



# Homerton College Residential and Wireless Networks Definition of Service 2011/2012

## Introduction

ResNet (wired) and eduroam (wireless) – hereafter referred to collectively as “the network” – form a managed network that is provided and operated by the Homerton College IT Department. On connecting to the network there are restrictions and policies as to what you can and can't do – it is not similar to a home broadband connection that is usually completely open Internet access. The network primarily provides an academic Internet service to College and University members. The cost for using the network is incorporated into your College fees.

**What you get:** 24x7, shared high-speed connection to the Internet (subject to our ISP)  
Telephone, online, and face-to-face support, documentation and troubleshooting

**What you don't get:** On connection of your device to the network at Homerton you become part of a managed network – it is not open Internet access. There are restrictions and policies as to what you can and can't do – this is not similar in any way to a broadband connection you may have at home.

Microsoft no longer supports Windows 95, 98, NT, 2000 and ME, and Apple no longer supports OS X editions prior to 10.5 Leopard. Due to potential security issues with these operating systems the IT Department cannot permit them to be used on the network. Games consoles are also not permitted.

**What you need to supply:** A Desktop, Laptop, or Netbook computer that meets the minimum specification outlined under 'Hardware & Operating System Specification' on Page 4. Handheld devices such as smart phones or tablets may be used on the eduroam wireless network if they are 802.1X capable.

**All system restore CDs and driver media.** Microsoft Windows and Office CDs are often required when installing security patches or upgrading the operating system software, and secondly in case of the need for disaster recovery. **Please backup all of your essential data prior to connection.**

**Required configuration for:** **Microsoft Windows XP, Vista or 7** (valid licensed copy)  
 - All Critical and Security Updates installed  
 - Windows Firewall enabled  
 - Network bridging disabled  
 - An up-to-date anti-virus program (see 'Anti-Virus Software' on Page 4)

**Mac OS X (Version 10.5 Leopard or later)**  
 - All applicable patches and updates installed  
 - An anti-virus program\* (see 'Anti-Virus Software' on Page 4)

**Linux**  
 - Any distribution – Debian, Mint, openSUSE and Ubuntu are known to work  
 - The latest kernel or an earlier version with back-ported security fixes  
 - All applicable patches and updates installed



## Service

The University of Cambridge Computing Service provides the College with an Internet connection. A requirement for this connection is that all users must be authenticated, all traffic generated is attributable to a specific user, and that all users abide by the rules defined by the University. This is additional to the Homerton College IT Security Policy, which all users will have signed during Matriculation. For detailed information, please review: -

- **Homerton College Acceptable Use Policy**  
<http://www.homerton.cam.ac.uk/itdept/aup.pdf>
- **Rules Made by the Information Strategy and Services Syndicate**  
<http://www.cam.ac.uk/cs/isss/rules/isss.html>
- **Use and Misuse of Computing Facilities**  
<http://www.cam.ac.uk/cs/isss/rules/guidelines.html>
- **Authorization for Use of the CUDN**  
<http://www.cam.ac.uk/cs/isss/rules/other/network/cudnrules.html>
- **Having a connection to a College network**  
<http://www.cam.ac.uk/cs/security/notes/collegerooms.html>
- **IS28: Security implications of attaching a computer to a College or Departmental network**  
<http://www.cam.ac.uk/cs/docs/infosheets/is28/>
- **Janet Acceptable Use Policy**  
<http://www.ja.net/company/policies/aup.html>

## Network Connection

There are two ways of connecting to the network: through a wired Ethernet port in your bedroom (network cables can be purchased for £3 from the Porters' Lodge) or via the wireless *eduroam* SSID where available. The wired connection should be considered the more reliable of the two and should be used where possible; when using the wired connection it is highly recommended that you disable your wireless adapter.

Upon initial connection to the network you will be placed into a setup zone where you will be guided through the process of retrieving your passwords, updating your device, and configuring it for logging on to the network. **This process will go far quicker if you have already updated your device with all the latest patches and security fixes prior to arrival.** To assist with the update process we have created a Pre-Arrival Guide, available at <http://www.homerton.cam.ac.uk/pre-arrival/>, and encourage all inbound students to work through it.

It is very important to keep your computer up-to-date throughout the year to ensure the integrity of your own computer and others on the network. Microsoft release critical and security updates on the second Wednesday of every month, and Apple release updates periodically or as and when needed. Windows users should use the Automatic Update system and Apple users the Software Update system to automatically patch the machine when necessary. When security threats are detected you may find yourself isolated from the main network while the issue is resolved. A properly maintained computer should experience the least amount of interruption possible.

## Traffic

The use of any computer on the network generates network traffic; network traffic is data flowing between computers. All traffic generated on the network is logged and attributed to the user account (CRSid) that generated it, and logs are retained for at least 3 months for the purposes of accounting, statistical analysis, and incident investigation. Where anomalous traffic is detected, the user in question will be contacted for an explanation, unless the incident is serious enough to require immediate suspension of service where no



notice will be given.

The College is subject to a traffic-charging regime whereby the University charges for Internet traffic sent through the University network. These charges are based on current levels of traffic to/from the Cambridge University Data Network.

To help ensure that your Internet connection is fast and reliable whenever you need it for your academic studies, we operate a Fair Use Policy and QoS (Quality of Service) system on the network. This optimises network load and evens out peaks in network activity, maintaining a consistent service.

Users are given a traffic allowance (quota) of **10GB per fortnight** for data transferred both to and from the Internet. Data transferred within the Cambridge University Data Network is not deducted from your quota (i.e. \*.cam.ac.uk websites). Users exceeding this quota will have their connection throttled for the remainder of the fortnight.

Users are reminded that they are responsible for all network traffic generated by their computers. Users who generate excessive network traffic will be required to demonstrate that they are abiding by the rules otherwise they may be subject to disciplinary action and any associated charges as deemed appropriate. Unauthorised use of peer-to-peer (P2P) file-sharing software will almost certainly render you vulnerable to exceeding your quota and you may be charged for this traffic as deemed appropriate. They might also cause you to be in breach of copyright law, which will **not be tolerated**. It is a prerequisite that applications of this type have their services disabled or uninstalled before connection to the College network. This also includes iTunes and Windows Media Player sharing.

### **Features & Functionality**

All subscribed users can expect the service to provide the following features: -

<b>Description</b>	<b>Program examples</b>
(Secure) Web Browsing	Internet Explorer, Firefox, Safari, Google Chrome
Streaming Media	Flash (YouTube*, Google Video*, etc.), BBC iPlayer*, 4oD*, RealPlayer, QuickTime, Windows Media Player**, iTunes**
(Secure) File Transfer Protocol	FTP clients such as FileZilla
Email	Outlook, Outlook Express, Thunderbird
Telnet and Secure Shell	Telnet (not recommended), PuTTY, ssh
Newsgroups	Outlook Express, Thunderbird
Internet Telephony	Skype

Services **not** permitted are as follows: -

<b>Description</b>	<b>Program examples</b>
Peer-to-Peer (P2P)	Kazaa, Morpheus, BitComet, Limewire, BitTorrent, µTorrent
Server Services	DHCP, DNS, IIS, Apache, SQL, MySQL, SMB, Windows File and Print, iTunes and Windows Media Player Content Sharing
Internet Gaming	World of Warcraft, GuildWars, EveOnline, Warhammer, Steam
Network Monitoring Tools	Packet sniffers, Netmon, Port scanners
Internet Telephony (except Skype)	VoipBuster, Net2Phone, iConnectHere
Tunnelling Applications	Hopster, Grokster, Tor, Privoxy

\* These services generate very large amounts of traffic, all of which will be deducted from your quota.

\*\* iTunes is currently permitted only on the condition that the "Share My Music" option is disabled  
Windows media player must not be configured to "Share My Media".



### Anti-Virus Software

The University Computing Service requires that computers connecting to the Cambridge University Data Network (CUDN) run up-to-date anti-virus software where possible. As such, we require all computers connecting to the CUDN via Homerton run up-to-date anti-virus software.

Please be aware **it is not necessary to purchase anti-virus software**; there are freely available products for Microsoft Windows that are very good, and we can provide a commercial product for Apple Mac OS free of charge for the duration of your stay at the University.

The IT Department recommends Microsoft Security Essentials for Windows users, which can be downloaded from [http://www.microsoft.com/security\\_essentials/](http://www.microsoft.com/security_essentials/). For Apple Mac OS users we can supply McAfee Security for Mac 1.0 – if you wish to use this please contact the IT Department for details. Linux users can use the freely available ClamAV from <http://www.clamav.net/>.

### Hardware & Operating System Specification

Minimum hardware specifications to allow your computer to connect are listed below:

Minimum Specification	Recommended Specification
<b>Windows</b> Intel Atom/Pentium 4 or AMD CPU 1GB RAM Windows XP SP3 1GB free hard disk space Network card (10/100 Ethernet)	AMD Athlon 64 or Intel Core 2 Duo CPU 4GB RAM Windows 7 SP1 10GB free hard disk space Network card (100Mbit Ethernet) Wireless card (G or N capable)
<b>Mac</b> Intel CPU OS X 10.5.8 1GB RAM 1GB free hard disk space Network card (10/100 Ethernet)	Intel CPU OS X 10.7 or later 2GB RAM 10GB free hard disk space Network card (100Mbit Ethernet) Wireless card (G or N capable)
<b>Linux</b> Kernel v2.6.35 1GB RAM 1GB free hard disk space Network card (10/100 Ethernet)	The latest 2.6.x or 3.x kernel 2GB RAM 10GB free hard disk space Network card (100Mbit Ethernet) Wireless card (G or N capable)

It should be noted that generally any computer more than 6 years old will encounter performance problems and as such we cannot guarantee their ability to connect or be usable on the network.

Users' PCs with counterfeit or non-genuine copies of operating systems are not permitted – Microsoft does not allow the installation of service packs or critical updates to illicit copies of Windows or Office suites and therefore they cannot be patched securely to a level in accordance with the Colleges **Acceptable Use Policy**. For Windows users, XP Service Pack 3, Windows Vista Service Pack 2, or Windows 7 Service Pack 1 is a requirement for continued use of the network.

Advice about purchasing a PC and recommended vendors can be found at:

<http://www.cam.ac.uk/cs/compsoft/hwoverview.html>

Software and Hardware support may be limited for non-Windows users. Users of dual boot PCs (e.g. Windows and Linux) may use both operating systems on the network – if you run a dual boot configuration you will be required to keep both OS's patched and up-to-date.



If you are purchasing or have recently purchased a PC and have a problem not related to the network setup, your first port of call should be to contact the supplier you purchased it from. Any work that the IT Department may carry out on faults (especially hardware) can invalidate your warranty and may incur charges from the PC manufacturer.

### **Handheld or Tablet Devices**

It may be possible to connect your handheld or tablet device to the wireless *eduroam* network; any device that supports 802.1X should work – Apple iOS devices (i.e. iPhone's, iPod's, and iPad's), Android devices and BlackBerry's are known to work. Due to the plethora of handheld devices available the IT Department can only provide support on a best-efforts basis to all but the most common devices.

### **Requirements & Prerequisites**

The College requires that users wishing to use the service adhere to the following:

1. All users of the Windows operating system must keep their PC up-to-date by regular use of the Microsoft Update service. It is essential to install all Windows critical updates and service packs.
2. All users of Apple's Mac OS operating system must keep their Mac up-to-date by regular use of the Apple Software Update service.
3. All users of the Linux operating system must keep their PC up-to-date by regular use of the update service relevant to their particular distribution.
4. All computer users must have an anti-virus product running on their computer at all times and definitions must be kept up-to-date at daily intervals. The College recommends the freely available Microsoft Security Essentials for Windows users, and can provide McAfee Security free of charge for Apple Mac OS users.
5. Users must agree and consent to statistical data being gathered on their network usage, including identification of remote sites and traffic volumes to or from those sites. This data may be used for and shared between the network administrators of the College and of the University, under the following circumstances: network administration, advice to or cautioning a user and charging for excessive use.
6. Users offering server type services (a program which provides some service to other client programs, for example Game, FTP, Web, Peer-to-Peer and music servers) on the network, intentionally or otherwise, will be disconnected and notified as such until the service has been disabled.
7. Computers may be probed and security scanned on a regular basis for vulnerabilities. Users will be notified of any irregular findings so that they may take action to address a problem. In extreme situations equipment will be disconnected from the network until potential threats can be investigated.
8. In a small number of circumstances it may be essential to disable or uninstall certain services or programs that conflict with the network. For example, Internet Connection Sharing, File & Print sharing, RAS and personal firewalls.
9. Users must not connect wired or wireless routers/access points or wireless printers to the network as this can cause disruption to the network for other users. Any such devices discovered will be disconnected without warning.
10. Users must not purposely circumvent network policies (firewall rules, quota restrictions, etc.).



### Rules In A Nutshell

- You may use the network for academic purposes
- You may not use the network for:
  - a) Transmission or deliberate reception of defamatory material
  - b) Transmission of unsolicited advertising material
  - c) Transmission or deliberate reception of racist, sexist, pornographic or generally offensive material
  - d) Any action which jeopardises the integrity of the network or any other users data
  - e) Financial gain or for any illegal purpose
  - f) Transmission or deliberate reception that infringes another person's copyright (this applies to the vast majority of digital music and video files).
  - g) You may not operate a peer-to-peer file sharing protocol on your computer. This includes (among many others): Kazaa, Morpheus, BitComet, Limewire, BitTorrent, µTorrent, iMesh, FlashGet, Shareaza, Vuze, Muze, DirectConnect, Grokster, Hotline Connect.

### Disciplinary Procedures

The University and Homerton College reserve the right to monitor network traffic and probe PCs on the network for vulnerabilities. Abuse of the network rules may lead to the College initiating disciplinary procedures depending upon the severity. Initially, the IT Department will send the user an official warning outlining the reasons behind the action. Further continued abuse may result in disconnection from the network and will be directed to the College Dean for action. The College is aware that certain breaches of the 'Acceptable Use Policy' may not be deliberate and does take this into account, often helping to rectify the situation and educate the user to prevent the situation from reoccurring. In extreme circumstances users may be disconnected from the network without warning and the student(s) will be directly reported to the Dean for action to be taken.

### Faults

It should be noted that failures in Internet services outside the College may interrupt access in the College. The IT Department has no control over any part of the Internet beyond the College Campus Area Network. Users of the network should not deal directly with the University Computing Service in relation to local network issues or troubleshooting issues. The IT Department Helpdesk will deal with all such requests via the contact methods below.

Should you encounter a problem with the network outlets in your bedroom either at the start of term or throughout the year, please inform the IT Department Helpdesk of your building name, room number, and the problem you are having as soon as possible.

#### **Helpdesk Opening Hours:**

*Monday – Thursday 09:00 – 18:00*

*Friday 09:00 – 17:30*

*Please note that the helpdesk is not staffed during public or bank holidays.*

<i>E-mail address</i>	:	<a href="mailto:it-support@homerton.cam.ac.uk">it-support@homerton.cam.ac.uk</a>
<i>Off Campus Telephone Number</i>	:	01223 747109
<i>Access number on Campus</i>	:	47109