



Computing Strategy Group Minutes

31st October 2022

Present: Jane Hillston, Boris Grot, Alastair Scobie, Bjorn Franke, Tim Colles, Ajitha Rajan, Petros Wallden

Apologies: Joy Candlish

	Summary	ACTION
1.	PREVIOUS MEETING	
	<p>Approval of previous minutes and matters arising Actions completed from previous meeting were discussed and agreed.</p>	
	<p>1.1 - Providing information on funded research grants to Computing team - Information to computing from Janet's team. Tim, Joy and Alastair will meet to discuss how we could improve on this. Jul 22: Meeting held. Joy will ask Janet to submit examples of bids so that we can identify what information is useful. Boris pointed out that the new server room space request form will capture much of the needed information. Aug 22: Joy has asked Kirstin to connect with Alastair and Tim. Oct 22: It was agreed that the new server room space request form captures sufficient information.</p> <p>1.2 Forum server rooms - Jane and Boris have been discussing our needs with Mark Parsons (EPCC). Jane, Joy and Alastair are meeting with SRS. It was noted that at least one of the CDTs has considerable funds to spend on computing OpEx, but not CapEx - we should investigate creating an SRF (Small Research Facility). Additional potential spaces were suggested for housing servers - these will be investigated. Oct 21: this action predates the EIDF proposal. Alastair and Joy to consider whether SRF still required. Janet and Mark Parsons are discussing how charging might work for EIDF. Feb 22: still waiting on clarity on how EIDF will be charged for. Sitting with Director of Finance. Jul 22: this is still sitting with the Director of Finance. Janet and Mark Parsons have been pushing. Costs have been agreed with EPCC. Janet has proposed an interim process, but we need this approved by ERO. [ACTION: ON HOLD (to consider how to create an SRF)]</p> <p>Aug21 - The School has agreed with EPCC the hosting of School GPU provision at EIDF. There are a lot of details to be worked out, particularly the financial model. The intention is to have paid for and free tiers. A high performance storage system will be available across all GPUs. It was commented that we need to start informing PIs of this so that they can begin to factor this into new research grant proposals. Oct21 - Alastair has been trying to arrange a meeting with EPCC to discuss the proposed EIDF facility in greater detail. Once he has more detail, he will be asking the School's EIDF working group to disseminate information within the institutes. Feb 22: Two Informatics researchers are piloting the EIDF facility. Jul 22: Boris and Alastair had recently met with the EPCC team. More technical details have been provided, but progress wrt. commissioning has been slow. Equipment is in place and systems installed, but EPCC still sorting out storage system. They are targeting end August for user access, with perhaps a small number of test users before. Aug 22: Target date is now end September. [ACTION: Alastair / Boris]</p> <p>Aug21 - The University has allocated some capital funds to improve the cooling in the Forum server rooms. The first step is for Estates to engage a contractor to produce a feasibility study.</p>	<p>AS/BG</p>

Oct21 - Estates have contracted a consultancy firm to produce the feasibility study. The consultancy firm met with Estates and School reps in late September to discuss requirements. The consultancy firm will undertake an on-site survey in early November and produce a report by early December.

Feb22 – The final report produced three costed options. The first to add 6 HPC racks (with in-rack cooling) in IF-B.02, the second to add 14 HPC racks in IF-B.02 and the third to locate 14 HPC racks in the Water Tank Room IF-B.Z21. All three proposals were in excess of £1m. Subsequently consultancy firm proposed a value-engineered option with no power or cooling resiliency (for the additional racks). The feasibility of this option is being considered with estates and the COs – could it realistically be a first stage option, with power and cooling resiliency being added at a future date.

Jul22 – the value engineered option has been funded. Joy is contacting Steven Goodall in Estates to arrange a meeting to discuss next steps.

Aug 22 – Estates have been contacted to arrange an initial scoping meeting

Oct 22 – Alastair reported that he had met with Gillian Scott of Estates. Estates are appointing a design consultant to finalise the design, but this has been delayed due to additional workload caused by P&M. A realistic target for commissioning is early summer 2023. Jane suggested that Estates are asked to re-cost the project as estates costs have risen dramatically.

[ACTION: Alastair]

1.3 Age of GPUs in taught student cluster - As the MLP cluster is only needed by the MLP exercise during part of the year, it makes sense to make it available to others to use for the rest of the year. However, the current GPUs in the cluster have too little memory (only 6GB) to be of any use to most researchers. It was suggested that we could replace some of the GPUs in the cluster with more powerful GPUs with significantly more memory. Alastair will investigate the feasibility of doing this. One concern is that this may necessitate a reduction in the total number of GPUs in the cluster.

Aug21 - Alastair reported that whilst Iain Rae had concluded that replacing the GPUs should be possible, it hadn't been possible to procure any of the commodity GPUs that we typically buy. Boris suggested that we investigate data grade GPUs - procuring these via EPCC/EIDF might be faster than open market. Oct21 - Alastair will ask Mark Parsons whether EIDF could be used for MLP and taught student projects - if the answer is yes, contributing to EIDF might be a better use of funds. Feb22 – Alastair reported that Rob Baxter and Mark Parsons thought that such teaching use was consistent with EIDF goals and that they are happy to consider this use. However, this would require the EIDF team to add support for splitting the A100 GPUs into smaller virtual GPUs, and this functionality won't be available in the near future.

Jul22 – Alastair reported that a few Landonia cluster nodes had been upgraded such that 8 of 48GB A6000 GPUs were now available. Additionally, the School is paying for 8 of 40GB A100 GPUs in the EIDF cluster – how these will be made available is still under discussion with EPCC.

Aug22 – Alastair to arrange to meet with Mark Parsons to discuss.

Oct22 – Alastair reported that Mark's intention is that the Informatics nodes will be integrated into the overall EIDF pool with Informatics having dedicated access to the GPUs. In the future, EPCC will look to configuring the nodes so that they can be used by others when idle, but kicked off when an Informatics user submits a job. Setup has been delayed due to a network configuration issue which has now been resolved. Expecting test service in early November.

1.5 Eddie/Eleanor GPU refresh – Alastair will request more information from ISG on how the refreshed GPU provision will look. Jul 22 – still awaiting final details, but likely to be similar to existing provision with Singularity. Oct 22 – the refreshed GPU provision will have 6 nodes each with 4 of A100-80GB GPUs in Eddie cluster, and 2 of same nodes in Eleanor cluster. Same Anaconda environment as per existing GPU provision, but Singularity will now be offered, but not yet across

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	<p>multiple nodes. Nodes will have 2TB SSD scratch space, aimed at read-intensive workload – otherwise GPFS for storage. It was suggested that we might be able to use Eddie for taught student requirements – Alastair will confirm whether ISG allow this. [ACTION: Alastair]</p> <p>1.6 Proposal to increase network segmentation in the School’s data network - Alastair will arrange for the proposed changes to be publicised well in advance of implementation to give staff and students opportunity to highlight any difficulties the changes might cause. Jul22 – this is in progress. The self-managed dynamic DHCP wires have been completed. Next step is to tackle the wires hosting the Windows Managed Desktop devices. Aug22 – securing the Windows Managed Desktop wires is scheduled for October. This was completed on October 25th.</p> <p>1.7 Preparedness for academic year 2022/2023 - discussion – Alastair to add a place-marker for the Learn Ultra upgrade to the 2023 computing plan [ACTION: Alastair]</p> <p>1.8 Discussion on research computing with Tony Weir (Director of IT Infrastructure, Information Services Group) - Alastair to arrange a meeting between Boris, Alastair, interested academics and members of the ITI Research Services Team to discuss how to increase Informatics use of the Eddie/Eleanor service. Oct 22 – Alastair awaiting a response from David Fergusson (ITI Research Services Team lead) [ACTION: Alastair]</p> <p>Alastair to arrange for our guidance on DataShare to be reviewed and revised where required. [ACTION: Alastair]</p>	<p>AS</p> <p>AS</p> <p>AS</p> <p>AS</p>
<p>2.</p>	<p>Matters arising from 18th July 2022 meeting (Items 3, 4 and 5)</p> <p>2.1 Head of Computing update (Paper B)</p> <p>Both Jane and Boris reported that reliability of the wireless network had deteriorated in recent months. Alastair will ask ask IS to investigate. Oct 22 – ISG have replied that there is a known issue with the controllers serving the new WAPs (deployed in Forum and Bayes, but not yet in AT). ISG are working with their suppliers (HP and EE) to find a resolution to the problem.</p> <p>2.2 Theon support for duty allocation, teaching support budget etc.</p> <p>Bjorn described the non-linear process involving multiple interdependent spreadsheets that is being used for duty allocation, academic staff load, timetabling and teaching support requests. The current implementation is unwieldy and Bjorn asked that a more sustainable solution be developed. It was agreed that this work needs to be resourced. Joy, Sharon, Bjorn and Tim will have an initial scoping meeting in the next few weeks. Oct 22 – Bjorn reported that a meeting had been held to work through the existing processes. Tim has been tasked with producing an action plan. [ACTION: Tim]</p> <p>2.3 Clean laptops</p> <p>Alastair reported that the University has introduced a “Clean laptop” service for those individuals travelling to certain high-risk countries on business. The service only provides Windows laptops –</p>	<p>TC</p>

	<p>MacOS laptops had been considered by IS but discounted as Mac hardware produced from 2018 does not allow disabling of encryption. We will look at producing an equivalent service based on Linux laptops and pre-2018 MacOS laptops. The guidance from ISG will be reviewed and supplemented, where necessary, by School guidance.</p> <p>Oct 22 – Alastair reported that Computing had tried using the Managed Mac as a basis for this but this system repeatedly reminded the user to re-enable encryption. Our “clean mac laptop” service will be based on a bare install of MacOS on pre 2018 Mac laptops. Linux laptops will be installed as and when necessary. Alastair now receives notice from the School’s H&S officer (Eilidh Guild) when individuals have submitted H&S forms for travel to specific high-risk countries.</p>	
<p>3.</p>	<p>Updates from working groups</p> <p>Received from :-</p> <ul style="list-style-type: none"> • Teaching admin • Forum server rooms • Web Strategy • Cyber Security <p>It was agreed that the Compute and Data Strategy working group would be disbanded.</p> <p>Bjoern reckoned that the Submissions systems working group work had been overtaken by events. Turnitin and Gradescope are being used for non code submission and Github Campus for code submission. Tim will revise any DPIA(s) that need updated. [ACTION: Tim]</p> <p>Jane reported that she and Mark had recently discussed the research levy for use of EIDF. EIDF compute will be free at point of use for researchers. However, researchers should cost into their grants wherever possible at a rate of £1500 per research FTE per annum (£7000 for commercial related research). PGRs and CDTs to be charged £750. There will be additional cost if using over 500TB of data storage. This is all subject to the Citydeal board approval (expected 3rd November). Boris proposed a meeting with Kieran Leach of EPCC to flesh out further details of how the EIDF service will be presented to our staff and students. Boris will schedule this [ACTION: Boris]</p>	<p>TC</p> <p>BG</p>
<p>4.</p>	<p>Head of Computing update</p>	
<p>5.</p>	<p>Development work for P&M</p> <p>Tim reported on the development work that has been carried out over the last 8 months on establishing an HR data feed from P&M. This has involved a lot of work but has many benefits over the previous BI based system. Previously it could take 48 hours for changes to percolate down to the School where they now take a few minutes. The system is also in use by more parts of the University and should therefore be better supported. There is also improved data governance.</p>	
<p>6.</p>	<p>Policy discussion on use of EIDF</p> <p>Joy not present, so item carried over to future meeting.</p>	
<p>7.</p>	<p>Report from CLISC</p> <p>Petros asked for feedback on the CSE IT Strategic Plan 2022-2027.</p>	

8.	<p>AOCB</p> <p>Bjoern reminded the meeting that the upgrade to Learn Ultra is fast approaching. A lot of our teaching pages will need re-written over the next year. We will start work on the material for 1st semester courses during 2nd semester. It was suggested that we look to employ Teaching Assistants to migrate the content, but it was pointed out that we struggle to appoint TAs for tutoring and that should take priority. It was agreed that we should discuss the migration with Alex Burford at the next meeting in December. Boris to invite Alex to next meeting. [ACTION: Boris]</p>	BG
9.	<p>Date of next meeting: 11:00-12:30 8th December 2022 Turing Room / Teams</p>	