

Procedure for Connection to the Prototype GRID

The infrastructure of the Prototype GRID has now been commissioned and INFOS is ready to connect GRID systems from academic departments. This document describes the procedures to be followed. All GRID requests will require authorisation from the GRID Technical Group (GRIDTECH-L@Cardiff.ac.uk) who will oversee these procedures.

System Requirements and Notes

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

Systems to be connected to the Prototype GRID must be capable of running at either 100Mbps or 1Gbps. Gbps connections can be either Fibre SX, or Copper TX. Fibre LX will not be supported initially. 100Mbps connections will initially be 100TX (Copper) only. There is no reason to connect 10Mbps systems directly to the Prototype GRID as their access will be via the switched link connecting the Prototype GRID to the main network.

All Gbps GRID outlets will be monitored for bandwidth utilisation, and GRID members requesting Gbps outlets will need to demonstrate the need and to show that their system is capable of using more than 100Mbps bandwidth.

Systems to be connected to the GRID will have to have both IP Name and IP Address changes when being moved to the GRID. If possible, IP addresses should not be hard-wired, but should use BOOTP/DHCP for their IP address and default gateway allocation.

Systems to be moved between the GRID and Main Academic networks must provide at least 2 working days notice of this to the GRID Technical Group. Multicast or Broadcast services must not be setup without prior approval from the GRID Technical Group.

EtherNet Interface Card (EIC) Requirements and INFOS Support

There is no restriction on EIC manufacturer provided that the system concerned will only ever be connected to the GRID, and not the Main Academic network (in which case standard INFOS regulations apply). However, INFOS will only have experience and support for the standard INFOS-approved Intel cards (100TX and 1000TX), and we recommend these be used where possible.

The ethernet switch equipment for the Prototype GRID is all 3-COM, but the switches in any future GRID may not be. Prospective GRID members are requested to ask their hardware supplier to guarantee that the proposed hardware will successfully connect to all 3-COM and CISCO switch equipment.

How a Department would Request a Connection to the ProtoGRID

All requests for GRID connections must first be approved by the GRID Technical Group (GRIDTECH-L@Cardiff.ac.uk) and signed by the departmental computer representative or other nominated person.

100Mbps GRID Connection

A GRID Permission to Connect form should be sent to Operators, Information Services, 39-41 Park Place.

When requesting a 100Mbps GRID connection the applicant must:

- Identify the UTP outlet number that is to be used (5 digit number).
- Check that the system can run at 100Mbps Full Duplex.
If it cannot, contact Wiersma@Cardiff.ac.uk, or Beedie@Cardiff.ac.uk
- Submit a GRID Permission to Connect form to the above address, completing *all* the boxes.

1Gbps GRID Connection

A GRID Permission to Connect form should be sent to Operators, Information Services, 39-41 Park Place.

When requesting a 1Gbps GRID connection the applicant must:

- Seek approval from the GRID Technical Group for a Gbps connection, specifying Copper TX, or Fibre SX and Connector type (SC, SMC, FTC).
- Agree with the Technical Group where the system will be located.
Gbps Fibre NICs will need either to be located in a GRID-enabled LAN Room, or the project concerned will need to fund a dedicated fibre (est cost £2-3k) and fibre patch leads. Currently, SC, SMC and FTC connector types are supported.
- Submit a GRID Permission to Connect form to the above address, completing *all* the boxes.

Procedures by INFOS when a GRID Permission to Connect Form is Received

The GRIDTECH-L mailname has been set up to receive requests for 1Gbps connections. This is also the mailing list for discussion of issues relating to the ProtoGRID network.

A separate database has been set up to log the GRID Permission to Connect Forms, when these forms are received in Operations who:

- ensure all criteria of the scheme (as set out above and on the GRID Permission to Connect Form) are met by the applicant;
- enter the applicant and equipment details into the database;
- liaise with Peter Woodward, LAN Operations Manager, to pass on details and arrange a date for GRID connection to be made;
- contact the applicant with the appointment for the Technicians to make the physical connection to the GRID;
- return the registered GRID Permission to Connect form to applicant with new IP name and address, thus granting permission to connect.