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| **JOB DESCRIPTION** | | | | |
| **SPECIFIC JOB TITLE** | | IT INFRASTRUCTURE ENGINEER | | |
| **LEVEL/BAND** | | E | | |
| **JOB FAMILY** | | BUSINESS SUPPORT | | |
| **GENERIC ROLE TITLE** | | BUSINESS MANAGER | | |
| **CONTRACT TYPE** | | FIXED TERM 3 YEARS | | |
| **HOURS** | | 37 HOURS PER WEEK | | |
| **REPORTS TO** | | HEAD OF IT SERVICES | | |
| **DEPARTMENT** | | IT SERVICES – IDE (INTELLIGENT DATA ECOSYSTEMS) | | |
| **LOCATION** | | HARPENDEN OR NORTH WYKE, HYBRID | | |
| **DATE** | | JANUARY 2025 | | |
| **OVERVIEW OF ROLE/JOB PURPOSE** | | | | |
| As a member of the Rothamsted IT Services Team, you will manage the effective operation and continuous planning and development of IT infrastructure solutions including the Linux based server environment, HPC technical infrastructure (including a new GPU cluster with large memory node), and the on-premise NAS environment (Dell Powerscale) Technical expertise in related IT infrastructure to ensure the relevant needs of the Institute are anticipated and met to support the Institute’s strategic programmes and various research projects across the business, including implementation of an archiving solution to support the lifecycle of both research and operational data is essential. Being part of the larger IT support team, the role requires a broad knowledge of IT infrastructure operating in a Cyber Essentials certified organisation to help solve complex problems.  You will work directly with data scientists and software developers and support a range of software and data service needs. These are supported using tools and applications such as Docker, SaltStack, Conda, EasyBuild, SLURM and Grafana. You will have significant experience of Dell Powerscale NAS and VMWare and be able to work under pressure and maintain project timescales, as well as be willing to work on several projects simultaneously. You will work autonomously, setting realistic user expectations and delivery timescales to meet scientific research and operational requirements for the institute.  You will support users by contributing to Linux and HPC training courses/workshops and provide technical and supporting documentation to promote the IT infrastructure across the business. The successful applicant will have the opportunity to utilise their Linux and NAS skills in a bespoke data driven environment, administering state of the art infrastructure.  This role can be based at either Harpenden, Herts or Okehampton, Devon. Hybrid working is an option after a satisfactory acclimatisation period.  If you are shortlisted, you may be invited to take part in a video interview. We endeavour to give candidates as much notice as possible however some interviews/ assessments will be organised at short notice and will require a degree of flexibility. We reserve the right to close the application window early if we receive a high volume of suitable applications. | | | | |
| **MAIN DUTIES OF ROLE** | | | | |
| **Generic Outputs** | **Weighting** | | **Description of Outputs** | **Description of Job Specific Outputs** |
| **BUSINESS SERVICE DELIVERY** | 50% | | Smooth and efficient running of own work area, including application of specialist knowledge to solve non-routine problems, develop new systems, policies and procedures, generate reports and prepare management information | * Proactively manage and administer the Linux server environment including HPC, to ensure it is operating at the required levels of performance with the relevant controls and governance applied and plan and deliver changes where necessary. * Carry out system administration tasks such as maintaining the automated OS patching and server builds using templates. * Provide specialist (advanced) user support for Linux systems, including configuration and deployment of specialist applications. * Be responsible for the full technical ownership of Rothamsted’s underpinning storage environment and ensure high availability at all times. * Identify and implement an archiving solution for research and operational data in line with the Institute’s data requirements. * Identify and deliver potential areas of improvement to technology or process, with particular focus on, standardising and automation to reduce manual effort. * Participate in out-of-hours critical infrastructure cover arrangements after successful probationary period. |
| **FINANCE AND RESOURCE MANAGEMENT** | 10% | | Monitoring of allocated budgets, contributing to resource planning | * Ensure the costs of any system renewals or required investments are reported to the Head of ITS. * Ensure that all systems are correctly licensed * Provide accurate costings for system repairs / replacements where required in a timely manner. * Contribute to technical specification of IT infrastructure via funding model. |
| **WORKING WITH OTHERS** | 20% | | Building relationships with customers, colleagues and external contacts, raising profile of team/work-unit and provision of specialist advice on all aspects | * Work with the ITS Systems team to ensure that all systems are functioning to the required levels. * Work with all areas to support IT systems for their research and development. * Provide guidance and support on upgrades or new systems implementation * Work with external contractors and suppliers where required to ensure infrastructure is updated and operating effectively. * Develop relationships with other institutes where required to investigate opportunities for infrastructure enhancements or data sharing. |
| **LEADERSHIP AND MANAGEMENT** | 15% | | Managing a business support team and/or ensuring performance and quality standards in terms of service provided | * Work with colleagues in the ITS systems team to ensure a timely resolution to all fault reports * Ensure provision of consistent and accurate support information to all users * Ensure any planned upgrades or outages are notified in advance to give sufficient warning to users. |
| **CONTINUING PROFESSIONAL DEVELOPMENT** | 5% | | Expanding knowledge base/skill set via both planned and ad hoc learning opportunities and encouraging own self-reflection through activities such as mentoring/coaching/critical career reviews and promoting knowledge sharing among others | * Continue with own development regarding in-house systems * Assess potential systems that we may invest in to provide further functionality to users. |

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| **PERSON SPECIFICATION AND SHORTLISTING CRITERIA\*** | | | | | |
| **SPECIFIC JOB TITLE** | | LINUX SYSTEMS ADMINISTRATOR | | | |
| **LEVEL/BAND** | | E | | | |
| **JOB FAMILY** | | BUSINESS SUPPORT | | | |
| **CONTRACT TYPE** | | FIXED TERM 3 YEARS | | | |
| **HOURS** | | 37 HOURS PER WEEK | | | |
| **REPORTS TO** | | HEAD OF IT SERVICES | | | |
| **DEPARTMENT** | | IT SERVICES (OPERATION) | | | |
| **LOCATION** | | HARPENDEN OR NORTH WYKE | | | |
| **EDUCATION/QUALIFICATIONS** | | | Essential | Desirable | How Tested?\*\* |
| 1. | Professionally qualified with a relevant degree in IT, Computer Science or related/ postgraduate qualification or equivalent technical experience | | P |  | A, IV |
| 2. | Industry professional certifications relevant to the role (E.g. system or network administration, service management) | |  | P | A, IV, Cert |
| **EXPERIENCE/KNOWLEDGE/SKILLS** | | | Essential | Desirable | How Tested?\*\* |
| 1. | Experience in Linux/Unix configuration and system management including security and patching for CentOS but also Rocky and Ubuntu. | | P |  | A, IV |
| 2. | Experience with Network Attached Storage administration and configuration, particularly Dell Isilion (Powerscale) | | P |  | A, IV |
| 3. | Experience with VMWare administration and configuration | | P |  | A, IV |
| 4. | Experience in providing Linux advanced user support | | P |  | A, IV |
| 5. | Knowledge and experience managing on-premises or cloud HPC (high-performance computing) clusters. Nvidia GPU experience essential. | | P |  | A, IV |
| 6. | Experience with IT infrastructure change management | | P |  | A, IV |
| 7. | Broad knowledge of IT system administration tools and systems (shell scripting, monitoring - system performance) | | P |  | A, IV |
| 8. | Ability to troubleshoot and diagnose complex systems and application performance | | P |  | A, IV |
| 9. | Ability to analyse issues, spot trends and diagnose the root cause of problems | | P |  | A, IV |
| 10. | Confidence to perform a focal point role for the supported infrastructure and deliver workshops/training on behalf of the department | | P |  | A, IV |
| 11. | Experience working in an IT infrastructure technical support role at a Cyber Essentials certified organisation | | P |  | A, IV |
| **BEHAVIOURS/COMPETENCIES** | | | | | How Tested?\*\* |
| 1. | **Drive for Quality**: Works to and sets stretching goals whilst setting achievable user expectations. | | | | IV |
| 2. | **Strategic Thinking**: Anticipates emerging organisational needs and manages current situations accordingly | | | | IV |
| 3. | **Creativity and Innovation**: Seeks to generate a range of innovative ideas when addressing problems or new issues | | | | IV |
| 4. | **Developing Self and Others**: Promotes sharing of knowledge and expertise among others | | | | IV |
| 5. | **Professional Conduct**: Adopts a transparent and open approach | | | | IV |
| 6. | **Productive Relationships**: Solicits input from others when tackling problems or generating new ideas. Develops excellent working relationships with stakeholders both internally and externally. | | | | IV |
| 7. | **Effective Communication**: Communicates in an engaging and proactive manner with staff at all levels | | | | IV |

\* Minimum requirements of the post and how they will be assessed

\*\* Evidence of criteria will be established from: **A** (application), **IV** (interview),**Test**

(skills test/prepared question/presentation), **Cert** (certificated checked by interview

panel)