

Position Details

Technical Services – CSOF5

THE FOLLOWING INFORMATION IS FOR APPLICANTS	
Advertised Job Title	Network Engineer - SKA-Low Telescope
Job Reference	98379
Tenure	Indefinite Full-Time, Part-Time or Job-Share
Salary Range	CSOF5 - AU\$110,038 to AU\$119,080 per annum, plus 15.4% superannuation
Location(s)	Perth, Western Australia
Relocation Assistance	Will be provided to the successful candidate if required
Applications are open to	All Applicants
Client Focus – Internal	0%
Client Focus – External	100%
Position reports to the	This position will report to the SKA-Low Site Reliability Engineering Manager.
Number of Direct Reports	0
Enquire about this job	To enquire about this role, please contact the SKA-Low Site Reliability Engineering Manager, Louisa Quartermaine, on louisa.quartermaine@skao.int
How to apply	Apply online at https://jobs.csiro.au/ Internal applicants please apply via Jobs Central If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220.

Acknowledgement of Country

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](#).

The CSIRO Experience

As an employee of CSIRO, you will be eligible for the many benefits of working at Australia’s National Science Agency. You can read more here:

1. [Life at CSIRO](#)
2. [Personal Development & Learning](#)
3. [Generous Leave & Conditions](#)
4. [Work / Life Balance](#)

Background

The SKA Observatory (SKAO) is a next-generation radio astronomy facility that will revolutionise our understanding of the Universe and the laws of fundamental physics. Enabled by cutting-edge technology, it promises to have a major impact on society, in science and beyond. As an intergovernmental organisation, the SKAO brings together sixteen countries around the world.

The Observatory has an international footprint and consists of the SKAO Global Headquarters in the UK, the SKAO's two telescopes at radio-quiet sites in South Africa and Australia, and associated facilities to support the operations of the telescopes.

Constructing and operating these telescopes will position the SKAO as the leading research infrastructure for radio astronomy globally, providing science capabilities to the international astronomical community for decades to come.

Australia will host the SKAO's low frequency telescope (SKA-Low) in remote Western Australia on Wajarri Yamaji Country.

The Traditional Owners and native title holders, the Wajarri Yamaji, have gifted CSIRO with the traditional name Inyarrimanha Ilgari Bundara for the CSIRO Murchison Radio-astronomy Observatory, home to the SKA-Low telescope. The traditional name means 'sharing sky and stars' in the Wajarri language.

In Australia, SKAO is collaborating with CSIRO to operate and support the construction of the SKA-Low Telescope. SKA-Low teams will operate out of:

- Inyarrimanha Ilgari Bundara, the CSIRO Murchison Radio-astronomy Observatory on Wajarri Yamaji Country.
- Our Engineering Operations Centre on Nhanhangardi, Naaguja, Wilynyu and Amangu Country in Geraldton.
- Our Science Operations Centre on Whadjuk Noongar Country in Perth.

Further Reading: [Explore CSIRO and the SKA-Low Telescope Project](#)

Role Overview

The SKA-Low Computing and Software team delivers novel computing and technology solutions to meet the requirements of the SKA Project (read more [here](#)). The SKAO is driven by software and systems which include:

- An integrated control system that controls and monitors over 2 million process variables.
- Data processing systems that process the vast quantities of data produced by the SKA Low, which will require a high-performance supercomputer capable of more than 100 petaflops and will result in hundreds of Petabytes of data archived per year.
- Science management systems to manage the interaction with scientists from around the world and ensure the huge amounts of data are made available to the appropriate people in a timely manner.
- Networks that move the data at rates exceeding Tbits/second across hundreds of km within the telescope and then shipping it to the scientific community using a world-wide 100 Gbit network.

The SKA-Low Network Engineer will be responsible for the deployment, configuration, and support of the networking infrastructure of the SKA-Low Telescope, the Science Operations Centre (SOC) and the SKAO Science Processing Centre (SPC) located at the Pawsey Supercomputing Research Centre. This position will work alongside other team members to ensure the networks for the SKA-

Low Telescope are fit for purpose, providing the quality needed for a system that will have to last, and be continually developed, for decades. This role will also be an active contributor to the general design and implementation of the SKA-Low Networks. This role will report directly to the SKA-Low Site Reliability Engineering Manager.

This role may require a willingness and ability to travel intrastate and internationally as required, noting we work hard to accommodate personal arrangements.

CSIRO and the SKA Observatory value and respect differences, and we are committed to building an inclusive culture by creating an environment where you can balance a successful career with your commitments and interests outside of work. We believe that you will do your best at work if you have a work / life balance. We are open to discussing flexible working opportunities with this role being offered on a full-time, part-time or job share basis. Please raise your preference in your application.

Duties and Key Result Areas

- Work with stakeholders to continually refine the network requirements for the SKA Telescopes to ensure they meet the system requirements in an appropriate and cost-effective manner.
- Assist in the deployment, configuration, and support of networking infrastructure for the SKA-Low Telescope deployed at the Science Processing Centre (SPC) at Pawsey and the Science Operations Centre (SOC). This may also require travel to the Observatory site and the Engineering Operations Centre (EOC) in Geraldton to support networking activities at those locations.
- Be an integral member of the international SKAO Networking team, and actively contributing to on-going design network design activities.
- Be involved in the initial population of tools for asset management and engineering management as equipment arrives during construction.
- Be responsible for preparing documentation and training materials for future installation work during ongoing operations, and documenting lessons learned as the construction phase progresses.
- Provide feedback on 'as built' details for the installation due to practical changes & issues arising during construction.
- Communicate openly, effectively, and respectfully with all staff, clients, and suppliers in the interests of good business practice, collaboration, and enhancement of SKAO and CSIRO's reputation.
- Adhere to the spirit and practice of both SKAO and CSIRO's Values as well as the Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Zero Harm goals.
- Other relevant duties as directed.

Selection Criteria

CSIRO is an Equal Opportunity employer working hard to recruit world-class talent that represents the diversity across our society. As part of our commitment to equitable employment outcomes for under-represented groups, preference will be given to Aboriginal and Torres Strait Islander people and women who meet the role criteria.

Essential

Under CSIRO policy only those who are able to demonstrate how they can meet the essential criteria may be appointed.

- Qualified to degree level in a relevant subject or an equivalent level of experience and expertise.
- Demonstrated experience in installation, optimisation and maintenance of network and security devices and services.
- Ability to assure compliance with SKAO security policies and applicable legislation and regulation.
- Knowledge in the design of network systems at enterprise-level, datacentres, or large distributed systems with understanding of new and emerging networking and security technologies.
- Ability to communicate effectively with a wide range of stakeholders including gathering and distilling information and tailoring it appropriately for the target audience.
- Experience working in a diverse and collaborative team environment across multiple locations.

Desirable

- Knowledge and understanding of:
 - Long-haul networking technologies
 - Software-defined networking systems
 - Zero-trust networking principles
 - High-Performance Computing (HPC) environments
- Cisco Certifications/Qualifications such as CCNA or higher

Required Competencies

- **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.
- **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.
- **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.
- **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
- **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.
- **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.

Special Requirements

- The successful candidate will be required to gain a National Police Clearance or equivalent. This will be conducted by CSIRO, Talent Services, through our provider HireRight. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
- If the successful candidate is not an Australian Citizen or Permanent Resident, they may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test- [https://ielts.com. au/](https://ielts.com.au/)).
- The successful candidate will be required to undertake a pre-employment medical examination prior to commencement.

Child Safety

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](#).

CSIRO and SKAO Values

Visit [CSIRO Online](#) and [Space and Astronomy](#) and [SKAO online](#) and [SKAO Location](#) for more information. In your application and at interview you will need to demonstrate behaviours aligned to our values of:

CSIRO	SKA Observatory
<ul style="list-style-type: none">• People First• Further Together• Making it Real• Trusted	<ul style="list-style-type: none">• Diversity and Inclusion• Excellence• Collaboration• Creativity and Innovation• Sustainability and Safety