THE UNIVERSITY OF WESTERN AUSTRALIA

Position Description

Position Title:	High Performance Compute (HPC) Engineer
Position Classification:	Level 6 (multi classified)
Position Number:	318063, 318075, 318078
Faculty/Office:	University IT
School/Division:	Infrastructure & Platforms
Centre/Section:	
Supervisor Title:	Manager (High Performance Compute)
Supervisor Position Number:	318055

Your work area

UWA is making significant investments in the Information and Technology Services to enable its strategic direction and goals. UWA is also looking to utilise technology advancements to expand its services and create new and innovative teaching and research models.

The redesign of the Infrastructure and Platform Services unit aims to deliver design and operational services through a portfolio comprised of a Network and Platform section and an End User Compute section.

Reporting structure

Reports to: Manager (High Performance Compute)

Your role

As the appointee you will operate independently and provide technical expertise in direct support of the users of HPC services and facilities at the University, and will contribute to the development, maintenance, and optimisation of the HPC environments.

You will support the Manager, High Performance Compute in working with key stakeholders, IT Business Partners, and Business Analysts to understand elicited compute and storage requirements and to research, build, support and document appropriate solutions in accordance with approved frameworks and guidelines.

Your key responsibilities

Provide advice to University users on suitable pathways to achieve HPC outcomes for teaching and research activities.

Provide support in the development of a service offering to provide HPC services available to all UWA users using a blended model of University owned, externally hosted and cloud based platforms

System maintenance, monitoring and end user support of High-Performance Computing systems.

Schedule and apply upgrades and enhancements to the UWA HPC compute and storage systems through change management processes and in consultation with stakeholders

Engage and collaborate widely with UWA's teaching and research community, and with external eResearch and HPC service providers

Provide maintenance and support of the research compute and storage environment and its users to the agreed service level

Document consistently and accurately all tasks, including new development and maintenance. Documentation should be complete, understandable and accessible

Engage in a culture of service excellence, innovation and continuous improvement founded on cohesiveness, pragmatic approach to problem solving, teamwork and flexibility

Ensure compliance with security related policy/procedure and maintain an operational security awareness at all times

Other duties as directed

Your specific work capabilities (selection criteria)

Relevant tertiary qualification or equivalent competency

ITIL Certification or demonstrated experience in ITIL processes is desirable

Substantial relevant computing experience in compiling and troubleshooting applications, dependencies and libraries in a mixed platform HPC environment and familiarity with compiler toolsets

Experience in a range of programming and scripting languages, preferably including C++, Python, Fortran and Bash

Experience with implementing, repairing and maintaining HPC or Linux solutions

Highly developed written and verbal communication skills

Highly developed organisational skills and demonstrated ability to set and monitor competing priorities and to meet deadlines

Proficiency in a range of computing skills including word processing, spreadsheets, databases, internet and email

Analytical and problem-solving skills to help maximise the benefit of IT system investments

Understanding of common HPC tools, such as xCAT to dynamically provision compute, storage, and network resources, and in TORQUE / MAUI to manage the workload and resource requirements of batch jobs, and to schedule and execute jobs across HPC nodes

Ability to, build positive stakeholder relationships whilst always remaining fully customer focused

Working knowledge of the Higher Education sector is desirable

Special requirements (selection criteria)

Some after hours work may be required

Compliance

Workplace Health & Safety

All supervising staff are required to undertake effective measures to ensure compliance with the Occupational Safety and Health Act 1984 and related University requirements (including Safety, Health and Wellbeing Objectives and Targets).

All staff must comply with requirements of the Occupational Safety and Health Act and all reasonable directives given in relation to health and safety at work, to ensure compliance with University and Legislative health and safety requirements. Details of the safety obligations can be accessed at http://www.safety.uwa.edu.au

Inclusion & Diversity

All staff members are required to comply with the University's Code of Ethics, Code of Conduct and Inclusion and Diversity principles. Details of the University policies on these can be accessed at http://www.hr.uwa.edu.au/policies/policies/conduct/code, http://www.web.uwa.edu.au/inclusion-diversity.

THE UNIVERSITY OF
WESTERN
AUSTRALIA
SEEK WISDOM

Position Description

Position Title:	High Performance Compute (HPC) Engineer
Position Classification:	Level 7 (multi classified)
Position Number:	318063, 318075, 318078
Faculty/Office:	University IT
School/Division:	Infrastructure & Platforms
Centre/Section:	
Supervisor Title:	Manager (High Performance Compute)
Supervisor Position Number:	318055

Your work area

UWA is making significant investments in the Information and Technology Services to enable its strategic direction and goals. UWA is also looking to utilise technology advancements to expand its services and create new and innovative teaching and research models.

The redesign of the Infrastructure and Platform Services unit aims to deliver design and operational services through a portfolio comprised of a Network and Platform section and an End User Compute section.

Reporting structure

Reports to: Manager (High Performance Compute)

Your role

As the appointee you will operate independently and provide technical expertise in direct support of the users of HPC services and facilities at the University, and will contribute to the development, maintenance, and optimisation of the HPC environments.

You will support the Manager, High Performance Compute in working with key stakeholders, IT Business Partners, and Business Analysts to understand elicited compute and storage requirements and to research, build, support and document appropriate solutions in accordance with approved frameworks and guidelines.

Your key responsibilities

Provide insight and advice to University users on suitable pathways to achieve HPC outcomes for teaching and research activities.

Provide input into the development of a service offering to provide HPC services available to all UWA users using a blended model of University owned, externally hosted and cloud based platforms

System maintenance, monitoring and end user support of High-Performance Computing systems.

Schedule and apply upgrades and enhancements to the UWA HPC compute and storage systems through change management processes and in consultation with stakeholders

Engage and collaborate widely with UWA's teaching and research community, and with external eResearch and HPC service providers

Provide maintenance and support of the research compute and storage environment and its users to the agreed service level

Document consistently and accurately all tasks, including new development and maintenance. Documentation should be complete, understandable and accessible

Foster a culture of service excellence, innovation and continuous improvement founded on cohesiveness, pragmatic approach to problem solving, teamwork and flexibility

Ensure compliance with security related policy/procedure and maintain an operational security awareness at all times

Other duties as directed

Your specific work capabilities (selection criteria)

Relevant tertiary qualification or equivalent competency

ITIL Certification or demonstrated experience in ITIL processes is required

Substantial relevant computing experience in compiling and troubleshooting applications, dependencies and libraries in a mixed platform HPC environment and familiarity with compiler toolsets

Demonstrated experience in a range of programming and scripting languages, preferably including C++, Python, Fortran and Bash

Demonstrated experience with implementing, repairing and maintaining HPC or Linux solutions

Highly developed written and verbal communication skills

Highly developed organisational skills and demonstrated ability to set and monitor competing priorities and to meet deadlines

Proficiency in a range of computing skills including word processing, spreadsheets, databases, internet and email

Sound analytical and problem-solving skills to help maximise the benefit of IT system investments

Demonstrated understanding of common HPC tools, such as xCAT to dynamically provision compute, storage, and network resources, and in TORQUE / MAUI to manage the workload and resource requirements of batch jobs, and to schedule and execute jobs across HPC nodes

Ability to, build positive stakeholder relationships whilst always remaining fully customer focused

Working knowledge of the Higher Education sector is desirable

Special requirements (selection criteria)

Some after hours work may be required

Compliance

Workplace Health & Safety

All supervising staff are required to undertake effective measures to ensure compliance with the Occupational Safety and Health Act 1984 and related University requirements (including Safety, Health and Wellbeing Objectives and Targets).

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Inclusion & Diversity

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Position Description

Position Title:	Senior High Performance Compute (HPC) Engineer
Position Classification:	Level 8 (multi classified)
Position Number:	318063, 318075, 318078
Faculty/Office:	University IT
School/Division:	Infrastructure & Platforms
Centre/Section:	
Supervisor Title:	Manager (High Performance Compute)
Supervisor Position Number:	318055

Your work area

UWA is making significant investments in the Information and Technology Services to enable its strategic direction and goals. UWA is also looking to utilise technology advancements to expand its services and create new and innovative teaching and research models.

The redesign of the Infrastructure and Platform Services unit aims to deliver design and operational services through a portfolio comprised of a Network and Platform section and an End User Compute section.

Reporting structure

Reports to: Manager (High Performance Compute)

Your role

As the appointee you will operate independently and provide technical expertise in direct support of the users of HPC services and facilities at the University, and will contribute to the development, maintenance, and optimisation of the HPC environments.

You will support the Manager, High Performance Compute in working with key stakeholders, IT Business Partners, and Business Analysts to understand elicited compute and storage requirements and to research, build, support and document appropriate solutions in accordance with approved frameworks and guidelines.

Your key responsibilities

Provide insight and guidance suitable to University users on suitable pathways to achieve HPC outcomes for teaching and research activities.

Provide significant input into the development of a service offering to provide HPC services available to all UWA users using a blended model of University owned, externally hosted and cloud based platforms

System maintenance, monitoring and end user support of High-Performance Computing systems.

Schedule and apply upgrades and enhancements to the UWA HPC compute and storage systems through change management processes and in consultation with stakeholders

Engage with influence and collaborate widely with UWA's teaching and research community, and with external eResearch and HPC service providers

Provide maintenance and support of the research compute and storage environment and its users to the agreed service level

Document consistently and accurately all tasks, including new development and maintenance. Documentation should be complete, understandable and accessible

Lead a culture of service excellence, innovation and continuous improvement founded on cohesiveness, pragmatic approach to problem solving, teamwork and flexibility

Ensure compliance with security related policy/procedure and maintain an operational security awareness at all times

Other duties as directed

Your specific work capabilities (selection criteria)

Relevant tertiary qualification or equivalent competency

ITIL Certification or demonstrated experience in ITIL processes is required

Substantial relevant computing experience in compiling and troubleshooting applications, dependencies and libraries in a mixed platform HPC environment and familiarity with compiler toolsets

Demonstrated experience in a range of programming and scripting languages, preferably including C++, Python, Fortran and Bash

Demonstrated experience with implementing, repairing and maintaining HPC or Linux solutions

Highly developed analytical and problem-solving skills to help maximise the

benefit of IT system investments

Excellent written and verbal communication skills

Excellent organisational skills and demonstrated ability to set and manage competing priorities and to meet deadlines

Proficiency in a range of computing skills including word processing, spreadsheets, databases, internet and email

Deep demonstrated understanding of common HPC tools, such as xCAT to dynamically provision compute, storage, and network resources, and in TORQUE / MAUI to manage the workload and resource requirements of batch jobs, and to schedule and execute jobs across HPC nodes

Ability to build positive stakeholder relationships whilst always remaining fully customer focused

Working knowledge of the Higher Education sector is desirable

Special requirements (selection criteria)

Some after hours work may be required

Compliance

Workplace Health & Safety

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