# Position Details

## Technical Services- CSOF3/4

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| The following information is for applicants |
| Advertised Job Title | ICT Systems Engineer – Seagoing – two positions |
| Job Reference | 91562 |
| Tenure | Specified term of 3 years - Full-time |
| Salary Range | CSOF3: $68k to AU$86k per annum, plus up to 15.4% superannuationorCSOF4: $89k - $101k per annum, plus up to 15.4% superannuation |
| Location(s) | Hobart, Tasmania (preferred)*Other locations may be considered* |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian Citizens and Permanent Residents
* New Zealand Citizens
* Australian temporary residents with the right to work for the expected duration of the term (at least to end of June, 2026), with no requirement for sponsorship.
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| Position reports to the | Team Leader, Data Acquisition and Processing  |
| Client Focus – Internal | 100% |
| Client Focus – External | 0% |
| Number of Direct Reports | 0 |
| Enquire about this job | Stephanie Zeliadt – E: Stephanie.Zeliadt@csiro.au or Ph: 0490 114 083 |
| 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](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

The ICT Systems Engineer (seagoing), enables and supports scientific voyages on the research vessel *RV Investigator,* contributing to world-class scientific blue-water research.

These positions will sit in the Data Acquisition and Processing team, within the Scientific Data Systems group. The roles will provide support to the Marine National Facility (MNF) research vessel RV Investigator in the areas of Information and Communications Technology (ICT) systems and software engineering, network administration, data processing and data management.

The RV Investigator has a sophisticated ICT network used to support the operation of the vessel and to collect data from the vessel’s array of scientific instrumentation. **A requirement of the role is to provide up to 85 days per year of seagoing support on voyages that are typically 3 to 8 weeks in duration**. Whilst at sea, the ICT Systems Engineer is responsible for the running of various data acquisition systems; monitoring the quality of the collected data; administration of the vessel’s ICT network; providing general computing support to voyage participants; and liaising with scientists to assist them in achieving the scientific objectives of the voyage.

Onshore, role requirements include maintaining, supporting, and improving the RV Investigator’s ICT infrastructure systems. This includes designing, procuring, and integrating ICT infrastructure components and supporting software tools associated with the ship’s network/server services and the acquisition, processing, visualisation, and management of MNF vessel data. The ICT Systems Engineer will also be required to complete data processing tasks which result in the delivery of quality controlled MNF data products through the CSIRO Information & Data Centre (IDC).

### Duties and Key Result Areas:

* Undertake the role of computing support person on MNF research voyages - operate data acquisition systems, maintain data quality, provide general ICT support to voyage participants and network administration of the information and communications technology on board the vessel.
* In conjunction with other electronic and computing support staff, diagnose and rectify hardware and software issues with scientific data acquisition and instrumentation systems, and with the ship’s ICT network infrastructure.
* Maintain and evolve shipboard network, communication and computing infrastructure including routing and switch systems; satellite, PABX and CCTV systems; printers; backup and other systems onboard the vessel.
* Integrate, develop, and maintain software and hardware systems in support of the ship’s ICT services and the acquisition, processing, visualisation, and management of marine data.
* Document existing and new systems to a high level, for both support staff and end users.
* Monitor hardware performance and provide input into discussions on equipment upgrades/replacement.
* Liaise with scientists and assist with the processing, quality control and visualisation of data acquired by the MNF research vessel.
* Liaise with clients to determine their needs and take responsibility for their satisfaction, by correcting problems promptly and in a constructive manner.
* 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 procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

**For appointment at the CSOF4 level, duties will also include:**

Under limited direction:

* Proactively identify and take ownership of opportunities for improvements in systems and procedures, and resolve complex problems, taking responsibility through to successful completion.
* Manage a facility or service supporting a large number of users (as required).
* Collaborate effectively with other teams and industry colleagues to achieve objectives.

## **Required Competencies**

## **Teamwork and Collaboration:**

* + **CSOF3: Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.**
	+ **CSOF4: 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:**

* **CSOF3: Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids which will assist in conveying meaning.**
* **CSOF4: 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:**

* **CSOF3: Provides instruction and assists other staff to complete allocated tasks and activities.**
* **CSOF4: Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.**

**Judgement and Problem Solving:**

* **CSOF3:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
* **CSOF4:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.

**Independence**

* **CSOF3 and CSOF4: Recognises and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**

**Adaptability:**

* **CSOF3:** Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.
* **CSOF4:** 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**

#### Essential

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

1. A tertiary qualification in Information Technology and/or equivalent relevant experience.
2. Demonstrated computing infrastructure skills as follows:
	1. Windows/Linux server administration.
	2. Experience with administration of enterprise level network infrastructure.
	3. Level 2 help desk support or above.
	4. Ability to diagnose, troubleshoot, and repair complex computer software and hardware issues across a range of systems.
3. Demonstrated basic software development skills.
4. Excellent interpersonal, oral, and written communications skills, including demonstrated ability to clearly document software, data flows and to produce manuals and/or reports.
5. Demonstrated ability to work collaboratively and interact effectively, sometimes from remote locations.
6. A strong customer-centric support ethic with the ability to provide a high level of technical support at sea for the duration of voyages (up to 85 days per year, typically 3 to 8 weeks in duration).

**For an appointment at the CSOF4 salary level, as well as satisfying the Essential Criteria listed above, you must also have:**

1. Demonstrated experience specifying, procuring, and integrating ICT infrastructure systems and components.
2. Demonstrated ability to develop and meet goals, working with clients under limited direction to mutually agreed outcomes and specific deadlines.
3. Demonstrated ability to identify, own and resolve complex problems, taking ownership through to successful completion.

####  Desirable:

1. Demonstrated computing skills and domain knowledge as follows:
	1. Experience programming in Python.
	2. Experience with VMWare ESXi (vSphere/vSAN).
	3. Experience with Cisco networking infrastructure.
	4. Experience with network monitoring systems.
	5. Experience with enterprise grade storage (SAN) systems.
	6. Experience in automation and associated technologies, such as PowerShell and Bash.
	7. Experience with client machine imaging and deployment (Windows SOE).
	8. Experience with telephony and communication systems (on premises PABX/satcomms).
	9. Experience with DevOps methodology and systems.
	10. Database administration and management (PostgreSQL).
	11. Portfolio of software programming examples that are the sole work of the candidate.
	12. An understanding of software engineering methodologies and version control systems.
	13. An understanding of data flow from sensor to data product.
	14. Experience with Data Science, particularly with Oceanographic, Atmospheric and/or Marine Science data sets.
2. Experience in the cyber-security domain.
3. Experience providing customer facing support.

Special Requirements

**The successful candidate:**

* Will be asked to obtain and provide evidence of a National Police Clearance or equivalent. Please note that individuals with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* Must be willing and able to work at sea and to travel extensively in order to provide operational support in domestic or foreign ports (up to 85 days per year of seagoing support on voyages that are typically 3 to 8 weeks in duration).
* Must obtain an MNF remote medical clearance and a Marine Security Identification Card.

**About CSIRO**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and [National Collections and Marine Infrastructure](https://www.csiro.au/en/about/people/business-units/ncmi) for more information.

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted