

JOB DESCRIPTION

Job Title:	Senior Network Analyst	Grade:	SG8
Department:	Information and Library Services (ILS)	Date of Job Evaluation:	July 2022
Role reports to:	Network Architect & Manager		
Direct Reports			
Indirect Reports:	Network Manager Head of Infrastructure		
Other Key contacts:	Other ILS (Information and Library Services) staff via matrix as required as part of project management responsibility		
This role profile is non-contractual and provided for guidance. It will be updated and amended from time to time in accordance with the changing needs of the University and the requirements of the job.			

PURPOSE OF ROLE:

Manage the network analysis function within the Network Team. Take proactive responsibility for intra-team co-ordination and act as the main point of liaison in terms of networking within Information Systems, liaison with other divisions within ILS (Information and Library Services) and other administrative and academic departments as required, including external partners and suppliers.

Appropriate, effective, and resilient IT systems and infrastructure are critical to the success of the University and have been clearly articulated as a strategic requirement for the University. In that context, manage the implementation, maintenance and support of the core network infrastructure including WAN (Wide Area Network) and LAN routers, firewalls, VPN (Virtual Private Network), Cloud, and all other relevant network related technologies.

Lead network infrastructure projects and act as a technical lead on university wide projects that require network technologies such as security, routing, wireless, switching, cloud and VPN.

Ensure a sufficient level of understanding of the overarching network infrastructure and its associated systems environment is embedded within the network team and wider infrastructure group. This includes activities such as authoring comprehensive documentation, leading workshops and other collaborative knowledge sharing workshops.

With specific reference to the University calendar ensure that appropriate, timely and reliable voice and data services are in place to support business requirements and ensure that at key points in the academic cycle sufficient staff and contingencies are in place to mitigate any risk to the business.

Act as Deputy for the Network Architect & Manager when required.

KEY ACCOUNTABILITIES:**Team Specific:**

- Deputise for the Network Architect & Manager as and when required.
- Act as the technical lead in the design, management, and implementation, including BAU activities of the core network infrastructure including, LAN and WAN services, wireless, leased lines, connections to Janet, firewalls and VPN servers for operational activities and major network related projects.
- Contribute to the development, maintenance, and monitoring of policies in relation to voice, data, and systems networks, and ensure they are adhered to.
- Ensure compliance with processes in relation to all aspects of work within the Network Team, with reference to change management and a high level of quality assurance and professionalism throughout.
- Produce and maintain documentation describing the voice and data networks using the applications and tools available.
- Work closely and take the lead when working with non-network team colleagues from the ILS Infrastructure Group in developing and maintaining a high performance, secure and fully resilient network infrastructure which meets the needs of the University and the aspirations of the Strategic Plan.
- Be responsible for the planning and execution of voice and data infrastructure upgrades as required to maintain the technical ability to provide a suitable high bandwidth network in both building upgrades and new builds.
- Supervise members of the network team when required, in the planning and implementation of network infrastructure changes such as building network upgrades and new builds.
- Liaise with first- and second-line support colleagues within Information Services, and ensure the provision of third line support in a timely and effective manner.
- Contribute to the proactive monitoring of the core network and ensure procedures are in place to actively react to indicators of issue or incident, if required direct others in achieving a resolution.
- Contribute to the measurements and KPI's in relation to the services of the Network Team.

- Work with industry standard traffic monitoring tools to investigate, diagnose and resolve network problems.

Generic:

- Reference to change management and a high level of quality assurance and professionalism throughout.
- Take the lead when working with non-network team colleagues from the ILS Infrastructure Group in developing and maintaining a high performance, secure and fully resilient network infrastructure which meets the needs of the University and the aspirations of the Strategic Plan.
- Contribute to the proactive monitoring of the core network and ensure procedures are in place to actively react to indicators of issue or incident, if required direct others in achieving a resolution.
- Liaise with key staff within ILS, Schools, and Offices to ensure voice and data infrastructure and associated services are fit for purpose and meet the needs of the University.
- Ensure all network changes are well managed and follow an agreed process which ensures good practice in relation to communication with users and the identification and delivery of both functional and technical requirements.
- Ensure new users are fully inducted into the use of the various systems and services provided by the Network Team, and from time to time ensure existing users are updated or reminded of relevant services.
- Maintain an up-to-date and authoritative knowledge of new developments in relevant networking technology, particularly in relation to its application within a Higher Education context.
- Contribute to the measurements and KPI's in relation to the services of the Network Team.
- Work closely and collaboratively as required with the Cyber Security Manager, Project Managers, and other senior ILS colleagues.

Managing Self:

- Where contributing to, managing or leading project work from within the Network Team ensure that the approved management methodology is followed.
- Take a proactive role in liaison with relevant voice and data infrastructure/system suppliers and ensure effective working relationships are created and maintained.

- As deputy to the Network Architect & Manager act as a point of authority in relation to all aspects of the core network design, administration, and maintenance.
- Proactively and through the application of independent initiative, research industry information to assess suitability of, make decisions and advise on the most appropriate network technologies for use within the University.
- Always maintain a professional manner.
- Work effectively both independently and as part of a supportive team.
- Work in a logical and effective manner when dealing with network faults.
- Be self-motivated in researching modern technologies and problem-solving techniques.

Core Requirements:

- Adhere to and promote the University's policies on Equality, Diversity and Inclusion and Information Security;
- Ensure compliance with Health & Safety and Data Protection Legislation;
- Support and promote the University's Sustainability policies, including the Carbon Management Plan, and carry out duties in a resource efficient way, recognising the shared responsibility of minimising the university's negative environmental impacts wherever possible.

Additional Requirements:

The post holder will have access to a range of sensitive and key University systems. It is therefore essential that they demonstrate a high level of professional integrity and discretion and comply with the University's Policies in relation to Information Assurance and Security.

The post is critical to the efficient and effective functioning of the University's information system facilities, possessing high levels of responsibility for the development and operation of the core network infrastructure which underpins all IT systems and services within the University.

This is a senior post within the Infrastructure Group, a member of the Infrastructure Management Team. The post involves contact with members of the University's staff at all levels and will perform a key role in relation to service supplier management.

In line with the operational calendar of the University, the post-holder will be required to schedule and attend to work outside normal working hours.

This is a hybrid role and further information on the university's working principles

can be found in the [Working Principles and Guidelines | Documents | University of Greenwich](#).

Hours will be as required to undertake the role, including the scheduling and attendance of work outside normal working hours. Note the IT at risk period is 0700 – 0900 Tuesday mornings, which is when new equipment is usually commissioned, and security updates are applied.

In line with key events in the University calendar there will be an on-call requirement for some evenings and weekends.

Attendance at some University committee and informal meetings will be required.

Travelling between and working at different campuses will be required

Undertake any other duties as requested by the Director of ILS or the line manager, commensurate with the grade.

This is a professional, demanding role within a complex organisation with an ambitious strategic plan and agenda for change. The role holder will be expected to show flexibility in working arrangements, including working hours, to ensure that Information and Library Services delivers the required level of service.

KEY PERFORMANCE INDICATORS:

- To produce high quality work delivered to agreed timescales.
- To contribute positively towards and with colleagues be accountable for service level indicators which are defined for the group.
- Projects within the group are delivered on time, budget, scope, and quality.
- Ensure the Network Team positively contributes to the successful delivery of Information Systems and ILS KPI's.
- Voice and data networks achieve 99.5% service availability or greater.

KEY RELATIONSHIPS (Internal & External):

- Network Team and Information and Library Services Colleagues.
- 1st, 2nd, and other 3rd level support groups.
- University Colleagues, Partner Universities and Colleges.
- Industry Partners such as Janet UK (United Kingdom), KPSN and JISC.
- Commercial equipment providers and engineers.
- Service providers such as “Managed Bandwidth Providers” Equipment and System Maintenance providers, PSTN services etc.

PERSON SPECIFICATION	
Essential	Desirable
Experience <ul style="list-style-type: none"> • Significant proven senior experience of network design, administration, and maintenance within a large and complex multi campus voice and data network from a core network management perspective. • Significant proven practical experience of network concepts and technologies within a large enterprise environment. • Significant proven experience of working with 'HA' systems and failover mechanisms to ensure resiliency and maintenance of an 'always up' network. • Proven experience of working with Cisco routers and switches. • Proven experience of working with layer 7 firewalls. • Experience of migration of routers and firewalls. • Experience of working within a controlled change management environment. • Experience of working with and managing suppliers. • Experience of managing maintenance contracts and management of equipment lists and their audit. 	Experience <ul style="list-style-type: none"> • Experience of working with a VOIP telephone network, problem solving and deploying VOIP equipment in an enterprise environment. • Experience of configuring and deploying voice contact centres in an enterprise environment. • Experience with automation tools, like Cisco DNAC, Puppet, Ansible • Experience and working knowledge of certificates and PKI • Experience administering NAC authentication like wired 802.1x and MAB (MAC Address Bypass) • Experience of working with external authentication sources such as Microsoft AD (Active Directory) • Experience of procurement processes in relation to the tendering, selection, and appointment of software system, infrastructure, or managed service suppliers. • Experience of network protocols like Multicast. • Proven experience of project management from inception through to completion.

Skills	Skills
<ul style="list-style-type: none"> • Significant proven knowledge of both DNS (Domain Name System), DHCP (Dynamic Host Configuration Protocol) and IPAM. • Significant proven knowledge of the TCP/IP stack. • Skilled in the use of command line based operating systems. • Significant proven knowledge of Ethernet/L2 technologies (VLAN, PVLAN, VACLs, DHCP Snooping, IPSG) and spanning-tree. • Significant proven knowledge of NAT and PAT. • Significant proven knowledge of enterprise routing technologies, like VRFs, OSPF, BGP, EIGRP, route redistribution and static routing. • Knowledge of VPN technologies (SSL, Remote Access, and Site-to-Site). • Significant proven knowledge of network management and monitoring systems such as Cisco Prime and Nagios/Centreon. • Significant proven knowledge of 802.11 wireless technologies. • Proven knowledge of NAC tools (Cisco Identity Services Engine), Radius and TACACS. • Proven knowledge of VPN technologies (SSL, Remote Access, and Site-to-Site). • Knowledge of performing wireless surveys using appropriate tools. 	<ul style="list-style-type: none"> • Using Azure Resource Manager (ARM) and other scripting tools. • Unix/Linux admin and operations. • Working knowledge of IPv6.

- Knowledge of using diagnostic tools like Wireshark.
- Knowledge of cloud provider systems, particularly Azure and Azure networking.
- Excellent problem-solving skills.
- Excellent ability to communicate with staff at all levels including via presentation.
- Ability to form effective business relationships (networking) – both within the University and wider HE (Higher Education) sector.
- Well organised, self-motivated, ability to prioritise under pressure and manage a wide and varied workload for self and team.
- Ability to learn new skills quickly.
- Good document/report writing skills.

Qualifications

- Educated to degree level or equivalent demonstrable experiential learning within a relevant technical, educational management or business discipline.
- Cisco CCNP or equivalent.

Personal attributes

We are looking for people who can help us deliver the values of the University of Greenwich: Inclusive, Collaborative, Impactful

Qualifications

- Prince2 certification.
- ITIL certification.
- Clean UK Driving Licence.

Personal attributes

- N/A