



Position Description

College/Division:	Deputy Vice Chancellor (Research and Innovation)
School/Centre:	National Computational Infrastructure (NCI)
Department/Unit:	
Position Title:	Linux Systems Administrator
Classification:	ANU Officer Grade 8 (IT)
Position No:	26664
Responsible to:	NCI VL Systems Manager
Number of reports	0
Delegation(s) Assigned:	N/A

PURPOSE STATEMENT

NCI is Australia's leading national provider of high-end computational and data-intensive services. NCI is an operating unit of the Australian National University and is built on and sustained by a formal collaboration of national research organisations, ANU, CSIRO, Bureau of Meteorology, Geoscience Australia, other research-intensive universities, and eResearch support organisations nationally.

This position provides specialised technical expertise in the operation and administration of a range of Virtual Laboratory systems at NCI, from domains including Climate, Weather and Earth Observation Systems, Geosciences, Astronomy and other research areas. The incumbent will be responsible for the production and operation of analysis and data-service systems that utilise the data in NCI's substantial research data repositories. They will make a significant technical contribution to the quality and reliability of these cloud-based systems, and facilitate effective interaction with NCI's peak HPC and HPD infrastructure.

KEY ACCOUNTABILITY AREAS

Position Dimension & Relationships:

The position of VL Systems Administrator is a member of the Virtual Laboratories Team under the VL Systems Manager, within the portfolio of responsibilities of the Associate Director (Research Engagement and Initiatives). In undertaking their duties, the incumbent to this position will work closely with other members of the NCI team. The role may at times require support outside standard business hours.

Role Statement:

Under the broad direction of the NCI VL Systems Manager, the VL Systems Administrator will perform the following duties:

1. Take a leading role in administering and maintaining modern, scalable Linux systems including operating systems, file systems, storage, networking, backup/recovery, software licenses and other system software.
2. Monitor, diagnose and rectify complex system faults in VL systems including system scalability issues.
3. Contribute significantly to the development of overall system configuration and management practices.
4. Manage monitoring and reliability logging infrastructure.

5. Liaise with stakeholders and play a leading role in supporting user access, workload and resource management systems and utilities.
6. Perform virtual machine deployment, configuration and maintenance.
7. Implement and maintain adherence to, the NCI NF security policy across all systems.
8. Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
9. Other duties as appropriate to this classification and as directed.

SELECTION CRITERIA

1. A relevant degree and extensive experience in HPC/Cloud environments (service configuration and deployment, and finding and resolving complex issues with large-scale systems) OR an equivalent combination of experience and education/training.
2. Extensive knowledge and experience of Unix/Linux, particularly network and filesystem configuration and management, including performance tuning. Experience in configuring and managing Linux distributions, Nagios, Puppet and Tomcat would also be highly valued.
3. Extensive knowledge and experience of scripting language(s) such as bash, python or perl suitable for system configuration and management, and C sufficient for understanding and improving system packages and utilities.
4. Demonstrated awareness of the issues of reliability, scalability and locality in high performance computing system resource provision and management to support scientific applications.
5. An awareness of the compute resource needs of scientific computing applications, particularly large-scale parallel applications, and an appreciation of the service-oriented goals of a large-scale computational facility for the national academic research community.
6. A high level of understanding of and experience in IT security in Unix/Linux environments.
7. Excellent oral and written communication skills; ability to plan and write good quality user/systems documentation and reports; and the ability to work with a small team.
8. A high level of understanding of equal opportunity principles and a commitment to the application of EO policies in a university context.

ANU Background Checking

The ANU conducts background checks on potential employees, and employment in this position is conditional on satisfactory results in accordance with the Background Checking Procedure, which sets out the types of checks required by each type of position.

Delegate Signature:		Date:
Printed Name:	Prof Sean Smith	Uni ID:

References:

[General Staff Classification Descriptors](#)

[Academic Minimum Standards](#)



Pre-Employment Work Environment Report

Position Details

College/Div/Centre	DVC (R&I)	Dept/School/Section	National Infrastructure	Computational
Position Title	Linux Systems Administrator	Classification	ANU 8 (IT)	
Position No.		Reference No.		

In accordance with the Work Health and Safety Act 2011 (Cth) the University has a primary duty of care, so far as reasonably practicable, to ensure the health and safety of all staff while they are at work in the University.

- This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment and health and safety hazards prior to application.
- Once an applicant has been selected for the position they must familiarise themselves with the University WHS Management System via Handbook guidance <https://services.anu.edu.au/human-resources/health-safety/whs-management-system-handbook>
- The hazards identified below are of generic nature in relation to the position. It is not correlated directly to training required for the specific staff to be engaged. Identification of individual WHS training needs must be in accordance with WHS Local Training Plan and through the WHS induction programs and Performance Development Review Process.
- 'Regular' hazards identified below must be listed as 'Essential' in the Selection Criteria - see 'Employment Medical Procedures' at http://info.anu.edu.au/Policies/_DHR/Procedures/Employment_Medical_Procedures.asp

Potential Hazards

- Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a **regular** or **occasional** part of the duties.

TASK	regular	occasional	TASK	regular	occasional
key boarding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	laboratory work	<input type="checkbox"/>	<input type="checkbox"/>
lifting, manual handling	<input type="checkbox"/>	<input type="checkbox"/>	work at heights	<input type="checkbox"/>	<input type="checkbox"/>
repetitive manual tasks	<input type="checkbox"/>	<input type="checkbox"/>	work in confined spaces	<input type="checkbox"/>	<input type="checkbox"/>
Organizing events	<input type="checkbox"/>	<input type="checkbox"/>	noise / vibration	<input type="checkbox"/>	<input type="checkbox"/>
fieldwork & travel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	electricity	<input type="checkbox"/>	<input type="checkbox"/>
driving a vehicle	<input type="checkbox"/>	<input type="checkbox"/>			
NON-IONIZING RADIATION			IONIZING RADIATION		
solar	<input type="checkbox"/>	<input type="checkbox"/>	gamma, x-rays	<input type="checkbox"/>	<input type="checkbox"/>
ultraviolet	<input type="checkbox"/>	<input type="checkbox"/>	beta particles	<input type="checkbox"/>	<input type="checkbox"/>
infra red	<input type="checkbox"/>	<input type="checkbox"/>	nuclear particles	<input type="checkbox"/>	<input type="checkbox"/>
laser	<input type="checkbox"/>	<input type="checkbox"/>			
radio frequency	<input type="checkbox"/>	<input type="checkbox"/>			
CHEMICALS			BIOLOGICAL MATERIALS		
hazardous substances	<input type="checkbox"/>	<input type="checkbox"/>	microbiological materials	<input type="checkbox"/>	<input type="checkbox"/>
allergens	<input type="checkbox"/>	<input type="checkbox"/>	potential biological allergens	<input type="checkbox"/>	<input type="checkbox"/>
cytotoxics	<input type="checkbox"/>	<input type="checkbox"/>	laboratory animals or insects	<input type="checkbox"/>	<input type="checkbox"/>
mutagens/teratogens/ carcinogens	<input type="checkbox"/>	<input type="checkbox"/>	clinical specimens, including blood	<input type="checkbox"/>	<input type="checkbox"/>
pesticides / herbicides	<input type="checkbox"/>	<input type="checkbox"/>	genetically-manipulated specimens	<input type="checkbox"/>	<input type="checkbox"/>
			immunisations	<input type="checkbox"/>	<input type="checkbox"/>
OTHER POTENTIAL HAZARDS (please specify):					
Supervisor/Delegate Name:			Date:		