



LPR PRINT SPOOLER KLIENT PROGRAM FOR ND-500(0).

Versjon A01, utelukkende til bruk av Norsk Hydro a/s ved Hydro Data.

lpr sender filer til en Berkley (BSD) line printer daemon (lpd). Dette blir gjort ved å bruke en TCP forbindelse og følge protokollen knyttet til BSD printer daemon. Programmet forutsetter at filene skal skrives ut fra et annet system, det kontakter lpd programmet på fjernmaskinen (ved å bruke en Internet TCP socket) og sender så filene til denne daemon for skriving.

Installering

På vedlagte diskett finnes følgende filer:

- LPR-SEQNO-LOCK:DATA
- LPR-CLNT-:DOM
- LPR-HYDRO-:TEXT Denne filen.

LPR-CLNT-:DOM kopieres til et SINTRAN brukerområde etter eget ønske.

LPR-SEQNO-LOCK:DATA kopieres til SINTRAN brukerområdet SYSTEM, og filen må der ha adgangsrettighetene RW,RW,RW (minst). Venner på området SYSTEM vil få problem med lpr hvis deres adgangsrettighet ikke inkluderer RW. Filen skal bare brukes av lpr. Skulle noen komme til å ødelegge innholdet i den, kan den rettes opp ved fra PED å skrive tilbake 000<CR> hvilket skal resultere i et innhold på 5 bytes.

Synopsis

```
lpr -s printer [-h host] [-d] [-w width] [-i [indent]] \
    [ -t | -l | -p ] [-r] file ...
```

Beskrivelse

- Valget **-s** med argument **printer** : Ingen default verdi, angir ønsket skriver med dens navn hos lpd på fjernmaskinen.
- Valget **-h** med argument **host** : Default verdi = mylpdhost
Navn på fjernmaskinen. Kan oppgis som adresse i dot-notasjon, eller som et navn som finnes i den lokale AIP-HOSTS:SYMB fila.
- Valget **-w** med argument **width** : Ingen default verdi sendt fra lpr.
Angir side-bredde.
- Valget **-i** med argument **indent** : Ingen default verdi sendt fra lpr.
Angir innrykk posisjoner. Med bare -i uten etterfølgende numerisk argument, blir 8 brukt som default verdi.
- Valget **-d** : Ber lpr skrive ut informasjon om progresjonen, til hjelp hvis det oppstår problemer.

Valgene `-t` eller `-l` eller `-p` Bare en av gangen kan benyttes.
Hvis ingen benyttes vil lpr bruke `-t`.

Fra RFC1179 :

`-t` (text) Print formatted file
This ... causes the data file to be printed as a plain text file, providing page breaks as necessary. Any ASCII control characters which are not in the following list are discarded: HT, CR, FF, LF, and BS.

`-l` (literal) Print file leaving control characters
This ... causes the specified data file to be printed without filtering the control characters (as is done with `-t`).

`-p` (pr) Print file with 'pr' format
This ... causes the data file to be printed with a heading, page numbers, and pagination.

Valget `-r` : Spesielt valg for lpr under SINTRAN.
Hvis dette valget er angitt vil lpr
nulle alle "paritets"-bit i alle bytes
i filen(e) før de sendes til lpd.

file ... : Fil eller filer som skal skrives ut.

Unngå utskrift til terminalen

De ytre moduler i lpr-clnt:dom er programmert i C. Derfor skal man kunne få til "redirect standard output" ved på slutten av kommandolinja å skrive enten `@lpr > filnavn (write)`
eller `@lpr >> filnavn (append)`.

Kommandolinja

Som allerede nevnt er de ytre moduler i lpr-clnt:dom programmert i C. Av den grunn vedlegges kapittelet "The Command Line" fra manualen "C Reference Manual", ND-860251EN2.

Et eksempel: `@lpr @mine-lpr-param:symb >> min-lpr-logg:logg`

lpr vil hente sine valg og argumenter fra mine-lpr-param:symb og all utskrift fra lpr vil bli føyet til min-lpr-logg:logg.

Line Printer Daemon Protocol

Status of this Memo

This RFC describes an existing print server protocol widely used on the Internet for communicating between line printer daemons (both clients and servers). This memo is for informational purposes only, and does not specify an Internet standard. Please refer to the current edition of the "IAB Official Protocol Standards" for the standardization state and status of this protocol. Distribution of this memo is unlimited.

Introduction

The Berkeley versions of the Unix(tm) operating system provide line printer spooling with a collection of programs: lpr (assign to queue), lpq (display the queue), lprm (remove from queue), and lpc (control the queue). These programs interact with an autonomous process called the line printer daemon. This RFC describes the protocols with which a line printer daemon client may control printing.

This memo is based almost entirely on the work of Robert Knight at Princeton University. I gratefully acknowledge his efforts in deciphering the UNIX lpr protocol and producing earlier versions of this document.

2. Model of Printing Environment

A group of hosts request services from a line printer daemon process running on a host. The services provided by the process are related to printing jobs. A printing job produces output from one file. Each job will have a unique job number which is between 0 and 999, inclusive. The jobs are requested by users which have names. These user names may not start with a digit.

3. Specification of the Protocol

The specification includes file formats for the control and data files as well as messages used by the protocol.

3.1 Message formats

LPR is a TCP-based protocol. The port on which a line printer daemon listens is 515. The source port must be in the range 721 to 731, inclusive. A line printer daemon responds to commands sent to its port. All commands begin with a single octet code, which is a binary number which represents the requested function. The code is immediately followed by the ASCII name of the printer queue name on which the function is to be performed. If there are other operands to the command, they are separated from the printer queue name with white space (ASCII space, horizontal tab, vertical tab, and form feed). The end of the command is indicated with an ASCII line feed character.

4. Diagram Conventions

The diagrams in the rest of this RFC use these conventions. These diagrams show the format of an octet stream sent to the server. The outermost box represents this stream. Each box within the outermost one shows one portion of the stream. If the contents of the box is two decimal digits, this indicates that the binary 8 bit value is to be used. If the contents is two uppercase letters, this indicates that the corresponding ASCII control character is to be used. An exception to this is that the character SP can be interpreted as white space. (See the preceding section for a definition.) If the contents is a single letter, the ASCII code for this letter must be sent. Otherwise, the contents are intended to be mnemonic of the contents of the field which is a sequence of octets.

5. Daemon commands

The verbs in the command names should be interpreted as statements made to the daemon. Thus, the command "Print any waiting jobs" is an imperative to the line printer daemon to which it is sent. A new connection must be made for each command to be given to the daemon.

5.1 01 - Print any waiting jobs

```
+-----+-----+-----+
| 01 | Queue | LF |
+-----+-----+-----+
Command code - 1
Operand - Printer queue name
```

This command starts the printing process if it not already running.

5.2 02 - Receive a printer job

```

+-----+-----+-----+
| 02 | Queue | LF |
+-----+-----+-----+
Command code - 2
Operand - Printer queue name

```

Receiving a job is controlled by a second level of commands. The daemon is given commands by sending them over the same connection. The commands are described in the next section (6).

After this command is sent, the client must read an acknowledgement octet from the daemon. A positive acknowledgement is an octet of zero bits. A negative acknowledgement is an octet of any other pattern.

5.3 03 - Send queue state (short) `

```

+-----+-----+-----+-----+-----+
| 03 | Queue | SP | List | LF | `
+-----+-----+-----+-----+-----+
Command code - 3 `
Operand 1 - Printer queue name `
Other operands - User names or job numbers .

```

If the user names or job numbers or both are supplied then only those jobs for those users or with those numbers will be sent. `

The response is an ASCII stream which describes the printer queue. ` The stream continues until the connection closes. Ends of lines are indicated with ASCII LF control characters. The lines may also contain ASCII HT control characters. `

5.4 04 - Send queue state (long) `

```

+-----+-----+-----+-----+-----+
| 04 | Queue | SP | List | LF | .
+-----+-----+-----+-----+-----+
Command code - 4 .
Operand 1 - Printer queue name .
Other operands - User names or job numbers .

```

If the user names or job numbers or both are supplied then only those jobs for those users or with those numbers will be sent.

The response is an ASCII stream which describes the printer queue. The stream continues until the connection closes. Ends of lines are

indicated with ASCII LF control characters. The lines may also contain ASCII HT control characters.

5.5 05 - Remove jobs

```

+-----+-----+-----+-----+-----+-----+-----+
| 05 | Queue | SP | Agent | SP | List | LF |
+-----+-----+-----+-----+-----+
Command code - 5
Operand 1 - Printer queue name
Operand 2 - User name making request (the agent)
Other operands - User names or job numbers

```

This command deletes the print jobs from the specified queue which are listed as the other operands. If only the agent is given, the command is to delete the currently active job. Unless the agent is "root", it is not possible to delete a job which is not owned by the user. This is also the case for specifying user names instead of numbers. That is, agent "root" can delete jobs by user name but no other agents can.

6. Receive job subcommands

These commands are processed when the line printer daemon has been given the receive job command. The daemon will continue to process commands until the connection is closed.

After a subcommand is sent, the client must wait for an acknowledgement from the daemon. A positive acknowledgement is an octet of zero bits. A negative acknowledgement is an octet of any other pattern.

LPR clients SHOULD be able to sent the receive data file and receive control file subcommands in either order. LPR servers MUST be able to receive the control file subcommand first and SHOULD be able to receive the data file subcommand first.

6.1 01 - Abort job

```

Command code - 1
+-----+-----+
| 01 | LF |
+-----+-----+

```

No operands should be supplied. This subcommand will remove any files which have been created during this "Receive job" command.

.2 02 - Receive control file

```

+----+-----+----+-----+----+
| 02 | Count | SP | Name | LF |
+----+-----+----+-----+----+
Command code - 2
Operand 1 - Number of bytes in control file
Operand 2 - Name of control file

```

The control file must be an ASCII stream with the ends of lines indicated by ASCII LF. The total number of bytes in the stream is sent as the first operand. The name of the control file is sent as the second. It should start with ASCII "cfA", followed by a three digit job number, followed by the host name which has constructed the control file. Acknowledgement processing must occur as usual after the command is sent.

The next "Operand 1" octets over the same TCP connection are the intended contents of the control file. Once all of the contents have been delivered, an octet of zero bits is sent as an indication that the file being sent is complete. A second level of acknowledgement processing must occur at this point.

6.3 03 - Receive data file

```

+----+-----+----+-----+----+
| 03 | Count | SP | Name | LF |
+----+-----+----+-----+----+
Command code - 3
Operand 1 - Number of bytes in data file
Operand 2 - Name of data file

```

The data file may contain any 8 bit values at all. The total number of bytes in the stream may be sent as the first operand, otherwise the field should be cleared to 0. The name of the data file should start with ASCII "dfA". This should be followed by a three digit job number. The job number should be followed by the host name which has constructed the data file. Interpretation of the contents of the data file is determined by the contents of the corresponding control file. If a data file length has been specified, the next "Operand 1" octets over the same TCP connection are the intended contents of the data file. In this case, once all of the contents have been delivered, an octet of zero bits is sent as an indication that the file being sent is complete. A second level of acknowledgement processing must occur at this point.

Control file lines

This section discusses the format of the lines in the control file which is sent to the line printer daemon.

Each line of the control file consists of a single, printable ASCII character which represents a function to be performed when the file is printed. Interpretation of these command characters are case-sensitive. The rest of the line after the command character is the command's operand. No leading white space is permitted after the command character. The line ends with an ASCII new line.

Those commands which have a lower case letter as a command code are used to specify an actual printing request. The commands which use upper case are used to describe parametric values or background conditions.

Some commands must be included in every control file. These are 'H' (responsible host) and 'P' (responsible user). Additionally, there must be at least one lower case command to produce any output.

7.1 C - Class for banner page

```
+---+-----+-----+
| C | Class | LF |
+---+-----+-----+
Command code - 'C'
Operand - Name of class for banner pages
```

This command sets the class name to be printed on the banner page. The name must be 31 or fewer octets. The name can be omitted. If it is, the name of the host on which the file is printed will be used. The class is conventionally used to display the host from which the printing job originated. It will be ignored unless the print banner command ('L') is also used.

7.2 H - Host name

```
+---+-----+-----+
| H | Host | LF |
+---+-----+-----+
Command code - 'H'
Operand - Name of host
```

This command specifies the name of the host which is to be treated as the source of the print job. The command must be included in the control file. The name of the host must be 31 or fewer octets.

7.3 I - Indent Printing

```

+---+-----+-----+
| I | count | LF |
+---+-----+-----+
Command code - 'I'
Operand - Indenting count

```

This command specifies that, for files which are printed with the 'f', of columns given. (It is ignored for other output generating commands.) The indenting count operand must be all decimal digits.

7.4 J - Job name for banner page

```

+---+-----+-----+
| J | Job name | LF |
+---+-----+-----+
Command code - 'J'
Operand - Job name

```

This command sets the job name to be printed on the banner page. The name of the job must be 99 or fewer octets. It can be omitted. The job name is conventionally used to display the name of the file or files which were "printed". It will be ignored unless the print banner command ('L') is also used.

7.5 L - Print banner page

```

+---+-----+-----+
| L | User | LF |
+---+-----+-----+
Command code - 'L'
Operand - Name of user for burst pages

```

This command causes the banner page to be printed. The user name can be omitted. The class name for banner page and job name for banner page commands must precede this command in the control file to be effective.

7.6 M - Mail When Printed

```

+---+-----+-----+
| M | user | LF |
+---+-----+-----+
Command code - 'M'
Operand - User name

```

This entry causes mail to be sent to the user given as the operand at

the host specified by the 'H' entry when the printing operation ends (successfully or unsuccessfully).

7.7 N - Name of source file

```
+---+-----+----+
| N | Name | LF |
+---+-----+----+
Command code - 'N'
Operand - File name
```

This command specifies the name of the file from which the data file was constructed. It is returned on a query and used in printing with the 'p' command when no title has been given. It must be 131 or fewer octets.

7.8 P - User identification

```
+---+-----+----+
| P | Name | LF |
+---+-----+----+
Command code - 'P'
Operand - User id
```

This command specifies the user identification of the entity requesting the printing job. This command must be included in the control file. The user identification must be 31 or fewer octets.

7.9 S - Symbolic link data

```
+---+-----+---+-----+----+
| S | device | SP | inode | LF |
+---+-----+---+-----+----+
Command code - 'S'
Operand 1 - Device number
Operand 2 - Inode number
```

This command is used to record symbolic link data on a Unix system so that changing a file's directory entry after a file is printed will not print the new file. It is ignored if the data file is not symbolically linked.

7.10 T - Title for pr

```

+---+-----+-----+
| T | title | LF |
+---+-----+-----+
Command code - 'T'
Operand - Title text

```

This command provides a title for a file which is to be printed with either the 'p' command. (It is ignored by all of the other printing commands.) The title must be 79 or fewer octets.

7.11 U - Unlink data file

```

+---+-----+-----+
| U | file | LF |
+---+-----+-----+
Command code - 'U'
Operand - File to unlink

```

This command indicates that the specified file is no longer needed. This should only be used for data files.

7.12 W - Width of output

```

+---+-----+-----+
| W | width | LF |
+---+-----+-----+
Command code - 'W'
Operand - Width count

```

This command limits the output to the specified number of columns for the 'f', 'l', and 'p' commands. (It is ignored for other output generating commands.) The width count operand must be all decimal digits. It may be silently reduced to some lower value. The default value for the width is 132.

7.13 l - troff R font

```

+---+-----+-----+
| l | file | LF |
+---+-----+-----+
Command code - 'l'
Operand - File name

```

This command specifies the file name for the troff R font. [1] This is the font which is printed using Times Roman by default.

14 2 - troff I font

```
+---+-----+---+
| 2 | file | LF |
+---+-----+---+
Command code - '2'
Operand - File name
```

This command specifies the file name for the troff I font. [1] This is the font which is printed using Times Italic by default.

7.15 3 - troff B font

```
+---+-----+---+
| 3 | file | LF |
+---+-----+---+
Command code - '3'
Operand - File name
```

This command specifies the file name for the troff B font. [1] This is the font which is printed using Times Bold by default.

7.16 4 - troff S font

```
+---+-----+---+
| 4 | file | LF |
+---+-----+---+
Command code - '4'
Operand - File name
```

This command specifies the file name for the troff S font. [1] This is the font which is printed using Special Mathematical Font by default.

7.17 c - Plot CIF file

```
+---+-----+---+
| c | file | LF |
+---+-----+---+
Command code - 'c'
Operand - File to plot
```

This command causes the data file to be plotted, treating the data as CIF (CalTech Intermediate Form) graphics language. [2]

18 d - Print DVI file

```
+---+-----+---+
| d | file | LF |
+---+-----+---+
Command code - 'd'
Operand - File to print
```

This command causes the data file to be printed, treating the data as DVI (TeX output). [3]

7.19 f - Print formatted file

```
+---+-----+---+
| f | file | LF |
+---+-----+---+
Command code - 'f'
Operand - File to print
```

This command cause the data file to be printed as a plain text file, providing page breaks as necessary. Any ASCII control characters which are not in the following list are discarded: HT, CR, FF, LF, and BS.

7.20 g - Plot file

```
+---+-----+---+
| g | file | LF |
+---+-----+---+
Command code - 'g'
Operand - File to plot
```

This command causes the data file to be plotted, treating the data as output from the Berkeley Unix plot library. [1]

7.21 k - Reserved for use by Kerberized LPR clients and servers.

7.22 l - Print file leaving control characters

```
+---+-----+---+
| l | file | LF |
+---+-----+---+
Command code - 'l' (lower case L)
Operand - File to print
```

This command causes the specified data file to printed without filtering the control characters (as is done with the 'f' command).

7.23 n - Print ditroff output file

```
+---+-----+---+
| n | file | LF |
+---+-----+---+
Command code - 'n'
Operand - File to print
```

This command prints the data file to be printed, treating the data as ditroff output. [4]

7.24 o - Print Postscript output file

```
+---+-----+---+
| o | file | LF |
+---+-----+---+
Command code - 'o'
Operand - File to print
```

This command prints the data file to be printed, treating the data as standard Postscript input.

7.25 p - Print file with 'pr' format

```
+---+-----+---+
| p | file | LF |
+---+-----+---+
Command code - 'p'
Operand - File to print
```

This command causes the data file to be printed with a heading, page numbers, and pagination. The heading should include the date and time that printing was started, the title, and a page number identifier followed by the page number. The title is the name of file as specified by the 'N' command, unless the 'T' command (title) has been given. After a page of text has been printed, a new page is started with a new page number. (There is no way to specify the length of the page.)

7.26 r - File to print with FORTRAN carriage control

```
+---+-----+---+
| r | file | LF |
+---+-----+---+
Command code - 'r'
Operand - File to print
```

This command causes the data file to be printed, interpreting the

first column of each line as FORTRAN carriage control. The FORTRAN standard limits this to blank, "1", "0", and "+" carriage controls. Most FORTRAN programmers also expect "-" (triple space) to work as well.

7.27 t - Print troff output file

```
+---+-----+---+
| t | file | LF |
+---+-----+---+
Command code - 't'
Operand - File to print
```

This command prints the data file as Graphic Systems C/A/T phototypesetter input. [5] This is the standard output of the Unix "troff" command.

7.28 v - Print raster file

```
+---+-----+---+
| v | file | LF |
+---+-----+---+
Command code - 'v'
Operand - File to print
```

This command prints a Sun raster format file. [6]

7.29 z - Reserved for future use with the Palladium print system.

REFERENCES and BIBLIOGRAPHY

- [1] Computer Science Research Group, "UNIX Programmer's Reference Manual", USENIX, 1986.
- [2] Hon and Sequin, "A Guide to LSI Implementation", XEROX PARC, 1980.
- [3] Knuth, D., "TeX The Program".
- [4] Kernighan, B., "A Typesetter-independent TROFF".
- [5] "Model C/A/T Phototypesetter", Graphic Systems, Inc. Hudson, N.H.
- [6] Sun Microsystems, "Pixrect Reference Manual", Sun Microsystems, Mountain View, CA, 1988.

Security Considerations

Security issues are not discussed in this memo.

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NAME

`lpr` - Send print requests to a line printer spooler

SYNOPSIS

```
lpr [ -Pprinter ] [ -#num ] [ -C class ] [ -J job ] [ -T  
title ] [ -i [ numcols ] ] [ -wnum ] [ -plrmhs ] [ name ...  
]
```

DESCRIPTION

`Lpr` uses a spooling daemon to print the named files when facilities become available. If no names appear, the standard input is assumed. The `-P` option may be used to force output to a specific printer. Normally, the default printer is used (site dependent), or the value of the environment variable `PRINTER` is used.

The following single letter options are used to notify the line printer spooler that the files are not standard text files. The spooling daemon will use the appropriate filters to print the data accordingly.

- `-p` Use `pr(1)` to format the files (equivalent to `print`).
- `-l` Use a filter which allows control characters to be printed and suppresses page breaks.

The remaining single letter options have the following meaning.

- `-r` Remove the file upon completion of spooling or upon completion of printing (with the `-s` option).
- `-m` Send mail upon completion.
- `-h` Suppress the printing of the burst page.
- `-s` Use symbolic links. Usually files are copied to the spool directory.

The `-C` option takes the following argument as a job classification for use on the burst page. For example,

```
lpr -C EECS foo.c
```

causes the system name (the name returned by `hostname(1)`) to be replaced on the burst page by `EECS`, and the file `foo.c` to be printed.

The `-J` option takes the following argument as the job name to print on the burst page. Normally, the first file's name is used.

The `-T` option uses the next argument as the title used by `pr(1)` instead of the file name.

To get multiple copies of output, use the `-#num` option, where `num` is the number of copies desired of each file named. For example,

```
lpr -#3 foo.c bar.c more.c
```

would result in 3 copies of the file `foo.c`, followed by 3 copies of the file `bar.c`, etc. On the other hand,

```
cat foo.c bar.c more.c | lpr -#3
```

will give three copies of the concatenation of the files.

The `-i` option causes the output to be indented. If the next argument is numeric, it is used as the number of blanks to be printed before each line; otherwise, 8 characters are printed.

The `-w` option takes the immediately following number to be the page width for `pr`.

The `-s` option will use `symlink(2)` to link data files rather than trying to copy them so large files can be printed. This means the files should not be modified or removed until they have been printed.

FILES

<code>/etc/passwd</code>	personal identification
<code>/etc/printcap</code>	printer capabilities data base
<code>/usr/lib/lpd*</code>	line printer daemons
<code>/usr/spool/*</code>	directories used for spooling
<code>/usr/spool/*/cf*</code>	daemon control files
<code>/usr/spool/*/df*</code>	data files specified in "cf" files
<code>/usr/spool/*/tf*</code>	temporary copies of "cf" files

SEE ALSO

`lpq(1)`, `lprm(1)`, `pr(1)`, `symlink(2)`, `printcap(5)`, `lpc(8)`, `lpd(8)`

DIAGNOSTICS

If you try to spool too large a file, it will be truncated. If a user other than root prints a file and spooling is disabled, `lpr` will print a message saying so and will not put jobs in the queue. If a connection to `lpd` on the local machine cannot be made, `lpr` will say that the daemon cannot be started. Diagnostics may be printed in the daemon's log file regarding missing spool files by `lpd`.

BUGS

Fonts for troff and tex reside on the host with the printer.
It is currently not possible to use local font libraries.

Slib:netstat

TCPIP-MONITOR connected to tcpdev=0

What kind of statistics (A,a,h,i,m,n,r,s,t,x) /a/? a

Prot	Rcv-Q-Snd	Cid	Local address	port	Foreign address	port	State
TCP	0	0	1 130. 67. 6. 1	23	0. 0. 0. 0	0	LISTEN
TCP	0	0	2 0. 0. 0. 0	21	0. 0. 0. 0	0	LISTEN
UDP	0	0	3 0. 0. 0. 0	1024	0. 0. 0. 0	0	0
TCP	0	0	4 0. 0. 0. 0	551	0. 0. 0. 0	0	LISTEN
TCP	0	0	6 0. 0. 0. 0	102	0. 0. 0. 0	0	LISTEN
TCP	0	0	137 0. 0. 0. 0	2000	0. 0. 0. 0	0	LISTEN
TCP	0	0	12821 130. 67. 6. 1	23	130. 67. 56. 5	3336	FIN_W2
TCP	0	0	23701 130. 67. 6. 1	3195	130. 67. 3.252	561	ESTABLISHE
TCP	0	0	23620 130. 67. 6. 1	3122	130. 67. 3.252	561	ESTABLISHE
TCP	0	0	23680 130. 67. 6. 1	3176	130. 67. 3.252	561	ESTABLISHE
TCP	0	0	23843 130. 67. 6. 1	3319	130. 67. 3.253	561	ESTABLISHE
TCP	0	0	23691 130. 67. 6. 1	3186	130. 67. 3.253	561	ESTABLISHE
TCP	0	0	1207 130. 67. 6. 1	23	130. 67. 3. 42	14124	FIN_W2
TCP	0	0	23670 130. 67. 6. 1	3167	130. 67. 3.253	561	ESTABLISHE
TCP	0	0	23737 130. 67. 6. 1	3228	130. 67. 3.253	561	ESTABLISHE
TCP	0	0	23611 130. 67. 6. 1	3114	130. 67. 3.253	561	ESTABLISHE
TCP	0	1856	2664 130. 67. 6. 1	23	130. 67. 35. 35	1026	FIN_W1
TCP	0	0	8881				

TCP	0	0	23737	130.	67.	6.	1	3228	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23611	130.	67.	6.	1	3114	130.	67.	3.253	561	ESTABLISHE
TCP	0	1856	2664	130.	67.	6.	1	23	130.	67.	35.35	1026	FIN_W1
TCP	0	0	8881	130.	67.	6.	1	23	130.	67.	6.34	27143	FIN_W2
TCP	0	0	23649	130.	67.	6.	1	3148	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23639	130.	67.	6.	1	3139	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23629	130.	67.	6.	1	3130	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23783	130.	67.	6.	1	3268	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23715	130.	67.	6.	1	3208	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23789	130.	67.	6.	1	3273	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23775	130.	67.	6.	1	3261	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23726	130.	67.	6.	1	3218	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23659	130.	67.	6.	1	3157	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24062	130.	67.	6.	1	3527	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23760	130.	67.	6.	1	3248	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23746	130.	67.	6.	1	3236	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23753	130.	67.	6.	1	3242	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23802	130.	67.	6.	1	3284	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23770	130.	67.	6.	1	3257	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24015	130.	67.	6.	1	3487	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23815	130.	67.	6.	1	3295	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24046	130.	67.	6.	1	3513	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23799	130.	67.	6.	1	3281	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23829	130.	67.	6.	1	3307	130.	67.	3.252	561	ESTABLISHE
TCP	0												

TCP	0	0	24015	130.	67.	6.	1	3487	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23815	130.	67.	6.	1	3295	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24046	130.	67.	6.	1	3513	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23799	130.	67.	6.	1	3281	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23829	130.	67.	6.	1	3307	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23864	130.	67.	6.	1	3338	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23812	130.	67.	6.	1	3292	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23841	130.	67.	6.	1	3317	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24030	130.	67.	6.	1	3500	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	23825	130.	67.	6.	1	3303	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24003	130.	67.	6.	1	3476	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	23854	130.	67.	6.	1	3329	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24119	130.	67.	6.	1	3576	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24143	130.	67.	6.	1	3597	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24061	130.	67.	6.	1	3526	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24021	130.	67.	6.	1	3492	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24035	130.	67.	6.	1	3504	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24089	130.	67.	6.	1	3550	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24397	130.	67.	6.	1	3834	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24200	130.	67.	6.	1	3649	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24113	130.	67.	6.	1	3571	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24155	130.	67.	6.	1	3608	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24048	130.	67.	6.	1	3515	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24076	130.	67.	6.	1	3539	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24104	130.									

TCP	0	0	24113	130.	67.	6.	1	3571	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24155	130.	67.	6.	1	3608	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24048	130.	67.	6.	1	3515	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24076	130.	67.	6.	1	3539	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24104	130.	67.	6.	1	3563	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24073	130.	67.	6.	1	3536	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24099	130.	67.	6.	1	3558	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24086	130.	67.	6.	1	3547	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24210	130.	67.	6.	1	3658	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24177	130.	67.	6.	1	3628	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24166	130.	67.	6.	1	3618	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24129	130.	67.	6.	1	3585	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24134	130.	67.	6.	1	3589	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24352	130.	67.	6.	1	3793	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24187	130.	67.	6.	1	3637	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24220	130.	67.	6.	1	3667	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24341	130.	67.	6.	1	3783	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24364	130.	67.	6.	1	3804	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24330	130.	67.	6.	1	3773	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24238	130.	67.	6.	1	3683	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24229	130.	67.	6.	1	3675	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24553	130.	67.	6.	1	3976	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24385	130.	67.	6.	1	3823	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24247	130.	67.	6.	1	3691	130.	67.	3.252	561	ESTABLISHE
TCP	0												

TCP	0	0	24330	130.	67.	6.	1	3773	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24238	130.	67.	6.	1	3683	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24229	130.	67.	6.	1	3675	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24553	130.	67.	6.	1	3976	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24385	130.	67.	6.	1	3823	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24247	130.	67.	6.	1	3691	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24418	130.	67.	6.	1	3853	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24375	130.	67.	6.	1	3814	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24429	130.	67.	6.	1	3863	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24576	130.	67.	6.	1	3997	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24408	130.	67.	6.	1	3844	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24462	130.	67.	6.	1	3893	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24438	130.	67.	6.	1	3871	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24473	130.	67.	6.	1	3903	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24451	130.	67.	6.	1	3883	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24485	130.	67.	6.	1	3914	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24540	130.	67.	6.	1	3964	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24507	130.	67.	6.	1	3934	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24495	130.	67.	6.	1	3923	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24586	130.	67.	6.	1	4006	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24518	130.	67.	6.	1	3944	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24565	130.	67.	6.	1	3987	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24529	130.	67.	6.	1	3954	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24620	130.	67.	6.	1	4037	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24667	130.	67.	6.	1						

TCP	0	0	24540	130.	67.	6.	1	3964	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24507	130.	67.	6.	1	3934	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24495	130.	67.	6.	1	3923	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24586	130.	67.	6.	1	4006	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24518	130.	67.	6.	1	3944	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24565	130.	67.	6.	1	3987	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24529	130.	67.	6.	1	3954	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24620	130.	67.	6.	1	4037	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24667	130.	67.	6.	1	4079	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24598	130.	67.	6.	1	4017	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24643	130.	67.	6.	1	4058	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24723	130.	67.	6.	1	4130	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24775	130.	67.	6.	1	4178	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24610	130.	67.	6.	1	4028	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24631	130.	67.	6.	1	4047	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24656	130.	67.	6.	1	4069	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24679	130.	67.	6.	1	4090	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24712	130.	67.	6.	1	4120	130.	67.	3.252	561	ESTABLISHE
TCP	0	303	24950	130.	67.	6.	1	23	130.	67.	6. 30	9477	ESTABLISHE
TCP	0	0	24658	130.	67.	6.	1	4071	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24952	0.	0.	0.	0	0	0.	0.	0. 0	0 0	
TCP	0	0	24690	130.	67.	6.	1	4100	130.	67.	3.253	561	ESTABLISHE
TCP	0	0	24700	130.	67.	6.	1	4109	130.	67.	3.252	561	ESTABLISHE
TCP	0	0	24769	130.	67.	6.	1	4174	130.	67.	3.252	561	ESTABLISHE

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