



Job Description:

Job vacancy:	Network Engineer
Reporting to:	Head of Engineering Computing Services
Location:	Bristol & Bath Science Park
Annual Salary:	Subject to applicant experience
Package:	27 days annual leave 4 x salary life assurance Group Personal Pension Scheme Group Private Medical Insurance Health Care Cash Plan



Overview:

The Centre for Modelling and Simulation (CFMS) is a growing, independent digital engineering consultancy providing technical expertise to help organisations create cutting edge solutions by pioneering new approaches to product development and enabling innovation services.

Working with commercial and research organisations of all sizes, CFMS has a full portfolio of digital innovation capabilities, including design and analysis services, consultancy, and IT infrastructure. CFMS uses digital innovation across the cyber-physical landscape (including a new robotics capability) to help develop more effective engineering solutions across industrial sectors critical to the UK economy.

As a commercially focused organisation, we reinvest profits from commercial activity into the continued development of our people, facilities, and research capability.

About the role:

CFMS' Engineering Computing Services (ECS) team provides infrastructure and technical systems to internal stakeholders and external clients, making use of leading-edge scientific computing services including:

- Multiple HPC Clusters
- Openstack private cloud systems
- High performance ethernet networking
- General purpose business computing

The Network Engineer's role is to support and develop the technical operation of the company's network infrastructure in support of the wider business objectives. The role will support other members of the ECS team in the maintenance and continued operation of the organisation's existing network infrastructure, and developing strategies for the future implementation of the company's network infrastructure.

The network engineer will be exposed to a wide variety of technologies and systems, with many opportunities to learn new skills.



Key Responsibilities:

The Network Engineer will take a key role in the day-to-day running of the CFMS network, including:

- Configuring, installing and automating various network hardware devices including; routers, switches, and firewalls
- Installation and replacement of cabling in an active data centre environment
- Assisting team members in diagnosing and resolving a variety of network issues
- Manage IP address allocations, DNS records, firewall rules and routing configuration
- Provide input to network design including security concerns
- Configuration and maintenance of servers providing network services such as DNS, DHCP, VPN, and proxies
- Documenting configuration details, and managing network infrastructure change planning

Operate under the guidance of all policies and procedures and promote an environment of continuous improvement.

Experience

- Proven experience performing network and security maintenance and system upgrades including upgrades, service packs, patches, hot fixes and security configurations
- Awareness of recognised security practices and standards
- Some experience with monitoring, network and security diagnostic and network analytics tools
- Experience with modern virtualisation and cloud technologies and how they interact with networks would be beneficial, such as Kubernetes and Openstack

Skills, Knowledge and Competencies:

Essential:

- Networking fundamentals such as:
 - Ethernet and physical wiring (BASE-T, MTP fibre, DAC, etc.)
 - Low level standards (802.3ad bonding and MLAG, STP, 802.3Q VLANs)
 - IPv4 (routing, subnets, VRRP, NAT, ARP)
 - Common protocols (DHCP, DNS, NTP, HTTP)
- Linux network configuration
 - Addressing, bonding, bridges, VLANs
 - Host firewall configuration
- Experience diagnosing and resolving network performance issues



Desirable:

- Ansible automation
- Basic knowledge of python programming
- Terraform
- Git (especially gitlab)
- Networking
 - VXLAN (specifically k8s flannel and openstack neutron)
 - Dynamic routing (BGP and OSPF)
 - IPsec, wireguard, openvpn
 - Experience with IPv6
- Linux knowledge
 - Firewall, iptables, nftables, bird, nginx, chrony, network namespaces
 - HPC and hardware offload technologies (RoCE/Infiniband, SR-IOV, DPDK etc.)
- Virtualisation platforms
 - Proxmox
 - libvirt
 - openstack (or other cloud)
 - vsphere/esxi

Key Relationships:

The Network Engineer will work closely with the Head of ECS and the ECS team, but also on occasion with the wider CFMS technical team and directly with client end users.

How to Apply:

Email your CV and covering letter to careers@cfms.org.uk. If you would like further information on the role please contact us on the email above or call **0117 906 1100**.

This vacancy is open to **UK nationals only**.

Direct applications only - no agencies.

Don't meet every single requirement? CFMS is committed to building a team with a variety of backgrounds, skills and views. The more inclusive we are, the better our work will be. We know that having varied perspectives helps generate better ideas to solve the complex problems of a changing and increasingly diverse world. We encourage candidates to apply if they are excited about this role and meet some of the criteria.