



Australian
National
University

Position Description

College/Division:	Deputy Vice-Chancellor (Research and Innovation)
Faculty/School/Centre:	National Computational Infrastructure (NCI)
Department/Unit:	
Position Title:	Linux System Administrator
Classification:	ANU Officer Grade 7 (IT)
Position No:	
Responsible to:	NCI VL Systems Manager
Number of positions that report to this role:	0
Delegation(s) Assigned:	TBA

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.

The position of Linux System Administrator provides specialised technical expertise in the operation and administration of a range of Virtual Laboratory (VL) systems at NCI, from domains including Climate, Weather and Earth Observation Systems, Geosciences, Astronomy and other research areas. The position will be responsible for the production operation of analysis and data-service systems that utilise the data in NCI's substantial research data repositories. The position 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 Linux System Administrator is a member of the Virtual Laboratories Team and has a close working relationship with other members of the Research Engagement and Initiatives portfolio, as well as colleagues across NCI, in particular project managers, development and operational team managers.

The role may at times require support outside standard business hours.

Role Statement:

Under the broad direction of the NCI VL Systems Manager, the Linux Systems Administrator will:

1. Administer and maintain modern, scalable Linux systems including operating systems, filesystems, storage, networking, backup/recovery, software licenses and other system software.
2. Monitor, diagnose and rectify system faults in VL systems including system scalability issues.
3. Participate in the development of overall system configuration and management practices.
4. Manage monitoring and reliability logging infrastructure.
5. Support 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 with additional 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. Sound 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. A good awareness of the issues of reliability, scalability and locality in high performance computing system resource provision and management to support scientific applications.
5. A basic 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. Good 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.

Supervisor/Delegate Signature:		Date:	
Printed Name:	Professor Sean Smith	Uni ID:	

References:[General Staff Classification Descriptors](#)[Academic Minimum Standards](#)



Australian
National
University

Pre-Employment Work Environment Report

Position Details

College/Div/Centre	Deputy Vice-Chancellor (Research and Innovation)	Dept/ School/Section	National Computational Infrastructure (NCI)
Position Title	Linux System Administrator	Classification	ANU Officer Grade 7 (IT)
Position No.		Reference No.	TBA

In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

- 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 issues prior to application.
- Once an applicant has been selected for the position consideration should be given to their inclusion on the University's Health Surveillance Program where appropriate – see . http://info.anu.edu.au/hr/OHS/___Health_Surveillance_Program/index.asp
Enrolment on relevant OHS training courses should also be arranged – see http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp
- '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 checked="" 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"/>
catering / food preparation	<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's Signature:		Print Name:	Ben Evans	Date:	
------------------------------------	--	--------------------	------------------	--------------	--