

Job Title: System Administrator (Networks)
Grade: 7
Salary: £37,386 - £43,155
Department: Infrastructure and Operations, Digital Services
Hours/Contract: 37.5, 1.0 FTE
Job Family: Professional Services
Reference:

Role Purpose

As an experienced network administrator professional you will be responsible for the installation, config, security, integration, and optimisation of the University's data networking infrastructure, including the implementation of networks as part of improvement projects, new builds and office refurbishments.

You will ensure services transitioned to the team are authorised, adhere to prescribed standards & procedures, are securely maintained, and subjected to periodic audits. The role also requires you to rack/stack, replace and dispose of equipment as part of on-going projects and renewal programmes, and to maintain associated asset inventories. You will also be expected to support complex Incident and Problem resolution involving routing/switching, Wi-Fi, firewalls, cloud connectivity, etc.; be responsible for preventative maintenance, upgrade work, and capacity management.

Working as part of a small team in Infrastructure Operations, you will be a self-starter expected to work closely and actively collaborate with other Systems Specialists across Digital Services. The role will be a combination of hybrid and on campus to provide network support, incident response and delivery of projects

Context

The Infrastructure Operations team is one of five teams that report to the Head of Infrastructure and Operations (the others being Platforms, Networks, Voice Operations and Research) and is part of the wider Digital Services department. The team 'run, maintain and optimise IT services and facilities' and collaboratively works with the other teams within Infrastructure and Operations, the Security team and the Application Services team on the development of new services, Incident escalation and Problem Management.

The data networking infrastructure includes copper cabling, optical fibre, equipment rooms (wiring closets and racks), Cisco switches, Cisco routers, Cisco firewalls, Cisco VPN, Cisco wireless access points, authentication devices and network management systems. The network serves all University buildings across around 120 sites within Leicester.

The post involves day to day service responsibility and requires the individual to be able work without direct supervision, responsible for planning and organising their own work, and deliver in the achievement and ongoing improvement of agreed SLAs.

In addition to focusing on core technologies you will have a broader set of skills and understanding that cover virtualisation, firewalling and data centres. You will support the full range of work undertaken by other members of the IT Operations team and across Digital Services on actively pursuing modernisation of our technology and infrastructure. Several developments are currently in-flight around increasing the presence of our low-value assets in the Cloud and a network refresh valued at £5.5M, and you will be required to support migrations.

The role and the team are continually evolving to support the needs of the business hence this role would ideally suit an individual who can adapt to change. As a reward, you will have the opportunity to develop and further expand your skills, knowledge and experience.

The post holder will work both on campus and in a hybrid environment, and will be entitled to a generous leave entitlement (comprising of University leave days, University closure days and UK bank holidays).

Resources Managed/Facts and Figures

Centralised systems and services that underpin University-wide activities include:

- 4 on premise campus-based data centres with Azure cloud presence
- Approximately 120 data network wiring centres spread across the University Campus, North Campus and Hospital sites
- Edge data network comprising of 800+ devices servicing approximately 10,000 network outlets across all University Departments, Colleges and offices, and inter-building fibre cabling
- Cisco wireless network with over 1,000 access points accessed from 16,000 devices (9,000 concurrent) by a user-base in excess of 23,000
- Network monitoring: e.g., Cisco Prime, WhatsUp Gold, Cacti, Munin for monitoring a broad range of infrastructure and services

Main Duties and Responsibilities	% Time
<ul style="list-style-type: none"> • Support, monitor and maintain <ul style="list-style-type: none"> ○ Investigate, diagnose and resolve campus, data centre and cloud network and security incidents and problems escalated from the Service Desk or Second Line support teams, and transfer knowledge to those teams where appropriate ○ Co-ordinate moves/adds/changes. and administrator the active wired and wireless network infrastructure, including (core and edge) switches, firewalls appliances, DNS, DHCP, IPAM (DDI) and associated equipment to prescribed standards and in line with configuration management ○ Design and apply cabinet layout and naming standards to ensure that wiring closets are kept in a structured and orderly manner for ease of maintenance, e.g., running in new patch cables, fibres, power, labelling, etc. ○ Use of network management tools to monitor capacity, performance, and identify trends in patterns of demand to inform service development and replacement planning; collate, interpret and report service statistics ○ Analysis of system logs, firewalls logs, network files and other sources of data which may indicate problems such as attempted or potential security compromises, performance bottlenecks, etc. reporting any issues to the Security Team ○ Proactively (or reactively) monitor, evaluate and act upon industry security announcements; coordinate with the Security Team and implement workarounds and fixes in line with the vulnerability management and change management processes ○ Maintain awareness of product development roadmaps, known problems, workarounds, planned fixes and upgrade paths 	60



Main Duties and Responsibilities	% Time
<ul style="list-style-type: none"> Infrastructure development <ul style="list-style-type: none"> Contribute to delivering projects that form part of the Digital Services portfolio and strategy; represent the team advising and ensuring compliance to standards will be applied during the development Maintain and develop accurate technical documentation, procedures and processes relating to the configuration of the networking infrastructure including network/telecoms schematics, logical/physical diagrams, and SOPs Maintain accurate records for asset configuration, asbestos register, hardware replacement programme, and insurance purposes, etc. Develop, update and test IT service continuity plans as systems are changed and as required Marketing and promotion of new network services to users as well as assisting in the specification and evaluation of edge and data centre network functionality 	25
<ul style="list-style-type: none"> Act as a technical lead <ul style="list-style-type: none"> Provide consultancy within Digital Services and to the wider University Liaise and coordinate with 3rd-party suppliers and partner organisations to report and diagnose defects and replace faulty equipment where necessary Liaise and coordinate with the Estates and Campus Services project managers, building contractors and suppliers as necessary during new building and refurbishment projects to ensure the successful delivery of networking services Provide technical advice on the integration of systems and services within the area of expertise and responsibility; ensure the adherence to established standards and specifications Quality assures installations of room equipment and cabling infrastructure undertaken by third-party contractors 	10
<ul style="list-style-type: none"> Self-development <ul style="list-style-type: none"> ⊖ Maintain personal development, skills and knowledge through active self-study to enhance personal growth and support the continuing and changing needs of the business Investigation and evaluation of new developments and technologies Maintain close working relationships with Infrastructure Networks 	5



Internal and External Relationships

- Daily contact with customers on resolving issues and providing support and guidance; maintaining an excellent customer focus, service and rapport whilst promoting Digital Services
- Daily contact with other members of Digital Services, particularly with Network Operations, and Infrastructure Networks colleagues
- Frequent contact with Estates and Campus Services, including involvement in all development and refurbishment projects
- Regular contact with other Digital Services Senior Leadership Team on planning service developments
- Regular liaison with system suppliers, and maintenance providers in developing services and dealing with complex issues
- Occasional contact with external consultants and auditors
- Occasional contact with peers at other sites that have similar service requirements
- Occasional presentations, both internal and external, on service developments and proposals

Planning and Organising

- Forward planning/scheduling of hardware and software upgrades with lead times from weeks to several months; minimising the impact of downtime through planned changes
- Able to coordinate and bring together the efforts of individuals working in other teams to deliver projects, or in resolving problems that require a mixture of supporting skills, abilities and knowledge
- Plan, prioritise and organise own workload to meet the requirements of the team and service provision/development; ensure operational efficiency whilst responding to new pressures including those arising from non-standard work

Qualifications, Knowledge and Experience

Essential

- Experience working of in a complex IT organisation with a Cisco administration/data networking background *
- Degree in a related technical discipline or a degree in a non-technical discipline combined with substantial additional experience directly relevant to this post *
- Excellent knowledge of network concepts and experience in the structured approach required to run highly available and scalable IT services *
- Proven hands-on experience of installing, configuring and managing Cisco equipment, e.g., racking hardware, cabling, security, inventory management, etc. *
- Proven expertise and experience in the administration of systems with regards to supporting, monitoring and managing the following: *
 - Cisco Catalyst 2xxx/3xxx/4xxx/5xxx/9xxx Series Switches
 - Cisco Aironet 1xxx/2xxx/3xxx/9xxx Series Wireless Access Points and WLCs 5xxx/9xxx
 - Cisco ASAs and/or FirePower firewalls
 - CAT 5e/6 structured cabling installation
 - Fibre optical cabling and assoc. cable types
 - Infrastructure monitoring, e.g., Cisco Prime, Solarwinds, Cacti, Munin, WhatsUp, etc.
 - IP and Ethernet networking



Qualifications, Knowledge and Experience

Desirable

- Experience with one or more of a broader set of skills and technologies: *
 - SDN (Software Defined Networking)
 - IPAM technologies (Infoblox)
 - RADIUS/DNS/DHCP administration
 - Log analytics, e.g., VMware vRealise Log Insight
- Broad knowledge of one or more of the following technologies: *
 - Fibre optic cable plant installation and associated cable types
 - CAT 5e/6 structured cabling installations
 - IP telephony and associated components
 - vLANs, network routing and switching
 - IP telephony
- Cisco Associate, Professional or Expert, or equivalent level of certification *
- IT Service Management (ITIL) Foundation and/or experience of working within an ITIL environment, and/or working with PRINCE2 methodologies
- Experience in using a Service Desk ITSM toolset, e.g., Ivanti, or ServiceNow
- Experience in providing IT Services within a Higher Education environment

Skills, Abilities and Competencies

Essential

- Highly developed analytical skills and problem-solving ability, with the ability to matrix-manage others in investigating and resolving issues *
- Excellent interpersonal skills
- Effective planning and organisational skills; able to organise, prioritise and plan own work *
- Excellent oral, written and presentation skills in order to communicate effectively with staff, students, suppliers, etc.
- Customer focussed

****Criteria to be used in shortlisting candidates for interview***

Criminal Declaration

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

Supporting University Activities

As a University of Leicester citizen, you are expected to support key University activities such as clearing, graduation ceremonies, student registration and recruitment open days. We expect all staff as citizens to work flexibly across the University if required.

University Values

Inclusive - We are diverse in our makeup and united in ambition. Our diversity is our strength and makes our community stronger.

Inspiring - We are passionate about inspiring individuals to succeed and realise their ambitions. We challenge our community to think differently, to get involved, and to constantly embrace new ideas.

Impactful - As Citizens of Change we will generate new ideas which deliver impact and empower our community

Equality and Diversity

We believe that equality, diversity and inclusion are integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high-quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equality, diversity and inclusion.

Additional Information

The University operates a system of 'indeterminate' hours for staff at grade 6 and above; as such hours of attendance are not rigidly fixed and may vary according to operational requirements and may be extended as necessary for the performance of the members' duties.

The main period when office-based functions are operational is typically between the hours of 08:00 to 17:30 Monday to Friday each week. Depending on the nature of the work involved, staff may be required from time to time to commence work earlier and/or to finish work later than the above times as well as to occasionally work on evenings, weekends or bank holidays.