



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

Tuesday 7th October 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. Clare Gryce (CG) – *Head of Research Computing and Facilitation Services, ISD*
5. Tom Couch (TC) - *Research Comp & Facilitating Services, ISD*
6. William Hay (WH) – *Datacentre Services, ISD*
7. Owain Kenway (OK) – *Research Computing Analyst, ISD*
8. Andrew Martin (AM) - *Structural & Molecular Biology*
9. Vincent Plagnol (VP) – *Next Generation Sequencing*
10. Michail Stamatakis (MS) - *Chemical Engineering*
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. Jo Lampard (JL) - *Senior Research IT Services Facilitator, ISD*

In attendance:

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

MINUTES

1. Approval of Minutes of last meeting held on 9th September 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 was 1 new request for additional resources

a. Ana Ferreira

- i. Increased scratch space (2TB) ongoing
 - Approved until 31 October 2015 only
 - User will need to re-submit request after 1 year
 - OK to discuss suitability of platform with user as Legion not the best place to keep long-term data

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

The group reviewed the Legion usage statistics for September 2014.

Issues raised:

- Utilisation of available core hours versus service availability
- Improvement in fixing hardware problems
- People not moving out of consortia into REF areas

Action: OK to add REF headings to graph breakdown.

5. Review of IRIDIS and EMERALD usage statistics

IRIDIS and EMERALD usage statistics for September 2014 were not available for the meeting.

6. Implementing backfill into paid resources – presentation (William Hay)

William Hay presented the various options for methods of implementing backfill (access to paid nodes by non-paying users):

- a. Higher priority for jobs from owners that are restricted to just their paid nodes.
- b. Restrict backfillers to only short jobs on the paid nodes.
- c. Prevent jobs from backfillers starting on paid nodes when the owner has jobs queued.
- d. Prevent jobs from backfillers starting on owner request.
- e. Remove backfillers from paid nodes at owner request.
- f. Remove backfillers from paid nodes when owner has queued jobs.
- g. Remove backfillers from paid nodes when owner's job starts there.

The CRAG discussed policy on priority access and agreed a need to reflect upon and define terms and conditions.

The CRAG approved:

- Backfill jobs on paid nodes limited to 2 hours in length.
- Owners can disable new backfill jobs from starting on their nodes.
- Backfill access on paid nodes will be automatically re-enabled if the owner has no jobs queued or submitted in the last 48 hours.

Action: WH to email CRAG with expanded options and implicit risks. MS to assist as test case.

Action: CG to streamline policy and document agreement by the CRAG to ensure consistency regarding leasing/buying nodes and backfill policy.

7. KPIs

The CRAG discussed KPIs for Legion.

- Adoption of a formal measure proposed
- Consider slowdown in terms of quality of service and response
- KPI needed for support of users
- 95% target approved
- Add to agenda for November

8. AOB

There was no other business.

9. Next meeting date and agenda

Tuesday 11th November 2014 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

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</p> <p>(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</p> <p>(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> | 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> | OK |
| 160 | Account application | <p>(08/07/14) NEW ACTION. CG to email leaders of current consortia on behalf of CRAG and summarise changes to approval process, noting two month deadline to reapply for accounts.</p> <p>(09/09/14) Identify & contact CFI users who have not reapplied to tell them to do so asap and warn them that data may become difficult/impossible to access after 1st October. ONGOING.</p> <p>(07/10/14) CLOSED</p> | CG OK |
| 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. 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> | WH/MS CG |