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Middle East Technical University, Computer Center
Tel: (4) 223 71 00 / 2090
Inönü Bulvarı, ANKARA, 06531
Fax: 2223554
ACCESSING INTERNET FTP SITES FROM METU

Kürşat ÇAĞILTAY
METU Computer Center
Middle East Technical University
Ankara - TURKEY

1. Introduction

FTP (File Transfer Protocol) is the Internet method of transferring non-mail files (be they text, formatted data, or programs). People on the Internet can "login" to an FTP server at a remote site and download files. The process is in many ways similar to dialing up a bulletin board with a PC, although it is thankfully much faster. BITNET users can now access these FTP servers through BITFTP.

2. BITFTP: Princeton BITNET FTP Server

BITFTP provides a mail interface to the FTP portion of the IBM TCP/IP product ("FAL") running on the Princeton VM system, to allow BITNET/NetNorth/EARN users to ftp files from sites on the Internet.

BITFTP currently accepts requests only via RFC822-format mail, IBM NOTE format mail, IBM PROFS format messages, or files with no headers at all. BITFTP currently returns the requested files only as NETDATA format files. BITFTP currently cannot send binary files through mail-only gateways, such as the gateway from BITNET into JANET.

If BITFTP sends you a file you cannot read, THE FIRST THING TO DO is to make sure that you specified ASCII if the file should contain textual material or that you specified BINARY if the file should contain binary data, executable programs, tar files, or the like.

To use BITFTP, send a mail containing your ftp commands to "BITFTP@PUCC". The first command to BITFTP must be "FTP" or "HELP". The recommended syntax for ftp requests is:

```
FTP hostname
USER username password
<other ftp subcommands>
```

If the username is "anonymous", no password is required; BITFTP will use your userid and nodeid as the password. Note that on many systems passwords are case-sensitive; that is, the password may be required to be in lower case, mixed case or upper case. (The same is true for directory and file names.) The following is an example of an ftp request:
FTP plains.nodak.edu
USER anonymous
CD /pub/pictures
BINARY
GET coke.bottle.Z COKE.BOTTLE
QUIT

BITFTP implements a subset of the ftp subcommands provided in the IBM TCP/IP and uses the same syntax. The currently supported subcommands are:

<table>
<thead>
<tr>
<th>Command</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT account-information</td>
<td>to send host-dependent account information.</td>
</tr>
<tr>
<td>ASCII</td>
<td>to change the file transfer type to ASCII.</td>
</tr>
<tr>
<td>BINARY FIXED</td>
<td>to change the file transfer type to image.</td>
</tr>
<tr>
<td>CD directory</td>
<td>to change the working directory.</td>
</tr>
<tr>
<td>CLOSE</td>
<td>to disconnect from the foreign host.</td>
</tr>
<tr>
<td>DIR</td>
<td>get a list of directory entries.</td>
</tr>
<tr>
<td>EBCDIC</td>
<td>to change the file transfer type to EBCDIC</td>
</tr>
<tr>
<td>GET foreignfile &lt;localfile&gt;</td>
<td>to get a file from the foreign host. If you specify &quot;localfile&quot;, it must be in the forms &quot;filename.filetype&quot; or &quot;filename&quot;, and the filename and filetype may each be no more than 8 characters long and may not contain periods.</td>
</tr>
<tr>
<td>LOCSTAT</td>
<td>to display local status information.</td>
</tr>
<tr>
<td>LS</td>
<td>to list the files in a directory.</td>
</tr>
<tr>
<td>PWD</td>
<td>to print the working directory.</td>
</tr>
<tr>
<td>QUIT</td>
<td>to disconnect from the foreign host.</td>
</tr>
<tr>
<td>STATUS &lt;name&gt;</td>
<td>to retrieve status information from a foreign host.</td>
</tr>
<tr>
<td>SYSTEM</td>
<td>to get the name of the foreign host's operating system.</td>
</tr>
<tr>
<td>TYPE &lt;I</td>
<td>A</td>
</tr>
</tbody>
</table>

The files you request will be sent to you in NETDATA format. You will also receive a mail file containing a log of your ftp session. In that mail file, entries prefixed by ">" are your original commands; those prefixed by ">>" are your commands as interpreted by BITFTP and passed to TCPIP; those prefixed by ">>>" are your commands as interpreted by TCPIP and passed to the remote host; those prefixed by "<<<" are messages from the remote host; and those prefixed by ">>>>" are completion messages from BITFTP.

If BITFTP is unable to connect to the host you specify, it will send you mail after the first attempt, but will keep trying at intervals over three days. The only additional mail files you will receive will be when the connection is made successfully or when BITFTP gives up after three days.

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The load on BITFTP is often very heavy and the network backlogs are often so great that it may take several days for a file to get to you once BITFTP sends it, so please be patient and don't send multiple requests for the same file. If your system allows you to send interactive messages, you can inquire about BITFTP's backlog by sending the query "How are you?", e.g., on a VM system: TELL BITFTP AT PUCC How are you? This service is currently under development and is far from complete. Current plans for improvements include:

1) Acknowledgements via MSG when mail is received and when processing has been completed.
2) A much more complete HELP facility.

How can you use BITFTP from TRMETU? To use BITFTP from TRMETU (IBM 3090) you may do the following:

1) Issue MAIL BITFTP AT PUCC command. This will take you into a mail session.
2) Write FTP commands in your mail. For example the following will show you the content of the directory PUB at nodeid ogi.cse.edu.

   FTP ogi.cse.edu
   USER anonymous
   password michael
   CD PUB
   DIR
   QUIT

How can you use BITFTP from TRMETUA? To use BITFTP from TRMETUA (UNISYS A9F) first you should prepare a data file that include FTP commands. Then enter R*BITE/CROSSNET command. A menu will appear on the screen. In the field of Address/Nick...: enter BITFTP AT PUCC and enter BITNET to the Net ID...: field. Finally write name of data file that you prepared after the Mail File field and then you can send this mail by pressing Transmit key.

How can you obtain FTP sites list? Full list of FTP sites can be obtained from LISTSERV AT TRMETU. To get that list just issue the command:

   TELL LISTSERV AT TRMETU GET FTP SITES.

Remember that the command TELL on IBM is equivalent to the command TO on the Unisys side.

REFERENCES

[1] "BITNET SERVERS" file from NETSERV@TREARN.
[2] FTP Help command results from BITFTP@PUCC.