THE AUSTRALIAN NATIONAL UNIVERSITY

Position Description

College/Division:	National Computational Infrastructure (NCI)
School/Centre:	National Computational Infrastructure (NCI)
Department/Unit:	National Computational Infrastructure (NCI)
Position Title:	Linux Systems Administrator
Classification:	ANU Officer Grade 8 (IT)
Position No:	
Responsible to:	NCI VL Systems Manager

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 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, filesystems, 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.

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

References:

General Staff Classification Descriptors

Academic Minimum Standards