UTnet Usage Guidelines

The Network Information Center
of the University of Texas at Austin (UT NIC)

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Introduction

The UTnet system is a campus-wide high speed digital data network available to all computer users on the UT Austin campus. The UTnet system is a shared resource, and certain host settings and network behavior are required to ensure that the network is shared equitably. The host configuration settings and general network behavior are briefly described in the following sections.

1. Network Ethics

The UTnet system is connected to the worldwide Internet via the National Science Foundation network (NSFnet). After a series of Internet disruptions caused by the worm program of late 1988 and other such events, the ethcial behavior of Internet users came under discussion.

In response to the disruptions, a network ethics statement was generated and has been made publicly available. All UTnet users are urged to read this document and abide by its guidelines. The document is available via anonymous ftp on the ftp.utexas.edu system as ‘‘˜ftp/pub/netinfo/rfc/ethics.rfc.’’

2. Host Registration

Every host attached to the UTnet system must be registered with the Network Information Center (NIC) at the Computation Center. This includes hosts running DECnet network protocols, as well as hosts running TCP/IP protocols.

3. Host Configuration.

Every host attached to the UTnet system must conform as completely as possible to the network configuration settings recommended by the NIC.

4. Backbone Network Bandwidth Utilization.

Do not set up diskless workstations with file systems on remote servers that are accessible only by way of the UTnet inter-building backbone. The bandwidth of the UTnet backbone system must be preserved for as many users as possible. This means that diskless clients must be served by diskful systems located on the same physical network segment as the clients.

5. Notification of New Systems.

Host administrators should inform the NIC when a new system is being brought up, or when experimental network protocols or configurations are in use. Anything whose impact on the network is uncertain is fair game for notification. The NIC may be notified by sending electronic mail to "utnic@lists.utexas.edu" or by calling the the Network Information Center at 471-NETS.

6. Network Test Software.

Network test software should be used with caution. For example, never set up an automatic PING program to test the external gateways. Each PING (ICMP Echo Protocol) datagram requires CPU cycles from the gateways to service it. Continuously PINGing important resources such as the external gateways will negatively affect all users on the network.

7. Cooperation is Essential.

The UTnet system is a shared resource and the cooperation of all users is required to keep the system operating smoothly. High speed computer networking is a rapidly evolving field, and while the physical network transmission system is reliable, problems with complex network software and poorly interacting hosts are more common than one would like. UTnet users are expected to understand that network services are not "cut and dried" technology at this time. Their assistance may be required in resolving network problems.

8. Network Services are Not Guaranteed

The physical transmission system underlying UTnet is as reliable as modern electronic hardware can be, and it is under the control of one organization at UT Austin. The network protocol software running on the hosts sharing UTnet, on the other hand, is as error prone as modern software technology can be, and no single agency controls or maintains this software.

Thus it is that network services can interact poorly between hosts. Network software that may have functioned well for long periods of time may suddenly begin failing due to an inability to handle malformed packets seen on the network, for example. In general, the network software that fails due to any packet seen on the network (no matter how malformed) is the software at fault. It is demonstrably possible for vendors to develop robust network software, but experience shows that many vendors have not tested their products on systems as complex and as challenging as campus area networks supporting multi-protocol and multi-vendor equipment.

The Computation Center will help, as time and manpower permits, to resolve network service problems caused by failing software, poorly designed or supported interface hardware, or other vendor product problems. Network users, in turn, must understand that these problems are primarily caused by inadequate vendor support coupled with the rapidly evolving network marketplace. In these instances of network service failure the UTnet user should be prepared to place pressure on their vendors for adequate support.