University of Edinburgh

1. Job Details

Job title: Computing Officer
Planning Unit: EDINA
Unit (if applicable) Infrastructure
Line manager: Head of Infrastructure

2. Job Purpose

To ensure the integrity and continuing operation of EDINA infrastructure components; to lead developments in some areas of software infrastructure; to understudy the Head of Infrastructure re operational decisions.

3. Main Responsibilities

1. Ensure compliance with defined EDINA Service Level Agreements. Monitor performance and operation of servers and application software. Identify and analyse machine or service faults; either fix the problem personally or liaise with appropriate technical support team to generate a solution. Provide operational cover for all application software. 30% of time (66 days)

2. Conduct detailed technical analysis on emerging web technologies and standards. Provide strategic advice and recommendations on their adoption and use to ensure EDINA national services continue to be sustainable, viable and have wide applicability. 20% of time (44 days)

3. Provide a technical lead in the implementation (consult, specify, design and create) and maintenance of EDINA internal support systems, such as software repositories, intranet, service statistics and monitoring. Coordinate crossteam focus groups as necessary. 20% of time (44 days)

4. Manage the installation, configuration, and monitoring of ‘cross-team’ application software underlying EDINA national services. 20% of time (44 days)

5. Liaise with technical teams in Information Services re configuration and maintenance of EDINA infrastructure (servers, network, desktops). 10% of time (22 days)

4. Planning and Organising

Work generated by events, such as service failures, is often urgent and requires immediate action. The postholder is expected to prioritise event driven service alerts and technical support queries without consultation.

The postholder is expected to take a technical lead in the development of a full service or project. With future planning there is often considerable technical investigation over many months, or sometimes years, and consultation with other EDINA and University colleagues. A large degree of initiative and planning is required in order to meet agreed service and project milestones and deliverables.

5. Problem Solving

A high level of ability in analysis and support skills appropriate to computer systems and application software problem solving is required. Typically, problems arise through complex interaction between hardware and/or software components or through external dependencies on services provided by other organisations. It is necessary to identify where the problem actually lies and to initiate an appropriate response, either through escalation to those with direct responsibility
or by investigating and identifying solutions. Many problems require considerable experience and expertise to be applied.

### 6. Decision Making
The development and maintenance of internal EDINA software projects require decisions in respect of changes which will affect all EDINA staff or all users of EDINA services, or decisions on technology deployment that will have resource and/or skill implications. The postholder is expected to be able to assess risks, schedule changes, consider resource constraints (both staff and financial) and provide recommendations to senior colleagues.

The majority of the day to day decisions, with regard to provision of EDINA services, do not require upward reference, but are expected to be open to scrutiny and justification. The postholder will take many decisions unaided and will be trusted to implement their recommendations for service enhancement after appropriate consultation.

### 7. Key Contacts/Relationships
EDINA staff in other technical teams and the User Support & Helpdesk team. Facilities Management, Network Services and Architecture teams from Computing Services.

### 8. Knowledge, Skills and Experience Needed for the Job
The job is of a very technical nature and normally requires a good honours degree in computing science (or related subject) and a minimum of five years relevant work experience. A high level of knowledge and hands on skill is required in:
- UNIX operating system administration and system tools
- Apache, Tomcat, web server deployment and proxying technology
- XML and related technologies such as XSLT
- Database Management systems such as PostgreSQL, Ingres, Oracle.

The ability to solve problems in a timely and effective manner, often under pressure, is essential.

### 9. Dimensions
EDINA services are available, usually through institutional subscription, to all UK HE and FE institutions. They are formally measured by service level agreements, available 24/7, with a required availability of 99%+. Currently they are used by over four hundred institutions (165 universities). Several of the EDINA national services, such as Digimap and Abstract and Indexing databases, are core resources for subscribing institutions.

Some services are managed on behalf of external bodies where the reputation of EDINA and ultimately the University is at stake.

### 10. Job Context and any other relevant information
The activities of EDINA and its performance have high profile, nationally and internationally. The post requires a wide ranging knowledge across a number of core topics. The job is technically complex and challenging. Technologies are constantly evolving and significant effort is required to maintain and apply relevant, up to date knowledge. Maintenance of EDINA services 24/7 requires out-of-hours work, sometimes scheduled but often at very short notice.