Job Description
Post SEE-IT04

1. Job Details

Job Title: MS-windows and Linux integration manager.
Line Manager: School IT Services Manager

2. Job Purpose

Technical leadership for both the deployment of the core MS-Windows service (ie strategic tool development for build and automatic maintenance for Window PC configuration) and tight integration with the core Unix/Linux infrastructure. Specialist knowledge of authorisation and directory services.

3. Main Responsibilities

1. Ensuring that the School MS_windows teaching labs provide the services and applications required. 20%
2. Ditto for the School managed desktop and the design and development of an overall management tool to achieve stateful management (- the computing service’s managed desktop is taken as a base element). 50%
3. Evolving configuration policies for Windows clients in order that they can integrated with the Solaris/Linux core infrastructure. 10%

4. Planning and Organising

Postholder required to be self organising wrt to job prioritisation, blending event driven and development work. Long term service test and development in consultation with colleagues around the University and externally.

5. Problem Solving

A very high level of ability in analysis and support skills appropriate to computer systems problems, with technical leadership to other members of the team.

Examples: 1. Short term and long term end-user problem solving (firefighting), from fixing font problems (MS-Office v Linux OpenOffice) to troubleshooting the SAMBA service. Eg, Microsoft Word perpetually polls the status of all network printers freezing the user’s window for tens of seconds at a timer. The Windows printer install method has to be modified to prevent this, likewise for network filestore directory refresh. 2. Overcome problems during longer term developments such as Machination (windows client management system) and various inventory and hardware database design upgrades.

6. Decision Making

The maintenance and development of new services requires decisions in respect of changes which will affect all users of these services. For example when to apply patches, when to introduce a complete change to a core cross-platform service, eg the printing infrastructure. There is an expectation to take decisions unaided and make recommendations with a view to improving existing services and to implement these successfully after appropriate consultation with other service providers.

Example: When to be a consumer of an EUCS provided service and when not to, particularly with regards to our Windows clients. Equally, when to enter into a joint development with an EUCS specialist team, eg DST. Current strategic decision to be made as to how to manage 64-bit Windows systems necessary now for certain research "power users" (impact: RAE). Lead time of EUCS is too long but ultimately this facility will required to be managed across the University.

7. Key Contacts/Relationships

Internally, customers range from students to head of school and externally included visiting academics and senior industrialists as well as number of affiliated organisations.

Technical support between other IT staff in the University and external. Key are the weekly informal Thursday lunchtime meetings between members of SciCOs and DST where many problems are thrashed out and ‘best practice’ developments initiated.

The postholder participates in the UoE Stargazing, E-diary, Authentication & directory C&ITC Working Parties.
Conference contacts including invited papers and contributions to international technical mailing lists (e.g. lssconf, samba, openldap).

8. Knowledge, Skills and Experience Needed for the Job

The job is of a very technical nature normally requiring graduate level education, a high level of hands on skill and a minimum of five years experience with a range of both hardware and operating system software. The ability to solve problems in a timely and effective manner is essential along with technical documentation skills.

9. Dimensions

The School has 1200 undergraduate and taught MSc students, 400 research students and staff, altogether 2100 registered user accounts.

The School operates three managed and maintained platforms:

- Solaris: 206 installations (incl 74 seat partionable teaching lab, 42 servers),
- Linux: 548* installations managed via LCFG; 15 turnkey 64-bit servers,
- Windows XP: 400 installations (265* "SEE" managed, 145* "AD" managed in five labs with UG compatibility),
  [*]390 are dual boot Linux/Windows (technology developed in SEE and now exported to DST for the Microlabs)
- In addition we provide network services (filestore, printing etc) to a further 40 personally managed machines (mainly user laptops) and a similar number of lab-experiment turnkey systems throughout the School.

Filestore: 42 Solaris servers, 14 Linux NAS boxes (cross replicating) (>100TB total). 90 network printer queues (60 printers). Web sites for 33 registered domains (hosted on 3 servers), mailservers for 16 domains (3 servers).

The School has designed, manages and operates a fibre network linking 13 buildings spread over the KB site together with a cat5E distribution to 2800 circuits in offices and labs. The School "backbone" centres around two Cisco routers connected directly to Edlan and Informatics respectively, 32 network switches (up to 168 ports each) with hot-spare inter-links. 25 WAPs provide wireless coverage throughout for mobile users and visitors. In three buildings, the data network also carry phone circuits (130 in total) for which connections are also managed by the IT team.

Applications: c240 Solaris, c30 Linux, c40 MS-Windows (25 MSIs for teaching labs), 20 licence servers of various types. Only applications that run on all three platforms are eligible to be classed as core applications within the School. There are 9 of these including basic maths and officetools: Matlab, Maple and OpenOffice.

The user help-desk uses the EUCS CMS with calls filtered by the college support team, and runs at between 150 and 200 open calls for the School team to resolve. All members of the team take a half-day duty turn, assigning jobs to the appropriate team member. The School's IT help web site contains 204 pages (and about 2500 links).

This postholder oversees the work of post SEE-IT18.

10. Job Context

The post requires a wide ranging knowledge across a number of core services. The job is technically complex and challenging, as the technology, and hence the service requirements of our researchers in particular, are constantly evolving before any support infrastructure is available from the University. Issues arise often that have not been encountered before and the IT team is always at the leading edge, frequently advising EUCS on such matters.

In order to ensure continuity of service, especially for taught laboratories for which rescheduling is virtually impossible, we have to develop back up for those central services that we normally rely on. Where practical, these are hot-swap, but inevitably many require on-the-fly manual reconfiguration.

11. Verification

I agree that this job description conveys an accurate description of the job.

Job Title  Name  signature  date