THE OHIO STATE UNIVERSITY

Gold in the Networks!

This document was presented at the 1991 ACM SIGUCCS User Services Conference. It appears here in its updated form. It also is available as Internet document RFC1290.

Source: via anonymous ftp at nisca.acs.ohio-state.edu
Directory: pub/publications
File: DOC021.ps.gold-in-networks.general (PostScript)
DOC021.txt.gold-in-networks.general (ascii text)
DOC021.nrf.gold-in-networks.general (nroff format)
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ABSTRACT

A wealth of information exists on the network. In fact, there is so much information, that you could spend your entire life browsing. This paper will present some of the "gold nuggets" of information and file repositories on the network that could be useful.

The ultimate goal is to make the route to these sources of information invisible to the user. At present, this is not easy to do. I will explain some of the techniques that can be used to make these nuggets easier to pick up so that we all can be richer.

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1.0 INTRODUCTION

This paper is a list of the essential things, in my view, that people who are responsible for providing network information should have in their hands as reference material. One of the basic problems with information is making it easily available to those who need the data. Libraries have been performing a cataloging function for many centuries. Information flow is now being provided so fast that it is difficult to keep up with it, even partially. Computer networks have only added to the problem by opening up access to even more information.

Attempting to make this wealth of information available to those who would find it useful poses some problems.

First, we need to know of its existence. To that end, this paper provides an index to the vast realm of network information. Most of the documents listed here are **pointers** to the final information.

Second, even if you know of a document's existence, you may not know if it is important or relevant. Few of us are knowledgeable in more than a limited area. We need to rely on others to make us aware of the importance of databases in a specific discipline. Librarians can be of great assistance here. They are familiar with the research databases that individuals search in law, mathematics, and many other fields.

Finally, once existence and importance are known, the information needs to be indexed so that researchers can find it. This is the most difficult task to accomplish. Information available on the network is rarely static. It is always moving, growing, changing, and dying. Computers should be able to assist us in managing this ever-changing environment. Right now, we have to catalog the information as it passes through the network. In my case, I generally save it in a file somewhere and spend far too much time trying to retrieve it again when I need it.

1.5 ACCESS TO THE INTERNET

A frequently asked question concerns how does the average mortal gets access to the Internet. The most common way is via electronic mail. Using e-mail, it is possible to communicate with anyone on the Internet and on any other networks as well, and there are many "gateways" to the Internet from other networks and systems. For instance, using CompuServe, a large commercial electronic information and communication service, you can send e-mail to and from individuals on the Internet.

A direct connection to the Internet provides some additional capabilities that e-mail cannot. One of these is the ability to establish a connection to a remote computer connected to the Internet from your own personal computer or from one connected to the Internet. The program that establishes this connection is called Telnet. Many universities and large research companies have connections to the Internet. They pay rather large fees to have these high-speed (more than one

million bits per second) connections. If you are associated with a large university or company, you already may have access, or can gain access to the Internet using one of their computers.

A direct connection to the Internet also allows you to transfer a file from a remote computer. This program is referred to as ftp (file transfer protocol). Section 4.0 covers the many places that have files and programs you available using ftp.

The following information was taken from a Frequently Asked Question posting by Aydin Edguer to the alt.bbs newsgroup.

> If you do not have access to a service connected to Internet, you can get access for a fee. The following companies provide Internet access to individuals or companies at various rates depending on the time of access, speed of access desired, and several other factors.
>
> The first method to gain access to the Internet is by getting an account on a public access bulletin board system that is connected to the Internet. There are a growing number of such systems available. For information on some of these systems, send electronic mail to:
>
> ```
> info@world.std.com
> info@netcom.com
> info@concert.net
> info@panix.com
> info@holonet.net
> info@msen.com
> info@scn.org
> sysadmin@ids.com
> ```
>
> Any of these systems is open to the public for a monthly access fee.
>
> A second method to gain access to the Internet is by getting an account with a network service provider who offers a "dial-in" service. See the **How Do I Get Connected to the Internet?** section for more information.

How Do I Get Connected to the Internet?

Traditionally, connections to the Internet were dedicated connections. This is still the most common type of connection. Monthly costs for the connection range anywhere from $250 per month (plus line charges) for a dialup 9600-bps connection to $4,000 (plus line charges) for a T1 (1.44-Mbps) connection. There is also an initial one-time startup fee of anywhere from $100 to $8,000 (plus equipment charges).

Some service providers also are offering part-time dialup connections. Customers share a set of phone lines and dialup when needed. This is usually less expensive than dedicated dialup connections for customers who need a connection less than 80 hours per month. Monthly costs range from $40-100 per month (plus line charges) plus an hourly charge of $2-4.

Some service providers have begun to offer a new dial-in service. The name for dial-in service varies from vendor to vendor. The dial-in service is usually provided as a way for Internet-connected users to connect back to their home sites from remote locations. But most service providers do not limit their service to this audience; it is open to people not already on the Internet. The dial-in service provides either a terminal server connection (with password) or an account on the service provider's equipment (with password) which permits you to use telnet to connect to other sites on the Internet. This service differs from the normal dialup IP services because it does not require the user to run any IP software like PPP (point-to-point protocol) or SLIP (serial line IP). The cost for this service usually ranges from $35 to $250 per month (plus line charges). There also is an initial $35 to $500 connection fee (plus equipment charges).

The following is a list of known Internet service providers, along with the services they offer, an e-mail address to contact for more information, a phone number to contact for more information, or an ftp archive for more information.

```
ALTERNET
Full time connections
  speed         9.6K   14.4K   56K   T1   T3
Leased line       Y       Y     Y     Y    N
Dialup line       Y       Y     -     -    -
  note:  T1=1.544Mbs   T3=45Mbps
Part-time connections:  no
Dial-in service:  none
Region:  national (USA)
Contact:  alternet-info@uunet.uu.net
Phone:  (800)4UUNET3
Ftp:  ftp.uu.net:/uunet-info/

PSINet
Full time connections
  speed         9.6K   14.4K   56K   T1   T3
Leased line       Y       Y     Y     Y    N
Dialup line       Y       Y     -     -    -
  note:  T1=1.544Mbs   T3=45Mbps
Part-time connections:  yes
Dial-in service:  Global Dialup Service (GDS)
Region:  national (USA)
Contact:  info@psi.com
Phone:  1(800)82PSI82
Ftp:  ftp.psi.com:/press.releases/
```

```
CERFnet
Full time connections
  speed         9.6K   14.4K   56K   T1   T3
Leased line       N       Y     Y     Y    N
Dialup line       Y       Y     -     -    -
  note:  T1=1.544Mbs   T3=45Mbps
Part-time connections:  yes
Dial-in service:  DIAL'n'CERF (nationwide USA)
Region:  California
Contact:  help@cerf.net
Phone:  (800)876-CERF
Ftp:  nic.cerf.net:/cerfnet/

ANSNET
Full time connections
  speed         9.6K   14.4K   56K   T1   T3
Leased line       N       N     Y     Y    Y
Dialup line       N       N     -     -    -
  note:  T1=1.544Mbs   T3=45Mbps
Part-time connections:  no
Region:  national (USA)
Contact:  info@ans.net
Phone:  (914)789-5300 or (313)663-2482
Ftp:  nis.ans.net:/pub/info/

MSEN
Full time connections
  speed         9.6K   14.4K   56K   T1   T3
Leased line       Y       Y     N     N    N
Dialup line       Y       Y     -     -    -
  note:  T1=1.544Mbs   T3=45Mbps
Part-time connections:  yes
Dial-in service:  yes (note:  it is a local call from any 313 #)
Region:  Michigan
Contact:  info@msen.com
Phone:  (313)741-1120
Ftp:  ftp.msen.com:/pub/vendor/msen/

OARnet
Full time connections
  speed         9.6K   14.4K   56K   T1   T3
Leased line       Y       Y     Y     Y    Y
Dialup line       Y       Y     -     -    -
  note:  T1=1.544Mbs   T3=45Mbps
Part-time connections:  yes
Dial-in service:  none
Region:  Ohio
Contact:  nic@oar.net
Phone:  (614)292-0700
```

Please note, although this is a Frequently Asked Question, this newsgroup, alt.bbs.internet, is **not** for the discussion of how to get connected to the Internet. This is the correct newsgroup to discuss your bulletin board system and what it offers once you are connected to the Internet.

The above excerpt is from a Frequently Asked Questions USENET posting to alt.bbs.internet and crossposted to news.answers. The news.answers newsgroup is a good group to subscribe to read the frequently asked questions sent to many newsgroups. See USENET entry in section 12.6 for more information on newsgroups.

Further investigation in the above groups yields a great deal of information about techniques and rates to access the Internet. Of course, one common question about getting free access. As mentioned before, if you are associated with a university, a large company, or research group, you may very well have access via one of their computers. If you are a student or faculty member and are away from your local campus, you may be able to get a guest account from the local university.

Some campuswide information systems may give limited access to the network in a read-only mode. Also some communities (such as Cleveland) operate a Freenet which enables you to read newsgroups, and if you register, send mail at no charge. See section 8.0 for more information.

For example, you can telnet to Holonet below to get an idea of how it works. This is not an endorsement of this system but is does give you a good idea how this type of access to an Internet BBS works.

1.7 HOLONET (COMMERCIAL ACCESS TO THE INTERNET)

Source:

```
Telnet holonet.net
Login with userid of guest
```

2.0 LISTS AND INDEXES OF NETWORK RESOURCES/BIBLIOGRAPHIES/ INFORMATION AVAILABLE OVER THE NETWORK

☞ **2.01 Internet Resource Guide** (document)

This is an excellent guide to major resources available on the network. The table of contents includes chapters on Computational Resources, Library Catalogs, Archives, White Pages, Networks, Network Information Centers, and Miscellaneous.

Source:

```
Anonymous ftp to NNSC.NSF.NET
cd resource-guide
get resource-guide.ps.tar.Z (PostScript) or
get resource-guide.txt.tar.Z (ASCII Text)
```

Search:

```
Telnet to pac.carl.org
(Colorado Alliance of Research Libraries)
Select terminal type
Choose Item 3 (Information Databases)
Choose Item 65 (Internet Resource Guide)
You can then browse or do a keyword search
To quit type //EXIT
```

☞ **2.02 Anonymous Ftp Sites** (document)

This is a list of all the sites on the Internet that support anonymous ftp.

Source:

```
Anonymous ftp to pilot.njin.net
cd pub/ftp-list
get ftp.list
```

Search:

```
Telnet to archie.ans.net
Login as user archie
Type help to get a list of commands
Type prog topic - where topic is the keyword for the search of
                  a program or topic
```

See section 4.05 for more information about using ARCHIE.

☞ **2.03 INDEX – Index of all RFCs** (document)

RFC-1118 - The Hitchhiker's Guide to the Internet
RFC-1175 - A Bibliography of Internetworking Information
RFC-1173 - Responsibilities of Host and Network Managers
RFC-1206 - Answers to Commonly Asked “New Internet User” Questions
RFC-1207 - Answers to Commonly Asked “Experienced Internet User” Questions
RFC-1208 - Networking Glossary of Terms
RFC-1290 - Gold in the Networks! (this file)
RFC-1359 - Connecting to the Internet

Source:

```
Anonymous ftp to nis.nsf.net
cd documents/rfc
get index.rfc
get rfc1118.txt
get rfc1175.txt
```

```
get rfc1173.txt
get rfc1206.txt
get rfc1207.txt
get rfc1208.txt
get rfc1290.txt
get rfc1359.txt
```

☞ **2.04 Interest Groups – List-of-Lists** (document)

This is a document that lists existing mailing lists or groups. To get on the list to receive updates, send e-mail to Interest-groups-request@nisc.sri.com.

Source:

```
Anonymous ftp to ftp.nisc.sri.com
cd netinfo
get interest-groups
```

☞ **2.05 Regional network policies** (documents)

Many regional networks have developed policies on responsible use of their network. You can retrieve copies of these policies on line by anonymous ftp.

Source:

```
Anonymous ftp to ftp.nisc.sri.com
cd netinfo
dir
get ???.policy

where ??? is the name of the regional network.  The dir command will give
you a directory of the filenames.
```

☞ **2.06 Campus ethics/policy statements** (documents)

Many universities have developed more complete policies based on the regional network policies. If you want to look at some to use as guidelines for your own campus, you can get them through anonymous ftp.

Source:

```
Anonymous ftp to ariel.unm.edu
cd ethics
dir
get ???.policy

where ??? is the name of the university or college.  The dir command will
give you a directory of the filenames.
```

☞ **2.07 VAX Book** (document)

Joe St. Sauver of the University of Oregon has developed a complete guide of information on the network available via anonymous ftp. The following is a quote from the README file: "While it is tailored to the University of Oregon's VAX8000 system, the skills it illus-

trates are general enough to be of interest to users at most other VAX sites, and even users at many non-VAX sites connected to the national networks." A major section on Network Topics is excellent. It is a large document, more than 300 pages.

Source:

```
Anonymous ftp to decoy.uoregon.edu
cd pub/vaxbook
get vms.ps  (PostScript format)
get vms.mem (lineprinter format)
```

☞ **2.08 Network Tidbits – COMPUNET BIBLIO** (document)

This is a "Network Bibliography" by Elliott Parker from the Journalism department of Central Michigan University. It contains a bibliography of network-related documents that he finds helpful.

Source:

```
Listserv

Send e-mail to comserve@rpiecs (BITNET)
The message should contain the following one line request:

SEND COMPUNET BIBLIO
```

You will receive the file "COMPUNET BIBLIO" via return mail as well as a "Welcome to Comserve" message and a "Getting Started with Comserve" message. If you are unfamiliar with how the program Listserv works on BITNET, these documents are a good start.

☞ **2.09 Internet Tour – Macintosh HyperCard 2.0 Stack** (program)

This is a Macintosh HyperCard 2.0 stack that does a nice job of describing some of the functions of the Internet. It has a section that you can modify for your own institution's needs.

Source:

```
Anonymous ftp to nnsc.nsf.net
cd internet-tour
get Internet-Tour-README
get Internet-Tour.sit.hqx
```

Note this is a stuffed and binhexed file. You must have the program Stuffit to convert it to an executable file on the Macintosh.

☞ **2.10 A Survey of Educational Computer Networks** (document)

This is a fact-finding project to examine the current status of computer networks in K-12 education, including ways in which networking linkages are impacting educational tasks. This is a good summary for educators.

Source:

```
Anonymous ftp to ariel.unm.edu
cd library
get networks survey
```

☞ **2.11 Internet Resource Directory** (Document)

A group of teachers compiled an Internet Resource Directory that would be of specific interest to teachers. It is available in four parts: Listservers, telnet sites, ftp sites, and general infusion ideas.

Source:

```
Anonymous ftp to ftp.virginia.edu
cd public_access
get IRD-listservs.txt
get IRD-Telnet-sites.txt
get IRD-FTP-sites.txt
get IRD-infusion-ideas.txt
```

☞ **2.12 Network Managers' Reading List** (document)

This document is an annotated list of books and other resources for network managers who are using TCP/IP, UNIX, and Ethernet technologies.

Source:

```
Anonymous ftp to ftp.utexas.edu
cd pub/netinfo/docs
get net-read.txt
```

☞ **2.13 Network Resources List** (document)

This document lists many resources available on the network, including weather, online databases, book reviews, a ham radio callbook, and many more. Author Scott Yanoff (yanoff@csd4.csd.uwm.edu) routinely posts lists to newsgroups alt.bbs.internet, news.lists, alt.bbs.ads, and biz.comp.services.

Source:

```
Anonymous ftp to csd4.csd.uwm.edu
cd pub
get inet.services.txt
```

☞ **2.14 Zen and the Art of the Internet** (document; version 1)

This document is the first version of what has become a book (see section 10 for information on version 2 in book format). The first version has some very good information on the Internet and is designed for the beginning user.

Source:

```
Anonymous ftp to ashley.cs.widener.edu
cd pub/zen
get README
get zen-1.0.PS
```

☞ 2.15 Hytelnet (Program)

Hytelnet is a must-have program available for UNIX, Macintoshes, and PCs. It is designed to help you reach all the Internet-accessible libraries, freenets, CWISes, library bulletin boards, and other information sites by telnet. Peter Scott is the developer of this program, and he also maintains a list if you want to receive the latest updates on network information.

Contact: scott@sklib.usask.ca

Source:

```
Anonymous ftp to access.usask.ca
cd pub/hytelnet
Change directory to the computer you want to run hytelnet from:
cd pub/hytelnet/pc
cd pub/hytelnet/amiga
cd pub/hytelnet/mac
cd pub/hytelnet/pc
cd pub/hytelnet/unix
cd pub/hytelnet/vms
```

☞ 2.16 World Wide Webb

The WWW[1] project merges the techniques of information retrieval and hypertext to make an easy but powerful global information system.

The project is based on the philosophy that academic information should be freely available to anyone. Its aim is to permit information sharing within internationally dispersed teams and dissemination of information by support groups. Originally aimed at the High Energy Physics community, it has spread to other areas and attracted much interest in user support, resource discovery, and collaborative work areas.

Reader view:

The WWW world consists of documents and links. Indexes are special documents which, rather than being read, can be searched. The result of such a search is another ("virtual") document containing links to the documents found. A simple protocol ("HTTP[2]") is used to allow a browser program to request a keyword search by a remote information server.

The web contains documents in many formats. Those hypertext documents (real or virtual) contain links to other documents or to places within documents. All documents, whether

real, virtual, or indexes, look similar to the reader and are contained within the same addressing scheme.

To follow a link, you either click with a mouse or type in a number. To search an index, you give keywords or other search criteria. These are the only operations necessary to access the entire world of data.

You can try the simple line mode browser[5] by telnetting to info.cern.ch (no user password). From UK JANET, use the gateway[6]. You also can find out more about WWW in this way. This is the least sophisticated browser; remember that the window-oriented ones are much smarter.

It is much more efficient to install a browser on your own machine. The line mode browser is currently available in source from by anonymous ftp from node info.cern.ch (currently 128.141.201.74) as:

```
/pub/www/src/WWWLineMode_v.vv.tar.Z

(v.vv is the version number; take the latest)
```

Also available is a hypertext editor[7] for the NeXT (WWWNeXTStepEditor_v.vv.tar.Z), the ViolaWWW browser for X11, and a skeleton server daemon (WWWDaemon_v.vv.tar.Z).

Documentation is readable using www. A plain text version of the installation instructions is included in the tar file. Printable (PostScript) documentation and articles are in /pub/www/doc.

Source:

```
Telnet to info.cern.ch
No login required.

Telnet to eies2.njit.edu
Login as www
```

3.0 LIBRARIES AVAILABLE OVER THE NETWORK

Hundreds of libraries are accessible over the network—far too many to list here. Several documents list Internet-accessible libraries including two major ones: Internet-Accessible Library Catalogs and Databases, coauthored by Dr. Art St. George of the University of New Mexico (stgeorge@bootes.unm.edu [Internet] or stgeorge@unmb [BITNET]) and Dr. Ron Larsen of the University of Maryland; and UNT's Accessing On-Line Bibliographic Databases by Billy Barron, (billy@vaxb.acs.unt.edu [Internet]).

☞ **3.1 Internet-Accessible Library Catalogs and Databases** (document)

Source:

```
Anonymous ftp to ariel.unm.edu
cd library
get library.ps (PostScript format)
get internet.library (ASCII text version)
```

☞ **3.2 UNT's Accessing On-Line Bibliographic Databases** (document)

Source:

```
Anonymous ftp to ftp.unt.edu
cd library
get libraries.ps (PostScript format)
get libraries.txt (ASCII text version)
get libraries.wp5 (WordPerfect 5.1 source)
```

4.0 THE MOTHER LODE OF ANONYMOUS FTP SITES

Throughout this document, sites are listed for specific documents. Most are only indexes to more information. A big problem is searching through all this information to find what you want. One of the best methods is Archie, described below.

Several sites contain large repositories of files and other sites that are the source for specific programs such as Kermit, the public domain file transfer program.

☞ **4.05 Archie**

One of the best ways of searching for a program available via anonymous ftp is with Archie (Archive Server Listing Service), with several servers scattered throughout the world. The fastest one I have found is Advanced Network & Services, Inc. located in the United States.

Archie goes to every site that offers anonymous ftp files, collects the file structure from that site, and places it in a database it can search.

A real-life example: I was reading an article about Windows in the July, 1992 issue of *PC World*, and it mentioned a shareware program called ZiPaper on page 212. The name of the program is zipapr.zip. I can use Archie to locate this program.

Source:

```
Telnet to archie.ans.net
Login as archie
At the archie prompt, type prog zipapr.zip
```

```
The response is:
Host wuarchive.wust1.edu (128.252.135.2)
Last updated 17:22 12 July 1992

Location:  /mirrors3/archive.umich.edu/msdos/mswindows/desktop
FILE       rw-rw-r--   41984   Jan 30 1991   zipapr.zip
```

This tells you the file is available via anonymous ftp to wuarchive.wust1.edu in the directory mirrors3/archive.umich.edu/msdos/mswindows/desktop and the file is zipapr.zip.

☞ 4.1 **Washington University** (anonymous ftp)

Washington University represents perhaps one of the most popular sites for software on the network. The Mirrors directory contains a copy of all of the wsmr-simtel20.army.mil files. Wsmr-simtel20-army.mil is the originator and keeper of major amounts of public domain software. Their site, however, is often overloaded with connections and difficult to connect to.

You will find enough software in the Mirrors directory to keep you busy for the rest of your life. The MS-DOS and Macintosh subdirectories contain files for those specific machines.

```
Anonymous ftp to wuarchive.wustl.edu
cd mirrors

cd msdos

For income tax time, cd taxes
For unzipping files, cd zip, type binary, and get pkz110eu.exe
For education software, cd education
For graphics files, cd giff, tiff or graphics

cd macintosh

For the Macintosh there are directories for applications, inits, sounds,
reviews and many more.
```

☞ 4.2 **KERMIT** (anonymous ftp)

Kermit is a public domain file transfer protocol available for just about all microcomputers, minicomputers, and mainframes. It is very popular and has been used at computer facilities everywhere.

```
Anonymous ftp to watsun.cc.columbia.edu

cd kermit
get read.me
```

```
For executable versions of kermit:

cd bin

get READ.ME file and read for specifics of what file to get

For the IBM PC, I get msvibm.exe after typing binary to activate the binary
transfer mode.
```

☞ 4.3 NCSA Software for Network Access from PCs (anonymous ftp)

Source:

```
Anonymous ftp to ftp.ncsa.uiuc.edu
cd NCSA_Telnet
cd PC/Telnet  (for IBM PC Software)
get telxxbin.zip

where xx is the current version number
(in binary format; I also suggest getting readme files)

cd Mac/Telnet
get telnet.x.sithqx

where x is the current version number
(in binary format; I also suggest getting readme files)
```

☞ 4.4 Other Popular Sites (anonymous ftp)

Name of site:	**What's there:**
ftp.apple.com	Macintosh system software/technical notes
ftp.cayman.com	Gatorbox archive site
dragonfly.wri.com	Mathematica archive site
mac.archive.umich.edu	Macintosh software
sumex-aim.stanford.edu	Macintosh software
rascal.ics.utexas.edu	Macintosh software
ftp.acns.nwu.edu	Disinfectant archive site (virus software)
microlib.cc.utexas.edu	GateKeeper archive site (virus software)
bert.cs.byu.edu	NCSA Telnet archive site (BYU version)
ftp.ncsa.uiuc.edu	NCSA Telnet archive site
beach.gal.utexas.edu	F-Prot/Scan & Clean archive site (virus software)
cert.sei.cmu.edu	Virus documentation
msdos.archive.umich.edu	MS-DOS software
ux1.cso.uiuc.edu	MS-DOS software (PC-SIG CD)
oak.oakland.edu	MS-DOS software
wuarchive.wust1.edu	MS-DOS software
cica.cica.indiana.edu	MS-DOS software (Windows software)
archive.cis.ohio-state.edu	UNIX software

5.0 NETWORK INFORMATION CENTERS – NICs

Contact NICs if you want information on what networking is all about and how you can connect. They can put you in contact with the individuals in your area who can help you get a network connection. They can also provide assistance if you don't know who else to ask about network topics.

☞ **5.1 Government Systems, Inc. – GSI** (Internet NIC)

Attn: Network Information Center
14200 Park Meadow Drive
Suite 200
Chantilly, VA 22021
(800) 365-3642 or (703) 802-4535
FAX: (703) 802-8373

NIC@NIC.DDN.MIL

☞ **5.2 NSF Network Service Center – NNSC** (NIC)

Bolt Baranek and Newman Inc.
10 Moulton St.
Cambridge, MA 02138
(617) 873-3400

NNSC@NNSC.NSF.NET

Corinne Carroll
NNSC Staff

Publishes a newsletter called *NSF Network News*; to subscribe, contact them at the address above.

☞ **5.3 NSFNET Information Services – NIS** (NIC)

Merit Network, Inc.
ITI Building
2901 Hubbard, Pod G
Ann Arbor, MI 48109-2016
(313) 936-3000 or (800) 66MERIT

NSFNET-INFO@MERIT.EDU

Publishes a newsletter called *Linkletter*, to subscribe send e-mail to NSFNET-linkletter-request@merit.edu.

☞ 5.4 SRI International Network Information Systems Center – NISC

SRI International
Network Information Systems Center
333 Ravenswood Avenue, Room EJ291
Menlo Park, CA 94015
(415) 859-6387 or (415) 859-3695
Fax: (415) 859-6028

☞ 5.5 **BITNET** (NIC)

BITNET Network Information Center
Corporation for Research and Educational Networking (CREN)
1112 16th Street, N.W.
Suite 600
Washington, DC 20036
(202) 872-4200

INFO@BITNIC

Lisa Covi, BITNET Support

☞ 5.6 **NASA Science Internet Network Information Center – NSI** (NIC)

NASA Science Internet Network Information Center (NSI-NIC)
Goddard Space Flight Center
Code 930.4
Greenbelt, MD 20771
Hotline: (303) 286-7251
FAX: (301) 286-5152

HELP@NIC.NSI.NASA.GOV

NSI is an international dual-protocol network (TCP/IP and DECnet), which supports scientists and engineers worldwide. The NSI-NIC supports a help desk, online services, anonymous ftp, and interoperability gateways, along with other services.

Bill Yurick, NSI-NIC Staff

6.0 NETWORK STATISTICS

If you would like to publish statistics in your newsletter about your institution's network traffic into and out of the NSFNET backbone, you can obtain information on either the packets or bytes sent. I prefer bytes, which can be translated into an understandable figure.

☞ 6.1 Files containing monthly information on NSF Internet backbone traffic by packets or bytes (document)

Source:

```
Anonymous ftp to nis.nsf.net
cd statistics/nsfnet

get INDEX.statistics

get 19??    Where ?? is the year you are interested in.

Files are available for traffic by ports, country, delay, bytes, and
packets for T1 and T3 networks.
```

7.0 CAMPUSWIDE INFORMATION SYSTEMS – CWISes

The information in this section is intended primarily for those who are providing access methods from their own computing environments. Although standards have been proposed, there are no "packages" that give you access to all of the information presented here. What The Ohio State University and several other universities have done, is provide a menu to the user that accesses these services and databases behind the scenes. In fact, I had to refer to shell scripts to look up the network addresses of these machines, because I rely on the menu for access as well.

As the name implies, information systems provide access to information without the user knowing exactly how to get to it. In this way, the network is invisible to end users. All they need to know is what they want, not the command structure needed to actually get the information.

At present, the menu system seems to be the easiest way to lead the end user to the information. In the background is a knowbot, a program that knows how to locate services on the network using a keyword search.

Many CWIS systems are converting to Gopher (see section 8.96). Hytelnet (see section 2.15) also has complete listings of CWIS systems.

You can connect to the following sites for a demonstration of their capabilities.

☞ 7.1 Appalachian State University

```
conrad.appstate.edu (152.10.1.1)
Login as info
Emulate a VT100
```

Hardware/software: DEC/VTX
Contact: Ernest Jones (jonesel@appstate.bitnet)

☞ 7.2 Arizona State University PEGASUS and ASEDD

```
asuvm.inre.asu.edu
Login as helloasu
Use tn3270.
```

Hardware/software: Running PNN News Network Software under VM/CMS (with Profs and FOCUS)
Contact: Joy Kramer (iejxk@asuvm.inre.asu.edu)

Contains two databases: Personal Guide to ASU Stuff (PEGASUS) and Arizona State Economic Development Database (ASEDD).

☞ 7.3 Clemson University

```
eureka.clemson.edu
Login as public
Emulate a VT100.
```

Hardware/software: DEC/VTX
Contact: Amy Slankard (amy@clust1.clemson.edu)

System contains information on weather for South Carolina, North Carolina, and Georgia; economics; plants; animals; engineering; food; home; health; family; and youth.

☞ 7.4 Columbia University

```
cal.cc.columbia.edu
Login as calendar
```

Contact: David Millman (dsm@cunixf.cc.columbia.edu)

☞ 7.5 Cornell CUINFO

```
cuinfo.cornell.edu
Connect to port 300
Use telnet or tn3270.  Different versions of telnet or tn3270 have differ-
ent syntax for defining the port.  The following are the most common:

TELNET cuinfo.cornell.edu 300
or TELNET cuinfo.cornell.edu::300
or TELNET cuinfo.cornell.edu..300
```

Hardware/software: VM/CMS; IBM S/370 assembler; locally written
Contact: Steve Worona (slw@cornella.bitnet)

CUINFO of interest to non-Cornell community members:

Uncle Ezra	The electronic counselor – first program of its kind; a must see
Directories	Student and staff directories – includes staff electronic addresses
Ski Reports	Up-to-the-minute upstate New York ski reports (seasonal)
Jobs	Listings and descriptions of jobs at Cornell
Computing	Extensive online information regarding computing at Cornell
Patents	Descriptions of current patents held by Cornell
Various Newsletters	Newsletters from numerous campus groups
Weather	Up-to-the-minute local weather forecast

☞ 7.6 Lafayette Integrated, Networked Campus – LINC

```
lafibm.lafayette.edu (139.147.8.4)
Use telnet or tn3270.  When you see the LINC logo, ignore the ALT-L advice
and clear the logo by pressing Enter.  On next screen, instead of logging
on, type DIAL MUSIC (case does not matter).  On login screen that appears,
use GUEST as ID, and GUEST as password.
```

Hardware/software: IBM 9375 running MUSIC/SP
Contact: Patrick Ciriello (ciri@lafayacs.bitnet)

☞ 7.7 Lehigh

```
ibm1.cc.lehigh.edu
Use tn3270.
At the VM prompt, type DIAL MUSIC, and at the /ID prompt, type LUNA.
```

Hardware/software: IBM 4381 running MUSIC.
Planning to move to AIX on RS/6000s.
Contact: Timothy J. Foley (tjf0@ns.cc.lehigh.edu)

☞ 7.8 Mississippi State University (MSUinfo)

```
isis.msstate.edu (130.18.164.2)
Login as msuinfo
Terminal type: enter yours; most are supported.
```

Hardware/software: UNIX/TechInfo
Contact: Bennet George (George_Bennet@admin.msstate.edu)

Contains announcements, campus events, community events, continuing education offerings, jobs, recent press releases, research funding opportunities, and more.

☞ 7.9 MIT TechInfo

Access either via telnet, or via a native Macintosh application that uses the MacTCP drivers to access the TechInfo server; requires a Mac Plus with 1 Meg memory or better, System 6.0.3 or better, and licensed MacTCP drivers.

Source code freely available to other schools seeking to get started quickly—contact folks listed below.

For telnet access:

```
telnet techinfo.mit.edu (18.72.1.146)
No username/password is required.
Once you're in, you can use upper- or lowercase commands.
To exit the system, use the QUIT command.
```

For native Macintosh access:

```
anonymous ftp to net-dist.mit.edu, look in the /pub/techinfo directory,
fetch techinfo.hqx
Binhex4 (a public domain tool) is required to decode the binary.
```

Contact: Tim McGovern (tjm@mit.edu), (617) 253-0505
Bugs: bug-techinfo@mit.edu
Comments: comment-techinfo@mit.edu
Administration: admin-techinfo@mit.edu

☞ 7.10 New Mexico State University NMSU/INFO

```
info.nmsu.edu
Login as info
Emulate a VT100.
```

Hardware/software: DEC/VTX
Contact: D. Brian Ormand (bormand@nmsuvm1.bitnet) or (bormand@nmsu.edu)

☞ 7.11 North Carolina State University Happenings!

```
ccvax1.cc.ncsu.edu (128.109.153.4)
Login as info
Emulate a VT100.
```

Hardware/software: DEC/VTX
Contact: Harry Nicholos (hmn@ncsuvax.bitnet)

☞ 7.12 NYU ACF INFO system

```
info.nyu.edu (information.nyu.edu) (128.122.138.142)
Emulating a VT100 or better enables some additional suboptions.
```

Contact: Stephen Tihor (tihor@ACFcluster.nyu.edu) or (tihor@nyuacf.bitnet)

☞ 7.13 Pima Community College

```
pimacc.pima.edu
Login as pimainfo
Emulate a VT100.
```

Hardware/software: DEC/VTX
Contact: Terry Loftus (tloftus@pimacc.pima.edu) or Al Camberos (acamberos@pimacc.pima.edu)

☞ 7.14 Princeton News Network PNN

```
pucc.princeton.edu
Use telnet or tn3270.  When you see the VM 370 logo, clear it, and instead
of logging on, enter pnn (case does not matter).  Clear the information
screen that appears.
```

Hardware/software: VM/CMS ; locally written. A UNIX version and a Mac HyperCard version are up, running, and available. All versions (CMS, UNIX, and HyperCard) are available to universities at no cost.
Contact: Rita Saltz (rita@pucc.bitnet)
System and Development: Howard Strauss (howard@pucc.bitnet)

☞ 7.15 Rutgers University

```
info.rutgers.edu 98
No password required.
Can be accessed from any microcomputer or terminal.
```

Hardware/software: written in lush (a public domain program); runs on any SUN workstation.
Contact: Leny Struminger (struming@zodiac.rutgers.edu)

INFO contains universitywide activities, graduate course catalogs, faculty/staff phone directory, computer services, libraries online catalog, weather, news, bus schedules, and more.

☞ 7.16 San Diego State University

```
.nf
wintermute.sdsu.edu
Login as sdsuinfo
Emulate a VT100.
```

Hardware/software: pnn & nmm
Contact: Richard Caasi (caasi@sdsu.edu)

☞ 7.17 University of Arkansas

```
uafsysb.uark.edu
Login as info
```

Hardware/software: IBM 4381-14, VM/HPO 6.0, Cornell's CUINFO module
Contact: Susan Adkins (sa06037@uafsysb.bitnet) or (sa06037@uafsysb.uark.edu)

System contains information on calendar of events, campus e-mail directory, and hours and services.

☞ 7.18 University of Colorado at Boulder

```
culine.colorado.edu 852 (128.138.129.2 852)
Login as CULINE
```

Contact: Donna Pattee (pattee@spot.colorado.edu)

☞ 7.19 University of Denver

```
du.edu
Login as atdu
```

Contact: Bob Stocker (bstocker@ducair.bitnet)

☞ 7.20 University of Minnesota at Duluth

```
ub.d.umn.edu
Login as info
Emulate a vt100.
```

Contact: Frank Simmons (fsimmons@ub.d.umn.edu)

This system contains more than 700 documents ranging from athletic schedules to microcomputer prices to art gallery showing schedules. All commands are displayed at the bottom of each screen, and separate online help is available. Keyword searching is available, although at this time only words in the titles of documents are used.

☞ 7.21 University of New Brunswick, Canada, INFO

```
unbmvs1.csd.unb.ca (131.202.1.2)
Login with application id INFO
No password is required.
INFO is a full-screen CICS application running under MVS.
tn3270 emulation.
```

Contact: Bonita Mockler (bgm@unb.ca)

System contains university calendar; class timetable; phone and fax numbers for faculty, staff, and students; faculty and staff e-mail IDs; seminar schedules; minutes; newsletter; and more.

☞ 7.22 University of New Hampshire VideoTex

```
unhvtx.unh.edu (132.177.128.58)
USERNAME:  student (no password required).
Control-z to log off.
VT100/VT200 terminal emulation.
```

Hardware/software: DEC/VTX
Contact: Robin Tuttle (r_tuttle1@unhh.unh.edu)

System includes phone directories, campus calendar, job listings, off-campus housing list, undergraduate catalog, class schedules, newsletters, services and programs, rights and rules of conduct, athletics and recreation information, activities, and workshops.

☞ 7.23 University of North Carolina at Chapel Hill INFO

```
info.oit.unc.edu (128.109.157.1)
Login as info
Emulate a VT100.
```

Hardware/software: DEC/VTX
Contact: Judy Hallman (hallman@unc.bitnet)

System contains campus directory; job openings; "The Independent Study" catalog (correspondence courses); undergraduate catalog; continuing education classes; and several campus newsletters, including *Newsbrief*, the weekly campus computing newsletter.

☞ 7.24 University of North Carolina at Greensboro MINERVA

```
steffi.acc.uncg.edu
Login as info or MINERVA
Emulate a VT100.
```

Hardware/software: DEC/VTX
Contact: Norman Hill (hillnr@uncg.bitnet)

☞ 7.25 University of North Carolina at Wilmington SEABOARD

```
vxc.uncwil.edu (128.109.221.3)
Log in as info
Emulate a VT100.
```

Hardware/software: DEC/VTX
Contact: Eddy Cavenaugh (cavenaughd@uncwil.bitnet) or (cavenaughd@vxc.uncwil.edu)

System includes class schedule listings, institutional statistics, library services, faculty and staff publications, current university news releases, phone directories, and facilities schedules.

☞ 7.26 University of Northern Iowa

```
infosys.uni.edu
Log in as public
Prefers a vtxxx terminal, but works with unknown terminal types.
```

Hardware/software: The program uses UNIX tput clear, tput mc4, and tput mc5 (for printing).
Contact: Mike Yohe (yohe@iscsvax.uni.edu)

☞ 7.27 University of Pennsylvania PennInfo

```
penninfo.upenn.edu
(no login id is needed.)
Emulate a VT100.
```

Hardware/software: MIT's Techinfo; type HELP for directions
Contact: Valerie Glauser (glauser@dccs.upenn.edu)
Comments: penninfo-comments@dccs.upenn.edu
Bugs: penninfo-bugs@dccs.upenn.edu
Contact: Valerie Glauser (glauser@dccs.upenn.edu)

PennInfo can be accessed via MIT's TechInfo Mac client program as well. We've modified the MAC client slightly because we have different contact information at Penn than MIT does.

☞ 7.28 Ohio State University

```
oasis.acs.ohio-state.edu
Login as oasis
Emulate a VT100.
```

Hardware/software: DEC 5500 using Ultrix, shell scripts, and modified Gopher code to allow gopher access.
Contact: Clifford Collins (collins+@osu.edu)
Comments: oasis@magnus.acs.ohio-state.edu
Bugs: oasis@magnus.acs.ohio-state.edu

8.0 INTERNET BULLETIN BOARD SYSTEMS/INTERACTIVE DATABASES/FREENET

These are systems that you can connect to through an anonymous telnet session to access a variety of services/information. In some respects they resemble campuswide information systems; in others they are more like bulletin boards or interactive databases.

A file containing the most frequently asked questions about bulletin board systems is available via anonymous ftp.

Source:

```
Anonymous ftp to polyslo.calpoly.edu
cd pub
get alt.bbs.faq
```

Listed below are some of these types of systems.

☞ 8.1 Cleveland Freenet – Case Western Reserve University

```
Telnet to freenet-in-a.cwru.edu
Follow the menu driven instructions.
```

☞ 8.2 Heartland Freenet

```
heartland.bradley.edu (136.176.10.10)
Login as fnguest
```

☞ 8.3 Youngstown Freenet – Youngstown State University

```
Telnet yfn.ysu.edu

Type visitor at userid prompt and follow menu driven instructions.
```

☞ 8.4 Ocean Network Information Center

```
Telnet delocn.udel.edu
When the Userid: prompt appears, type INFO and press Enter/Return
key.
```

☞ 8.5 Geographic Name Server

```
Telnet martini.eecs.umich.edu 3000

For information on a place, type the name of the city and state as
you would on the last line of a postal address.
Example: Zanesville, OH
```

☞ 8.6 ISAAC

ISAAC, the Information System for Advanced Academic Computing, serves as a clearinghouse for information about the use of IBM-compatible hardware and software as aids to instruction and research in higher education. Membership is free to all students, faculty, and staff at institutions of higher education.

For more information call (206) 543-5604.

ISAAC requires that you register before you can access the system. To register, type register for the userid and password and fill in the information using the tab key to go from field to field. Once registered you will be assigned a userid and password; then you must reconnect, this time typing your assigned userid and password.

To access ISAAC, you need to establish a telnet connection over the network. If you do not have network access, you also can call over phone lines. Call (800) 237-5551 in the United States or, within the Seattle area or outside the United States, call (206) 543-3761.

```
telnet isaac.engr.washington.edu  or  128.95.32.61
```

☞ 8.7 FEDIX

FEDIX is an online information service that links the higher education community and the federal government to facilitate research, education, and services. The system provides accurate and timely federal agency information to colleges, universities, and other research organizations. There are no registration fees and no access charges for using FEDIX. The only cost is for the phone call.

FEDIX provides daily information updates on:

Federal education and research programs (including descriptions, eligibility, funding, deadlines).

Scholarships, fellowships, and grants.

Used government research equipment available.

New funding for specific research and education activities from the *Commerce Business Daily*, *Federal Register*, and other sources.

Minority assistance research and education programs.

News and current events within participating agencies.

General information such as agency history, budget, organizational structure, and mission statement.

For more information, contact the HELPLINE at (301) 975-0103 Monday-Friday, 8:30 am to 4:30 pm EST, except on federal holidays.

```
telnet 192.111.228.1
At the login: prompt type fedix
```

☞ 8.8 STIS

STIS is the Science and Technology Information System at the National Science Foundation.

Information includes the NSF Bulletin, guide to programs, grants booklet (including forms), program announcements, press releases, NSF telephone book, reports of the National Science Board, descriptions of research projects funded by NSF (with abstracts), and analytical reports and news from the International Programs Division.

Publications may be searched by using a keyword, such as japan or volcano; using a phrase, such as exchange of scientists and soviet union; or by selecting a broad topic like biosciences.

For more information, contact the National Science Foundation, phone (202) 357-7555, FAX (202) 357-7745, TDD (202) 357-7492 or via e-mail at stis@nsf.gov (Internet), or stis@nsf (BITNET).

```
telnet stis.nsf.gov
At the login prompt, type public

At the terminal type prompt, type vt100nkp.

Enter your terminal type [blank=vt100]: vt100nkp

You are asked for a userid of up to eight characters.  If you are a new
user, you will be asked to supply your name and address for record keeping.
You can search the NSF publications for information and have the informa-
tion sent to your e-mail address if you wish.  STIS provides a menu system.
To get back to the main menu, press the esc key until you have the main
menu on the screen.  Press the arrow key until Exit is highlighted, and
press enter to exit STIS.
```

☞ 8.9 Weather

Source:

```
Telnet madlab.sprl.umich.edu 3000
```

☞ 8.93 NASA Spacelink

A space-related information database provided by the NASA Educational Affairs Division.

Source:

```
Telnet spacelink.msfc.nasa.gov
Login with userid newuser and password newuser
```

☞ 8.95 WAIS

Wide Area Information Server: This system uses a standard query system for access to information databases on the Internet. It is a client server model with clients available for the Macintoshes, NeXTs, UNIX, and PCs.

Source:

```
Telnet quake.think.com
Login as wais
Files available via anonymous ftp to quake.com
cd wais
```

☞ 8.96 Gopher

Gopher is a client server system that accesses information on the Internet. Clients exist for Macintoshes, PCs, NeXTs, X Windows, and UNIX terminals. The use of Gopher as campuswide information systems has been exploding in the past year. If you have not tried Gopher, I would highly recommend giving it a try. It is truly a golden Gopher.

Source:

```
Telnet to consultant.micro.umn.edu
Login as gopher
Files available via anonymous ftp to boombox.micro.umn.edu
cd pub/gopher
```

9.0 WHOIS – E-MAIL WHITE PAGES

Whois is a program available on many workstations, mainframes, and minicomputers that can connect to another computer. If you supply a person's name, Whois responds with information about the person. A similar program called finger does the same type of thing, except it only supplies information about individuals with accounts on that specific computer. A Whois database contains information on most of the individuals at a university, not just on the machine you connect to.

In a larger sense, Whois is a technique for finding a person's e-mail address. There is no master list of e-mail addresses on the network. Standards have been established for supplying e-mail addresses, but it will take some time for it to be globally implemented. In the meantime, the easiest way to find out is to call and ask!

I can just hear the gasps of horror; using the phone for anything but talking to your mom—sacrilege. There are, of course, many ways of finding a person's e-mail address. But what you don't know is if the person even reads his/her e-mail, and in the case of multiple e-mail addresses, which one is correct. A simple phone call the first time will answer those unknowns quickly. The following documents and resources will assist in finding a person's e-mail address.

☞ 9.03 College E-mail Address

Mark Kantrowitz (mkant@cs.cmu.edu) of Carnegie-Mellon University has compiled an extensive list of techniques for locating e-mail addresses for many universities. This document contains an alphabetic listing of universities and searching techniques unique to each.

Source:

```
Anonymous ftp to a.gp.cs.cmu.edu
  Note:  for password you must use your e-mail address in the form of
  name@computer
cd /afs/cs.cmu.edu/user/mkant/Public/Email
  Note:  you must cd to this directory as above, because intermediate
  directories are protected.
get college-email.-#.text.##
  Note:  the files are separated into several sections, and you need to
  specify the sections you want by replacing the # shown above with a
  number 1, 2, 3, etc.
```

You also can send mail to mail-server@pit-manager.mit.edu with no subject and the body of the text message (with no signature).

```
send usenet/soc.college/FAQ:_College_Email_Addresses_1_2_[Monthly_posting]
send usenet/soc.college/FAQ:_College_Email_Addresses_2_2_[Monthly_posting]
```

☞ 9.05 Netfind

Netfind is a program that goes out and queries the network in an organized way to find e-mail addresses.

Source:

```
Telnet bruno.cs.colorado.edu
Login is netfind
```

☞ 9.07 Inter-Network Mail Guide

When mailing from one network to another, you need to know what address to use to access the gateway. For instance, if you want to send a message from the Internet to someone on CompuServe, address it to 12345.1234@compuserve.com, where the 12345.1234 is the person's CompuServe ID in the form 12345,1234.

The Inter-Network Mail Guide by John Chew provides this information.

Source:

```
Send a mail message to listserv@unmvm.unm.edu
No subject; message body of:  get network guide
```

☞ 9.09 Whois List

The following is a list of universities that have a Whois service working. A more complete list has been collected by Matt Power of MIT (mhpower@athena.mit.edu).

Source:

```
Anonymous ftp to sipb.mit.edu
cd pub/whois
get whois-servers.list
```

The following is a short list of Whois servers.

☞ 9.1 The Ohio State University

```
Telnet to osu.edu     or
Use Whois command whois -h osu.edu
Enter firstname.lastname
Example: whois -h osu.edu jerry.smith
```

☞ 9.2 University of Oregon

```
Use Whois command whois -h oregon.uoregon.edu
Enter firstname.lastname
Example: whois -h oregon.uoregon.edu Rose.Smith
```

☞ 9.3 University of Virginia

```
Use Whois command whois -h whois.virginia.edu
Enter lastname, firstname middlename
Example: whois -h whois.virginia.edu "Smith, John James"
```

☞ 9.4 University of Pennsylvania

```
Use Whois command whois -h whois.upenn.edu
Enter lastname, firstname
Example: whois -h whois.upenn.edu "Smith, Judy"
```

☞ 9.5 University of Wisconsin

```
Use Whois command whois -h wisc.edu
Enter firstname lastname
Example: whois -h wisc.edu "Jane Smith"
```

☞ 9.6 MIT

```
Use Whois command whois -h mit.edu
Enter firstname_lastname
Example: whois -h mit.edu Robert_Smith
```

☞ 9.7 Indiana University

```
Use Whois command whois -h iugate.ucs.indiana.edu
Enter firstname_lastname
Example: whois -h iugate.ucs.indiana.edu Gerald_Smith
```

☞ 9.8 Stanford University

```
Use Whois command whois -h stanford.edu
Enter firstname lastname
Example: whois -h stanford.edu "shirley smith"
```

☞ 9.9 University of California at Davis

```
Use Whois command whois -h ucdavis.edu
Enter lastname, firstname
Example: whois -h ucdavis.edu smith,sandra
```

☞ 9.95 Directory of ERNET users in India

```
Use Whois command whois -h sangam.ernet.in help
(will give the help screen with examples)

Enter city name
Example:  whois -h sangam.ernet.in bombay
(will list all computer names at bombay)

Enter name@computer
Example:  whois -h sangam.ernet.in joshi@shakti
(will match users on shakti matching the pattern "joshi")
```

10.0 BOOKS – For a more complete listing see sections 2.08 and 2.11.

Internetworking with TCP/IP Principles, Protocols, and Architecture, by Douglas Comer, Prentice Hall, ISBN 0-13-470154-2

The Matrix, Computer Networks and Conferencing Systems Worldwide, by John S. Quarterman, Digital Press, ISBN 0-13-565607-9

!%@:: A Directory of Electronic Mail Addressing and Networks, by Donnalyn Frey and Rick Adams, O'Reilly & Associates, Inc., ISBN 0-937175-39-0

The User's Directory of Computer Networks, Edited by Tracy L. LaQuey, Digital Press, ISBN 0-13-950262-9

Zen and the Art of the Internet: A Beginner's Guide, Second Edition, by Brendan Kehoe, Prentice Hall, ISBN 0-13-010778-6

11.0 FREE PERIODICALS/TABLOIDS/MAGAZINES

Below are just a few of the periodicals that qualified subscribers can receive free. The first four, *PCWeek*, *MacWeek*, *Info World*, and *Network World*, are the ones I try to glance over routinely. Others are dedicated to specific network, LAN, or UNIX topics that are useful if you have need for that information. There may be other publications available; the following list is just a sampling.

PC Week
P.O. Box 1767
Riverton, NJ 08077-9767

MacWEEK
P.O. Box 1764
Riverton, NJ 08077-9764

Info World
P.O. Box 3013
Northbrook, IL 60065-3013

Network World
161 Worcester Road
Framingham, MA 01701

Computer System News
Circulation Dept.
P.O. Box 2030
Manhasset, NY 11030-7030

Network Management
Circulation Department
Box 2417
Tulsa, Oklahoma 74101-2417

Unix Review
Circulation Department
P.O. Box 7439
San Francisco, CA 94120-7439

Communication News
2504 North Tamiami Trail
Nokomis, FL 34275-9987

LAN Times
P.O. Box 652
Hightstown, NJ 08520

Communications Week
Circulations Dept.
P.O. Box 2070
Manhasset, NY 11030

LAN Computing
101 Witmer Road
P.O. Box 322
Horsham, PA 19044-0322

Midrange Systems
P.O. Box 445
Horsham, PA 19044-0445

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12.0 GLOSSARY

I use some terms here that may not be familiar to all. The following is a brief explanation.

☞ 12.1 BITNET

A network of generally mainframes or minicomputers. BITNET connects many universities and colleges together. It provides e-mail and file transfer capabilities. It does not have remote login (telnet session) capability.

☞ 12.2 Internet

A very large network that connects just about any type of computer. It supports e-mail, file transfer (ftp), and remote login (telnet).

☞ 12.3 Anonymous Ftp

The ability to transfer a file from a remote computer connected to the Internet without having an account on the remote computer. The program that performs the file transfer is normal ftp. To connect to a remote computer offering anonymous ftp, you can use the following commands from a computer connected to the Internet

```
Ftp Internet computer name
When prompted for a userid, type anonymous
When prompted for a password, type your e-mail address
To get a listing of files, type dir
To change directory, type cd directory name
To get a file type, get filename
To get a binary file, type binary then get filename
To end session, type quit

Example:
ftp pilot.njin.net
Username:  anonymous
Password:  yourname@computer.edu
cd pub/ftp-list
get ftp.list
quit
```

☞ 12.4 Telnet

The ability to establish a connection to a remote computer connected to the Internet network. Two types of programs are used to do this. One, usually called Telnet, establishes a VT100-type terminal emulation to the remote computer. The second, TN3270, establishes a full-screen IBM 3270-type terminal connection.

☞ 12.5 Listserv

A program available on many BITNET connected computers that can act as a mail forwarding system and as a file repository. BITNET is another network that links many colleges and universities. It does not normally link to military or government institutions as does the Internet. To subscribe to a listserv, you usually send mail to the machine that has the mailing list with the command to subscribe. As an example, to subscribe to a list for discussion of topics pertinent to mechanical engineering, send e-mail to listserv@utarlvml with a message containing the one-line command to subscribe:

```
SUB MECH-1 John Doe  (Where John Doe is your full name)
```

☞ 12.6 USENET/Read News

Newsgroups are like public bulletin boards that you can post to and read messages from other individuals worldwide. More than 1500 groups cover topics ranging from arts and recreation to research-oriented topics such as physics, philosophy, microbiology, and many others. Normally you gain access through a computer that has lots of disk space and is connected directly to the Internet. You can read many of the newsgroups from the Cleveland Freenet (section 8.1) or from commercial providers of Internet access; for example, Holonet, (section 1.7).

DISCLAIMER

The information provided in the previous sections has been put together from multiple sources acquired from the network. Much of it came from reading newsgroups and trying things out to see how they worked. The information is as accurate as I have been able to determine, as of July 17, 1992.

I used a DEC5500 system running Ultrix to check most of these sources. Most of the information is oriented toward Internet, since it has remote login (telnet) and file transfer (ftp) capabilities.

SECURITY CONSIDERATIONS

Security issues are not discussed in this memo.

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