



# RESEARCH DEVOPS SYSTEMS ENGINEER

DEPARTMENT/UNIT	eSolutions
FACULTY/DIVISION	Chief Information Officer and Senior Vice-President
CLASSIFICATION	HEW Level 7
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](http://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/ereseach](http://www.monash.edu/researchinfrastructure/ereseach).

**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/](http://www.monash.edu/esolutions/).

## POSITION PURPOSE

---

The Research DevOps 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 Systems Engineer will participate in aspects of operations and 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 Systems Engineer deploys, supports, maintains, and continuously improves a range of systems dedicated to research 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. Coordinate and maintain substantive aspects of research focused cloud computer and storage systems (including operating systems, local and network attached storage, networking and backup/recovery)
2. Improve system operations by proposing and implementing technical solutions and/or processes which increase supportability, reliability, security and performance
3. Design, code, test and install software solutions in a range of languages across multiple platforms, including early stage, prototype or specialised researcher focused cloudsolutions
4. Build and sustain partnerships with researchers, the Monash e-Research Centre, and eSolutions to build, configure and deploy innovative research systems for production and development
5. Monitor and maintain diagnosing and rectifying faults in complex systems including hardware, OS, software and scalability issues
6. Coordinate support requests, incidents and problems; and liaise with other appropriate MeRC and relevant eSolutions teams to provide timely resolutions
7. Perform regular system maintenance including patching, testing, producing and acting on security violation reports; maintain user and system documentation, and disaster recovery plans
8. Provide expert advice and guidance on internal consulting services to researchers 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. Keep 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:
  - degree qualifications or progression towards postgraduate qualifications in a computer related discipline with extensive relevant experience; or
  - extensive experience and management expertise in technical or administrative fields; or
  - an equivalent combination of relevant experience and/or education/training

## **Knowledge and Skills**

2. Demonstrated 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. Demonstrated ability in software design, analysis and specification, in a research context with experience in deploying and administering software and operating systems
4. Proficiency in a range of programming languages including Python with in depth knowledge of virtualisation technologies (KVM preferred) and general Linux and Windows tuning
5. Experience in configuration management tools (Puppet or Ansible would be an advantage), and associated source code version management and review systems
6. Working 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. Knowledge of ICT and ICT security best practices and 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.