# UK Kidney Association
# Job description

**Job Title:**             **Network Systems Manager**

**Department/section:**    **Systems / Operations**

**Reports to:**            **Head of Systems**

## General information

Improving lives by supporting professionals in the delivery of kidney care and research, the UK Kidney Association is the leading professional body for the UK renal community. We welcome members working in clinical renal care, treating and caring for people with kidney disease, and those working in research, or related sciences and fields.

The UK Renal Registry is the part of the UK Kidney Association responsible for the collection, analysis, management and development of a high quality clinical renal database. We use data submitted from the 71 adult and 13 paediatric renal centres across the country to create the database. The information, in the form of data and reports, is a shared resource used to develop research into kidney disease to improve the quality of care for renal patients.

## Job Purpose

The postholder is responsible for maintaining the servers, including migration to mainly running services in containers and subsequent overall ongoing maintenance.

Responsible for design and improvement of processes, implementing new as well as optimising existing technologies and frameworks, to achieve highly scalable and reliable services, by monitoring software and provisioning tools.

Responsible for maintaining the office network and provisioning for staff including windows desktops and servers within our Bristol office.

## Responsible for

| Criteria | Measure | Comments |
|---|---|---|
| Staff | None | |
| Budget | None | |
| Equipment | IT equipment | |

**Key Working Relationships**

| Contact | Relationship to |
|---|---|
| Head of systems | Line manager; reports to escalates risks to |
| Systems team colleagues | Works closely with |
| Senior team | Reports to; provides advice on areas of expertise |
| Team leads | Provides technical support |
| All Staff | Provide local desktop and app installation support/help |
| NBT IT | Main Contact; Manage/coordinate services provided by NBT |
| Aimes | Main Contact: Manage/coordinate services provided by AIMES |

**Main Duties**

1. Support of the UKRR's IT Infrastructure including server and database administration.
2. Develop our new dev-ops pipelines for continuous deployment of web services to be used by medical centres across the country
3. Maintain our servers (the majority of which are Linux, plus some Windows) ensuring they are patched, secure and updated, including managing regular penetration testing.
4. Monitor and log activity on the UKRR's Infrastructure for the purposes of security, performance and reliability.
5. Advise on software and hardware requirements for new and existing systems, taking account of future needs.
6. Help manage desktop and laptop real estate ensuring appropriate processes and software are available for staff to carry out their duties.
7. Ensure appropriate security restrictions are in place.
8. Coordinate changes for firewall and remote access with third parties managing our firewalls.
9. Ensure that all data is backed up and securely stored.
10. Install software as required, ensuring that it is correctly licensed and does not conflict with existing applications, managing software upgrades when appropriate.
11. Ensure SSL certificates are maintained and managed for all web services in use.
12. Document and maintain details of IT Infrastructure.
13. Document, maintain and improve IT processes.

**Quality control**
14. Ensure that all infrastructure is configured and managed to appropriate standards.
15. Maintain appropriate logs in support of annual Data Protection Toolkit returns.
16. Contribute to quality control by:
    a. assisting in performing quality checks of the databases and data, ensuring data accuracy and integrity, including when running existing processes or extracting data
    b. recommending improvements to processes, practices, or software that help maintain or increase data quality

**Process improvement**
17. Investigate, recommend and implement changes to systems and processes.
18. Assist with the design of new server/microservice systems.

19. Help develop devops processes for deployment and management of renal association systems.
20. Help build more resilient and scalable systems making full use of containers, cloud and devops.
21. Improve infrastructure in line with current and future business needs

**Work as member of the team to**
22. Provide input to the development, design & support for various internal systems and software and associated external processes.
23. Assist in integrating systems and databases with other software applications helping develop suitable deployment and management processes.
24. Contribute to development discussions and changes.
25. Configure and deploy software applications and in house software & systems.
26. Ensure all change requests are properly managed and documented through to delivery.
27. Investigate improvements to algorithms and speed of processes.

**General**
28. Identify and implement best practice including following the secure by design recommendations for Health systems.
29. Document working practices and UKRR systems procedures to ensure effective working and compliance with relevant legislation including the General Data Protection Regulation, National Opt out and other research based consents.
30. Undertake any other occasional, or ad-hoc duties, as required by management.

**The postholder is expected to undertake any other duties commensurate with the grade.**

**Person specification**
We are not expecting a candidate to meet all the hoped-for skills so have a generous training budget to help bring people up to speed where necessary.

**The role would require the equivalent of at least a first degree level of qualification ideally with experience in handling medical data.**

**All members of the team would be expected to demonstrate some of the following**

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| An open-minded and innovative attitude to delivery, to ensure the most effective and appropriate tools and solutions are used. |
| A willingness to learn new technologies and move out of comfort zone to develop new processes |
| A willingness to understand the data and how it is used and validated |
| Proven effective planning, administrative and organisational skills |
| Team worker, including diplomacy and proven success working with different types of people |
| Able to demonstrate problem solving/initiative |
| High level of interpersonal skills with proven ability to communicate with a wide range of stakeholders at all levels |
| Demonstrable experience of effective record keeping and procedure writing |
| Any understanding of Renal terminology and data would be beneficial |

**To deliver our systems effectively, some of the following competencies or similar skills are required**

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| Previous experience working successfully in a Systems administrator DevOps role |
| Any knowledge and experience of programming languages, including Python, PHP, JAVA, SQL (PostgreSQL, MS SQL) and Django a benefit |
| Knowledge of scripting and deployment strategies such as Ansible |
| Proven experience in managing windows (desktop & server) and linux servers and desktops |
| Some experience providing desktop user support would be an advantage |
| Demonstrable knowledge and experience of Linux (RedHat/CentOS/Ubuntu) would be an advantage |
| Knowledge and experience deploying web servers and container technologies |
| Knowledge, understanding, experience of healthcare environment and technologies, such as Mirth, HL7, FIHR, CDA, would be advantageous |
| Proven experience of effective systems testing |
| Experience of CI and automated build systems |
| Proven experience of change control management |
| Ability to document clearly deployment and usage of deployment scripts |
| Any Knowledge of system/server monitoring (sensu/uchiwa/grafana) would be beneficial |

**To deliver DevOps effectively, the following knowledge or experience would be of benefit**

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| Any programming knowledge particularly in python |
| Linux server management and configuration ubuntu (or similar Debian based) and redHat/Centos |
| Experience of Windows and Active directory |
| Experience of running systems in a mixed windows/linux environment |
| Experience of software automation using ansible or similar tools |
| Docker (ideally docker-compose) or similar container frameworks |
| Automated build and CI systems |
| Cyber security and hardening systems |

**Other Relevant Information**

**Travel requirements**
Some UK travel may be required together with overnight stays.

**Equality & Diversity Aims**
As a member of staff you have a personal responsibility to ensure you do not discriminate, harass or bully or contribute to the discrimination, harassment or bullying of any colleague(s) or visitors or condone discrimination, harassment or bullying by others.

**Risk Management**
Staff at all levels have a responsibility for ensuring that risks are managed, as an employee you will be expected to maintain a high level of awareness and assist in the process of reporting incidents, assessing risks and reporting unsafe occurrences and to co-operate with any investigations undertaken.

**Health and Safety**
Under the Health and Safety at Work Act 1974, as an employee, you must take reasonable care for the health and safety of yourself and for other persons who may be affected by your acts or omissions at work. The Act also states that you must not intentionally or recklessly interfere with or misuse anything provided in the interests of health, safety and welfare. As an employee you are required to report all accidents to the General Manager.

**Information Security and Confidentiality**
During the course of your employment you may have access to, see or hear information of a confidential nature and you are required not to disclose such information, particularly relating to patients or staff. All person identifiable information must be held in the strictest confidence and should be disclosed only to authorised people in accordance with NHS Confidentiality Guidelines [Caldicott] and the Data Protection Act 2018 unless explicit written consent has been give by the person identified, or where information sharing protocols allows it.

**General Information**
This job description is not intended to be an exhaustive list of duties, but it aims to highlight the typical main responsibilities of the post. It may be reviewed from time to time in agreement with the post holder.


Approved by:                                    Date:

Accepted by:                                    Date: