

# DCS Service Document — DRAFT

Syssies

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## 1 Aims of this document

This is a description of the services and the quality of services provided in the Department of Computer Science. It is a statement of the service that users can normally expect given the resources currently available.

## 2 Introduction

Some of the services described in section 3 are *core* services. If core services fail then all users (or, for some services, a group of users) are unable to access the network at all. In normal operation some of these core services are not highly visible to users and their importance can easily be underestimated.

For all services:

- Any hardware on which services depend can be replaced or repaired quickly.
- Training, communication, documentation and scheduling of syssies' leave is sufficient that there is always someone available who is capable of rebuilding the service.

Services are continually being updated, improved or modified to take advantage of improved software and hardware or to deal with changes in the network. New services are developed where appropriate and these new services then become part of the existing service.

## 3 Service Provision and Service Quality

The quality of each service is described in following terms:

**Service** A brief description of the service.

**Dependency** Any dependencies which affect the possible response times.

**Response** This refers to the *normal* response time for fixing failures (nb. not planned downtime). These times apply within working hours only (Mon-Fri 9-5). Outside

working hours no guarantees are made about response times — faults are fixed on a *best efforts* basis only. These are the *normal* response times: certain events may prevent the meeting of these response times. Also, these times are contingent on certain resources being available.

### 3.1 Core Services

The response time for fixing faults resulting in failures of core services is 1/2 day from the first report of the failure (however, the response will often be much quicker than this).

All services (including other core services) are dependent on core services. Dependencies are only mentioned where they extend beyond core services.

#### 3.1.1 General network support

**Service** There are several background network services which are fundamental to the correct operation of almost everything else. These include: the DNS, Hesiod and NIS (formerly YP) distributed database services, which contain machine name, home directory and username and password information; the *amd* automounter which ensures that directories are uniformly visible over the entire network; the network routing exchanges which tie the various physical networks into one logical network; and the network time service (NTP) which ensures that machines' clocks are properly synchronised.

#### 3.1.2 User environment

**Service** A default environment is supported which provides a uniform user interface (window system and shell) across all platforms and is suitable for most users. Variants of this environment are also supported for specific groups of users (eg. CS1).

**Dependency** Local software support (and core services).

**Response** Significant problems with the default environment will be fixed within 1/2 day. Minor problems and any difficulties with customised environments receive a lower priority.

#### 3.1.3 Home directories

**Service** All users have a *home* directory. Undergraduates and MSc students have disk quotas imposed on them. Other users may occasionally be asked to reduce their disk usage. Future growth in home directory space is budgeted for.

### 3.1.4 Physical network

**Service** A physical network based on Ethernet, Appletalk and RS232 is provided as a general carrier for all network services. All offices and laboratories have connection points to the network and all machines are connected. Access off network and thus to the CS facility at Appleton Tower goes via EdLAN (managed by EUCS).

**Dependency** EUCS network services for external access..

**Response** 1/2 day on all faults affecting complete network segments and 1 day on faults affecting an individual access point. Response times for external networks (including Appleton Tower) depend on EUCS and so no guarantees are given.

## 3.2 Other Services

### 3.2.1 Student machines

**Service** Access to the student machines is unrestricted during the normal building opening hours (for JCMB and AT). Students can also gain remote access over EdLAN. There are enough machines available to allow students to do their coursework assuming that they spread their coursework sensibly over time and that they spread their working hours throughout the day.

**Dependency** Student X-terminal/client servers (and core services).

**Response** For the whole service the response is 1/2 day; for an individual machine the response is 1 week (although it could be sooner depending on maintenance arrangements).

### 3.2.2 Staff and postgraduate machines

**Service** All full-time members of staff are provided with their own networked bit-map display (workstation, Xterminal or Mac/PC depending on availability and personal requirements). Postgraduate students and visitors have convenient access to such a device and can have their own personal RS232 terminal on request.

**Dependency** Each client depends on its client server (and core services).

**Response** For the whole service the response is 1/2 day; for an individual staff machine the response is 1 day; no guarantees are made for an individual postgraduate machine.

### 3.2.3 Mail

**Service** All users can send and receive electronic mail within Edinburgh University and to and from the major world-wide networks. At present individuals incur no charge for sending or receiving mail, but this may change in the future. Delivery

of mail internal to dcs is guaranteed. Delivery of any mail allegedly sent to dcs from external sites or sent to external sites from dcs is not guaranteed.

**Dependency** EUCS network services and recipient services for external mail (and core services)

**Response** Local mail should be fixed within 1/2 day. External mail is largely beyond our control.

### 3.2.4 News

**Service** Access to the departmental news service is unrestricted to all members of the department.

**Dependency** EUCS (festival) for external news feed, Mail for mail to news gateway and mailing to moderated groups (and core services).

**Response** 1/2 day for local stuff, no guarantees for external things (cf. mail)

### 3.2.5 Faults

**Service** All users can report faults through email, except when email is broken, then they should phone 5126 (ansaphone) or report it to room 2417.

**Dependency** Quality of information provided by the user about the fault, Mail (and core services).

**Response** Totally dependent on the type of fault and how much information is given, but we aim to get a first response, saying it is being dealt with, back to the reporter within the hour during office hours (9am-1pm, 2pm-5pm, Mon-Fri).

### 3.2.6 Local software support

**Service** Local, public domain and commercial software can be installed at any time. Updates and new installations are distributed around the network to the appropriate binary servers every night. The distribution of some software may be limited by the number of licences.

**Dependency** Licences (and core services).

**Response** 1/2 day

### 3.2.7 Printers

**Service** At least one suitable printer is within reasonable reach of each group of users. The matrix printers support text files only. A range of file types are supported on all the laserprinters.

**Dependency** Each printer is dependent on its despooling host and the file system where its spool directory lives (and core services).

**Response** Faults that result in one or more users being unable to print at all will be dealt with within 1/2 day. Outage of a particular printer where there is an acceptable alternative available may be up to two weeks. Printing difficulties with specific documents will receive prompt attention for plain text and locally-generated .dvi files without embedded PostScript. Problems with printing of other types of document is done on a *best efforts* basis.

### 3.2.8 Backups and restores of individual users' files

**Service** Backups are done every weekday night of all home directory and other important partitions. Incrementals of LFCS partitions are also dumped over the weekend. Restores are dependent on backups not only working but being cycled and a selection kept. Occasionally, a tape is not written for some reason but we do try to keep a reasonably regular backup system.

**Response** Urgent restores (users' entire home directories or practical submissions before a deadline, etc.) can be done the same day if requested early enough (usually before lunchtime), but non-urgent restores will take around 3 days.

### 3.2.9 External Network Access

**Service** CS3 upwards get full Internet access (including inbound FTP). CS2 have access to a few external machines. CS1 have no external access.

**Dependency** External?

**Response** For the local outgoing ftp service the response is 1/2 day; no guarantees can be made about the availability of external ftp sites.

### 3.2.10 Compute resources

**Service** The service provides adequate computing resources for the general computing needs of any departmental user. Specialist needs are catered for by the provision of individual client machines and compute servers. The service does *not* guarantee that all specialised research applications can be supported.

**Response** 1 day

### 3.2.11 Tape- and Floppy-disk-host

**Service** Everyone has access to the tape-and floppy-disk host.

**Response** Depends on the nature of the problem but could be up to 1 week.

### 3.2.12 User account administration

**Service** All users (staff, undergrads, visitors, etc) in the department will be allocated an account on the unix system. They will also be given a copier account from CS3 upwards. Entacards will also be handed out from CS2 upwards.

**Response** Individual unix accounts will generally be created within a couple of hours (during office hours) of the time they are requested. Blocks of accounts (for courses, etc) may take longer (up to a full day). Copier accounts can be set up at the same time as the unix accounts. Entacards can be obtained between 9am-1pm and 2pm-5pm Monday to Friday from Jenny Smith, room 2417, but may take up to a week to be enabled.

### 3.2.13 Software packages

**Service** Disk space is available for storing the sources of and compiling new software packages and new versions of existing packages. Obsolete packages are periodically removed. It is the users' responsibility to check the support level of any package that they wish to use. The support level of a package can change as it become more or less important.

**Dependency** Local software support (and core services).

**Response** This will vary according to the support level:

- A These packages are part of the standard default environment and are fully supported on all architectures, normally at the latest available version. Good documentation is available and major bugs will be fixed.
- B These packages are normally expected to be working - although they may not be at the latest version, and they may not be available on all architectures. Bugs will usually be fixed, but at a lower priority.
- C These packages are currently operational and there may be some help for users wanting to fix bugs themselves, but there is no guarantee of support. Packages at this support level and lower cannot be relied upon for projects or other essential work without making special arrangements for their maintenance.
- D These packages are available, but are not supported in any way.

### 3.2.14 Development of existing services

**Service** Systems staff will track external developments relevant to the existing service provision and upgrade hardware and software where appropriate.

### 3.2.15 Development of new services

**Service** Systems staff will maintain an awareness of new services that may be of interest

to users and keep users informed of them. New services will be developed where appropriate.