of maximum wall clock time to 10 days on Legion	10/06/2014	31/10/2014	?	
Tian	08/07/2014	360 hours wall time requested to December 2014	08/07/2014	31/12/2014	?	
Meng	09/09/14	Scratch quota increased to 3TB and extended	09/09/2014	30/09/2015		User to discuss suitability of platform with RC
Herrero	09/09/14	Scratch quota increased to 6TB and extended	09/09/2014	30/09/2015		
Ferreira	07/10/14	Scratch quota increased to 2TB and extended	07/10/2014	31/10/2015		OK to discuss suitability of platform with user

LIST OF CURRENT ACTIONS

Shaded (closed/completed) items will be deleted in the next version.

	Actions	Status	Owner
151	KPI for legion wait times	<p>(17/01/2014): After correcting for job arrays, mean slowdown will be calculated for each job type (single core, single node, multi-node etc.) on a monthly basis. The use of this measure will be evaluated at a subsequent CRAG meeting.</p> <p>(14/2/14): This is now being done for senior management reports – will be introduced in coming Legion statistics reports. ONGOING. (12/03/14): ONGOING</p> <p>(13/05/14): Create graph to cover 2-year timeframe on slowdown trend/users/ and normalised/active users overlaid NEW ACTION</p> <p>(10/06/14) ONGOING (08/07/14) ONGOING</p> <p>(09/09/14) Legion slowdown graph to be included in CRAG stats as soon as reasonably practicable. Include comparative data from start and for 12-month period. KPI policy for slowdown to be defined. ONGOING</p> <p>(07/10/14) ONGOING - add REF headings to graph breakdown</p> <p>(09/12/14) CLOSED</p>	OK
159	EMERALD usage statistics	<p>(13/05/14): Request explanation of high utilisation and slowdown figures from Timothy Metcalf (TM)</p> <p>(10/06/14) ONGOING. TM provided a partial reply which was not felt to fully explain the figures. OK to meet with Derek Ross to discuss metrics further.</p> <p>(10/06/14) ONGOING. OK met with Derek Ross to discuss metrics. Derek conceded that the figures were confusing and would look into them.</p> <p>(09/09/14) OK to follow up with Derek. ONGOING</p> <p>(07/10/14) ONGOING issue with getting stats from Cfl</p> <p>(09/12/14) ONGOING. OK to forward correspondence to CG. CG to escalate</p>	OK CG
163	Retirement of Condor/IRIDIS	<p>(09/09/14) NEW ACTION. OK and CG to consider resultant loss of capacity in light of Legion 4k rollout and OS upgrade.</p> <p>OK to speak about new Desktop at October CRAG</p> <p>(07/10/14) ONGOING – OK to meet with Desktop team. Carry into November</p>	OK/CG
164	Priority and backfill access policy	<p>(07/10/14) NEW ACTION. Policy for priority access for paying users and backfill access to paid nodes by non-paying users:</p> <p>WH to email CRAG with expanded options and implicit risks. MS to assist as test case.</p> <p>CG to streamline policy and document agreement by the CRAG to ensure consistency regarding leasing/buying nodes and backfill policy.</p> <p>(09/12/14) CLOSED</p>	WH/MS CG
165	New machine in offsite datacentre	<p>(09/12/14) NEW ACTION. Decision: the CRAG recommended proposed solution 1 - Direct Iridis capacity replacement</p> <ul style="list-style-type: none"> - 64 bit nodes - Infiniband (or competitor) - Parallel file system - Linux (preferably as similar to Legion as 	OK/ CG

		possible) OK to identify top 10 users and write budget proposal for EMERALD CG to feed back CRAG recommendation to RCGG	
166	Re-application process, stats for re-application and project account/publication data	(09/12/14) NEW ACTION. Check with RITA to add to backlog and confirm usage Report back to CRAG with plan on how to implement	OK CG/OK