University of Edinburgh

1. Job Details

Job title: Head of Infrastructure/Chief Technical Officer
Planning Unit: EDINA National Data Centre
Line manager: Director of EDINA

2. Job Purpose

Leadership and functional management of EDINA Infrastructure, delivering world-class national online services to UK academic community within defined Service Level Agreements, supporting the Director of EDINA in meeting strategic goals of both the Joint Information Systems Committee (JISC) and the University which has formal Funding Agreement with the HE Funding Councils.

3. Main Responsibilities

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<td>1. Functional team management of the Infrastructure area, including staff management, recruitment, development and budgetary control; securing appropriate resources including software tools and expertise (internal and external to EDINA). 10</td>
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<td>2. Oversight, with respect to hardware, application software and middleware, of operation, maintenance and performance of EDINA’s on-line information services, in compliance with contractual SLAs specified in the Funding Agreement between the University and HEFCE. 30</td>
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<td>3. Leadership of projects outside the remit of the two main service delivery teams; allocating resources and managing risk; specialist technical reference and support to projects across EDINA. 10</td>
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<td>4. Contribute to the leadership, overall success, strategic development and management of EDINA as a member of Management Team; bringing to the attention of the Director and Management Team that which is strategic or otherwise significant. 10</td>
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<td>5. Plan and manage EDINA hardware strategy over time, ensure hardware capacity is sufficient and appropriate; negotiate funding with JISC, manage procurements, maintain relationships with commercial suppliers. Ensure synergy with UofE technical strategy is maintained. 10</td>
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<td>6. Manage ‘technical’ relationships within the University of Edinburgh; represent EDINA externally in strategic technical discussion and negotiation. 10</td>
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<td>7. Coordinate overall strategic policy in the application software area across EDINA technical teams and EDINA services and projects; provide technical analysis and costings for tenders and project proposals; specialist technical reference and support to services across EDINA. 20</td>
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4. Planning and Organising

At the macro level, the post-holder must ensure that the EDINA technical infrastructure (hardware and software) maintains the capacity and flexibility to cope with growth and changing priorities within the context of a planned five-year hardware replacement cycle. The infrastructure must remain capable of modular cost-effective expansion and maintain benefits of synergy with UoE. Detailed monitoring and requirement extrapolation is required. At the micro level, the post-holder is responsible for the allocation of resources (staff and other) to meet project and service imperatives. Funding for new and replacement services is subject to competitive bidding, as are projects, both requiring foresight activity, as well as cost-effective proposals, to ensure strategic goals are met. Funding for existing services is dependent upon successful submission of a Three Year (rolling) Strategic Plan, an agreed Budget, and now an Operational Plan, to be approved by the EDINA Management Board, on which both the University and the JISC have representatives. There is work with the JISC to review and agree, on an annual basis, the published performance indicators to comply with the Service Level Agreement for (online) national services.

5. Problem Solving

External/Large-scale 24/7 operation and delivery characteristics of national online services mean that the unusual /unwanted does happen. This includes possible security breaches or even machine theft as
well as software/hardware failure. More complex problems relating to server/application software interaction will be passed upwards to the postholder.

Internal All the challenges associated with management of staff and support for management colleagues: recruitment/motivation/deployment/retention.

6. Decision Making
High level, ranging from overview of day-to-day to executive and strategic; in addition to providing advice as specialist technical staff, decisions have to be taken independently and with authority and timing – with respect to 24/7 services, new technical directions or project outcome.

7. Key Contacts/Relationships
As functional and resource manager, this post-holder works closely with equivalent colleagues within EDINA, particularly other senior managers and the Director. Regular contact with UoE technical teams, particularly Computing Services, is fundamental. As Chief Technical Officer liaison with national agencies, senior representatives from other institutions and organisations (eg JISC, Mimas, UKERNA, EDUSERV), and with project partners and suppliers (eg British Library, Ordnance Survey, OCLC, Internet2) is a significant part of the post. Regular liaison with hardware and software suppliers is essential. Contacts take place by email/phone and face-to-face meetings, with senior managers and directors.

8. Knowledge, Skills and Experience Needed for the Job
The skills set required is broad and deep – ranging from outstanding technical competence, ability to communicate (both written and orally) at all levels within the organisation and proficiency at organising and planning. As important are the skills of leadership and having the ability to manage relationships effectively.

Significant relevant practical experience is required, with a degree in computer/information science or an equivalent professional qualification regarded as ‘near essential’. The post-holder should have 10-15 years experience of working in the computing industry. Knowledge of a wide range of technologies and protocols and their interactions is essential as is the ability to maintain a strategic overview of current developments in hardware and software technologies. Significant experience is required of large computer systems management and software project delivery.

9. Dimensions
Client base is staff and students in all UK universities, colleges and research institutes; primary services affecting 250+ institutions, with staff and students requiring 24/7 remote access. Head of Infrastructure with staff and resource management: 7.25 FTEs overall, responsible for EDINA servers and storage (6 enterprise, 2 smaller) with current insured value c. £1.8M. Annual hardware spend (non-recurrent) varies depending on service acquisition and position in the hardware cycle, generally in the range 75-250K. Recurrent spend (maintenance, licenses etc) is c.100K.

Significant national and international dimensions, through engagement with formal partners or collaboration with other organisations.

10. Job Context and any other relevant information
The job context is provided by the role of the organisation as a National Data Centre that services the whole UK higher and further education sectors. The job has national impact with implications beyond the local, Edinburgh context, but also with impact upon the University.

Consequences of error either in finance, achievement of project outputs or service levels can be great, either in loss/repayment of funds or kudos/reputation of the University. Works at times under a considerable amount of pressure. Out of hours work required at times due to the business critical nature of some aspects of the job.