# Position Description

## Technical Services – CSOF5

The following information is for applicants

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| Advertised Job Title**:** | Supercomputing Applications Specialist |
| Job Reference: | 62235 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | All Candidates |
| Percentage of Client Focus - Internal: | 20% |
| Percentage of Client Focus - External: | 80% |
| Reports to the: | Senior Supercomputing Applications Specialist |
| Number of Direct Reports: | 0 |
| How to apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number. Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon  |
| Contact details to discuss this position: | Christopher Harris via email: chris.harris@pawsey.org.au or phone: +61 8 6436 8982P*lease do not email your application directly to Christopher Harris. Applications received via this method will not be considered.*  |
| If you have difficulty applying please contact: | Call 1300 984 220 or email careers.online@csiro.au.  |

## Role Overview:

The Pawsey Supercomputing Centre situated in Perth, Western Australia is a national world-class supercomputing and high volume data storage facility operating petascale compute and associated storage infrastructure. The Pawsey Supercomputing Centre represents a AU$150 million investment by the Australian Federal Government, and is an unincorporated joint venture of the CSIRO, Curtin University, Edith Cowan University, Murdoch University and the University of Western Australia, supported by funding from the Western Australian and Federal government. As lead agent for the Pawsey Supercomputing Centre, the CSIRO employs Pawsey Supercomputing Centre staff.

Pawsey’s Supercomputing Team is responsible for providing the infrastructure to fulfil the needs of the Australian research community and to engage with that community to make best use of the infrastructure. The incumbent, as part of this highly skilled team of professional specialists and developers, will work collaboratively with researchers to assist them in exploiting the vast opportunities afforded by the infrastructure operated in the Pawsey centre. This is to support the supercomputing needs of priority research areas such as radio astronomy and energy & resources.

## Duties and Key Result Areas:

* Provide specialist advice and software enhancement to research groups, drawing on extensive expert knowledge and experience to enable their utilisation at scale of significant supercomputing resources at Pawsey.
* Engage with new researchers, communities and disciplines with supercomputing and data-intensive computing (in conjunction with the Pawsey Data and Visualisation teams).
* Assist research groups to integrate highly parallel codes into their workflows.
* Undertake technical assessment of applications for computational resources through merit allocation schemes.
* Identify suitable technologies, tools and algorithms relevant to user activities and encourage adoption to improve the productivity of the research community.
* Undertake collaborative uptake projects selected through competitive merit.
* Engage in and undertake strategic projects such as the Square Kilometre Array (where requested).
* Assist in the development of materials such as case studies and papers demonstrating the results of supercomputing projects.
* Identify technical areas of researcher knowledge for improvement and develop appropriate training material for delivery by members of the Supercomputing team.
* Deliver training courses to the Pawsey user community.
* Participate in evaluations of novel technologies, to assess their potential impact on Pawsey’s operation.
* Promote success stories through (for example) conferences, publications, and networking.
* Take on management responsibilities for the operation of a facility, central service, group of technicians, or an area of interaction with industry and make significant contributions to decisions about the nature of the service provided.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO scientific objectives.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Other duties as directed.

## CSIRO Competencies:

1. **Teamwork and Collaboration:** Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.
2. **Influence and Communication:** Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.
3. **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **Independence:** Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.
6. **Adaptability:**Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## Selection Criteria:

*Under CSIRO policy only those who meet all selection criteria can be appointed.*

1. A postgraduate qualification or significant progress towards postgraduate qualifications in a scientific or computer-science discipline; or an equivalent combination of relevant experience and/or education/training.
2. Proven working knowledge of parallel programming models, such as OpenMP, MPI or CUDA.
3. Demonstrated expertise in the support and development of supercomputing applications.
4. Demonstrated high-level problem solving skills.
5. Demonstrated effective communication skill including the ability to articulate technical concepts to a diverse range of clients.
6. The ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, and carry out tasks autonomously in support of scientific research.
7. Demonstrated ability & willingness to contribute novel ideas and approaches in support of scientific investigations.

## Desirable Criteria:

1. Domain expertise in a computational science
2. Experience with working in a formal, software-engineering environment
3. Demonstrated ability to work in teams spanning institutional boundaries

## Special Requirements:

The successful candidate will be asked to obtain and provide a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Information disclosed in a National Police Check will only be considered if it is relevant to the inherent requirements of the job.

## About CSIRO:

At CSIRO we solve the greatest challenges through innovative science and technology. See more [online](http://www.csiro.au/)!

Find out more about CSIRO [Pawsey](https://my.csiro.au/orginfo/structure/facilites-collections/pawsey)