ARCHER User Survey

2019

1. Document Information and Version History

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Status	Draft
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Version	Date	Comments, Changes, Status	Authors, contributors, reviewers
0.1	2020-04-08	Initial draft	Anne Whiting
0.2	2020-04-10	Added graphs	Anne Whiting
0.3	2020-04-24	Added comments and summary	Anne Whiting
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Structure of this paper

Section 2 provides a description of the survey, its questions, the scoring and how it was constructed.
Section 3 gives some highlights of the comments provided by responders to the survey.
Section 4 provides an analysis of the responses received, comparisons to previous years and graphical distributions of the scores.
Section 5 lists the comments received in full and unedited form by question together with the ID of the anonymous respondent.

2. Description of the Survey

The ARCHER User Survey closed on 20 February 2019. 188 responses were received from ARCHER users. The survey asked for ratings (on a scale of 1 to 5) with the following questions:

1. Please rate your overall experience of the ARCHER Service (required) [Very Unsatisfied (1) – Very Satisfied (5)]
2. Has the ARCHER hardware configuration met the requirements of your research? (required) [Not met any requirements (1) – Exceeded requirements (5)]
3. Has the software on ARCHER met the requirements of your research? (required) [Not met any requirements (1) – Exceeded requirements (5)]
4. If you have used the ARCHER helpdesk, please rate your experience [Very Unsatisfied (1) – Very Satisfied (5)]
5. If you have used the ARCHER documentation, did it provide the information you required? [Did not provide the information I required (1) – Provided all the information I required and more (5)]
6. If you have used the ARCHER website, please rate the quality of the content and ease of navigation [Very poor (1) – Excellent (5)]
7. Please rate your experience of any ARCHER Training you have used (either online or face-to-face)? [Very Unsatisfied (1) – Very Satisfied (5)]
8. If you have attended any ARCHER webinars or virtual tutorials, did you find the session worthwhile? [A complete waste of time (1) – Extremely interesting and useful (5)]
9. If you have attended any ARCHER online training material (e.g. Online Driving Test, screencasts), how useful did you find the material? [Of no use (1) – Extremely useful (5)]

Only the first three questions were compulsory for all survey respondents, but 97% of respondents also provided feedback to some of the optional questions. Users were also provided with the opportunity to offer comments or suggestions under all of the above headings, and provided with space for any other comments or suggestions at the end of the survey. These questions are the same as those in the Annual Survey in 2017, 2016 and 2015 and a superset of those in the Annual Survey in 2014 to allow comparison between different periods. As previously, user feedback received will be reviewed to identify opportunities for improvement.

The survey was constructed using Google Forms and embedded directly into the ARCHER website.

Executive Summary

The results of the 2019 annual ARCHER User Survey have been analysed. 157 responses were received with the mean results shown below (scores 1 representing "Very Unsatisfied" and 5 representing "Very Satisfied"):

Service Aspect	2014 Mean Score (out of 5)	2015 Mean Score (out of 5)	2016 Mean Score (out of 5)	2017 Mean Score (out of 5)	2018 Mean Score (out of 5)	2019 Mean Score (out of 5)
Overall Satisfaction	4.4	4.3	4.3	4.4	4.5	4.3
Hardware	4.1	4.1	4.2	4.3	3.9	3.8
Software	4.0	4.0	4.2	4.1	3.8	3.8
Helpdesk	4.5	4.5	4.5	4.6	4.5	4.4
Documentation	4.1	4.1	4.2	4.2	4.0	3.9
Website	4.1	4.2	4.2	4.2	4.0	3.9
Training	4.1	4.1	4.2	4.1	4.3	4.2
Webinars	3.6	3.9	3.9	4.2	3.9	4.0
Online training	-	4.0	4.1	4.2	3.9	3.9

As can be seen, users are still generally very positive at this late stage in the service with a score of 4.3 for the overall service. The number of responses was down on last year, with 188 responses received for the 2018 survey. The scores for the hardware, software and documentation are down on the previous year, but this could be due to the age of the system and its software and the expectation of a move to ARCHER2. As with previous years the helpdesk has received the highest score. Where users have rated elements of the service under 3 or provided negative comments and the comment is not automatically addressed by the new ARCHER2 service, the users will be contacted to obtain further details if they have provided contact information.

Selected Quotes

The following unedited quotes reflect the tone of the majority of responders to the survey with regard to the ARCHER service:

- *The ARCHER service is very good -- kudos to the ARCHER team!*
- *I love this service - good job!*
- *Hope ARCHER2 will be as successful.*

Quotes on the helpdesk (which also reflect on the centralised CSE team) echo the particularly high ratings for this aspect of the service:

- *Very responsive and helpful*
- *They are brilliant. Answer my questions rapidly and very friendly*
- *I had very pleasant interactions with the Helpdesk and they have been helpful and solution focussed*

Quotes on training reflected very positive feedback:

- *I have atttend Archer training several times which are really help for my research especially at the begaining years*
- *It is organised very well and allow to return and access the training materials and ppt presentation afterwards the training sessions*
- *I very much like that a lot of the material is now on YouTube and I really encourage this! It's a great place to store past lectures and it's fantastic for all those who could not attend the workshops in person*

3. Ratings

All questions asked responders to rate their satisfaction with each particular aspect of the survey on a scale of 1 to 5 with 1 representing "Very Unsatisfied" and 5 representing "Very Satisfied". Table 1 summarises the ratings for each aspect for 2019 and reveals the all aspects of the ARCHER Service are rated highly by users. The number of responses was 157, down from 188 in 2018. Table 1 shows the responses for 2019, table 2 for 2018 survey, Table 3 from 2017, Table 4 those for 2016, table 5 2015 and Table 6 those for 2014 for comparison purposes.

Service Aspect	Total Responses	Mean Score (out of 5)	Median Score (out of 5)
Overall Satisfaction	157	4.3	5
Hardware	157	3.8	4
Software	157	3.8	4
Helpdesk	119	4.4	5
Documentation	145	3.9	4
Website	149	3.9	4
Training	87	4.2	4
Webinars	63	4.0	4
Online training	72	3.9	4

Table1: Summary of scores for different aspects of the ARCHER Service 2019

Service Aspect	Total Responses	Mean Score (out of 5)	Median Score (out of 5)
Overall Satisfaction	188	4.5	5
Hardware	188	3.9	4
Software	188	3.8	4
Helpdesk	144	4.5	5
Documentation	176	4.0	4
Website	183	4.0	4
Training	103	4.3	4
Webinars	64	3.9	4
Online training	80	3.9	4

Table 2: Summary of scores for different aspects of the ARCHER Service 2018

Service Aspect	Total Responses	Mean Score (out of 5)	Median Score (out of 5)
Overall Satisfaction	164	4.4	4
Hardware	164	4.3	4
Software	164	4.1	4
Helpdesk	132	4.6	5
Documentation	156	4.2	4
Website	161	4.2	4
Training	98	4.1	4
Webinars	65	4.2	4
Online training	74	4.2	4

Table 3: Summary of scores for different aspects of the ARCHER Service 2017

Service Aspect	Total Responses	Mean Score (out of 5)	Median Score (out of 5)
Overall Satisfaction	161	4.3	4
Hardware	161	4.2	4
Software	161	4.2	4
Helpdesk	136	4.5	5
Documentation	152	4.2	4
Website	155	4.2	4
Training	94	4.2	4
Webinars	64	3.9	4
Online training	70	4.1	4

Table 4: Summary of scores for different aspects of the ARCHER Service 2016

Service Aspect	Total Responses	Mean Score (out of 5)	Median Score (out of 5)
Overall Satisfaction	230	4.3	4
Hardware	230	4.1	4
Software	230	4.0	4
Helpdesk	198	4.5	5
Documentation	215	4.1	4
Website	221	4.2	4
Training	147	4.1	4
Webinars	102	3.9	4
Online training	104	4.0	4

Table 5: Summary of scores for different aspects of the ARCHER Service 2015

Service Aspect	Total Responses	Mean Score (out of 5)	Median Score (out of 5)
Overall Satisfaction	153	4.4	4
Hardware	153	4.1	4
Software	153	4.0	4
Helpdesk	129	4.5	5
Documentation	142	4.1	4
Website	144	4.1	4
Training	81	4.1	4
Webinars	41	3.6	4
Online training	-	-	-

Table 6: Summary of scores for different aspects of the ARCHER Service 2014

Table 7 shows a comparison of mean scores for the different questions across Annual Surveys since the service began. This comparison shows that the mean ratings for hardware and software are slightly lower than in previous years, perhaps reflecting the age of the service.   The Helpdesk continues to stand out as the highest rated aspect of the service in both surveys with an extremely high mean score. This is testament to the hard work of all service partners (SP, CSE and Cray) in ensuring that responses to the users through the helpdesk are timely, accurate, useful and polite.

Service Aspect	2014 Mean Score (out of 5)	2015 Mean Score (out of 5)	2016 Mean Score (out of 5)	2017 Mean Score (out of 5)	2018 Mean Score (out of 5)	2019 Mean Score (out of 5)
Overall Satisfaction	4.4	4.3	4.3	4.4	4.5	4.3
Hardware	4.1	4.1	4.2	4.3	3.9	3.8
Software	4.0	4.0	4.2	4.1	3.8	3.8
Helpdesk	4.5	4.5	4.5	4.6	4.5	4.4
Documentation	4.1	4.1	4.2	4.2	4.0	3.9
Website	4.1	4.2	4.2	4.2	4.0	3.9
Training	4.1	4.1	4.2	4.1	4.3	4.2
Webinars	3.6	3.9	3.9	4.2	3.9	4.0
Online training	-	4.0	4.1	4.2	3.9	3.9

Table 7: Comparison of mean scores from 2014, 2015, 2016, 2017, 2018 and 2019 User Surveys for different aspects of the ARCHER Service

As can be seen from Figure 1, the overall satisfaction with the ARCHER service is high with only 2 responders rating the service below 3 on a 1-5 scale from "Very Unsatisfied" to "Very Satisfied." The mean rating is 4.3, down from 4.5 in 2018. The median rating is 4, down from 5 in 2018.
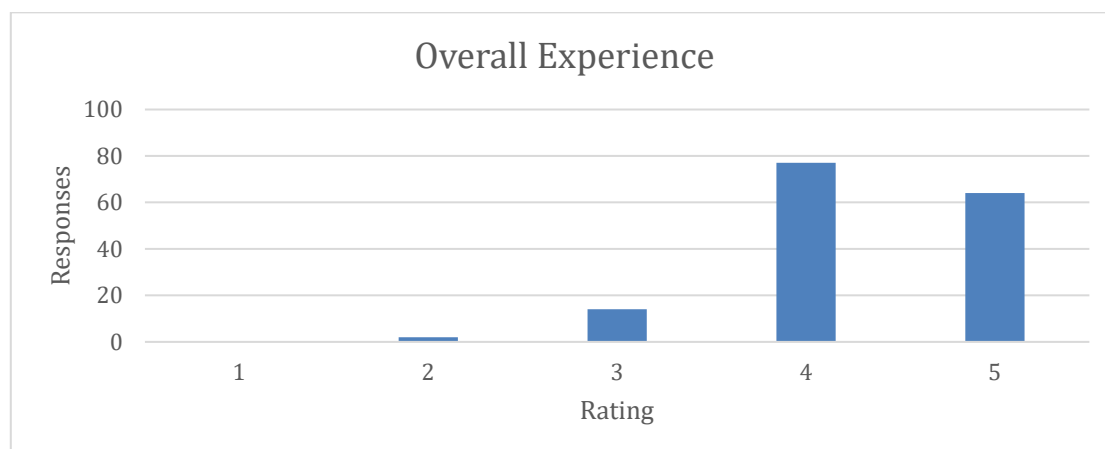

Figure 1: Distribution of scores for overall satisfaction with the ARCHER service (157 responses in total).

For the hardware and software (Figure 2 and Figure 3 respectively), the overall satisfaction with the service is high, though lower than for 2018, with 7 users rating the hardware below 3 and 2 users rating the software below 3. There was one rating of 1 ("Very Unsatisfactory") for the hardware and none for the software on ARCHER this year.   The mean rating for hardware is 3.8 (median is 4) and the mean rating for the software is also 3.8 (median is 4).
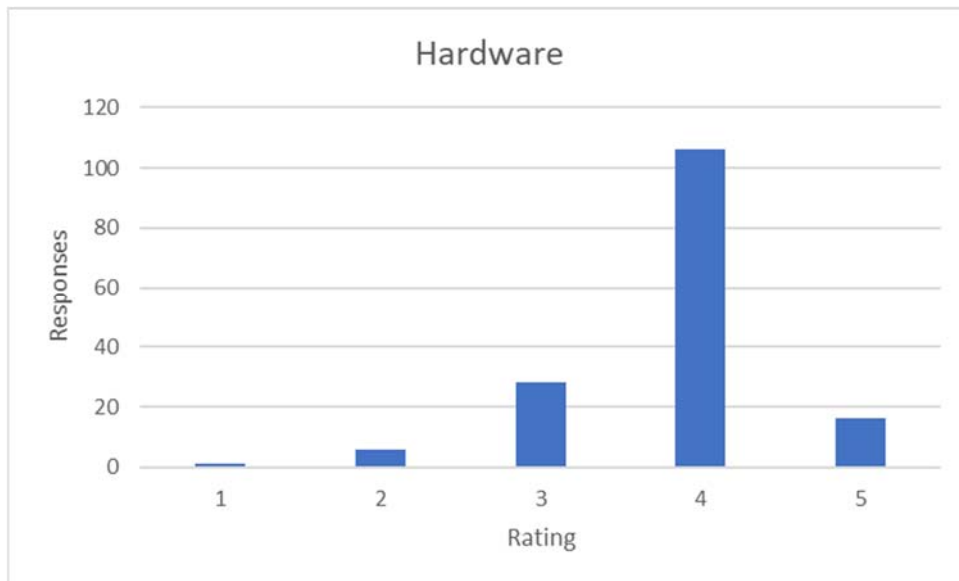
Figure 2: Distribution of scores for satisfaction with the ARCHER hardware (164 responses in total).
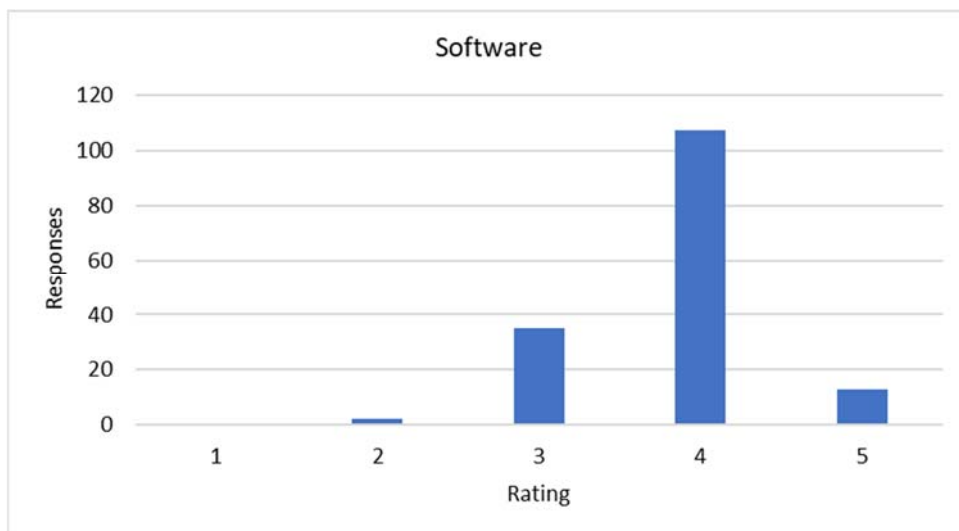

Figure 3: Distribution of scores for satisfaction with the ARCHER software (164 responses in total).

The satisfaction ratings for the ARCHER Helpdesk showed a mean rating of 4.4 (median is 4). Of the 119 responses, 110 (78%) gave a score of 4 or 5 ("Excellent" or "Very good"). 2 responses were received with a score under 3.
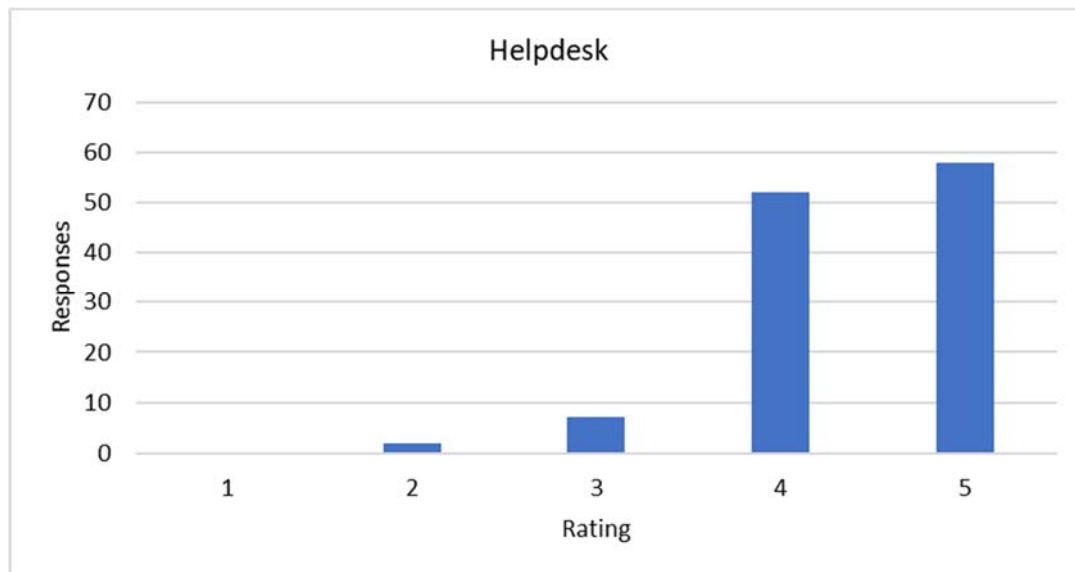

Figure 4: Distribution of scores for satisfaction with the ARCHER helpdesk (144 responses in total).

ARCHER documentation (Figure 5, mean = 4.0, median 4) and website (Figure 6, mean = 4.0, median 4) show the same high level of overall satisfaction as that shown for the overall service, as well as having high respondent rates. The 6 users who gave a score of 2 will be contacted where they have provided their email addresses to ask for further details.
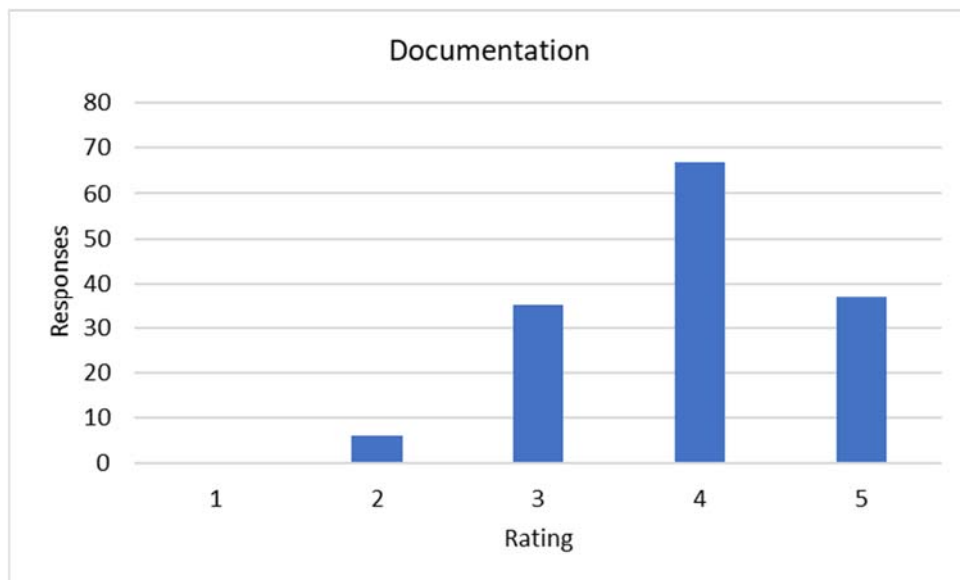

Figure 5: Distribution of scores for satisfaction with the ARCHER documentation (176 responses in total).

Figure 6: Distribution of scores for satisfaction with the ARCHER website (183 responses in total).

The results for ARCHER training (Figure 7, mean = 4.2, median = 4) are high and consistent with the course survey results presented in the CSE Service quarterly reports. There were 11 users with a rating of 3 and no responses with a rating under 3.
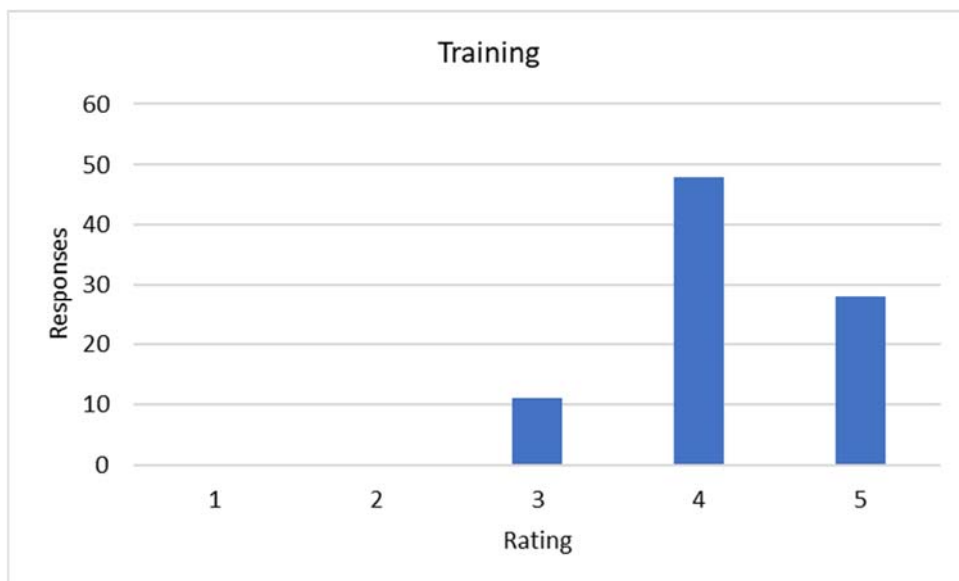

Figure 7: Distribution of scores for satisfaction with the ARCHER training (103 responses in total).

The webinars and online training have a lower respondent rate (possibly due to the fact that they are of interest to a subset of ARCHER users) but show a good satisfaction rating (Figures 8 and 9, mean = 4.0 for webinars and 3.9 for online training, median = 4 for both).   Online training received 3 responses with a score of under 3.
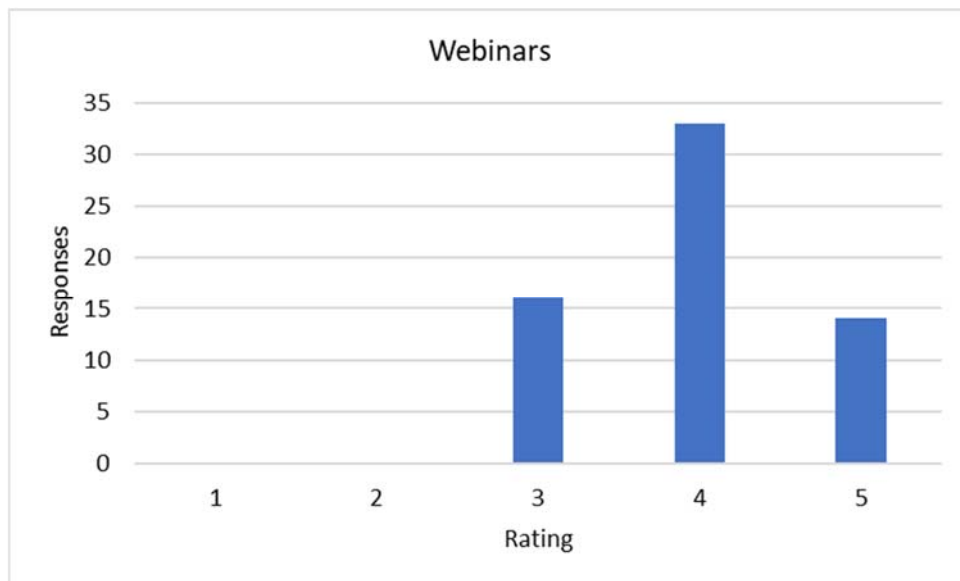

Figure 8: Distribution of scores for satisfaction with the ARCHER webinars (64 responses in total).

Figure 9: Distribution of scores for satisfaction with the ARCHER Online Training (80 responses in total).

4. List of Comments

The comments shown are all the comments received for each question in an unedited form. The number shown in brackets at the end of each comment represents the ID of the anonymous respondent.

Hardware

- *My calculations are normally RAM limited. (2)*
- *Powerful hardware (4)*
- *More disk space on scratch (7)*
- *Overall an excellent machine and service! (10)*
- *Compilation on login nodes is painfully slow (24)*
- *This may be out of ARCHER's control, but the loss of the RDF means that ARCHER is a lot harder to use due to not having anywhere to put the data generated. Both should have been kept, not just one. (27)*
- *larger storage (31)*
- *Long wait times are very inconvenient. Variable times for code to run also makes it hard to predict wall time. (34)*
- *Only being able to run a single binary per node has been limiting at times for massively parallelizable tasks. (40)*
- *ARCHER hardware is great and I have great experiences on running my CFD simulations on it. (52)*
- *A more up-to-date hardware is more than welcomed. (53)*
- *Maybe non-queued hardware to do interactive visualisation. (60)*
- *A bit more memory on CPU nodes would be great :) (64)*
- *The machine is very stable, and performance is very good even up to 98,304 cores. (65)*
- *Looking forward to ARCHER 2 being available - will let us scale up a bit further. (68)*
- *Runs slowed down dramatically during February (70)*
- *Heterogeneous hardware will be helpful for future projects (82)*
- *Amount of RAM available on standard nodes much too small for DFT calculations generally, bigmem queue usually very busy (83)*
- *The 64 Gb memory in the standard nodes is starting to show its age and is insufficient for some calculations; the bigmem nodes are still not that "big" by modern standards, and are often very busy, so I have on occasion had to resort to underpopulating. (84)*
- *I believe the node memory is to small for the running of the largest jobs for my research. (89)*
- *The jobs per user limit is a pain. The period total shutdown for maintenance is a pain. Technical support is good. Overall reliability is good. Disk IO is not good at times. (91)*
- *Nothing beyond the changes that will be implemented in ARCHER2 (95)*
- *It would be great if Archer could estimate the queuing time and let users know. (97)*
- *GPU nodes will be very welcome. Also more scratch space (> 20 Tb per group) for temporary files. (100)*
- *For our purposes, it would be useful to have a more flexible system for running large numbers of independent tasks than the current task array system. (109)*
- *Need more disk space! (110)*
- *Better with intel architecture (112)*
- *We would be keen to adapt our code to make use of any GPU facilities were they to be added (114)*
- *Apart from the major failed storage downtime, the service has been excellent. (12)*
- *Dated (131)*
- *Some applications require lots of memory, which makes scaling challenging. (132)*
- *When post-processing large data sets, I/O is a significant bottleneck. I would like to see more options/iformation regarding faster storage and reading of data for post-processing purposes. (138)*
- *Need for more 128 gb Ram nodes. (139)*

- *I/O is always an issue; when the machine is fully loaded reading/writing to disk can slow down codes. Volume of storage also an issue; too many people never clear out old data. The RDF was magnificent, both as storage and being able to use the DAC. (141)*
- *Think it's pretty great. (143)*
- *The range of queues for distinct purposes is excellent. I am dissapointed that the rdf service will not be maintained on ARCHER2. I found this service extremely useful and its removal has significantly impacted on my workflow. The allocation of /work space is sometimes obscure. (146)*
- *For NERC users, the retirement of the RDF while ARCHER has remained has been decidedly problematic (147)*
- *Fine as is! (152)*

Software

- *Updated software (5)*
- *Getting access to modules sometimes takes a while. (6)*
- *More python modules would be useful for post-processing before moving data to JASMIN (10)*
- *Software stack is very good and reliable. (11)*
- *It was a bit unclear that the properties portion of CRYSTAL didn't really work on ARCHER (19)*
- *The queuing time for a particular long job is very long. (21)*
- *Turbomole (29)*
- *Pandas and other big Data related tools..(31)*
- *I hope Arm MAP will be available on ARCHER 2. (34)*
- *Often the latest versions of common HPC libraries are not installed. (37)*
- *remote visualization tools (paraview for instance) may be developed (38)*
- *the job per user limit on the serial queue is too restrictive and it forces to use the parallel queue, resulting in larger jobs that are harder to fit in the queue, hence, at least I guess, making queue time longer (43)*
- *I have found ARM MAP very useful and hope to be able to continue using it (46)*
- *Integrated python packages as standard, rather than having to build your own environments. Should be as easy as `module load python3` etc (49)*
- *more frequent module updates would be appreciated (51)*
- *It will be better to expend the short queue running time longer than 20mins for pre-process of big Simulations, expecially multi-propress need before big simulations (53)*
- *Software is great. It would be useful to have matlab somehow (57)*
- *For the software we used on ARCHER, i.e. CASTEP, it would be nice to see both the serial and parallel versions being installed by default as the help pages come with the serial version. (58)*
- *It would be useful to have visualisation software running on non-queued software to do interactive visualisation. Would reduce the amount of data my team woud need to pull back down off Archer. (65)*
- *parallel Matlab instance on a limited number of nodes/cores would be very very welcome (76)*
- *Having Ferret (NOAA) would be useful for quick data checks (not analysis) without having to transfer files (77)*
- *Does not have new versions of paraview.(98)*
- *Gaussian Ellectronic structure package should be include. (102)*
- *Maybe update more recent versions for some softwares (113)*
- *Better documentation would be good, and faster response to updating to latest releases (117)*
- *The online provision for training on different software packages (incl. those made available by CCP's) was not available in one place, instead you had to go to many different sources to get it - ARCHER2 could provide a single setof web pages which links to all the software environments available. (121)*
- *Excellent (124)*
- *This comment isn't necessarily about the software but I wasn't sure where to put it ... One very annoying aspect about archer is how difficult it is to share files with someone else on the machine.*

Why is it that a user cannot simply set unix permissions to share whatever they want with whomever they wish to? Instead, the files have to be in specific shared directories. And if that wasn't bad enough, if you want to share files with someone in a different 'project' (n01 etc, a meaningless distinction that has nothing to do with your actual project) the files have to be in another special share directory. I've worked on a lot of HPC systems around the world and this is the only one with such a silly, user unfriendly policy. Frankly, if archer wasn't the only game in town in the UK, this by itself would put me off using it. (127)

- *The latest versions of supported software should be updated more promptly giving the users access to new features. The compilation script (makefile etc) should be made more available to allow users to compile customized versions with modified source code.(129)*
- *The default FDS6.3.2 is now quite old, in fact the source is no longer on github https://github.com/firemodels/fds/releases (130)*
- *All required applications available. (133)*
- *Make it easier to find old defaults on the website. And maybe don't remove them from Archer. (142)*
- *The queueing system can be somewhat improved I feel. (144)*
- *I appreciate having simple tools like emacs and xconv available. The shell works well. (147)*
- *All good! (153)*
- *I had some problems with the Intel suite of compilers. (155)*

Helpdesk

- *Very capable team (3)*
- *Very responsive and helpful (5)*
- *Prompt and helpful, thank you! (6)*
- *Only contacted the helpdesk once. Got a quick response with the answer I needed.(33)*
- *Clearly one the best helpdesk I had contact with. (34)*
- *In my interactions what they could answer was answered promptly and they followed up on the rest of my help request - very good service! (46)*
- *very quick and professional (53)*
- *They are brilliant. Answer my questions rapidly and very friendly. (57)*
- *The ARCHER helpdesk has been very helpful with my requests. I would prehaps suggest a faster response time woul improve the service. (63)*
- *The support is very professional and very quick to find a solution to problems. (69)*
- *Fast response and very helpful (70)*
- *The response to the issues was quick and positive (76)*
- *The helpdesk has generally been proactive in advising me on things like jobs underutilising node allocations, which is extremely helpful. There was an incident where a large parallel task farm crashed - I think due to my consortium collectively running out of disk space - and somehow caused the queue to crash, and I was temporarily stopped from submitting jobs while this was investigated. While I fully understand this, the investigation took longer than expected, I think partly due to waiting for input from Cray, which was something of an inconvenience. (I'm not sure whether it ever came to a firm conclusion.)(85)*
- *Really found the telephone side of the helpdesk useful, where contact there was kind, courteous and efficient.(96)*
- *outstanding support, very timely (100)*
- *I experienced some software-related trouble. The helpdesk really helped me to solve them. (101)*
- *One ticket was very successful (compiling EPOCH - thank you Luis). Another ticket was met with "that can't be done". I then found a help page detailing exactly how my issue could be solved -> Discrepancy between desk and help page. (104)*
- *Our project required the installation of a couple of pieces of specialist software: SDPB 2.0 and Symengine, plus their dependencies. We started trying to get these installed in summer 2019, and during that period we found correspondence with the helpdesk rather slow and piecemeal, with a typical response time of several days. (This contrasts with our experience on, e.g., MareNostrum*

in Barcelona, where we were usually able to exchange several messages per day and the support team were basically able to solve our problems for us.) As a result, we had to get an extension on our allocation time on ARCHER, and re-attempt the installation in December 2019 and January 2020 - though, to be fair, the support desk response time during that period was much better, and the requisite software is now installed and running correctly. (110)

- *Prompt and helpful, especially in getting started. (111)*
- *An excellent service (121)*
- *Extremely helpful and efficient (124)*
- *No, very responsive indeed. Five Stars! (131)*
- *Always prompt and helpful with matters like installing non-standard software etc.(133)*
- *Very helpful (140)*
- *Generally quicker to solve the problems myself. Very helpful in figuring out I needed to use large memory nodes without it costing me lots of MAu, but no way for them to get the data back to me. The security over who can see what file systems is absurd and makes sharing things harder than it needs to be. (142)*
- *Great work (144)*
- *I had very pleasant interactions with the Helpdesk and they have been helpful and solution focussed. (147)*
- *When I had the issue with the Intel compiler, I was left alone solving the problem. (155)*

Documentation

- *Sometimes hard to search. (6)*
- *I don't find the ARCHER documentation very accessible or easy to understand. (10)*
- *Documentation is excellent and comprehensive (11)*
- *List of installed software modules should include version(s). Ideally this information would be replicated for all UK national facilities over at hpc-uk.ac.uk. Documentation is comprehensive but can be difficult to navigate at times.(25)*
- *Keep the github install instructions up to date with releases, pleaaaase? (41)*
- *It is a bit hard to navigate, the separation between user guide and best practices can make it difficult to find what you want.(46)*
- *Some detailed information still need to ask helpdesk, those commen questions can be summarised and update the Archer Documentation. (53)*
- *Well documented (57)*
- *Perhaps a greater number of example scripts for software? (59)*
- *Would like bit more info for new users to HPC about setting up jobs and finding info about system etc (67)*
- *organisation into smaller, more succinct sections would be helpful. A less cluttered webpage would be great, please. See, for example, https://gcc.gnu.org/onlinedocs/gcc-9.2.0/gcc/ is much much easier to use! (73)*
- *on-line combination of scripting and test case examples is very good. (76)*
- *Mainly require it for RDF or job script reference, and it met my needs. (96)*
- *Detail the compiling options and environment variables related to the compilers, with default values, or include links to the oficial web sites of the compilers with such information. (101)*
- *I didnt used the ARCHER documentation (106)*
- *Very good documentation compared to other platforms (113)*
- *Some software documentation is outdated, but that's hardly unexpected given how quickly some programs deprecate. (114)*
- *The documentation, combined with the examples in the training courses, are very helpful (115)*
- *Often out of date (117)*
- *The online provision for training on different software packages (incl. those made available by CCP's) was not available in one place, instead you had to go to many different sources to get it - ARCHER2 could provide a single setof web pages which links to all the software environments available. (121)*
- *Couldn't find much information for using Tecplot on ARCHER (122)*

- *No, great documentation. (131)*
- *The search box has proven a useful addition. (133)*
- *I would like to see the section on parallel I/O (http://www.archer.ac.uk/documentation/best-practice-guide/io.php#mpi-io) be expanded with regards to the performance of reading large data sets (for post-processing). (139)*
- *Needs more information python task farm based applications (140)*
- *Needed updating to latest version of software (NAMD) (141)*
- *Could be slightly easier to navigate, sometimes it takes ages to find simple information, maybe a more detailed index? (142)*
- *The user documentation is somewhat very dispersive. The content is very comprehensive, but a better organisation would help. Also, I do not think videos are very useful. (155)*

Website

- *I struggle to access the information I search for. (10)*
- *The design is dated, but content is excellent. (11)*
- *I like the detailed service level info. Helps me plan my work.(33)*
- *I would increase the visibility of tools available on ARCHER - as an external user it wasn't clear we could access these through ARCHER and I have only become aware of these upon joining EPCC (46)*
- *Navigation can sometimes be an issues. (51)*
- *very good (53)*
- *No, it's great. (57)*
- *Not the most easy to navigate (68)*
- *No problems at all - well organised (71)*
- *more information on current machine status and search-able job-submission queues could make it even more useful (76)*
- *SAFE is fairly comprehensive and easy to use. (85)*
- *This is very well organized. A section for beginners (real beginners!) may be helpful for us who are just getting used to this computing environment. (89)*
- *The ARCHER past courses and their material could do with a clean up and links to GitHub repositories with the material. (96)*
- *Users can see usage of other group users in the same group, not just the leader (113)*
- *The ARCHER website needs a lot of modernisation ahead of ARCHER2, but it was well kept and useful. See (https://www2.cisl.ucar.edu/resources/computational-systems/cheyenne) and (https://prace-ri.eu/hpc-access/hpc-systems/) for example. (121)*
- *Hard to find case studies & eCSE reports through the menus. The search facility is poor. (126)*
- *No, very informative! (131)*
- *First place I look if Archer is down for some reason. (133)*
- *I love having access to the visual usage summaries (147)*
- *As the documentation, also the website is quite dispersive. (155)*

Training

- *Good to have powerpoint slides downloaded after for people who couldn't attend the training. (6)*
- *I very much like that a lot of the material is now on YouTube and I really encourage this! It's a great place to store past lectures and it's fantastic for all those who could not attend the workshops in person (19)*
- *They were good, but I thought they weren't comprehensive enough, e.g. modern C++/modern Fortran courses don't cover parallisation in large enough extent and that's key in HPC use. (32)*
- *courses can be classified into levels of basic, intermediate and advanced (36)*
- *PGAS (52)*
- *I have atttend Archer training several times which are really help for my research especially at the begaining years. (53)*

- *Usually people have a problem that they need solving by using a technique - so they go to the workshop to learn the technique. It would be good if there was a problem workshop session for individuals. Light overview of openMP + big breakout session of openMP, for example. (57)*
- *Training materials are excellent. How about something on numerical stability/tracking error? (71)*
- *It is organised very well and allow to return and access the training materials and ppt presentation afterwards the training sessions/ (76)*
- *I would consider myself a fairly experienced user, and I generally find the online documentation comprehensive.(85)*
- *I should probably have taken some! (89)*
- *I would send material a few days prior to starting to 1) give attendees a better idea of content and 2) so that one can speed through the material in a condensed one-day session to avoid people having to cough up hotel costs.(96)*
- *I've found all of the training courses I've been to to be very beneficial and well-organised (115)*
- *Best practice workshops for heavily used programs might be useful in the future.(133)*
- *Can you gather all the training in a single place? (144)*

Webinars

- *Most webinars I have viewed have been useful. (11)*
- *can have a questionaire to select topics before holding webinars and virtual tutorials.(53)*
- *Well presented (57)*
- *I very appreciate with webinars and tutorials attended (76)*
- *Future tutorials for ARCHER2 need to use common online webinar tools (e.g. Zoom etc.) (122)*

Online Training Material

- *Material is OK (11)*
- *veay good (53)*
- *We just do the driving test for the free KAUs and google the answers. A lot of the questions aren't helpful to a beginner, e.g. knowing the amount of memory in a node etc. Also, it would be great to have access to the material from workshops. It's not so easily found. (57)*
- *Online Driving Test was very good experience and allow me to attract attention of our PhD students and postdocs to available options in accessing super computing world (76)*
- *The driving test is completely fundamental to being a responsible user! (96)*

Other Comments

- *Limiting que to small number of jobs leads to frequent manual queuing of jobs (8)*
- *walltime can be longer (36)*
- *Queue times are very long (24-48h), but other than that, its great.(39)*
- *I often queue for so many hours (possibly 1-2 days) for my submitted calculations to run. The queue seems to be getting longer. Don't know if it's because you are closing down soon? I am a final year PhD student, and it is more convenient for me to keep using Archer service until the end of my study. I hope that the queue could be shorter. (45)*
- *The allocations of budgets could be a more streamlined process. Never quite sure how much we're being allocated compared to what we request, or how it is worked out. (49)*
- *I love this service - good job! (57)*
- *It's possibly too late now with the planned closure of ARCHER service but it was genuinely felt that there should be a more gradual transition from ARCHER to ARCHER2, so the users can have a smoother and easier transition between the two platforms. The current plan left some of our graduate students re-planning their thesis schedules. (58)*
- *The ARCHER service is very good -- kudos to the ARCHER team! (73)*
- *Please keep Intel FORTRAN compiler parallel suite available in Archer-2 service. Previously with AMD cpu there were some Intel compiler options available such as - QxHost ... (76)*
- *My consortium (the MCC) has a shared disk quota, and when this is exceeded - which happens more regularly than it ought to - it causes all members' jobs to crash. This may be down to individual consortia, but I would prefer it if space could be allocated on a per-group or per-budget basis to guard against this.(85)*
- *Stronger enforcement of people using up too much data on /work (96)*
- *Shorten Queue time (113)*
- *Overall, an well run service, especially the CSE aspects.(121)*
- *Certain notification emails can be sent to the users, to remind them that they should clear their files on the work/fs4 folder. Because sometimes when the total amount files size exceeds the upper limit everyone's job will be terminated by the system. This is very bad. (131)*
- *Hope ARCHER2 will be as successful. (133)*
- *Lots of confusion around archer2 (138)*
- *The transition to Archer 2 has been handled badly. Not enough time was given for procurement and the result is that many of us now face months of uncertainty as to our access to HPC. NERC loosing the RDF before everybody else has meant I simply can't work, as I have no where to store data during model runs due to my consortium running close to 99% of its disk allocation all the time. (142)*
- *Is there a way to minimise the impact of high-impact, large jobs that consume nearly all nodes? This creates spikes in the queue that make planning workflows problematic. (147)*
- *I wish it was bigger, so we could do more ambitious simulations!   (149)*
- *The process for ARCHER instant access should require less information and should be faster (as it happens in other supercomputing centres). Instant access is usually necessary for scaling tests to apply for computational grants. The amount of computing time provided is usually very few. For all these reasons, I think that all the procedure should be lighter and should not require extensive forms and Excel tables. (155)*