



# GRID

## Permission To Connect To Network Form

Please note that in this document the terms 'GRID' and 'ProtoGRID' refer to the Prototype GRID.

This form serves the following functions:

1. It registers your Computing Equipment and assigns you a unique GRID name and address.
2. It grants you Permission To Connect the registered Computing Equipment to the GRID.

In order to protect our networks, the University requires that all devices which are to be connected to the GRID **must be** registered with Information Services. Provided that they comply with the required standards, Permission To Connect will be granted to you by return of this form. The returned form **must be retained** by you. Your existing IP Name and IP Address will change.

- **All requests for 100Mbps GRID connections** must first be approved by the departmental computer representative or other nominated person.
- **All requests for 1Gbps GRID connections** must first be approved by the GRID Technical Group (Email [GRIDTECH-L@CARDIFF.AC.UK](mailto:GRIDTECH-L@CARDIFF.AC.UK).)

Completed forms should be sent to the **Operators, Information Services, 39-41 Park Place** who will register your device and issue the appropriate network name and address, you will then be contacted to arrange a visit from a Technician who will make the physical connection to the GRID.

Please complete **ALL** relevant boxes on this form. Any changes **must** be notified by completion of a new form.

<b>TYPE OF CONNECTION REQUIRED:</b> (please tick)	
<b>100Mbps</b> (Copper TX only)	<input type="checkbox"/>
<b>1Gbps</b> Copper TX	<input type="checkbox"/>
Fibre SX*	<input type="checkbox"/> Specify connector type .....
<small>* Gbps Fibre EtherNet Interface Cards will need either to be located in a GRID-enabled LAN Room, or the project concerned will need to fund a dedicated fibre (estimated cost £2-3k) and fibre patch leads. Currently, SC, SMC and FTC connector types are supported.</small>	
SIGNED .....	DATE .....
<b>Departmental Computer Representative or other nominated person</b>	

**SECTION A** (To be completed by the Applicant in BLOCK CAPITALS)

TITLE	FIRST NAME	OTHER INITIALS	SURNAME	Cardiff University/UWCM, DEPARTMENT
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I apply for permission to connect the device described below to the Cardiff University & UWCM network. I have read and agree to abide by the relevant Information Services Regulations (obtainable from Information Services at 39-41 Park Place, or on the web at [www.Cardiff.ac.uk/regulations](http://www.Cardiff.ac.uk/regulations)).

SIGNATURE	DATE	Cardiff E-Mail Address
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The format and wording of this form must not be changed, any altered form received by operators will result in the application not being registered.

**SECTION B** (To be completed by the Applicant in BLOCK CAPITALS)

1. Equipment Details:

BUILDING	ROOM	DEPARTMENT	OUTLET NUMBER (5 digits) for Copper TX only				
MAKE AND MODEL OF EQUIPMENT	ETHERNET ADDRESS (SEE NOTE 1)		ETHERNET CARD TYPE (SEE NOTE 2)				

2. Which operating system does this equipment use?   
(SEE NOTE 3)

3. What function does this equipment have? (Please tick as appropriate)

Multi User System  Generic Server System  Single User Workstation

If your equipment is concerned with network control, switches or gateways, please describe:

MS-Windows NT/95 only Domain/WorkGroup Name  PDC  BDC  Standalone Server   
(SEE NOTE 4)

4. Does this equipment provide a service or services? NO   
(SEE NOTE 5) YES

If yes, please specify

5. Does this equipment have a network name? NO   
(SEE NOTE 6) YES

If yes, please specify its name

6. TCP/IP Address (SEE NOTE 7)

FOR OFFICIAL USE ONLY:

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_

# GRID Permission To Connect To Network - Notes of Guidance

## INTRODUCTION

All University buildings in Cardiff University and at UWCM are connected together by a sophisticated computer network (LAN). The principal technologies are Fast Ethernet to the desk (100Mbps) and Gigabit for servers and backbone links (1000Mbps). The LAN is a valuable campus-wide resource which provides intercommunication between all Cardiff University and UWCM users and access to a wide range of IT applications in Cardiff and beyond.

Access to the LAN must be controlled and managed:

- \* to ensure security
- \* to avoid duplicate network names and addresses
- \* to monitor network loads and to detect overloads or potential overloads
- \* to avoid accidental or malicious misuse affecting other network users
- \* to maintain high levels of LAN availability

Information Services has the task of installing the network, regulating access to it, and monitoring its use. To enable these tasks to be carried out effectively and economically, the following principles must be observed in any connections to the LAN:

- \* devices connected to the LAN require unique names and addresses
- \* connection to the LAN must be via approved network interfaces
- \* correct communications leads which connect devices to the LAN must be used
- \* users must not modify or extend the LAN in anyway
- \* network protocols must be approved
- \* network services must be approved
- \* any device causing repeated problems to other LAN users will be temporarily or permanently disconnected from the network

Because of the complexity of the LAN, the choice of all hardware and software which will access the LAN **must be approved prior** to connection and its subsequent impact on LAN performance monitored as a part of routine network operations. In the vast majority of cases, this will be simply achieved by following the Information Services recommendations on network hardware and software.

All devices directly connected to the LAN (such as a workstation or an ethernet card for a workstation) **must** be registered with Information Services first so that a unique network name and address can be issued. This registration will be done by means of the formal Permission to Connect Form, without which the LAN may not be used.

## NOTES:

In accordance with the RIP Act 2000, the University may routinely monitor information systems to assure the continued integrity and security of the University's systems and users' compliance with the law.

Disclosure of the content of messages and other data will only be undertaken with the specific authorisation of the Vice-Chancellor, or nominee, on the evidence of good cause.

## General

- You **must** inform the Information Services Operators, by completion of a new form, of any change e.g. if responsibility for this system passes to another person, change of primary operating system, new ethernet interface, providing new service or withdrawing a service.
- You may only use the Network Name and Address(s) assigned to you by return of this Permission to Connect form on the equipment specified on this Permission to Connect form connected via the network outlet specified on this Permission to Connect form.
- You may not use the equipment specified on this Permission to Connect form to gateway (route) between the Campus LAN and any other network or workstation(s).

The **ETHERNET** address of an ethernet interface is globally unique and should have been registered by the manufacturer. This information can be obtained by the following methods or if you require further help please contact the Computing Advisory Service.

**N.B.:** *The connection of devices to the network mentioned overleaf is solely for the purposes of obtaining the ethernet address.*

**Continued over**

## **IBM PCs and compatibles**

*Windows 95/NT* Start, Programs, Command Prompt. At the command prompt type **IPCONFIG/ALL** You may need to maximise the screen to see the line **Address=** quote the number from that line.

*Windows 95* systems which are unable to boot from the network, typically laptops. If the information isn't available via the above method, go to the Start button and click on Run. In the dialogue box enter the command winipcfg.exe and click on OK. This will bring up the IP Configuration information window. The Adapter in the box should show the make of your ethernet card. If it shows PPP this is NOT the information we need, press the down arrow and select the correct one (INTEL, Xircom or NE2000). The Adapter address box will then show the ethernet address, which you need to write on your form.

*Windows 2000 & XP* Start, Programs, Command Prompt. At the command prompt type **IPCONFIG/ALL**

## **Apple Macintosh**

*Apple Macintosh running Mac OS 8/9* To obtain the Ethernet address connect the machine to the network and startup. Open either the AppleTalk or TCP/IP control panels and select File-GetInfo. The ethernet address is given in the "address" section as "Hardware Address".

*Apple Macintosh running Mac OS X*: Boot the Mac into Mac OS X and open /Applications/Utilities/Apple System Profiler. (With Mac OS X 10.1.x & 10.2.x you can also launch this utility by selecting "About this Mac" from the Apple menu and clicking on the "More Info..." button.) Under the System Profile tab there is a section called "Network Overview". (You may need to click on the reveal triangle [>] to see the details). In this section the primary internal ethernet interface is called "Built-in" and it's ethernet/hardware address is listed in the section under that heading.

## **UNIX Workstations**

The Ethernet address is usually displayed on the console during boot time, or may be found by inspecting the system log file, /var/spool/mqueue/syslog on BSD based systems and /var/adm/messages on Sun and DEC Alpha systems and looking for the system start-up messages. On LINUX systems run the command '/sbin/ifconfig eth0'.

### 2. **Ethernet Card Type: (EtherNet Interfaces)**

Only approved combinations of PC workstations and ethernet interfaces may be connected to the Campus ethernet, a list is available on the web at the address [www.Cardiff.ac.uk/infos/technical/approved.html](http://www.Cardiff.ac.uk/infos/technical/approved.html)

**Apple Mac:** fitted with **SHIVA, Compatible Systems or Farallon** ethernet interfaces and built-in Apple interface with Macnet transceiver.

**SUN/DEC/HP/SGI workstations and their ethernet interfaces, Tadpole Technology SPARCbook.**

### 3. **Recognised operating systems:**

**UNIX** (Solaris, DEC UNIX, HPUX, IRIX, LINUX), **MSDOS, Windows 95, Windows NT, Windows 2000, Windows XP, OS/2, APPLE MACINTOSH.**

If you use a different operating system on your computer, please put '**OTHER**' and the operating system name. If you intend to use more than one operating system please specify all operating system(s).

### 4. **Domain or Workgroup Name:**

MS-Windows operating systems can share resources using Microsoft's own protocols. If you are using this facility please give the Domain or Workgroup name being used. Windows NT server systems should also indicate whether the system is being used as a Primary Domain Controller PDC, Backup Domain Controller BDC or a Standalone server. Note: Where Microsoft networking is used it must be configured to use TCP/IP as the transport service. This is sometimes referred to as NetBIOS over TCP/IP, NetBT or NBT. The NetBEUI frame protocol **must not** be used. The University reserves the right to make changes to Domain or Workgroup names.

### 5. **Services provided:**

Networked Computer Systems are often used to provide Web, FTP, Mail, Login (Telnet), Print, File or other network service to others. If your system provides any such services please list them. The University reserves the right to restrict the ability to provide any or all such services to users off campus at any time.

### 6. **Network Names:**

Some computers on this campus have already been assigned network names by their owners. If you have done this and want to retain this name, please indicate that here. We cannot guarantee that you will be able to re-use this name as we must prevent duplicate names occurring on the campus network.

### 7. **TCP/IP:**

TCP/IP is the Internet networking protocol. If you are a member of one of the following departments please consult your Departmental Computing Representative before returning this form; COMSC, PHYSX. Members of any other department should leave this item blank, a TCP/IP address will be assigned by the Information Services Operators. Your system **must** be configured to use **BOOTP** or **DHCP** to obtain its TCP/IP address from the centrally maintained servers.

## **Permitted network protocols**

It is vital for the correct and efficient operation of the LAN that protocol conflicts are avoided and protocols which

generate heavy network traffic are controlled. A list of approved LAN Protocols is available in the Information Services Regulations (Schedule V: Connection to the Network Regulations, Section 3.4). Others may be used only with the Information Services written permission but this does not guarantee their use beyond the local sub network (a sub network may cover a whole building or just an area within a building).