

Post Details		Last Updated: 10/3/25	
Faculty/Administrative/Service Department	Research Computing IT Services		
Job title:	Research Computing system administrator		
Job Family	Professional Services	Job Level	4
Responsible to	Lead Research Computing system administrator		
Responsible for (Staff)	N/A		

Job Purpose Statement

To be responsible for the development and support of IT infrastructure, systems and services required by the University to enable and enhance its Research activities, with a focus on Linux based systems (Linux Experience is essential). The post holder will play an active role in the design, provisioning, installation, configuration, security, operation and general health management of scientific computing systems – with a focus on GPU accelerated compute for AI, virtual platforms, operating systems, authentication and directory services, storage and backup systems and infrastructure management tools.

This role will primarily contribute to managing CoSTAR AI compute, including HPC compute facilities, user support and management of user access/scheduling led by the University of Surrey IT support as part of the [UKRI-AHRC CoSTAR National Lab](#), as well as other PAI (people centred AI institute) research programmes as required.

The role is part of the wider PAI/CVSSP professional services team, and the post holder will work closely with the PAI/CVSSP Facilities Manager. Day to day the post holder will be embedded within the Research computing services team in IT services, who manage the CoStar/AI compute infrastructure on behalf of PAI/CVSSP and will report to the Lead Research Computing system administrator.

The post holder will provide a high level of technical expertise and support, ensure system stability, security, and availability, and create technical and user documentation to support live services. In addition, they will use their experience and knowledge to provide guidance and support for other members of the IT Services team and Academic/Research Colleagues. The post holder is expected to be able to call on their knowledge and experience to work mostly autonomously, manage their own workload efficiently ensuring sufficient focus is given to identified priorities.

Key Responsibilities This document is not designed to be a list of all tasks undertaken but an outline record of the main responsibilities (5 to 8 maximum)

1. **System administration** – The post holder will plan and commission new systems and specialist IT services in line with academic/business needs, University/CoSTAR strategy and sound operating principles, maintaining the health and security of the CoSTAR National labs compute facility and University Research IT infrastructure. Contribute to technical strategy to ensure infrastructure is configured and patched meeting best practice and University/CoSTAR Policy. Keep up to date with developments in systems management and ensure they are discussed, disseminated and implemented within the team. The post holder will be responsible for contributing to the maintenance and development of the automation of repetitive system administration tasks in the form of Ansible playbooks and roles. The post holder will be expected to use git for version control, change management and collaboration.
2. **Troubleshooting and fault finding** - The post holder will be responsible for diagnosing and resolving hardware, software, and network issues including in HPC environments and systems utilizing accelerators/GPUs. This includes identifying root causes of performance bottlenecks, system failures, and GPU-related issues, implementing effective solutions, and documenting the troubleshooting process for future reference. The role requires a proactive approach to monitoring the health of HPC clusters and GPU resources, performing regular maintenance, and collaborating with other IT team members to address complex technical challenges promptly and efficiently.

3. **Monitoring and management** – Maintain and develop monitoring and management tools ensuring they are kept up to date, developing and documenting manual and scripted automated responses to alerts. Analyse monitoring history to identify future systems work, both remedial and feature development.
4. **Incident and Change** – Manage a case load of incident and change requests ensuring SLAs are met and a high level of customer service is maintained. Engage with IT Change management processes to ensure changes are timed appropriately and documented accordingly. Where incidents have no published workaround or standard changes are not applicable, find and document new workarounds and resolutions and ensure such information is appropriately documented.
5. **Provisioning new and upgrading current systems** – Ensure new systems and services are fit for purpose, deployed promptly and accurately documented ensuring Operational acceptance is reached. Working with application specialists deploy and document patches or revised versions of software, ensuring monitoring and management systems maintain pace with change. Ensure compatibility of development with existing Research Computing Services and wider IT Services. The post holder will be involved in supporting the technology procurement processes for various projects including those for CoStar and CVSSP/PAI.
6. **Documentation and knowledge transfer** – Develop and maintain knowledge base articles for new and existing systems and services. Ensuring they are robust and accurately and appropriately communicated. Offer knowledge and guidance to less senior team members, and provide consultation, support and training for researchers, and academic colleagues via documentation and support sessions and the Service desk ticketing system.
7. **Continual improvement** - Proactively contribute to the continual improvement of IT processes, procedures, quality of support and statistical information and working practices across within the team and IT services.

N.B. The above list is not exhaustive.

Elements of the Role

This section outlines some of the key elements of the role, which allow this role to be evaluated within the University's structure. It provides an overview of what is expected from the post holder in the day-to-day operation of the role.

Planning and Organising

- The post holder is responsible for managing and tracking a case load of IT support issues and tasks usually escalated to them via first line IT support services, in addition to working on multiple concurrent projects. The post holder organises their own time and prioritises their workload, setting their own targets within the objectives set by their line manager.
- The post holder will be expected to have an understanding and awareness of important priorities for the user base, the business context, and key services which must be maintained. They will be expected to use this knowledge to manage conflicting demands on their time and be aware of different options available to resolve issues, making logical and practical decisions, and referring appropriately to their line manager.
- The post holder will need to demonstrate a considerable level of flexibility to respond to urgent, unexpected issues or queries passed to them, and reprioritise both support and project work accordingly, while maintaining contact with users, management and colleagues as appropriate to manage expectations.

Problem Solving and Decision Making

- Within the scope of the role the post holder will independently face technical problems or issues in relation to the diagnosis of hardware and software faults, the restoration, reconfiguration and upgrading of hardware/software, the configuring and testing of new hardware prior to installation and the independent testing of software prior to its release in a live environment. Resolution for these issues will usually be found through referring to their previous experience of similar problems and/or through referring to technical documentation either internal or online, through consulting departmental policies and procedures or through conducting internal and external research.
- The post holder may work within established procedure and guidelines but will be expected to exercise significant initiative in the interpretation and use of procedure in achieving the required results, acting but

also recognizing the further implications of those actions. The post holder can refer unprecedented or policy-based issues to their line manager for advice or guidance.

- The post holder must use their communication skills to diffuse potentially difficult situations where users may become impatient, and should judge appropriately when they need support from their line manager, other colleagues or further escalation procedures.
- The role involves providing technical support, often in person, to CoSTAR national lab users and members of the University community, including external users, academic staff, professional services staff, students, and post-graduate researchers.

Continuous Improvement

- The post holder is expected to take a proactive approach to their work, reviewing past and present incidents and change requests to identify opportunities to improve service.
- The post holder will recommend formally or informally to management, improvements in working methods, processes or services and implement them as appropriate under the guidance of their line manager.
- The post holder will be involved with colleagues in testing technical changes prior to release and reporting on concerns which would affect the reliability, supportability, and ease of use of specific products and solutions.
- The post holder will provide input to budgeting and resource planning activities to ensure investment is made for continuous improvement in neglected or sub-standard systems or services.
- The post holder will be expected to keep their own professional knowledge of IT systems, equipment, services and solutions current, building and using internal and external networks of contacts, and exploring independent sources of research.

Accountability

- The post holder is responsible for ensuring that service and infrastructure remain available, secure and reliable. While they will have substantial freedom to execute this responsibility, subject to application policies, it is expected that the post holder liaises with the Lead research computing system admin and, if relevant, PAI/CVSSP Facilities Manager on any major changes from agreed plans.
- the role will support users of the CoSTAR compute facilities across the CoSTAR network and external creative industry partners.
- The post holder acts as point of contact with staff using the system/service end users and must therefore be able to provide a high level of customer service, utilising their knowledge to resolve queries and solve problems in a timely and professional manor. Through the course of their work, the post holder may have access to systems containing data of a sensitive or confidential nature and therefore it is essential that they ensure that all data is always held securely.

Dimensions of the role

We operate a hybrid remote working model. The post holder will be based at the Surrey Institute for People-Centred AI and is expected to attend campus when required during their duties, particularly in response to incidents that require an on-site presence. There is an expectation that the post holder will work on campus minimum 2 days a week as standard, alongside the RCS IT team and their colleagues in PAI/CVSSP. There may also be a need to work on location at the CoSTAR National Lab at Pinewood and partners sites according to requirements for supporting programme delivery.

The post holder will work in a close team environment providing IT management, maintenance, and support under the day-to-day guidance of the lead research computing system administrator. They will be involved in both proactive management and reactive support of specialised servers, including HPC clusters and GPU accelerated compute servers, storage systems, infrastructure services and other Linux based systems such as desktops or lab machines. There will be significant involvement in 2nd line IT support activity, including user documentation, problem-ticket life-cycle management and problem diagnosis and solving.

The post holder is responsible for providing high levels of customer service and a professional image while on calls, video conferencing, email/chat and in person to all those they encounter. This includes keeping customers informed of the progress of their issue at each stage of resolution and should be able to retain confidence under pressure through delivery of commitments and effective communication.

Supplementary information

The [Surrey Institute for People-Centred AI](#) is the founding pan-university institute at the University of Surrey, bringing together core AI-related expertise in audio-visual and signal processing, computer science, and mathematics, with its domain expertise across engineering and physical sciences, human and animal health, law and regulation, business, finance and the arts and social sciences. Our multi-disciplinary approach puts people at the heart of AI. Our research starts with the problems that impact individuals, communities and society, and identifies how AI can address these challenges safely, responsibly and inclusively. PAI's success builds on the strength of the University in foundational AI over the past 38 years through the [Centre for Vision, Speech and Signal Processing \(CVSSP\)](#) which is ranked 1st in the UK for Computer Vision and in the top 5 for both Audio-Visual AI and Robotics.

The UKRI-AHRC CoSTAR National Lab for Creative Industries Research and Development is led by Royal Holloway, University of London, is a £51m investment by the UK Government in applied research to ensure that the UK's screen and performance industries have the research infrastructure and innovation skills to compete globally. The Surrey Institute for People-Centred Artificial Intelligence (PAI) is the lead partner for Creative AI research and development within the CoSTAR National Lab.

Person Specification This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role.

Qualifications and Professional Memberships		
Degree, HND, NVQ 4, qualified or equivalent in a relevant subject, with some relevant experience		E
OR		
Significant vocational experience, demonstrating development through relevant roles		
Appropriate technical qualification (e.g. Microsoft or RedHat Certification)		D
ITIL Foundation Service Management qualification		D
Technical Competencies (Experience and Knowledge) This section contains the level of competency required to carry out the role (please refer to the Competency Framework for clarification where needed and the Job Matching Guidance).	Essential/Desirable	Level 1-3
Experience of investigating, diagnosing and resolving incidents on behalf of a varied user base, relating to hardware and software faults, human error and service failures	E	3
Proven skills in the installation, configuration, management and support of a range of Operating Systems, Scientific computing, containerisation and virtualisation technologies. Experience administering Linux systems is essential, and some experience shell scripting or working with a programming language such as Ruby or Python would be desirable.	E	3
Experience of working independently and without close supervision, including self-motivating interest in exploring and researching current and trends in IT.	E	2
Experience of taking the lead on projects which involves delegating tasks to others, coordinating their work and managing timelines.	E	1
Experience of working with DEVOPS practices, infrastructure as code, using configuration management tooling such as ANSIBLE / CHEF / PUPPET or similar.	E	1

Experience of scientific computing, High Performance computing, accelerated computing or equally complex environments.	D	n/a
Experience of the Higher Education and Research sectors and an understanding of their challenges and trends.	D	n/a
Special Requirements:		Essential/ Desirable
Would be required to undertake out of hours work in an emergency, or on specific, managed occasions.		E
Full UK Driver's License		D
Core Competencies		Level 1-3
Communication		2
Adaptability / Flexibility		2
Customer/Client service and support		3
Planning and Organising		2
Continuous Improvement		2
Problem Solving and Decision-Making Skills		3
Leadership/Management		n/a
Creative and Analytical Thinking		2
Influencing, Persuasion and Negotiation Skills		1
Strategic Thinking & Leadership		1
<p>This Job Purpose reflects the core activities of the post. As the Department/Faculty and the post holder develop, there will inevitably be some changes to the duties for which the post is responsible, and possibly to the emphasis of the post itself. The University expects that the post holder will recognise this and will adopt a flexible approach to work. This could include undertaking relevant training where necessary.</p> <p>Should significant changes to the Job Purpose become necessary, the post holder will be consulted and the changes reflected in a revised Job Purpose.</p>		
Organisational Information		

All staff are expected to:

Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities Policy.

Help maintain a safe working environment by:

- Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand.
- Following local codes of safe working practices and the University of Surrey Health and Safety Policy.
- Excellent environmental performance is a strategic objective for the University of Surrey. All staff are encouraged to work to achieve the aims of our Environmental Policy and promote awareness to colleagues and students.
- Undertake such other duties within the scope of the post as may be requested by your manager.

Department Structure Chart

