



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

**Friday 17<sup>th</sup> April 2015 at 13.00**

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

**Chair:**

**Nik Kaltsoyannis [NK]**

**Present:**

**Nicholas Achilleos [NA]; Dario Alfe [DA]; Javier Herrero [JH]; Owain Kenway [OK]; Andrew Martin [AM]; Michail Stamatakis [MS]; Sergey Yurchenko [SY]**

**Apologies:**

**Clare Gryce [CG]; Thomas Jones [TJ];**

**In attendance:**

**Corrinne Frazzoni [CF] (Minutes)**

**MINUTES**

**1. Approval of Minutes of last meeting held on Friday 20<sup>th</sup> March 2015 [NK]**

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

**2. Update on status of current Actions [NK]**

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

**3. Review of any requests for additional resources on local HPC facilities [NK/All]**

There was one new request for additional resources:

- Qamreen Parker
- To increase Legion run time to 100 hours from 17/04/2015 to 2016

**Request denied. Return request to user, copying supervisor/PI, for clarification of needs.**

**4. Review of Legion usage statistics [OK]**

<http://gouf.rcdev.ucl.ac.uk:8888/>

The group reviewed the Legion usage statistics for March 2015.

**Action: OK to talk to Systems team re metrics/file system performance**

**Action: Add 'modification of Legion queuing policy to apply when IRIDIS is switched off' to next agenda**

## 5. Review of IRIDIS and EMERALD usage statistics [OK]

IRIDIS and EMERALD usage statistics for March 2015 were reviewed.

## 6. Centre for Innovation (CFI)/New HPC update [OK]

- Tender still out for new HPC, due back end of April. CG is investigating possibility of some workloads using the new eMedlab facility during the service gap. NK and John Brodholt copied into discussion thread
- No slippage from Southampton; IRIDIS termination still on schedule for 31st July 2015
- CG and OK have gathered information from EMERALD users to support business case for continued investment at modest level. The case is fairly compelling and will be presented at the RCGG on 14th May.
- Discussions with STFC on future service models and development of costed proposal for UCL ongoing. At the present time, likely to continue current service (older technology) into 15/16, with move to newer technology to follow later.
- OK looking at figures for benchmark comparisons

## 7. Offsite HPC and RC OS [OK]

- Not quite running to time
- Base set of packages in place
- Complete set of model files on Github

## 8. Data repatriation plans and interim scheduling [OK]

## 9. AOB

Following a discussion at the last RCGG meeting of current utilisation figures for Legion, which had been noted to hover between approximately 85% to over 95%, the RCGG had expressed a desire to understand more about what the 'right' figure for utilisation should be and why, and how current performance related to this.

Points raised:

- The 'right' level of utilisation for HECToR had been set at 80%, meaning that when an actual utilisation of 80% was achieved, this was reported as 100% (of target utilisation). The reasoning for this was that if the service provider tried to push utilisation higher, user experience rapidly degraded.
- Clearly the pressures on a university service are different to those of the national service, though it also benefits from a more mixed workload which facilitates backfill, thus pushing utilisation up
- Southampton run the largest University HPC in the UK (IRIDIS 4). They ran at 85% for the first quarter this year and do not set a target beyond 'as high as possible', for the reasons outlined above
- Bristol also run a very large system. They too run at 85% over the year though can peak at well over 90% due to backfill. Again, they do not set a target for utilisation, but focus on monitoring wait times for jobs of different classes.
- With the squeeze on budgets being so high it is imperative to deliver maximum value from HPC services and one aspect of this is maximising utilisation. But this must be balanced against the need to ensure the service remains highly usable and attractive in terms of wait times and job slowdown.
- If utilisation is pushed too far, wait times and slowdown will rise and people will walk away from the central service and revert to buying their own.

The CRAG were requested to recommend:

- Whether UCL should set a target for utilisation on its (fully owned) HPC services
- Why/why not?
- If yes, what should that target be, and why?

The CRAG agreed:

- A target for utilisation should not be set but utilisation should continue to be monitored
- If a target was necessary, it should be set at around 80%
- A slowdown target would be preferable

**Action: NK to report to next RCGG meeting on 14<sup>th</sup> May 2015**

**Action: OK to look at utilisation**

## **10. Next meeting date and agenda**

Friday 22<sup>nd</sup> May 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
6. Update report on Cfl and new HPC (from CG)
7. Data repatriation plans

#### **Additional item:**

1. Review queueing policy for Legion post-IRIDIS shutdown

## 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		
Meng	09/09/2014	Scratch quota increased to 3TB and extended	09/09/2014	30/09/2015		User to discuss suitability of platform with RC
Herrero	09/09/2014	Scratch quota increased to 6TB and extended	09/09/2014	30/09/2015		
Ferreira	07/10/2014	Scratch quota increased to 2TB and extended	07/10/2014	31/10/2015		OK to discuss suitability of platform with user
Wang	20/02/2015	Scratch quota increased to 2TB and extended	08/01/2015	31/01/2016		
Wellington	23/02/2015	Scratch quota increased to 1TB for the period	23/02/2015	01/08/2015		
Bloch	20/03/2015	Scratch quota increased to 1TB and extended	20/03/2015	31/03/2016		Advise user to reapply upon expiry as had requested longer timeframe
Ladak	20/03/2015	Scratch quota increased to 5TB and extended	20/03/2015	31/03/2016		Advise user to reapply upon expiry as had requested longer timeframe

## LIST OF CURRENT ACTIONS

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

	<b>Actions</b>	<b>Status</b>	<b>Owner</b>
163	Retirement of Condor/IRIDIS	(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 (07/10/14) ONGOING – OK to meet with Desktop team. Carry into November (13/01/15) ONGOING (20/2/15) ON HOLD Will revisit after RIISG in May 2015. (20/03/15) ON HOLD	OK/CG
166	Re-application process, stats for re-application and project account/ publication data	(09/12/14) NEW ACTION. Check with RAGG to add to backlog and confirm usage Report back to CRAG with plan on how to implement (13/01/15) ONGOING (20/02/15) ONGOING. Contractor has been hired (20/03/15) ONGOING. OK to check on progress (17/04/15) ONGOING.	OK CG/OK
168	Paid allocation reporting	(13/1/15) NEW ACTION: Keep current report and add extra reporting for paid usage plus time used. OK to produce (20/02/15) ONGOING (20/03/15) ONGOING. OK to check on progress (17/04/15) CLOSED	OK
169	Legion usage statistics	(20/2/15) NEW ACTION. Add targets and REF category to service availability graph. Follow up on stats for Climate Science and Archaeology (20/03/15) Follow up on stats for Climate Science and Archaeology - Completed. Add targets and REF category to service availability graph. ONGOING. (17/04/15) NEW ACTION OK to talk to Systems team re metrics/file system performance.	OK
170	Data repatriation after IRIDIS shutdown	(20/03/15) NEW ACTION. OK to Inform users of repatriation plans for data. (20/03/15) ONGOING. (17/04/15) ONGOING. Initial email sent. OK to keep users updated on plans	OK
171	Utilisation target for Legion	(17/04/15) NEW ACTION. NK to report to next RCGG meeting on 14th May 2015. OK to look at utilisation	NK/OK