POSITION DESCRIPTION

Position Title: Systems Programmer (UQcloud)
Organization Unit: Faculty of Engineering, Architecture and Information Technology
Position Number: 3030695
Type of Employment: Full time, Continuing
Classification: Hew Level 6

THE UNIVERSITY OF QUEENSLAND

The University of Queensland (UQ) contributes positively to society by engaging in the creation, preservation, transfer and application of knowledge. UQ helps shape the future by bringing together and developing leaders in their fields to inspire the next generation and to advance ideas that benefit the world. UQ strives for the personal and professional success of its students, staff and alumni. For more than a century, we have educated and worked with outstanding people to deliver knowledge leadership for a better world.

UQ ranks in the world’s top universities, as measured by several key independent ranking, including the Performance Ranking of Scientific Papers for World Universities (45), the US News Best Global Universities Rankings (52), QS World University Rankings (55), Academic Ranking of World Universities (55), and the Times Higher Education World University Rankings (60). UQ again topped the nation in the prestigious Nature Index; and secured a greater share of Australian Research Council grants in 2016 ($24.5 million) than any other university nationally.

UQ has an outstanding reputation for the quality of its teachers, its educational programs and employment outcomes for its students. Our students remain at the heart of what we do. The UQ experience – the UQ Advantage – is distinguished by a research enriched curriculum, international collaborations, industry engagement and opportunities that nurture and develop future leaders. UQ has a strong focus on teaching excellence, winning more national teaching excellence awards than any other in the country and attracting the majority of Queensland’s highest academic achievers, as well as top interstate and overseas students.

UQ is one of Australia’s Group of Eight, a charter member of edX and a founding member of Universitas 21, an international consortium of leading research-intensive universities.

Our 50,000-plus strong student community includes more than 13,000 postgraduate scholars and more than 12,000 international students from 144 countries, adding to its proud 230,000-plus alumni. The University has about 7,000 academic and professional staff and a $1.7 billion annual operating budget. Its major campuses are at St Lucia, Gatton and Herston, in addition to teaching and research sites around Queensland and Brisbane city. The University has six Faculties and four University-level Institutes. The Institutes, funded by government and industry grants, philanthropy and commercialisation activities, have built scale and focus in research areas in neuroscience, biomolecular and biomedical sciences,
sustainable minerals, bioengineering and nanotechnology, as well as social science research.

UQ has an outstanding track-record in commercialisation of our innovation with major technologies employed across the globe and integral to gross product sales of $11billion+ (see http://unquest.com.au/our-track-record).

UQ has a rapidly growing record of attracting philanthropic support for its activities and will have further success in this area as an important strategic aim going forward.

**Organisational Environment**

The Faculty of Engineering, Architecture and Information Technology (EAIT) comprises the Schools of Architecture, Civil Engineering, Chemical Engineering, Information Technology and Electrical Engineering, and Mechanical and Mining Engineering and the Advanced Water Management Centre. These units are internationally recognised for the quality of their teaching and research which creates a stimulating environment within which the Faculty staff work.

The Faculty is managed by the Executive Dean, who has direct responsibility for the physical, financial and human resources, academic matters relating to programs and students, and a range of other areas such as the development of research, national and international marketing, and enhanced government, business and community links.

The Faculty has an annual budget of approximately $154M, about 500 academic and professional staff and 5,500 students. The Schools and Centres are also involved in highly successful consulting and commercialisation activities.

The Information Technology Infrastructure Group (ITIG) is responsible for all aspects of the IT infrastructure and support of the Faculty, Schools, associated programs and research centres. Due to the diverse nature of the environment, there is a wide variety in the work that we undertake and the requirements of our users, and this changes and evolves with time. As a result, whilst ultimately all our work is support based, the nature of this support often takes on many characteristics of development or integration projects.

Further information on the Faculty can be obtained from the Faculty's web site at www.eait.uq.edu.au.

**Information for Prospective Staff**

Information about life at UQ including staff benefits, relocation and UQ campuses is available at - http://www.uq.edu.au/current-staff/working-at-uq

**DUTY STATEMENT**

**Primary Purpose of Position**

It is the responsibility of all positions in the ITIG to support and maintain the IT infrastructure required for the efficient operation of the Faculty and its Schools and Centres.
The role is more specifically responsible for the support and maintenance of UQcloud, the Faculty's private cloud infrastructure and related services. UQcloud currently runs on top of Joyent's Triton, a "Cloud infrastructure for Containers and VMs". This infrastructure is used internally by the ITIG underneath a variety of services, as well as being used to provide a platform for teaching. Support for teaching involves the development of automation of UQcloud based resources for classes, and integration into UQ and EAIT services such as authentication, firewalls, and load balancing.

This role also works as part of the infrastructure team within the ITIG, which is responsible for all IT infrastructure used by the Faculty. Members of the team are exposed to, and work on, all aspects of the infrastructure, from deployment of physical machines and systems, to analysing faults in distributed systems, to developing system software, to developing web frameworks and applications, to writing documentation, to handling helpdesk tickets.

You will also be expected to undertake tasks within your range of expertise and experience and consistent with the minimum requirements for this position. Participation in the team's social and collaboration activities is highly encouraged.

**Duties**

Duties and responsibilities include, but are not limited to:

- Maintenance and support of faculty windows infrastructure and software to clients and other team members on an appropriate priority basis
- Development, maintenance, and improvement of complex operating system and software deployment images for both staff and coursework users
- Participate in the resolution of complex technical problems reported by clients and team members via the helpdesk, and assist with larger programming tasks
- Assist in the planning, development, deployment, and continual review of appropriate monitoring strategies to ensure all mission critical systems, services, and processes are running as expected and available
- Support and maintain physical hardware, VMware (and associated configuration), and Windows operating systems for reliability, redundancy, monitoring, and continuity in the event of a failure
- Be available during critical incidents or other emergencies to assist with resolution
- Undertake programming (development and maintenance) tasks such as scripting, integration, and process development (such as deployment, backup, support and management utilities)
- Identify opportunities to improve systems or processes, or develop new services or facilities to improve the research, teaching, and learning missions of The University
- Demonstrate astute judgement, lateral thinking, and excellent problem solving abilities in all aspects of the job
- Undertake other work as directed by the ITIG Management, consistent with the skills and knowledge required of the position

V4. July 2017
Other
Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including but not exclusive to:

- the University's Code of Conduct
- requirements of the Queensland occupational health and safety (OH&S) legislation and related OH&S responsibilities and procedures developed by the University or Institute/School
- the adoption sustainable practices in all work activities and compliance with associated legislation and related University sustainability responsibilities and procedures
- requirements of the Education Services for Overseas Students Act 2000, the National Code 2007 and associated legislation, and related responsibilities and procedures developed by the University

Organisational Relationships

This position reports to the ITIG Infrastructure Architect.
SELECTION CRITERIA

Essential

• A degree (or significant progress toward one) in Computer Science, Information Technology, Software or Computer Systems Engineering, or a closely related discipline with subsequent relevant experience, or an equivalent combination of experience, and/or education/training
• Effective problem solving and lateral thinking skills
• Demonstrated ability to read and write software
• Previous experience with the application of algorithms and data structures
• Experience using UNIX-like server operating systems
• Flexibility and adaptability to handle competing work demands and maintain consistent high standards
• Ability to work independently with minimal supervision, and as part of a team
• Results/goal oriented approach with a strong awareness of deadlines
• Strong customer service focus and dedication to customer satisfaction with the ability to liaise with clients at a technical level
• Excellent interpersonal and communication skills, and a high level of written communication skills with the ability to respond to clients with clear instructions and to write technical guides
• Excellent organisational skills, and accuracy and attention to detail
• A commitment to acquiring new skills and knowledge in IT
• Ability to respond to emerging IT requirements in the Faculty and University environment

Desirable

• Contribution to an open source or community project
• Knowledge of virtualisation technology
• Knowledge of network technology
• Knowledge of database technology
• Exposure to IT Security practices
• System administration of UNIX-like systems
• Experience using cloud services
• Experience running a customer facing service

The University of Queensland values diversity and inclusion.

Applications are particularly encouraged from Aboriginal and Torres Strait Islander peoples.

For further information please contact our Australian Indigenous Employment Coordinator at: atsi_recruitment@uq.edu.au

Applications are also encouraged from women.