RESEARCH DEVOPS SENIOR SYSTEMS ENGINEER

DEPARTMENT/UNIT: eSolutions

FACULTY/DIVISION: Chief Information Officer and Senior Vice-President

CLASSIFICATION: HEW Level 8

DESIGNATED CAMPUS OR LOCATION: Clayton campus

ORGANISATIONAL CONTEXT

Monash is a university of transformation, progress and optimism. Our people are our most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation. For more information about our University and our exciting future, please visit www.monash.edu.

Monash eResearch Centre (MeRC) is a University commitment to accelerating research by applying advanced computing and information technology to important research problems. The centre partners with individual researchers, Australian research institutions and facilities and global research communities. MeRC is a leader amongst international eResearch initiatives and runs a number of national projects including the MASSIVE high performance computing facility, R@CMon - a node of the Australian Research Cloud, petascale data storage infrastructure, and the national Characterisation Virtual Laboratory. Staff at the Monash eResearch Centre deliver impact: we help visualise how the human brain is connected, we design high performance computing systems, we write data processing workflows for one-of-a-kind Australian microscopes, and we write smart software for interrogating unique data collections. MeRC is driven by the quality and passion of our staff, and the partnership with the researchers we work with. For more information about the work we do, please visit our website: www.monash.edu/researchinfrastructure/eresearch.

eSolutions leads and directs the provision of IT solutions to the University. eSolutions is currently leading substantial technological, service and organisational reform in its role as a single IT function for the University that operates according to the following vision: We partner with our customers to provide complete solutions enabling the Monash academic mission and delivery of the strategic agenda. We aim to be a customer focused organisation delivering flexible, responsive, coherent ICT services. For more information on the work that we do, please visit our website: www.monash.edu/esolutions/.
POSITION PURPOSE

The Research DevOps Senior Systems Engineer will join the Monash eResearch Centre developing, building and operating Monash University’s latest research IT infrastructure for Australian researchers. The Research Devops Senior Systems Engineer will manage aspects of operations and business management in a software-driven infrastructure environment with some aspects of hardware management.

Working in partnership with Monash University researchers, eSolutions staff, and national partners the Senior Systems Engineer deploys, supports, maintains, and manages escalations aimed to improve a range of systems which enables new research and contributes directly to MeRC’s vision – building an environment for modern research, where researchers build 21st century microscopes.

Reporting Line: The position reports to the eResearch Delivery Leader, under broad direction

Supervisory Responsibilities: Not applicable

Financial Delegation: Not applicable

Budgetary Responsibilities: Not applicable

KEY RESPONSIBILITIES

1. Analyse and oversee the administration and maintenance of substantive aspects of research focused cloud computer and storage systems (including operating systems, local and network attached storage, networking and backup/recovery)

2. Develop and implement the improvements to system operations via technical solutions and/or processes which increase supportability, reliability, security and performance

3. Design, code, test and manage the installation of software solutions in a range of languages across multiple platforms, including early stage, prototype or specialised researcher focused cloud solutions

4. Work in close consultation with researchers, the Monash e-Research Centre, and eSolutions to build, configure and deploy innovative research systems for production and development

5. Monitor the maintenance, diagnosing and rectifying of faults in complex systems including hardware, OS, software and scalability issues

6. Manage the escalation of support requests, incidents and problems; and liaise with other appropriate MeRC and relevant eSolutions teams to provide timely resolutions

7. Schedule and perform regular system maintenance including patching, testing, producing and acting on security violation reports; maintain and audit user and system documentation, and disaster recovery plan

8. Provide consulting services to researchers and eResearch staff where specialist systems knowledge is required and work cooperatively and productively within a professional group operating in a matrix structure and towards achieving organisational goals

9. Lead continuous improvement practices by keeping abreast of emerging technologies and maintain up to date skills in line with industry best practice

10. Other duties as directed from time to time

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
   - postgraduate qualifications or progression towards postgraduate qualifications in a computer related discipline; or
• an equivalent combination of extensive relevant experience and/or education/training

Knowledge and Skills

2. Proven capacity for systematic analysis with a proven ability to apply analytical skills, troubleshooting and conceptual thinking to systems and operations planning across a range of technologies in a large and complex ICT environment

3. Experience in providing specialist advise to business stakeholders and clients with regards to software design, analysis and specification in a research context

4. Demonstrated experience in developing, implementing and overseeing the deploying of software and operating systems across multiple teams

5. Proficiency in a range of programming languages including Python; in depth knowledge of virtualisation technologies (KVM preferred) and general Linux and Windows tuning; configuration management tools (Puppet or Ansible would be an advantage), and associated source code version management and review systems

6. Knowledge of Linux networking and security for Software Defined Networking environments (including TCP/IP, routing, switching, VLANs, GRE/VXLAN, firewalls/iptables, software bridges, high availability and load balancing)

7. A strong understanding and knowledge of ICT and ICT security best practices with excellent written and verbal communication skills

8. Experience in working with researchers/research community and supporting researchers on large-scale or distributed computing systems

OTHER JOB RELATED INFORMATION

• Travel to other campuses of the University may be required
• There may be a requirement to work additional hours from time to time
• There may be peak periods of work during which taking of leave may be restricted
• This position will require a successful National Police Record check

GOVERNANCE

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.