EPSRC

Engineering and Physical Sciences
Research Council

Quick Reference

Please note that you must read the full Call document for guidance before submitting your proposal

Resource Allocation Panel (RAP): "Top-Up" Applications for Existing Grant Holders

Call type: Invitation for proposals

Closing date for applications to EPSRC: 10th April 2018 at 16:00

Closing date for the ARCHER technical assessment that needs to be attached to your application: 22nd March 2018 at 16:00

Resource Available: Applicants to this call can request ARCHER compute resource **only to facilitate the remainder of their existing EPSRC grant.** Computing resources on ARCHER are awarded in Allocation Units (kAUs). The number of kAUs requested must be fully justified in the application and reasonable in view of the original allocation and remaining duration of the project. The maximum eligible time period that can be requested through this call is two years.

How to apply: Submission of Technical Assessment to ARCHER followed by submission of application to EPSRC.

Assessment Process: Applications to this call are not subject to postal peer review and will be reviewed and prioritised directly by the Resource Allocation Panel (RAP), resulting in a rank ordered list.

Key Dates:

Activity	Date
Technical Assessment deadline	**22nd March 2018**
Closing date for proposal submissions	**10th April 2018**
Resource Allocation Panel	**May 2018**
Project start date	**May/June 2018**

Submissions must be accompanied by a completed technical assessment

Contacts: ARCHERRAP@epsrc.ac.uk

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Related themes: Research infrastructure

Contents of this call document

Summary

This is a call for applications to the Resource Allocation Panel (RAP) for "top up" ARCHER resource to meet current EPSRC grant objectives.

Background

Access to the national high performance computing resource can be allocated as part of EPSRC grants at the time of award. The aim of this call is to provide:

Top-up resource on our national state-of-the-art high performance computing facility for all existing EPSRC grant-holders for a maximum of two years.

For more information about EPSRC's access policy for ARCHER see our website:
http://www.epsrc.ac.uk/research/facilities/hpc/access/

For more information about EPSRC's portfolio and strategies, see our website:
https://www.epsrc.ac.uk/research/ourportfolio/

Resource available

Applicants to this call can request ARCHER compute resource **only to facilitate the remainder of their existing EPSRC grant.** Computing resources on ARCHER are awarded in Allocation Units (kAUs). The number of kAUs requested must be fully justified in the application and reasonable in view of the original allocation and remaining duration of the project. The maximum eligible time period that can be requested through this call is two years. For longer grants, multiple top-ups are possible. Please note that the panel may recommend a reduced allocation if a request appears to be unfeasible or unjustified.

Applications will not be considered where the previous resource allocated to the applicant has been exhausted due to mismanagement or to undertake any work outside the scope of the original grant. For new work or to bridge between grants, please consider applying through the general RAP call for ARCHER resource.

As with all applications to the RAP, only ARCHER computing resource can be applied for. This does NOT include staff time and other resources, which should be covered by the existing grant.

Equality, Diversity and Inclusion

The long term strength of the UK research base depends on harnessing all the available talent and the Research Councils have together developed the ambitious RCUK Equality, Diversity and Inclusion Action Plan
http://www.rcuk.ac.uk/funding/diversity/
In line with the RCUK Diversity Principles, EPSRC expects that equality and diversity is embedded at all levels and in all aspects of research practice. We are committed to supporting the research community in the diverse ways a research career can be built with our investments. This includes career breaks, support for people with caring responsibilities, flexible working and alternative working patterns. With this in mind, we welcomes applications from academics who job share, have a part-time contract, need flexible working arrangements or those currently committed to other longer, large existing grants. Please see our Equality and Diversity webpages
https://www.epsrc.ac.uk/funding/equalitydiversity/ for further information.

Equipment

Equipment is not available through this call.

For more information on equipment funding, please see:
https://www.epsrc.ac.uk/research/facilities/equipment/

Eligibility

Only named investigators on an existing EPSRC grant can apply.

Repeat applicants: Since applications to the ARCHER RAP do not pose the same burden on peer review as full grant applications, they are not considered as part of EPSRC's policy toward repeatedly unsuccessful candidates (see http://www.epsrc.ac.uk/funding/howtoapply/basics/resubpol/). **Unsuccessful applicants may therefore re-apply to the next available RAP Call, although we do not allow more than two consecutive applications to the RAP (as PI or Co-I).**

For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide: https://www.epsrc.ac.uk/funding/howtoapply/fundingguide/

A list of eligible organisations to apply to EPSRC is provided at: http://www.rcuk.ac.uk/funding/eligibilityforrcs/

Technical Details for ARCHER

System: Cray XC30
Interconnect: Cray Aries (Dragonfly topology)
XC30 Cabinets : 26
Compute Nodes: 4920
Processor: Intel XEON E5-2697v2, 12-core 2.7GHz IvyBridge

Each compute node has two 12-core Intel Ivy Bridge series processors giving a total of 118,080 processing cores.

Standard compute nodes have 64 GB of memory shared between the two processors. There is a subset of large memory nodes (376 nodes) having 128 GB of memory shared between the two processors.

Computing resources on ARCHER are awarded in kilo-Allocation Units (kAUs) with one kAU representing a measure of relative performance of ARCHER based on a range of benchmarks compared to previous national services. On ARCHER, one core hour equates to 0.015 kAU. To calculate the number of kAUs you need, please refer to the ARCHER kAU calculator: http://www.archer.ac.uk/access/au-calculator/.

Further technical information on ARCHER is available on the ARCHER website: http://www.archer.ac.uk/about-archer/

How to apply

First of all, applicants should contact the ARCHER helpdesk to discuss their application. Applicants should then request a technical assessment from the ARCHER service before submitting their application to EPSRC.

In order to apply, the following documents are required:

1. ARCHER Technical assessment

2. Application form (top-up)

3. 1-page diagrammatic workplan

4. A usage graph of previous ARCHER resource allocated to this project

1. ARCHER technical assessment

Applicants must submit a completed **technical assessment from the ARCHER service provider together with their application** in order for it to be considered by the panel. This additional step is important to ensure that the level of resources requested has been appropriately scoped and that all technical requirements have been considered prior to submission.

In order to obtain a technical assessment, applicants should submit a short project description together with an ARCHER technical assessment form http://www.archer.ac.uk/access/ta/ to the ARCHER service (support@archer.ac.uk) prior to **22nd March 2018 at 16:00.**
Please make sure the subject header of your submission email states that this is a "top-up RAP submission".

The completed technical assessment will normally be returned to the applicant promptly, although if the reviewer has concerns about the project, it may take extra time for these to be addressed. **EPSRC and the service provider cannot be held responsible for applications that miss the final deadline if the applicant has not met the deadline specified above for submission of the technical assessment.**

Application form

Applicants should download the application form from the ARCHER website:

http://www.archer.ac.uk/access/rap/spring2018/ApplicationFormRAPTopupSpring2018.docx

When completing your proposal you should take into account the assessment criteria given below (see Assessment Criteria) and consider the broad expertise of the panel (see Assessment Process). Applicants must use the most recent version of the application form. **Applications submitted on the incorrect form will not be considered. Only information contained in the application form will be considered by the panel, apart from the graph of kAU usage to date and a diagrammatic workplan.**

Submitting an application

Provided the technical assessment endorses the proposal, **application forms should be sent together with the completed technical assessment** via the SmartSurvey link here: https://www.epsrc.ac.uk/funding/calls/resourceallocationpanel-rap-top-upofarcherresource- onepsrcgrants-spring2018/?previewid=44DE65F1-3DD8-4CF2- B7D26F1E74D9AF1E before the call deadline. Please submit all documents as a single pdf file.

Guidance on writing an application

Progress report (max 2 pages): Please provide evidence of the progress of the project to this point. Please provide a graph of AU usage on ARCHER for this

project to date. You should be able to retrieve this information through SAFE on the ARCHER website. The ARCHER helpdesk can assist if there are any issues.

List the original objectives of the EPSRC grant to which this application relates and indicate clearly progress against them. Please remember that the panel will not have access to the original grant proposal. Highlight any publications or other scientific outputs arising from the project to date. Here you should also mention any broader impact that your project has achieved already, such as offering training opportunities, initiating partnerships with industry or any impact your project had in the area of HPC through code development, increased computational efficiency, opening HPC for a new user base, etc.

Proposal for continued support (max 2 page): Please state the requested number of kAUs, memory, storage and notional costs; as approved by the technical assessment. The requested resource must be profiled into 6-monthly allocations, depending on the size of the intended runs and the intended profile of the project over the time of the grant. Please state how much storage space on the Research Data Facility (RDF) you require.

Explain how you plan to use and manage the allocated resources within the time limit of the original grant. Please describe how the additional resource you are asking for underpins the research objectives in the original proposal. Please explain why ARCHER is the most appropriate resource for completing this work, rather than other national, regional or local (university) resources. Please mention any special circumstances that you wish the panel to take into account.

How would a granted top-up increase the impact of your research on a broader level (training opportunities, partnerships with industry, as well as impact on the HPC landscape through code development, increased computational efficiency, opening up HPC for a new user base, etc.)? Explain how you will ensure that impacts are achieved.

Further guidance on impact can be found here:
http://www.rcuk.ac.uk/ke/impacts/

Workplan (max 1 page) Please provide a diagrammatic work plan as attachment for the proposed project to justify the requested amount of time and kAUs.

For advice on writing proposals see:

https://www.epsrc.ac.uk/funding/howtoapply/preparing/

Assessment

Assessment process

Applications to this call are not subject to postal peer review and will be reviewed and prioritised directly by the Resource Allocation Panel (RAP).

The RAP is selected to comprise a broad cross section of HPC users from disciplines within engineering and the physical sciences. EPSRC aims to engage panel members who cover the expertise of the research areas of the submitted applications. However, EPSRC cannot guarantee an expert for every exact

application area. Therefore it is important that the case for support can be understood by a general, scientifically and computationally literate audience.

At the panel meeting, the RAP will rank the submitted proposals in priority order for allocation. EPSRC will then decide on the total number of kAUs and time awarded. Applicants will be notified of the outcome of the panel within one week of the meeting.

Assessment criteria

The assessment criteria used by the panel to rank proposals are:

- **Progress and Outlook**: What is the quality of the progress made against the original project objectives? How would additional resource allow the researchers to complete the original aims of the EPSRC grant?

- **Appropriateness and Technical suitability:** Is the topup application timely in terms of the original national HPC resource allocation? Is ARCHER the most appropriate resource for completing this work rather than computing facilities at local universities or regional centres?

- **Impact**: Have the applicants facilitated broader impact of the work that has been carried out under this EPSRC grant to date where possible? The economic and societal impact of research enabled by the National HPC facility may include training opportunities, partnerships with industry, as well as impact on the HPC landscape through code development, increased computational efficiency, opening up HPC for a new user base, etc. How might additional ARCHER resource increase the potential impact and how could this be achieved?

Resources and Management: Is the level of requested resource (no of kAUs) and the proposed profiling into 6-months periods appropriate, and can it be successfully used during the requested time? Does the proposal contain a work plan that justifies the requested time? Is there sufficient staff time allocated to do this work? Is the project adequately managed, including potential risks?

Feedback

Submissions to this call will **not** count towards the Repeatedly Unsuccessful Applicants Policy. Further information about the policy can be found at: https://www.epsrc.ac.uk/funding/howtoapply/basics/resubpol/rua/

As the proposals will not be postal peer-reviewed, brief feedback will be given to each applicant after the Resource Allocation Panel.

Moving forward

Applicants will be notified of the outcome of the panel within one week of the meeting. EPSRC will liaise directly with the ARCHER Service to extend the resource for successful top-up requests.

Key dates

Activity	Date*
Technical Assessment deadline	22nd March 2018
Closing date for application submissions	10th April 2018
Panel meeting	May 2018
Project start date	May/June 2018

*EPSRC aims to adhere to the key dates as published, however there may be exceptions where the sift, prioritisation or interview meeting may have to change due to panel member availability.

Contacts

For further information about this call, please contact:
ARCHERRAP@epsrc.ac.uk

Additional information about the ARCHER service can be found here:
http://www.epsrc.ac.uk/research/facilities/hpc/intro/

Change log

Name	Date	Version	Change
Bill McAlister	10/01/2018	1	N/A

Attachments Check List

Attachment Type	Maximum Page length	Mandatory/ Optional	Extra Guidance
ARCHER Technical assessment	No page limits	M	Approved by ARCHER Helpdesk
Application form (top-up)	2 pages for each of the Progress Report and proposal for continued support and 1 page for the Workplan	M	Containing Progress Report, Proposal for continued support and diagrammatic workplan
A usage graph of previous ARCHER resource allocated to this project	1 page	M	