University of Essex

RECRUITMENT PACK

This document includes the following information:

- Job Description
- Person Specification
- Additional information

Making an application:

When completing the on-line application form you will be asked to answer questions to help you demonstrate how you meet the requirements of the post. Your answers will be used at the shortlisting and interview stages of the recruitment process. We therefore recommend that you take a copy of this recruitment pack to help with your preparation.

NOTE: You don't have to answer the questions in one attempt, but can save your incomplete application and return to it at another time. You may want to draft your answers using Microsoft Word and then copy your text into the application form. Please be aware that formatting (e.g. underline, bold, bulleting) will be lost in this process. If you are using an Apple product you will need to use an alternative web browser to Safari such as Google Chrome.

- Links to Guidance Notes and Frequently Asked Questions can be found on the Search Results page. These pages will open in a new window.
- We recommend that you take a copy of this recruitment pack to help with your preparation.

A commitment to sustaining an inclusive and diverse community is one of the University's Core Values and we are keen to address any imbalances in our workforce.

The University of Essex is proud to be part of the Disability Confident scheme and is committed to supporting diversity and equality, representative of our inclusive community. As part of our commitment to this scheme any candidate who has a disability and meets all the essential criteria for the role will be offered an interview. We also work in partnership with national disability organisation DisabledGo who provide detailed online access guides to many of our campus buildings and facilities which you may find useful.

Please note: We are only accepting on-line applications for this post. However, if you have a disability that makes it difficult for you to provide us with information in this way, please contact the Resourcing Team (01206 873461/873521/874588) for help.

Closing Date: 17 July 2018
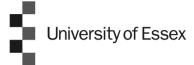
Interviews are planned for: 29 August 2018

University of Essex

JOB DESCRIPTION – Job ref REQ01489

Job Title and Grade:	Assistant Director of IT Services (Infrastructure) Grade 10
Contract:	Permanent, full-time
Hours:	A notional minimum of 36 hours per week
Salary:	£50,618 – £56,951 per annum
Department/Section:	IT Services
Responsible to:	Director of IT Services
Reports on a day to day basis to:	Director of IT Services
Responsible for:	Team Leaders and Service Managers
Purpose of job:	As a member of the IT Services senior management team, the post-holder will have a key role in contributing to the University's Information Strategy, IT Services plans and roadmaps, and the role of digital in the University's next strategic plan.

Duties of the Post:

The University's IT infrastructure is core to the operation of a wide range of information systems and network devices that underpin the University's learning, teaching, research, and administration.

The Infrastructure Group comprises about 19 staff organised in four teams. The Group is responsible for the delivery of infrastructure and related central services at all three university campuses and beyond. Please see the appendix for a description of the current platforms, technologies, and services.

In line with a recent review of University IT and its recommendations, including developing a One University IT approach, a senior IT post is being established to oversee the high quality operation of the University's IT infrastructure and related services and lead the successful introduction of improvements through specific projects and ongoing incremental improvement.

The role is based in Colchester but some travel to other campuses in Southend and Loughton may be required.

The main duties of the post will include:

Strategy, Policy and Planning

1. To understand, influence, and translate institutional and customer needs into strategies and plans.

2. To contribute to the development, completion, and evaluation of actions to fulfil the University's Information supporting Strategy and other relevant University strategies.

3. To contribute to the formulation and execution of IT Services plans and budgets as part of the University's annual planning process.

4. To contribute to and support the evolving Business Continuity plans for both IT Services and the wider University.

5. To participate in drafting and provision of advice on relevant University policies.

Communication and Collaboration

6. To devise and implement communication strategies for ensuring that customers are able to make the best use of services, and to obtain customer feedback on services in order to influence improvement.

7. To build strong working relationships in IT Services and across the University to understand requirements and issues so as to inform strategy, service design and management.

8. To lead work with IT Services colleagues, including the Cyber Security Specialist and the Information Assurance Manager, to ensure that the University's infrastructure and services are operated in accordance with the University's policies and in compliance with information legislation and other regulation.

9. Prepare reports and other performance indication information for University committees, project steering groups/ boards.

Service Leadership and Improvement

10. To lead the design of the architecture of the University's IT infrastructure and related services – including cloud based services – to ensure that they remain fit for purpose and have appropriate resilience and capacity to meet the University's needs for high availability and performance.

11. Provide senior project leadership for IT infrastructure developments and enhancements within IT Services and for the wider University.

12. To understand and manage infrastructure and service risks, ensuring that the risks related to infrastructure – including information security risks – and services are adequately understood, documented, and addressed through the operational risk register.

13. Lead on the development and improvement work of business continuity planning for IT infrastructure and services, including the diagnosis and recovery of service failure and disruption.

14. Working with team leaders and staff in the Infrastructure Group to establish and develop shared understanding and common goals for the group.

15. Lead the health and safety aspects of all aspects of the work of the Infrastructure Group and the provision of services.

16. Working with team leaders and staff in the Infrastructure Group on the professional and personal development of staff, job performance, staff wellbeing, and health and safety.
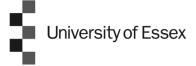
Service Delivery and Value

17. Advising the Director of IT Services on budget requirements and undertake financial planning and monitoring for group.

18. Set standards for infrastructure and services that are meaningful to customers and service teams.

19. Working with team leaders in the group to implement IT Service Management (based on ITIL) and to deliver continual and step change service improvements.

20. Manage key IT supplier relationships and products/services to gain price and long-term cost of ownership benefits.

Other

21. Undertaking any other such duties as may be assigned from time to time by the Director of IT Services or their nominee.

A number of University IT projects are underway or in the project pipeline for which the Assistant Director (Infrastructure) will lead or take a key role in. These projects are:

▪ Developing the high performance computing (HPC) service.

▪ Review and upgrade of the datacentre arrangements.

▪ Implementation of cloud-based file sync and share service.

▪ Renewal and upgrade of the University's Domain Name Service (DNS) and DHCP systems.

- Renewal and upgrade of the University's campus firewall service.
- Pilot of software streaming and IT desktop virtualisation.

In addition, there also several wider improvement activities currently underway or identified that are relevant to the Infrastructure Group. These activities include:
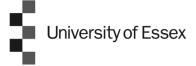
- Implementing the technological aspects of the University's Information Security action plan.
- Expanding the use of Microsoft Office 365 functionality.
- Applying ITIL based incident and problem management to all relevant IT services.
- Improving self-service and knowledge base documentation for service customers.
- Establishing customer feedback mechanisms to inform service management and strategy.
- Ensuring high service quality and consistent customer support across the three University campuses whilst taking account of local factors.
- Controlling IT costs.

These duties are a guide to the work that the post holder will initially be required to undertake. They may be changed from time to time to meet changing circumstances.

Terms of Appointment:
For a full description of the terms of appointment for this post please visit:
http://www.essex.ac.uk/hr/current-staff/terms.aspx#

June 2018

University of Essex

PERSON SPECIFICATION

JOB TITLE: Assistant Director of IT Services (Infrastructure)

Qualifications/Training

	Essential	Desirable
▪ An honours degree or equivalent level qualification/experience.	☒	☐
▪ Relevant service management certification.	☒	☐
▪ Project management certification.	☐	☒

Experience/Knowledge

	Essential	Desirable
▪ Extensive management experience at senior levels of IT infrastructure and service delivery including cloud-based delivery.	☒	☐
▪ Experience of building, leading and managing a range of teams with team leaders/managers.	☒	☐
▪ Success in initiating and leading change in medium to large organisations.	☒	☐
▪ Knowledge of relevant issues in Higher Education.	☐	☒
▪ Experience in budget preparation, monitoring, and financial management.	☒	☐
▪ Understanding of the needs of those working and studying in a Higher Education environment.	☐	☒
▪ Good understanding of technology and enterprise architecture, digital technologies and their application in organisations.	☒	☐
▪ Experience of developing and implementing information/cyber security in medium to large organisations, preferably in Higher Education.	☒	☐
▪ Experience of leading business improvement and technical projects.	☒	☐
▪ System administration experience in several of the following areas: VMware, network firewalls, Windows server, Unix/Linux, and ADFS.	☐	☒

Skills/Abilities

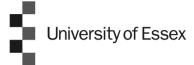|	Essential	Desirable
▪ Sensitivity to the needs and expectations of a diverse and changing customer base.	☒	☐
▪ Motivational leadership style with strong team building skills.	☒	☐
▪ Excellent written and oral communication skills including the ability to communicate effectively and considerately with stakeholders and customers at all levels.	☒	☐
▪ Excellent interpersonal skills, ability to lead by example, and take responsibility for own performance.	☒	☐
▪ A high degree of professionalism and probity.	☒	☐
▪ Demonstrable ability to plan, organise and manage complex priorities, projects, service quality and resources across teams.	☒	☐
▪ Possess a high attention to detail.	☒	☐

	Essential	Desirable
▪ Able to work autonomously as well as part of a team.	☒	☐
▪ A strong commitment to customer service.	☒	☐
▪ Excellent all-round ICT skills including MS Windows and Office applications.	☒	☐
▪ Demonstrable financial management and administrative abilities.	☒	☐

Other

	Essential	Desirable
▪ Ability to meet the requirements of UK 'right to work' legislation*.	☒	☐
▪ Able to travel between Colchester, Southend and Loughton.	☒	☐

* The University has a responsibility under the Asylum, Immigration and Nationality Act 2006 to ensure that all employees are eligible to work in the UK. Prior to commencing employment, the successful candidate will be asked to provide documentary evidence to this effect. Please note that the University will not be able to issue a Tier 2 Certificate of Sponsorship for this post. For further information about UK immigration requirements please follow this link
https://www.gov.uk/government/organisations/uk-visas-and-immigration

June 2018

University of Essex

ADDITIONAL INFORMATION

IT Services

Further information regarding the department may be found at the following link:
http://www.essex.ac.uk/it/

General information

Informal enquiries may be made to Richard Murphy, Director of IT Services (telephone: 01206 873455, e-mail: rmurphy@essex.ac.uk). However, all applications must be made online.

Appendix: University IT infrastructure and services

Locations: The University has three campuses located at Colchester, Southend and Loughton. The majority of University IT infrastructure equipment is based at the Colchester campus with some based at the other two campuses, however, services supported by the infrastructure are fully available to all three campuses.

External connectivity: The University's primary network connection at each campus is via dual (redundant) connectivity to the UK academic and research network, JANET. For Colchester, this is 2 x 10Gbps (with each connection in turn operated as a JANET POP for the local area). Southend has 2 x 1Gbps connections and Loughton has 2 x 100Mbps connections (the level of connectivity broadly reflecting usage at each campus). In each case, the incoming connections are geographically separated within the site and have diverse routing to the site. Both Colchester and Southend have additional commercial ISP connectivity for some specialist needs.

Campus networks: The University runs an IP network, most of it under the class-B range 155.245.0.0/16 with 155.245.0.0/17 assigned to Colchester, 155.245.224.0/19 at Southend and 155.245.176.0/20 at Loughton. Other parts of the address space are either assigned to self-managed organisations (e.g. the UK Data Archive) or are blank and not routable.

Network security: Each incoming connection is protected by a firewall. These are currently Linux IPTABLES based. Further internal firewalls of a similar type protect internal resources.

Network management: The network backbone runs OSPF for routing. The network comprises mostly of HP network devices, both at the core and edge and HP OpenView is used to manage alerts etc.

Datacentres: IT Services has two primary datacentres at the Colchester campus, with a number of medium to small IT node rooms also housing IT equipment (e.g. backup servers) and other services not related to core/edge network requirements. There is also a datacentre at Southend and one (VMware) server at Loughton.
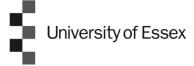
Server infrastructure: For the primary corporate requirements, IT Services use virtualised servers where possible (~400 VMs). The virtualisation estates comprise:
- 2 x Dell M1000e chassis' in each of the Colchester datacentres (32 active blades, each with 2x8 core CPU, 192M RAM) with Dell top-of-rack 40Gbps switches.
- 3 x Dell servers at Southend.
- 1 x Dell server at Loughton.

All run VMware (currently 5.5). IT Services also run a small number of HyperV servers and a number of non-virtualised servers for specific projects. These run a mixture of Windows (primarily Server 2012R2 but with some Server 2008R2 or earlier), Linux (primarily Debian, but CentOS where RedHat compatibility is recommended).

Server management: The Infrastructure Group provide many of the servers and enabling services that other IT Services teams use for service delivery.

Storage infrastructure: For the VMware virtual estate running on the M1000e, these are connected to Dell Equallogic storage arrays (each Colchester datacentre has 2xPS6520, 2xPS6110, 1xPS6010

and 1xPS6210 comprising 74TB available space in a mixture of RAID-10 and RAID-6). The Southend VMware server is connected to a Dell Complellent SC4020. There is also some direct-attach storage for specialist servers (e.g. the ListenAgain lecture capture service).

WiFi: The main University WiFi solution is based around the eduroam SSID to ensure our users and guests from other Universities can easily access resources from mobile devices. There are also a small number of other SSIDs for specific services. These are managed by fault-tolerant Aruba Controllers and over 600 access points across all three campuses.

User and group management: All University user accounts are managed via an in-house developed solution: the Central Identity Database (CID) that takes feeds from definitive up-stream sources (Student Information System, HR system etc.) and then ensures that the required accounts are created, updated and eventually deleted. Furthermore, these upstream sources provide a rich set of user groupings that are used for email, access control and resource management throughout the organisation. Whilst each unique member of the organisation only gets one user account, role/shared mailboxes are used extensively. Password changing is mandatory for all domain users and is managed via in-house developed webpages.

Enterprise directory: The University has both Windows Active Directory and OpenLDAP servers for internal use which are kept in sync from the CID. Much of this user and group information is also available to Linux servers. There are also delegated domain groups to allow staff to manage more ad hoc collections of users. Both ADFS and Shibboleth are used to provide access to federated services.

Host management: For DNS, the University currently uses BIND running on a number of Linux servers. For its primary namespace (essex.ac.uk), the management of the domain is via an in-house solution that provides some delegation to departmental administrators – this maps MAC addresses to fixed IP addresses. Whilst from the outside, it looks like most of University hosts (including desktop PCs) have publicly accessible IPs (due to our class-B IP range), the firewalls are default deny and only allow access to designated servers. Additionally, there are a number of ISC DHCP servers which again use data derived from the in-house host database. As all computers on campus get a fixed IP from DHCP, dynamic DNS is not used except for specific Windows servers.

Email: The University uses Microsoft Office 365 for all user mailboxes. However, the mail gateways are currently based on Linux running Exim/Spamassassin/MailScanner which also provide for some additional local services.

Network filestore: All home directories and most of the other corporate filestore are provided by the Infrastructure Group – mostly from virtualised file servers.
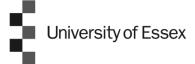
IT Labs: The Infrastructure Group manage the general access student IT labs and other student facilities comprising about 1,000 PCs. These have a wide range of software packages installed.

Printing: For student based printing, PaperCut print management software is provided on all lab PCs. This system is now also used in some parts of the University for print-release stations and multi-function devices (MFDs) for staff printing, too. The PaperCut system manages over 200 printers including 30 MFDs with an average of 1.2M colour pages and 3.8M grayscale pages printed in the last year.

Telephony: The University runs a mixture of SIP and traditional analogue (CW 1308) across the campuses (approximately 4,500 extensions with 3,500 of those in University offices), all provided via a NEC Sopho system. Similarly, for external connectivity, the telephony service uses both SIP (the majority) and ISDN.

Anti-Virus: The University has a site license for Sophos Anti-Virus which is installed across all IT Services managed PCs with delegation to technical departments. This is also available for staff and students to install on their own devices.

Software catalogue: There is an extensive catalogue of licensed software, some of which is available for installation on non-University owned equipment. This includes Office365, Matlab, EndNote, and SPSS.

Remote access: Where services are not available from the wider Internet, the University uses a VPN solution based on OpenVPN to grant access to specific servers and services. Whilst all staff are entitled to access to this service, around 250 staff use it on a regular basis.

Institutional Repository: The University runs a number of ePrints servers for its Institutional Repository (containing 14,000 items) and related services.

Load balancers: To ensure additional resilience for certain key services (e.g. website, ADFS), a pair of resilient hardware load balancers are used.

IT Business Continuity: The infrastructure Group is an integral part of the wider IT Services Business Continuity work. In addition to ensuring that resilience is built into the network, server and storage architecture, they also provide the central backup system (running ArcServe) to provide backup and recovery services.

HPC: The University High Performance Computing facility (336 CPU cores, 500TB storage, 5.25TB RAM) is housed in the IT Services datacentres and managed as a service by the Infrastructure Group

People Supporting Strategy

Please find a link to the People Supporting Strategy following:
https://www1.essex.ac.uk/restricted/staff/documents/strategy/people.pdf

Pay and benefits

We advertise our salaries on a range to indicate the trajectory of progression that can be made. Appointments are usually made at the start of the salary range. The university salary structure includes automatic pay progression within the published grades, subject to service and performance. In addition to this, there are performance related annual pay review schemes in place.

As an employer we offer a range of benefits and a commitment to career development and equal opportunities in an environment that both reflects and creates a rich interaction of people, disciplines and ideas.

- Pension scheme
- Generous holiday entitlement
- Competitive salaries
- Training and development Family Friendly policies
- On campus childcare facilities, for more information visit www.wivenhoeparkdaynursery.co.uk
- Childcare vouchers
- Relocation package for qualifying staff
- Interest free season ticket loan
- Range of optional salary exchange tax benefits (pension, childcare and bicycle schemes)