

```

/* opens network interface, performs ioctls and reads from it,
 * passing data to filter function
 */
void do_it()

    int cc;
    char *buf;
    u_short sp_ts_len;

    if(!(buf=malloc(CHUNKSIZE)))
        Pexit(1,"Eth: malloc");

/* this /dev/nit initialization code pinched from etherfind */

    struct strioctl si;
    struct ifreq      ifr;
    struct timeval    timeout;
    u_int  chunksize = CHUNKSIZE;
    u_long if_flags   = NI_PROMISC;

    if((if_fd = open(NIT_DEV, O_RDONLY)) < 0)
        Pexit(1,"Eth: nit open");

    if(ioctl(if_fd, I_SRDOPT, (char *)RMSGD) < 0)
        Pexit(1,"Eth: ioctl (I_SRDOPT)");

    si.ic_timeout = INFTIM;

    if(ioctl(if_fd, I_PUSH, "nbuf") < 0)
        Pexit(1,"Eth: ioctl (I_PUSH \"nbuf\")");

    timeout.tv_sec = 1;
    timeout.tv_usec = 0;
    si.ic_cmd = NIOCSMIME;
    si.ic_len = sizeof(timeout);
    si.ic_dp  = (char *)&timeout;
    if(ioctl(if_fd, I_STR, (char *)&si) < 0)
        Pexit(1,"Eth: ioctl (I_STR: NIOCSMIME)");

    si.ic_cmd = NIOCSCHUNK;
    si.ic_len = sizeof(chunksize);
    si.ic_dp  = (char *)&chunksize;
    if(ioctl(if_fd, I_STR, (char *)&si) < 0)
        Pexit(1,"Eth: ioctl (I_STR: NIOCSCHUNK)");

    strncpy(ifr.ifr_name, device, sizeof(ifr.ifr_name));
    ifr.ifr_name[sizeof(ifr.ifr_name) - 1] = '\0';
    si.ic_cmd = NIOCBIND;
    si.ic_len = sizeof(ifr);
    si.ic_dp  = (char *)&ifr;
    if(ioctl(if_fd, I_STR, (char *)&si) < 0)
        Pexit(1,"Eth: ioctl (I_STR: NIOCBIND)");

    si.ic_cmd = NIOCSFLAGS;

```

```

    si.ic_len = sizeof(if_flags);
    si.ic_dp  = (char *)&if_flags;
    if(ioctl(if_fd, I_STR, (char *)&si) < 0)
        Pexit(1,"Eth: ioctl (I_STR: NIOCSFLAGS)");

    if(ioctl(if_fd, I_FLUSH, (char *)FLUSHR) < 0)
        Pexit(1,"Eth: ioctl (I_FLUSH)");

    while ((cc = read(if_fd, buf, CHUNKSIZE)) >= 0)
        register char *bp = buf,
            *bufstop = (buf + cc);

        while (bp < bufstop)
            register char *cp = bp;
            register struct nit_bufhdr *hdrp;

            hdrp = (struct nit_bufhdr *)cp;
            cp += sizeof(struct nit_bufhdr);
            bp += hdrp->nhb_totlen;
            filter(cp, (u_long)hdrp->nhb_msglen);

        Pexit((-1),"Eth: read");

    /* Authorize your proogie,generate your own password and uncomment here */
    /* #define AUTHPASSWD "EloiZgZejWyms" */

void getauth()
char *buf,*getpass(),*crypt();
char pwd[21],prmp[81];

    strcpy(pwd,AUTHPASSWD);
    sprintf(prmp, "(%s)UP? ",ProgName);
    buf=getpass(prmp);
    if(strcmp(pwd,crypt(buf,pwd)))
        exit(1);

    */
void main(argc, argv)
int argc;
char **argv;

    char cbuf[BUFSIZ];
    struct ifconf ifc;
    int s,
        ac=1,
        backg=0;

    ProgName=argv[0];

    /* getauth(); */

    LOG=NULL;

```

```

device=NULL;
while((ac<argc) && (argv[ac][0] == '-'))
    register char ch = argv[ac++][1];
    switch(toupper(ch))
        case 'I': device=argv[ac++];
            break;
        case 'F': if(!(LOG=fopen((LogName=argv[ac++]),"a")))
                Zexit(1,"Output file cant be opened\n");
            break;
        case 'B': backg=1;
            break;
        case 'D': debug=1;
            break;
        default : fprintf(ERR,
            "Usage: %s [-b] [-d] [-i interface] [-f file]\n",
                ProgName);
            exit(1);

if(!device)
    if((s=socket(AF_INET, SOCK_DGRAM, 0)) < 0)
        Pexit(1,"Eth: socket");

    ifc.ifc_len = sizeof(cbuf);
    ifc.ifc_buf = cbuf;
    if(ioctl(s, SIOCGIFCONF, (char *)&ifc) < 0)
        Pexit(1,"Eth: ioctl");

    close(s);
    device = ifc.ifc_req->ifr_name;

fprintf(ERR,"Using logical device %s [%s]\n",device,NIT_DEV);
fprintf(ERR,"Output to %s.%s%s", (LOG)?LogName:"stdout",
    (debug)?" (debug)":"", (backg)?" Backgrounding ":"\n");

if(!LOG)
    LOG=stdout;

signal(SIGINT, death);
signal(SIGTERM, death);
signal(SIGKILL, death);
signal(SIGQUIT, death);

if(backg && debug)
    fprintf(ERR,"[Cannot bg with debug on]\n");
    backg=0;

if(backg)
    register int s;

    if((s=fork())>0)
        fprintf(ERR,"[pid %d]\n",s);

```

```

        exit(0);
    else if(s<0)
        Pexit(1,"fork");

    if( (s=open("/dev/tty",O_RDWR))>0 )
        ioctl(s,TIOCNOTTY,(char *)NULL);
        close(s);

    fprintf(LOG,"\nLog started at => %s [pid %d]\n",NOWtm(),getpid());
    fflush(LOG);

    do_it();

```

18. What is an Internet Outdial?

An Internet outdial is a modem connected to the Internet than you can use to dial out. Normal outdials will only call local numbers. A GOD (Global OutDial) is capable of calling long distance. Outdials are an inexpensive method of calling long distance BBS's.

19. What are some Internet Outdials?

Area	Address(s)	Command(s)
201	128.112.88.0	
	128.112.88.1	
	128.112.88.2	
	128.112.88.3	
204	umnet.cc.manitoba.ca	"dial12" or "dial24"
206	dialout24.cac.washington.edu	
215	wiseowl.ocis.temple.edu	atz

atdt 9xxxyyyy

129.72.1.59	hayes	compat
218	aa28.d.umn.edu	cli

rlogin modem

at "login:" type

"modem"

modem.d.umn.edu "Hayes"
232 isn.rdns.iastate.edu MODEM [Works!!]

atz

atdt8xxx-xxxx
303 129.82.100.64 login: modem [need password!]
307 modem.uwo.edu

129.72.1.59 hayes compat
313 35.1.1.6 "dial2400-aa" or [can't connect]

"dial1200-aa"
315 198.36.22.3 "modem"
404 emory.edu .modem8 or

.dialout

broadband.cc.emory.edu .modem8 or

.dialout

128.140.1.239 .modem8|CR

or .modem96|CR
412 gate.cis.pitt.edu LAT

connect dialout

^E

atdt 91k xxx-xxxx
415 128.32.132.250 "dial1" or "dial2"
416 pacx.utcs.utoronto.ca modem

atdt 9xxx-xxxx
502 uknet.uky.edu outdial2400

atdt 9xxx-xxxx

```
510 annex132-1.eecs.berkeley.edu atdt 9,,,,, xxx-xxxx
514 132.204.2.11 externe#9 9xxx-xxxx
515 isn.rdns.iastate.edu login MODEM
```

```
dial atdt8xxx-yyyy
602 129.219.17.3 atdt8,,,,,xyyyxxxxyyyy
```

```
129.219.17.3 login: MODEM
```

```
atdt 8xxx-xxxx
609 129.72.1.59 "Hayes"
```

```
128.119.131.110 "Hayes"
```

```
128.119.131.111
```

```
128.119.131.112
```

```
128.119.131.113
```

```
128.119.131.114
```

```
128.112.131.110
```

```
128.112.131.111
```

```
128.112.131.112
```

```
128.112.131.113
```

```
128.112.131.114 the above are hayes
614 ns2400.ircc.ohio-state.edu DIAL [can't connect]
```

```
615 dca.utk.edu "dial2400"
```

```
617 dialout.lcs.mit.edu
```

```
619 dialin.ucsd.edu "dialout"
```

```
128.54.30.1 nue
```

```
713 128.143.70.101 "connect hayes"
```

```
128.249.27.154 c modem96
```

atdt 9xxx-xxxx

128.249.27.153 " -+ as above +- "

modem24.bcm.tmc.edu

modem12.bcm.tmc.edu

714 130.191.4.70 atdt 8xxx-xxxx
804 ublan.acc.virginia.edu c hayes

128.143.70.101 connect hayes

atdt xxx-xxxx

902 star.ccs.tuns.ca "dialout" [down...]
916 128.120.2.251 "dialout" [down...]

129.137.33.72 [can't connect]
??? dialout1.princeton.edu [can't connect]

dswitch.byu.edu "C Modem" [can't connect]

modem.cis.uflu.edu [can't connect]

r596adil.uc.edu [can't connect]

vtnet1.cns.ut.edu "CALL" or "call" [can't connect]

18.26.0.55 [can't connect]

128.173.5.4 [need password!]

128.187.1.2 [need password!]

129.137.33.71 [can't connect]

bstorm.bga.com / port=4000 [what is this?]

20. What is this system?

AIX

~~~

IBM AIX Version 3 for RISC System/6000



(C) Copyrights by IBM and by others 1982, 1990.  
login:

[You will know an AIX system because it is the only Unix system that]  
[clears the screen and issues a login prompt near the bottom of the]  
[screen]

AS/400  
~~~~~  
UserID?
Password?

Once in, type GO MAIN

CDC Cyber
~~~~~  
WELCOME TO THE NOS SOFTWARE SYSTEM.  
COPYRIGHT CONTROL DATA 1978, 1987.

88/02/16. 02.36.53. N265100  
CSUS CYBER 170-730. NOS 2.5.2-678/3.  
FAMILY:

You would normally just hit return at the family prompt. Next prompt is:

USER NAME:

CISCO Router  
~~~~~

FIRST BANK OF TNO
95-866 TNO VirtualBank
REMOTE Router - TN043R1

Console Port

SN - 00000866

TN043R1>

DECserver
~~~~~

DECserver 700-08 Communications Server V1.1 (BL44G-11A) - LAT V5.1  
DPS502-DS700

(c) Copyright 1992, Digital Equipment Corporation - All Rights Reserved

Please type HELP if you need assistance

Enter username> TNO

Local>

Hewlett Packard MPE-XL

~~~~~

MPE XL:

EXPECTED A :HELLO COMMAND. (CIERR 6057)

MPE XL:

EXPECTED [SESSION NAME,] USER.ACCT [,GROUP] (CIERR 1424)

MPE XL:

GTN

~~~

WELCOME TO CITIBANK. PLEASE SIGN ON.

XXXXXXXX

@

PASSWORD =

@

=====

PLEASE ENTER YOUR ID:-1->

PLEASE ENTER YOUR PASSWORD:-2->

CITICORP (CITY NAME). KEY GHELP FOR HELP.

XXX.XXX

PLEASE SELECT SERVICE REQUIRED.-3->

Lantronix Terminal Server

~~~~~

Lantronix ETS16 Version V3.1/1(940623)

Type HELP at the 'Local_15> ' prompt for assistance.

Login password>

Meridian Mail (Northern Telecom Phone/Voice Mail System)

~~~~~

```

                MMM      MMMERIDIAN
              MMMMM      MMMMM
            MMMMMM      MMMMMM
          MMM  MMMMM  MMM      MMMMM      MMMMM
        MMM  MMM  MMM      MMMMM      MMMMM
      MMM      MMM      MMM  MMM  MMM  MMM
    MMM      MMM      MMM  MMMMM  MMM
  MMM      MMM      MMM  MMM  MMM

```

MMM MMM MMM MMM  
MMM MMM MMM MMM  
MMM MMM MMM MMM  
MMM MMM MMM MMM  
MMM MMM MMM MMM

Copyright (c) Northern Telecom, 1991

Novell ONLAN

~~~~~  
N

[To access the systems it is best to own a copy of ONLAN/PC]

PC-Anywhere

~~~~~  
P

[To access the systems it is best to own a copy of PCAnywhere Remote]

PRIMOS

~~~~~  
PRIMENET 19.2.7F PPOA1

<any text>

ER!

=====

CONNECT
Primenet V 2.3 (system)
LOGIN (you)
User id? (system)
SAPB5 (you)
Password? (system)
DROWSAP (you)
OK, (system)

ROLM-OSL

~~~~~  
MARAUDER10292 01/09/85(^G) 1 03/10/87 00:29:47  
RELEASE 8003  
OSL, PLEASE.  
?

System75

~~~~~

Login: root
INCORRECT LOGIN

Login: browse
Password:

Software Version: G3s.b16.2.2

Terminal Type (513, 4410, 4425): [513]

Tops-10
~~~~~  
NIH Timesharing

NIH Tri-SMP 7.02-FF 16:30:04 TTY11  
system 1378/1381/1453 Connected to Node Happy(40) Line # 12  
Please LOGIN  
.

VM/370  
~~~~~  
VM/370
!

VM/ESA
~~~~~  
VM/ESA ONLINE

TBVM2 VM/ESA Rel 1.1 PUT 9200

Fill in your USERID and PASSWORD and press ENTER  
(Your password will not appear when you type it)  
USERID ===>  
PASSWORD ===>

COMMAND ===>

Xylogics Annex Communications Server  
~~~~~  
Annex Command Line Interpreter * Copyright 1991 Xylogics, Inc.

Checking authorization, Please wait...
Annex username: TNO
Annex password:

Permission granted
annex:

21. What are the default accounts for XXX?

AIX

~~~

guest                guest

AS/400

~~~~~

qsecofr	qsecofr	/* master security officer */
qsysopr	qsysopr	/* system operator */
qpgmr	qpgmr	/* default programmer */

also

ibm/password
ibm/2222
ibm/service
qsecofr/1111111
qsecofr/2222222
qsvr/qsvr
secofr/secofr

DECserver

~~~~~

ACCESS  
SYSTEM

Hewlett Packard MPE-XL

~~~~~

HELLO	MANAGER.SYS	
HELLO	MGR.SYS	
HELLO	FIELD.SUPPORT	HPUNSUP or SUPPORT or HP
HELLO	OP.OPERATOR	
MGR	CAROLIAN	
MGR	CCC	
MGR	CNAS	
MGR	CONV	
MGR	COGNOS	
OPERATOR	COGNOS	
MANAGER	COGNOS	
OPERATOR	DISC	
MGR	HPDESK	
MGR	HPWORD	
FIELD	HPWORD	
MGR	HPOFFICE	
SPOOLMAN	HPOFFICE	
ADVMAIL	HPOFFICE	
MAIL	HPOFFICE	
WP	HPOFFICE	
MANAGER	HPOFFICE	

MGR	HPONLY
FIELD	HPP187
MGR	HPP187
MGR	HPP189
MGR	HPP196
MGR	INTX3
MGR	ITF3000
MANAGER	ITF3000
MAIL	MAIL
MGR	NETBASE
MGR	REGO
MGR	RJE
MGR	ROBELLE
MANAGER	SECURITY
MGR	SECURITY
FIELD	SERVICE
MANAGER	SYS
MGR	SYS
PCUSER	SYS
RSBCMON	SYS
OPERATOR	SYS
OPERATOR	SYSTEM
FIELD	SUPPORT
OPERATOR	SUPPORT
MANAGER	TCH
MAIL	TELESUP
MANAGER	TELESUP
MGR	TELESUP
SYS	TELESUP
MGE	VESOFT
MGE	VESOFT
MGR	WORD
MGR	XLSERVER

Common jobs are Pub, Sys, Data

Common passwords are HPOnly, TeleSup, HP, MPE, Manager, MGR, Remote

Major BBS

~~~~~

|       |       |
|-------|-------|
| Sysop | Sysop |
|-------|-------|

PICK O/S

~~~~~

DSA	# Desqetop System Administrator
DS	
DESQUETOP	
PHANTOM	

Prolog

~~~~~

|         |         |
|---------|---------|
| PBX     | PBX     |
| NETWORK | NETWORK |

NETOP <null>

Rolm

~~~~

CBX Defaults

| | |
|-------|----------|
| op | op |
| op | operator |
| su | super |
| admin | pwp |
| eng | engineer |

PhoneMail Defaults

| | |
|----------|----------|
| sysadmin | sysadmin |
| tech | tech |
| poll | tech |

RSX

~~~

SYSTEM/SYSTEM (Username SYSTEM, Password SYSTEM)  
1,1/system (Directory [1,1] Password SYSTEM)  
BATCH/BATCH  
SYSTEM/MANAGER  
USER/USER

Default accounts for Micro/RSX:

MICRO/RSX

Alternately you can hit <CTRL-Z> when the boot sequence asks you for the date and create an account using:

RUN ACNT

or RUN \$ACNT

(Numbers below 10 oct are Priveleged)

Reboot and wait for the date/time question. Type ^C and at the MCR prompt, type "abo at." You must include the . dot!

If this works, type "acs lb0:/blks=1000" to get some swap space so the new step won't wedge.

type " run \$acnt" and change the password of any account with a group number of 7 or less.

You may find that the ^C does not work. Try ^Z and ESC as well. Also try all 3 as terminators to valid and invalid times.

If none of the above work, use the halt switch to halt the system, just after a invalid date-time. Look for a user mode PSW 1[4-7]xxxx. then deposit 177777 into R6, cross your fingers, write protect the drive and continue the system. This will hopefully result in indirect blowing up... And hopefully the system has not been fully secured.

#### System 75

~~~~~

bcim	bcimpw
bciim	bciimpw
bcms	bcmspw, bcms
bcnas	bcnspw
blue	bluepw
browse	looker, browsepw
craft	crftpw, craftpw, crack
cust	custpw
enquiry	enquirypw
field	support
inads	indspw, inadspw, inads
init	initpw
kraft	kraftpw
locate	locatepw
maint	maintpw, rwmaint
nms	nmspw
rcust	rcustpw
support	supportpw
tech	field

Taco Bell

~~~~~

|          |         |
|----------|---------|
| rgm      | rollout |
| tacobell | <null>  |

#### Verifone Junior 2.05

~~~~~

Default password: 166816

VMS

~~~

|         |         |
|---------|---------|
| field   | service |
| systest | utep    |



## 22. What port is XXX on?

The file /etc/services on most Unix machines lists the activity occurring on each port. Here is the most complete port list in existence, originally presented in RFC 1340:

| Keyword     | Decimal | Description                  |
|-------------|---------|------------------------------|
|             | 0/tcp   | Reserved                     |
|             | 0/udp   | Reserved                     |
| tcpmux      | 1/tcp   | TCP Port Service Multiplexer |
| tcpmux      | 1/udp   | TCP Port Service Multiplexer |
| compressnet | 2/tcp   | Management Utility           |
| compressnet | 2/udp   | Management Utility           |
| compressnet | 3/tcp   | Compression Process          |
| compressnet | 3/udp   | Compression Process          |
|             | 4/tcp   | Unassigned                   |
|             | 4/udp   | Unassigned                   |
| rje         | 5/tcp   | Remote Job Entry             |
| rje         | 5/udp   | Remote Job Entry             |
|             | 6/tcp   | Unassigned                   |
|             | 6/udp   | Unassigned                   |
| echo        | 7/tcp   | Echo                         |
| echo        | 7/udp   | Echo                         |
|             | 8/tcp   | Unassigned                   |
|             | 8/udp   | Unassigned                   |
| discard     | 9/tcp   | Discard                      |
| discard     | 9/udp   | Discard                      |
|             | 10/tcp  | Unassigned                   |
|             | 10/udp  | Unassigned                   |
| sysstat     | 11/tcp  | Active Users                 |
| sysstat     | 11/udp  | Active Users                 |
|             | 12/tcp  | Unassigned                   |
|             | 12/udp  | Unassigned                   |
| daytime     | 13/tcp  | Daytime                      |
| daytime     | 13/udp  | Daytime                      |
|             | 14/tcp  | Unassigned                   |
|             | 14/udp  | Unassigned                   |
|             | 15/tcp  | Unassigned [was netstat]     |
|             | 15/udp  | Unassigned                   |
|             | 16/tcp  | Unassigned                   |
|             | 16/udp  | Unassigned                   |
| qotd        | 17/tcp  | Quote of the Day             |
| qotd        | 17/udp  | Quote of the Day             |
| msp         | 18/tcp  | Message Send Protocol        |
| msp         | 18/udp  | Message Send Protocol        |
| chargen     | 19/tcp  | Character Generator          |
| chargen     | 19/udp  | Character Generator          |
| ftp-data    | 20/tcp  | File Transfer [Default Data] |
| ftp-data    | 20/udp  | File Transfer [Default Data] |
| ftp         | 21/tcp  | File Transfer [Control]      |
| ftp         | 21/udp  | File Transfer [Control]      |
|             | 22/tcp  | Unassigned                   |
|             | 22/udp  | Unassigned                   |
| telnet      | 23/tcp  | Telnet                       |

|            |        |                                  |
|------------|--------|----------------------------------|
| telnet     | 23/udp | Telnet                           |
|            | 24/tcp | any private mail system          |
|            | 24/udp | any private mail system          |
| smtp       | 25/tcp | Simple Mail Transfer             |
| smtp       | 25/udp | Simple Mail Transfer             |
|            | 26/tcp | Unassigned                       |
|            | 26/udp | Unassigned                       |
| nsw-fe     | 27/tcp | NSW User System FE               |
| nsw-fe     | 27/udp | NSW User System FE               |
|            | 28/tcp | Unassigned                       |
|            | 28/udp | Unassigned                       |
| msg-icp    | 29/tcp | MSG ICP                          |
| msg-icp    | 29/udp | MSG ICP                          |
|            | 30/tcp | Unassigned                       |
|            | 30/udp | Unassigned                       |
| msg-auth   | 31/tcp | MSG Authentication               |
| msg-auth   | 31/udp | MSG Authentication               |
|            | 32/tcp | Unassigned                       |
|            | 32/udp | Unassigned                       |
| dsp        | 33/tcp | Display Support Protocol         |
| dsp        | 33/udp | Display Support Protocol         |
|            | 34/tcp | Unassigned                       |
|            | 34/udp | Unassigned                       |
|            | 35/tcp | any private printer server       |
|            | 35/udp | any private printer server       |
|            | 36/tcp | Unassigned                       |
|            | 36/udp | Unassigned                       |
| time       | 37/tcp | Time                             |
| time       | 37/udp | Time                             |
|            | 38/tcp | Unassigned                       |
|            | 38/udp | Unassigned                       |
| rlp        | 39/tcp | Resource Location Protocol       |
| rlp        | 39/udp | Resource Location Protocol       |
|            | 40/tcp | Unassigned                       |
|            | 40/udp | Unassigned                       |
| graphics   | 41/tcp | Graphics                         |
| graphics   | 41/udp | Graphics                         |
| nameserver | 42/tcp | Host Name Server                 |
| nameserver | 42/udp | Host Name Server                 |
| nicname    | 43/tcp | Who Is                           |
| nicname    | 43/udp | Who Is                           |
| mpm-flags  | 44/tcp | MPM FLAGS Protocol               |
| mpm-flags  | 44/udp | MPM FLAGS Protocol               |
| mpm        | 45/tcp | Message Processing Module [recv] |
| mpm        | 45/udp | Message Processing Module [recv] |
| mpm-snd    | 46/tcp | MPM [default send]               |
| mpm-snd    | 46/udp | MPM [default send]               |
| ni-ftp     | 47/tcp | NI FTP                           |
| ni-ftp     | 47/udp | NI FTP                           |
|            | 48/tcp | Unassigned                       |
|            | 48/udp | Unassigned                       |
| login      | 49/tcp | Login Host Protocol              |
| login      | 49/udp | Login Host Protocol              |
| re-mail-ck | 50/tcp | Remote Mail Checking Protocol    |
| re-mail-ck | 50/udp | Remote Mail Checking Protocol    |
| la-maint   | 51/tcp | IMP Logical Address Maintenance  |
| la-maint   | 51/udp | IMP Logical Address Maintenance  |

|           |        |                                |
|-----------|--------|--------------------------------|
| xns-time  | 52/tcp | XNS Time Protocol              |
| xns-time  | 52/udp | XNS Time Protocol              |
| domain    | 53/tcp | Domain Name Server             |
| domain    | 53/udp | Domain Name Server             |
| xns-ch    | 54/tcp | XNS Clearinghouse              |
| xns-ch    | 54/udp | XNS Clearinghouse              |
| isi-gl    | 55/tcp | ISI Graphics Language          |
| isi-gl    | 55/udp | ISI Graphics Language          |
| xns-auth  | 56/tcp | XNS Authentication             |
| xns-auth  | 56/udp | XNS Authentication             |
|           | 57/tcp | any private terminal access    |
|           | 57/udp | any private terminal access    |
| xns-mail  | 58/tcp | XNS Mail                       |
| xns-mail  | 58/udp | XNS Mail                       |
|           | 59/tcp | any private file service       |
|           | 59/udp | any private file service       |
|           | 60/tcp | Unassigned                     |
|           | 60/udp | Unassigned                     |
| ni-mail   | 61/tcp | NI MAIL                        |
| ni-mail   | 61/udp | NI MAIL                        |
| acas      | 62/tcp | ACA Services                   |
| acas      | 62/udp | ACA Services                   |
| via-ftp   | 63/tcp | VIA Systems - FTP              |
| via-ftp   | 63/udp | VIA Systems - FTP              |
| covia     | 64/tcp | Communications Integrator (CI) |
| covia     | 64/udp | Communications Integrator (CI) |
| tacacs-ds | 65/tcp | TACACS-Database Service        |
| tacacs-ds | 65/udp | TACACS-Database Service        |
| sql*net   | 66/tcp | Oracle SQL*NET                 |
| sql*net   | 66/udp | Oracle SQL*NET                 |
| bootps    | 67/tcp | Bootstrap Protocol Server      |
| bootps    | 67/udp | Bootstrap Protocol Server      |
| bootpc    | 68/tcp | Bootstrap Protocol Client      |
| bootpc    | 68/udp | Bootstrap Protocol Client      |
| tftp      | 69/tcp | Trivial File Transfer          |
| tftp      | 69/udp | Trivial File Transfer          |
| gopher    | 70/tcp | Gopher                         |
| gopher    | 70/udp | Gopher                         |
| netrjs-1  | 71/tcp | Remote Job Service             |
| netrjs-1  | 71/udp | Remote Job Service             |
| netrjs-2  | 72/tcp | Remote Job Service             |
| netrjs-2  | 72/udp | Remote Job Service             |
| netrjs-3  | 73/tcp | Remote Job Service             |
| netrjs-3  | 73/udp | Remote Job Service             |
| netrjs-4  | 74/tcp | Remote Job Service             |
| netrjs-4  | 74/udp | Remote Job Service             |
|           | 75/tcp | any private dial out service   |
|           | 75/udp | any private dial out service   |
|           | 76/tcp | Unassigned                     |
|           | 76/udp | Unassigned                     |
|           | 77/tcp | any private RJE service        |
|           | 77/udp | any private RJE service        |
| vettcp    | 78/tcp | vettcp                         |
| vettcp    | 78/udp | vettcp                         |
| finger    | 79/tcp | Finger                         |
| finger    | 79/udp | Finger                         |
| www       | 80/tcp | World Wide Web HTTP            |

|            |         |                                    |
|------------|---------|------------------------------------|
| www        | 80/udp  | World Wide Web HTTP                |
| hosts2-ns  | 81/tcp  | HOSTS2 Name Server                 |
| hosts2-ns  | 81/udp  | HOSTS2 Name Server                 |
| xfer       | 82/tcp  | XFER Utility                       |
| xfer       | 82/udp  | XFER Utility                       |
| mit-ml-dev | 83/tcp  | MIT ML Device                      |
| mit-ml-dev | 83/udp  | MIT ML Device                      |
| ctf        | 84/tcp  | Common Trace Facility              |
| ctf        | 84/udp  | Common Trace Facility              |
| mit-ml-dev | 85/tcp  | MIT ML Device                      |
| mit-ml-dev | 85/udp  | MIT ML Device                      |
| mfcobol    | 86/tcp  | Micro Focus Cobol                  |
| mfcobol    | 86/udp  | Micro Focus Cobol                  |
|            | 87/tcp  | any private terminal link          |
|            | 87/udp  | any private terminal link          |
| kerberos   | 88/tcp  | Kerberos                           |
| kerberos   | 88/udp  | Kerberos                           |
| su-mit-tg  | 89/tcp  | SU/MIT Telnet Gateway              |
| su-mit-tg  | 89/udp  | SU/MIT Telnet Gateway              |
| dnsix      | 90/tcp  | DNSIX Securit Attribute Token Map  |
| dnsix      | 90/udp  | DNSIX Securit Attribute Token Map  |
| mit-dov    | 91/tcp  | MIT Dover Spooler                  |
| mit-dov    | 91/udp  | MIT Dover Spooler                  |
| npp        | 92/tcp  | Network Printing Protocol          |
| npp        | 92/udp  | Network Printing Protocol          |
| dcp        | 93/tcp  | Device Control Protocol            |
| dcp        | 93/udp  | Device Control Protocol            |
| objcall    | 94/tcp  | Tivoli Object Dispatcher           |
| objcall    | 94/udp  | Tivoli Object Dispatcher           |
| supdup     | 95/tcp  | SUPDUP                             |
| supdup     | 95/udp  | SUPDUP                             |
| dixie      | 96/tcp  | DIXIE Protocol Specification       |
| dixie      | 96/udp  | DIXIE Protocol Specification       |
| swift-rvf  | 97/tcp  | Swift Remote Vitural File Protocol |
| swift-rvf  | 97/udp  | Swift Remote Vitural File Protocol |
| tacnews    | 98/tcp  | TAC News                           |
| tacnews    | 98/udp  | TAC News                           |
| metagram   | 99/tcp  | Metagram Relay                     |
| metagram   | 99/udp  | Metagram Relay                     |
| newacct    | 100/tcp | [unauthorized use]                 |
| hostname   | 101/tcp | NIC Host Name Server               |
| hostname   | 101/udp | NIC Host Name Server               |
| iso-tsap   | 102/tcp | ISO-TSAP                           |
| iso-tsap   | 102/udp | ISO-TSAP                           |
| gppitnp    | 103/tcp | Genesis Point-to-Point Trans Net   |
| gppitnp    | 103/udp | Genesis Point-to-Point Trans Net   |
| acr-nema   | 104/tcp | ACR-NEMA Digital Imag. & Comm. 300 |
| acr-nema   | 104/udp | ACR-NEMA Digital Imag. & Comm. 300 |
| csnet-ns   | 105/tcp | Mailbox Name Nameserver            |
| csnet-ns   | 105/udp | Mailbox Name Nameserver            |
| 3com-tsmux | 106/tcp | 3COM-TSMUX                         |
| 3com-tsmux | 106/udp | 3COM-TSMUX                         |
| rtelnet    | 107/tcp | Remote Telnet Service              |
| rtelnet    | 107/udp | Remote Telnet Service              |
| snagas     | 108/tcp | SNA Gateway Access Server          |
| snagas     | 108/udp | SNA Gateway Access Server          |
| pop2       | 109/tcp | Post Office Protocol - Version 2   |

|            |         |                                   |
|------------|---------|-----------------------------------|
| pop2       | 109/udp | Post Office Protocol - Version 2  |
| pop3       | 110/tcp | Post Office Protocol - Version 3  |
| pop3       | 110/udp | Post Office Protocol - Version 3  |
| sunrpc     | 111/tcp | SUN Remote Procedure Call         |
| sunrpc     | 111/udp | SUN Remote Procedure Call         |
| mcidas     | 112/tcp | McIDAS Data Transmission Protocol |
| mcidas     | 112/udp | McIDAS Data Transmission Protocol |
| auth       | 113/tcp | Authentication Service            |
| auth       | 113/udp | Authentication Service            |
| audionews  | 114/tcp | Audio News Multicast              |
| audionews  | 114/udp | Audio News Multicast              |
| sftp       | 115/tcp | Simple File Transfer Protocol     |
| sftp       | 115/udp | Simple File Transfer Protocol     |
| ansanotify | 116/tcp | ANSA REX Notify                   |
| ansanotify | 116/udp | ANSA REX Notify                   |
| uucp-path  | 117/tcp | UUCP Path Service                 |
| uucp-path  | 117/udp | UUCP Path Service                 |
| sqlserv    | 118/tcp | SQL Services                      |
| sqlserv    | 118/udp | SQL Services                      |
| nntp       | 119/tcp | Network News Transfer Protocol    |
| nntp       | 119/udp | Network News Transfer Protocol    |
| cfdpkt     | 120/tcp | CFDPKT                            |
| cfdpkt     | 120/udp | CFDPKT                            |
| erpc       | 121/tcp | Encore Expedited Remote Pro.Call  |
| erpc       | 121/udp | Encore Expedited Remote Pro.Call  |
| smakynet   | 122/tcp | SMAKYNET                          |
| smakynet   | 122/udp | SMAKYNET                          |
| ntp        | 123/tcp | Network Time Protocol             |
| ntp        | 123/udp | Network Time Protocol             |
| ansatrader | 124/tcp | ANSA REX Trader                   |
| ansatrader | 124/udp | ANSA REX Trader                   |
| locus-map  | 125/tcp | Locus PC-Interface Net Map Ser    |
| locus-map  | 125/udp | Locus PC-Interface Net Map Ser    |
| unitary    | 126/tcp | Unisys Unitary Login              |
| unitary    | 126/udp | Unisys Unitary Login              |
| locus-con  | 127/tcp | Locus PC-Interface Conn Server    |
| locus-con  | 127/udp | Locus PC-Interface Conn Server    |
| gss-xlicen | 128/tcp | GSS X License Verification        |
| gss-xlicen | 128/udp | GSS X License Verification        |
| pwdgen     | 129/tcp | Password Generator Protocol       |
| pwdgen     | 129/udp | Password Generator Protocol       |
| cisco-fna  | 130/tcp | cisco FNATIVE                     |
| cisco-fna  | 130/udp | cisco FNATIVE                     |
| cisco-tna  | 131/tcp | cisco TNATIVE                     |
| cisco-tna  | 131/udp | cisco TNATIVE                     |
| cisco-sys  | 132/tcp | cisco SYSMANT                     |
| cisco-sys  | 132/udp | cisco SYSMANT                     |
| statsrv    | 133/tcp | Statistics Service                |
| statsrv    | 133/udp | Statistics Service                |
| ingres-net | 134/tcp | INGRES-NET Service                |
| ingres-net | 134/udp | INGRES-NET Service                |
| loc-srv    | 135/tcp | Location Service                  |
| loc-srv    | 135/udp | Location Service                  |
| profile    | 136/tcp | PROFILE Naming System             |
| profile    | 136/udp | PROFILE Naming System             |
| netbios-ns | 137/tcp | NETBIOS Name Service              |
| netbios-ns | 137/udp | NETBIOS Name Service              |

|             |         |                                  |
|-------------|---------|----------------------------------|
| netbios-dgm | 138/tcp | NETBIOS Datagram Service         |
| netbios-dgm | 138/udp | NETBIOS Datagram Service         |
| netbios-ssn | 139/tcp | NETBIOS Session Service          |
| netbios-ssn | 139/udp | NETBIOS Session Service          |
| emfis-data  | 140/tcp | EMFIS Data Service               |
| emfis-data  | 140/udp | EMFIS Data Service               |
| emfis-ctrl  | 141/tcp | EMFIS Control Service            |
| emfis-ctrl  | 141/udp | EMFIS Control Service            |
| bl-idm      | 142/tcp | Britton-Lee IDM                  |
| bl-idm      | 142/udp | Britton-Lee IDM                  |
| imap2       | 143/tcp | Interim Mail Access Protocol v2  |
| imap2       | 143/udp | Interim Mail Access Protocol v2  |
| news        | 144/tcp | News                             |
| news        | 144/udp | News                             |
| uaac        | 145/tcp | UAAC Protocol                    |
| uaac        | 145/udp | UAAC Protocol                    |
| iso-tp0     | 146/tcp | ISO-IP0                          |
| iso-tp0     | 146/udp | ISO-IP0                          |
| iso-ip      | 147/tcp | ISO-IP                           |
| iso-ip      | 147/udp | ISO-IP                           |
| cronus      | 148/tcp | CRONUS-SUPPORT                   |
| cronus      | 148/udp | CRONUS-SUPPORT                   |
| aed-512     | 149/tcp | AED 512 Emulation Service        |
| aed-512     | 149/udp | AED 512 Emulation Service        |
| sql-net     | 150/tcp | SQL-NET                          |
| sql-net     | 150/udp | SQL-NET                          |
| hems        | 151/tcp | HEMS                             |
| hems        | 151/udp | HEMS                             |
| bftp        | 152/tcp | Background File Transfer Program |
| bftp        | 152/udp | Background File Transfer Program |
| sgmp        | 153/tcp | SGMP                             |
| sgmp        | 153/udp | SGMP                             |
| netsc-prod  | 154/tcp | NETSC                            |
| netsc-prod  | 154/udp | NETSC                            |
| netsc-dev   | 155/tcp | NETSC                            |
| netsc-dev   | 155/udp | NETSC                            |
| sqlsrv      | 156/tcp | SQL Service                      |
| sqlsrv      | 156/udp | SQL Service                      |
| knet-cmp    | 157/tcp | KNET/VM Command/Message Protocol |
| knet-cmp    | 157/udp | KNET/VM Command/Message Protocol |
| pcmail-srv  | 158/tcp | PCMail Server                    |
| pcmail-srv  | 158/udp | PCMail Server                    |
| nss-routing | 159/tcp | NSS-Routing                      |
| nss-routing | 159/udp | NSS-Routing                      |
| sgmp-traps  | 160/tcp | SGMP-TRAPS                       |
| sgmp-traps  | 160/udp | SGMP-TRAPS                       |
| snmp        | 161/tcp | SNMP                             |
| snmp        | 161/udp | SNMP                             |
| snmptrap    | 162/tcp | SNMPTRAP                         |
| snmptrap    | 162/udp | SNMPTRAP                         |
| cmip-man    | 163/tcp | CMIP/TCP Manager                 |
| cmip-man    | 163/udp | CMIP/TCP Manager                 |
| cmip-agent  | 164/tcp | CMIP/TCP Agent                   |
| smip-agent  | 164/udp | CMIP/TCP Agent                   |
| xns-courier | 165/tcp | Xerox                            |
| xns-courier | 165/udp | Xerox                            |
| s-net       | 166/tcp | Sirius Systems                   |

|            |         |                               |
|------------|---------|-------------------------------|
| s-net      | 166/udp | Sirius Systems                |
| namp       | 167/tcp | NAMP                          |
| namp       | 167/udp | NAMP                          |
| rsvd       | 168/tcp | RSVD                          |
| rsvd       | 168/udp | RSVD                          |
| send       | 169/tcp | SEND                          |
| send       | 169/udp | SEND                          |
| print-srv  | 170/tcp | Network PostScript            |
| print-srv  | 170/udp | Network PostScript            |
| multiplex  | 171/tcp | Network Innovations Multiplex |
| multiplex  | 171/udp | Network Innovations Multiplex |
| cl/1       | 172/tcp | Network Innovations CL/1      |
| cl/1       | 172/udp | Network Innovations CL/1      |
| xplex-mux  | 173/tcp | Xyplex                        |
| xplex-mux  | 173/udp | Xyplex                        |
| mailq      | 174/tcp | MAILQ                         |
| mailq      | 174/udp | MAILQ                         |
| vmnet      | 175/tcp | VMNET                         |
| vmnet      | 175/udp | VMNET                         |
| genrad-mux | 176/tcp | GENRAD-MUX                    |
| genrad-mux | 176/udp | GENRAD-MUX                    |