| Post Title: | Systems - Senior Engineer |
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| Grade: | *7* |

# Job Description

## 2.1. Purpose

The Systems - Senior Engineer will develop, support and manage systems products and services deployed on behalf of the University Group.

The System - Senior Engineer is responsible for the day to day operation, security and delivery of our systems services. They will develop and support products and services that are efficient, secure, perform optimally and are aligned to business goals and objectives. The post holder is responsible for the maintenance of configuration data, capacity planning, service availability and continuity. They will adhere to service levels and all operational processes (such as incident, problem, change management processes) pertaining to systems services.

The Systems - Senior Engineer will participate in continuous improvement analysis and design, as well as the development of systems based solutions.

## 2.2. Main Duties and Responsibilities

1. Explains the purpose of and provides advice and guidance on the application and operation of elementary physical, procedural and technical security controls. Performs security risk, vulnerability assessments, and business impact analysis for server & storage systems. Investigates suspected attacks and manages security incidents. Uses forensics where appropriate.

2. Maintains an in-depth knowledge of systems technology, and provides expert advice regarding its application. Supervises specialist consultancy.

3. Monitors the market to gain knowledge and understanding of currently emerging technologies. Identifies new and emerging systems technologies and products. Assesses their relevance and potential value to the Group. Contributes to briefings of staff and management.

4. Promotes and ensures use of appropriate techniques, methodologies and tools.

5.  Designs components using appropriate modelling techniques following agreed architectures, design standards, patterns and methodology. Identifies and evaluates alternative design options and trade-offs. Creates multiple design views to address the concerns of the different stakeholders of the architecture and to handle both functional and non-functional requirements. Models, simulates or prototypes the behaviour of proposed systems components to enable approval by stakeholders. Produces detailed design specification to form the basis for construction of systems. Reviews, verifies and improves own designs against specifications.

6.  Accepts responsibility for creation of test cases using own in-depth technical analysis of both functional and non-functional specifications. Creates traceability records, from test cases back to requirements. Produces test scripts, materials and regression test packs to test new and amended software or services. Specifies requirements for environment, data, resources and tools. Interprets, executes and documents complex test scripts using agreed methods and standards. Records and analyses actions and results, and maintains a defect register. Reviews test results and modifies tests if necessary. Provides reports on progress, anomalies, risks and issues associated with the overall project. Reports on system quality and collects metrics on test cases. Provides specialist advice to support others.

7.  Configures software and equipment and tests platform-specific versions of one or more systems products. Reports the outcome of testing and identifies potential improvements to the process and to the systems products according to agreed designs and standards.

8.  Undertakes routine installations and de-installations of items of hardware and/or software. Takes action to ensure targets are met within established safety and quality procedures, including, where appropriate, handover to the client. Conducts tests of hardware and/or software using supplied test procedures and diagnostic tools. Corrects malfunctions, calling on other experienced colleagues and external resources if required. Documents details of all hardware/software items that have been installed and removed so that configuration management records can be updated. Develops installation procedures and standards, and schedules installation work. Provides specialist guidance and advice to less experienced colleagues to ensure best use is made of available assets, and to maintain or improve the installation service.

9.  Contributes to the availability management process and its operation and performs defined availability management tasks. Analyses service and component availability, reliability, maintainability and serviceability. Ensures that services and components meet and continue to meet all of their agreed performance targets and service levels. Implements arrangements for disaster recovery and documents recovery procedures. Conducts testing of recovery procedures.

10. Performs defined tasks to monitor service delivery against service level agreements and maintains records of relevant information. Analyses service records against agreed service levels regularly to identify actions required to maintain or improve levels of service, and initiates or reports these actions.

11. Maintains secure configuration, applying and maintaining tools, techniques and processes to identify, track, log and maintain accurate, complete and current information.

12. Assesses, analyses, develops, documents and implements changes based on requests for change.

13. Assesses and analyses release components. Provides input to scheduling. Carries out the builds and tests in coordination with testers and component specialists maintaining and administering the tools and methods. Ensures, where possible, information exchange with configuration management. Ensures release processes and procedures are maintained.

14. Evaluates new system software, reviews system software updates and identifies those that merit action. Ensures that system software is tailored to facilitate the achievement of service objectives. Plans the installation and testing of new versions of system software. Investigates and coordinates the resolution of potential and actual service problems. Ensures that operational documentation for system software is fit for purpose and current. Advises on the correct and effective use of system software.

15. Monitors service component capacity and initiates actions to resolve any shortfalls according to agreed procedures. Applies techniques to control the demand upon a particular resource or service.

16. Provides technical expertise to enable the correct application of operational procedures. Uses management tools to determine load and performance statistics. Contributes to the planning and implementation of maintenance and installation work. Implements agreed infrastructure changes and maintenance routines. Identifies operational problems and contributes to their resolution, checking that they are managed in accordance with agreed standards and procedures. Provides reports and proposals for improvement, to specialists, users and managers.

17. Reviews storage capacity, performance, availability and other operational metrics. Takes appropriate action to ensure corrective and proactive maintenance of storage and backup systems to support the requirement to protect and secure business information. Creates reports and proposals for improvement. Contributes to the planning and implementation of new installations and scheduled maintenance and changes within the system. Prepares and maintains operational procedures and provides technical expertise and appropriate information to the management.

18. Initiates and monitors actions to investigate and resolve problems in systems, processes and services. Determines problem fixes/remedies. Assists with the implementation of agreed remedies and preventative measures.

19. Prioritises and diagnoses incidents according to agreed procedures. Investigates causes of incidents and seeks resolution. Escalates unresolved incidents. Facilitates recovery, following resolution of incidents. Documents and closes resolved incidents according to agreed procedures.

20. Uses data centre management tools to produce management information on power, cooling and space and investigate issues where necessary. Carries out routine audit and checks to ensure adherence to policies and procedures. Facilitates the implementation of mandatory electrical safety testing.

Manages aspects of the product lifecycle, working with colleagues in other disciplines to enable effective marketing and customer support. May act as product owner for one or more lower value products or services.

Collects supplier performance data and investigates problems. Monitors and reports on supplier performance, customer satisfaction, and market intelligence. Validates that suppliers' performance is in accordance with contract terms. Engages proactively and collaboratively with suppliers to resolve incidents, problems, or unsatisfactory performance. Implements supplier management-related service improvement initiatives and programmes.

Manages aspects of the product lifecycle enabling the product to meet the needs of customers/users and achieve financial or other targets. Acts as product owner for one or more lower-value products or services; prioritises product requirements and owns a product backlog. Analyses market and/or user research, feedback, expert opinion and usage data to understand needs and opportunities. Facilitates uptake of products by planning development of product collateral, supporting and evaluating campaigns, and monitoring product performance. Rolls out product trials and product launches.

 Deputises for the Systems Manager as required.

**AND** such other duties as are within the scope of the spirit of the job purpose, the title of the post and its grading.

## 2.3. Supervision Received

Line management is from the Systems Manager.

## 2.4. Supervision Given

None.

## 2.5. Contacts

• IT Services staff, including Executive Team.

• Staff and students in other Schools / Support Areas of the University Group.

• External Suppliers and other education institutions.

# 3. Person Specification

| ATTRIBUTES | ESSENTIAL | ADVANTAGEOUS |
|---|---|---|
| *Education & Qualifications* | • A degree relevant to IS/IT.<br>• Or full membership of an IS/IT professional body.<br>• Or substantial experience in lieu of the above which demonstrates a professional approach to IS/IT development. | • MCSE (Cloud: Platform and Infrastructure).<br>• ITIL.<br>• CISSP. |
| *Knowledge & Experience* | • Understanding global / local business differentiation.<br>• Knowledge of customer behaviours, needs and expectations.<br>• Digital business literacy.<br>• Tracking of emerging trends. | • Understanding of business organisation, politics and culture.<br>• Ability to understand related industries.<br>• Higher Education experience. |
| *Interpersonal Skills* | • Results orientation.<br>• Collaboration / teamwork.<br>• Resolving conflicts and problems.<br>• Adaptability.<br>• Openness to learning.<br>• Decisiveness.<br>• Accountability.<br>• Communication, listening and information gathering.<br>• Creative and innovative thinking.<br>• Influencing and persuading. | • Conceptual thinking.<br>• Strategic thinking.<br>• Leading, inspiring and building trust. |
| *Job-related Skills, Abilities & Competencies* | • Supplier management.<br>• Integrating solutions.<br>• Understanding digital technologies.<br>• Understanding existing systems and technology.<br>• Problem solving.<br>• Public cloud infrastructure.<br>• Systems applications (authentication, email etc.) operational management.<br>• Cyber-security within cloud and infrastructure technologies. | • Microsoft Azure.<br>• Amazon Web Services. |
| *Other Requirements* | • A flexible approach to working hours and location, including a willingness to travel, locally, nationally or overseas, as required. | |

|  | • Requirement to work on call in order to faciliate the 24*7 support demands of a global organisation. <br> • An appreciation of other cultures; the global reach of the University and its international agenda. <br> • A mature, professional and self-motivated approach to tasks. <br> • Ability to represent IT Services in formal and informal settings. <br> • Able to work under pressure. <br> • Ability to work flexibly and extended hours by agreement to meet tight, fixed deadlines or as required by service imperatives. <br> • Health & Safety Awareness. |  |