



# IT SERVICES POLICY

## IP ALLOCATION AND MANAGEMENT

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## Document Approval

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## Overview

All devices, including desktop or laptop computers, servers, network appliances, mobile phones or PDAs require an IP (Internet protocol) address and host name to be assigned to them in order for them to be able to attach the College's network. The purpose of this document is to describe the policy for the allocation, distribution and management of IP addresses on the Royal Holloway, University of London network. The network is provided by the College to support its primary role of education and research and related functions. The policy is required to ensure that good practise is applied across the College to maintain the security and integrity of the network for all users.

## 2. Policy scope and purpose

This policy is intended to detail the rules for the assignment and use of IP addresses and hostnames for all members (generally staff and students) of Royal Holloway, University of London, who use the College's network and related services. This policy applies to all hosts connecting to the network either physically or virtually. The Policy is applicable to all members the University including staff, students, visitors and other authorised users of College IT facilities.

In practise the audience for this policy will be staff providing IT services within departments.

The policy is designed for use with IP v4 – when support is available for IP v6 this policy will be reviewed.

The College complies with and adheres to all its current legal responsibilities including Data Protection, Electronic Communication, Human Rights, Computer Misuse, Copyright and Intellectual Property. IT has a key role in ensuring compliance with these directives and as part of this role has a requirement to keep up to date records of IP and hostnames and who is responsible for the connecting equipment.

## 3. Statement of responsibilities

The use of the network by individuals at RHUL assumes and implies compliance with these policies without exception. Every maintainer of hosts (in practise IT staff from either IT Services or other departments) on the network has a duty to ensure they practise appropriate and proper use and must understand their responsibilities in this regard.

IT Services are responsible for publishing and maintaining all the relevant IP and hostname data through a hosts file and DNS. IT Services will maintain a contact address [itservicedesk@rhul.ac.uk](mailto:itservicedesk@rhul.ac.uk) through which queries about the data and other issues relating to the network should be made.

IT Services is responsible for IP policy as a whole. Certain areas of IP allocation and naming will be delegated to named local supporters. This will be with the full cooperation and support of IT Services. Where such responsibilities are delegated the staff taking on the local management of IP addresses must comply in full with the policy and procedures provided by IT Services.

#### 4. IP/hostname registration

Only authorised users of the College's computer systems are entitled to use RHUL hostnames and IP addresses on the network. All hosts connected to the network must have a registered IP address and hostname. IP addresses granted to CampusNet users have hostname IP combinations that are pre-registered. Staff allocations are on a case by case basis (i.e. when hardware is purchased or changed) and are handled through IT Services directly. For those departments that have IT staff it is common for the request and allocation of IP addresses and hostnames to be delegated by allocation of a range of addresses to be used within the department in question.

#### 5. Delegation of IP registration authority to named IT support staff

For departments with IT staff who take on the responsibility for delegation of IPs, IT services will maintain a list of the named individuals linked to the range provided. The person/s named will have the responsibility to manage the delegated IPs and provide, as a minimum, the following information to IT services via [ITservicedesk@rhul.ac.uk](mailto:ITservicedesk@rhul.ac.uk):

1. Careful management and record keeping of delegated IPs/hostnames to ensure efficient use with no wastage of ips addresses due to poor record keeping.
2. Requests for batches of IP addresses and hostnames to IT services should be a sensible number at a time to cover the department's needs.
3. Each IP and hostname designation within the delegated set will be reported to IT services within 1 working day of the IP/host combination being put into production to allow DNS and IP records to be kept updated.
4. The name of the user who is responsible for the equipment on the network must also be reported to IT Services within 1 working day.
5. When IPs/hostnames change use, this change must be reported, providing either details of the new user or that the IP address has been returned to an unallocated pool ready for reuse.
6. Information regarding IPs within delegated control must be provided on request at any time.
7. An annual audit will be carried out each December. A complete record of the IP address use within a delegated IP address space must be provided to IT Services the 1st working day of December with the following information:
  - Ip address
  - Hostname
  - Name of individual responsible for IP address

## 6. Hostname conventions

All hosts should have a unique name that is registered in the hosts DNS; the unique name will be registered so that reverse lookups are self consistent. For efficiency and fairness naming has been codified. Host names will not be allowed to violate RFC 1034, 1035 or superseding RFC's. IT Services reserve the right not to implement a proposed hostname if it is considered to be inappropriate.

Superseding conventions will not be applied retrospectively. Additional address records or aliases may be considered for servers, this is designed to allow continuation of services e.g. Department servers.

## 7. Private Address Ranges

The use of private addresses as defined by The RFC 1918:

RFC1918 name	IP address range
24-bit block	10.0.0.0 – 10.255.255.255
20-bit block	172.16.0.0 – 172.31.255.255
16-bit block	192.168.0.0 – 192.168.255.255

is permitted at RHUL with permission from IT Services. IT Services will not support these on the central network at Layer 2 or 3. Departments or individuals who have opted to implement these network ranges are required to report the network IP address and hostname allocation to IT Services under the same rule set as delegated IPs in section 5.