Network Working Group Request for Comments: 751 NIC: nnnnn P. David Lebling (PDL@MIT-DMS) 10 December 1978

SURVEY OF FTP MAIL AND MLFL

Two surveys of Arpanet Server hosts were run between September 20, 1978 and December 11, 1978. The intent was to determine the response of the host's Server FTP program to:

(a) An attempt to mail to an unknown recipient at that host. The purpose of this survey was two-fold. First, to determine whether the host accepts mail for unknown recipients at all, and second, what response the host gives if it does not accept such mail.

(b) An attempt to mail to a known recipient using the MLFL command rather than the usual MAIL command. This survey was undertaken to determine the extent of support for the MLFL command among Server hosts, and the sort of reply received if the Server does not support MLFL. MLFL is potentially a 'better' form of communication than mail as the message is sent over a data connection rather than the command connection. Using the data connection eliminates the 'end-of-mail' marker and 'command reader' problems sometimes encountered over the command connection.

The ground rules of the survey were that all sites listed as Servers in the MIT/SAIL Host table were surveyed. In many cases, a host listed as a Server would not respond to an ICP at any time during the period of the survey. Once a host responded with what seemed to me to be a 'definitive' answer, I marked it as such and stopped surveying it.

MLFL Survey

The algorithm used was to ICP to socket 3 of the server (the standard old-FTP socket). Once a 300 response was received, I sent the MLFL command. Where I had the name of a real mailbox at a site (a Header-person, for example) I used that, otherwise the name "**". If a site asked for a password (response 504) after the MLFL command I gave "USER NETML" "PASS NETML" and retried the MLFL. If the server replied with a 255 SOCK command, I listened for the data-connection to be established. When it was, I transferred the mail file. Interestingly enough, most sites implement an RFC queueing algorithm that will allow the user site to attempt to establish the data-connection from its end.

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Complete FTP scripts may be found, if you are interested, on MIT-DM, file NETDOC;MLFL SURVEY.

Sites are grouped by the general result they gave.

-site- -last ftp reply if lost- -when-

1) Sites that lost for various reasons:

BNL	530	NOT LOGGED IN.	after	MLFL
HARV-10	431	INVALID ENTRY - Try again	after	USER
LLL-MFE	454	Login please	after	SOCK
LONDON	000	INDRA FTP Version 2.00	after	ICP
NBS-10	454	Login please	after	SOCK
WHARTON	454	DATA Connection error	after	SOCK
WPAFB-AFAL	454	Login please	after	SOCK

Note: "when" describes the last action performed by the surveyer before the indicated anomalous response.

after IC	2P	surveyer had done ICP to socket 3
after ML	JFL	surveyer had sent MLFL command
after US	SER	surveyer had sent USER NETML in response to
		"504 Login please"
after SC	ОСК	surveyer had attempted to connect to specified
		data socket

2) Sites that don't support MLFL and say so:

501	ML FL	* *
501	ML FL	* *
501	ML FL	* *
506	Command	not implemented.
500	Command	unrecognized
500	COMMAND	UNRECOGNIZED
501	ML FL	* *
	501 501 506 500 500	500 Command

3) Sites that support MLFL (or at least go through all the right motions):

-AI	SRI-KL
-DMS	SU-AI
-MC	SUMEX-AIM
-ML	UCLA-ATS
-XX	UCLA-SECURITY
-UNIX	USC-ECL
ICE-1	USC-ISI
C-MAXC	USC-ISIB
C-MAXC2	USC-ISIC
	-AI -DMS -MC -ML -XX -UNIX ICE-1 C-MAXC C-MAXC2

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DEG MARIRODO		HOA TATE
DEC-MARLBORO	RADC-TOPS20	USC-ISIE
I4-TENEX	RAND-RCC	UTEXAS
ILL-UNIX	RAND-UNIX	
LL	RUTGERS	
LL-ASG	SRI-KA	

4) Sites that support MLFL but require "USER NETML" "PASS NETML" (Multics):

MIT-MULTICS RADC-MULTICS

5) Others:

a) Sites that might support it if I could mail to a real user (some of these run operating systems that are "known to work", e.g. TENEX):

BBN-TENEXB 450	No such mailbox at this site.
CCA-SDMS 450	User Unknown
CCTC 451	User Not Recognized
CMU-10D 507	USER NOT FOUND: **
DTI 451	User Not Recognized
LL-11 450	User Unknown
LL-XN 450	User Unknown
NCSC 451	User Not Recognized
NOSC-CC 451	User Not Recognized
NOSC-SDL 451	User Not Recognized
NTIA-ITS 451	User Not Recognized
OFFICE-2 450	No such mailbox at this site.
RADC-XPER 451	User Not Recognized
SDAC-44 431	User name invalid
SDAC-UNIX 451	User Not Recognized
SRI-UNIX 451	User Not Recognized

b) Sites that either never responded to an ICP to socket 3, or were not accepting FTP users:

ANL	I4B-TENEX	NOSC-SECURE1
ARPA-DMS	ISI-SPEECH11	NSWC-WO
CMU-CMMP	LBL-UNIX	NUSC
CTO-DDS	LLL-COMP	NUSC-NPT
DTNSRDC	MOFFET-ARC	NWC
FNWC	NADC	NYU
GUNTER-UNIX	NDRE	PENT-UNIX

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MAIL Survey

The mechanics of the MAIL survey were similar to those of the MLFL survey. The command was "MAIL Fzorkness" (an account unlikely to exist on any host). The responses are grouped into a few general categories.

Complete FTP results may be found on MIT-DM, file NETDOC; MAIL SURVEY.

-site- -last response-

1) Sites that lost completely.

LONDON 000 INDRA FTP Version <>.00 ...

2) Sites that accept mail to an unknown recipient.

BNL	MIT-ML	USC-ISI
MIT-AI	RAND-RCC	USC-ISIB
MIT-DMS	UCLA-CCN	USC-ISIC
MIT-MC	USC-ECL	USC-ISIE

3) Sites that refuse mail to an unknown recipient (grouped by response).

SDAC-44 431 User name invalid

BBN-TENEX	450	No such mailbox at this site.
BBN-TENEXA	450	No such mailbox at this site.
BBN-TENEXB	450	No such mailbox at this site.
BBN-TENEXD	450	No such mailbox at this site.
BBN-TENEXE	450	No such mailbox at this site.
BBN-UNIX	450	User Unknown
CCA-SDMS	450	User Unknown
CCTC	451	User Unknown
EDN-UNIX	450	User Unknown
I4-TENEX	450	No such mailbox at this site.
ILL-UNIX	450	User unknown
LL	450	No such mailbox at LL
LL-ASG	450	User unknown
LL-XN	450	User unknown
MIT-MULTICS	450	Cannot locate mailbox for \Fzorkness\
MIT-XX	450	No such mailbox at this site.
NBS-UNIX	450	User Unknown
NCSC	450	User Unknown
NOSC-CC	450	User Unknown
NOSC-SDL	450	User Unknown
NTIA-ITS	450	User Unknown
OFFICE-1	450	No such mailbox at this site.
OFFICE-2	450	No such mailbox at this site.
PARC-MAXC	450	No such mailbox at this site.

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PARC-MAXC2	50 No such mailbox at this site. 50 User Unknown	
RADC-MULTICS	50 Cannot locate mailbox for \Fzorkness\ 50 No such mailbox at this site.	
RAND-UNIX	50 User Unknown	
RUTGERS	50 No such mailbox at this site.	
SDAC-UNIX	50 User Unknown	
-	50 No such mailbox at this site.	
SRI-KL	50 No such mailbox at this site.	
	50 I don't know anybody named Fzorkness	
	50 No such mailbox at this site.	
	50 User Unknown	
UCLA-SECURITY		
UTEXAS	50 User Unknown	
CCA-TENEX	51 No such mailbox at this site.	
AFWL	01 MA IL Fzorkness	
	01 MA IL Fzorkness	
EGLIN	01 MA IL Fzorkness	
WPAFB	01 MA IL Fzorkness	
AMES-67	03 COMMAND \MAIL FZORKNESS\ IGNORED: UNKNC	WN USER
		nit oblit
LBL	06 Command not implemented.	
CMU-10A	07 % USER NOT FOUND: FZORKNESS	
CMU-10B	07 % USER NOT FOUND: FZORKNESS	
CMU-10D	07 % USER NOT FOUND: FZORKNESS	
HARV-10	07 No such user as FZORKNESS	
	07 No such user as FZORKNESS	
	07 No such user as FZORKNESS	
WHARTON	07 No such user as FZORKN	
WPAFB-AFAL	07 No such user as FZORKNESS	

4) Sites to which I was never able to connect, or which were not accepting users.

ANL	I4B-TENEX	NOSC-SECURE1
ARPA-DMS	ISI-SPEECH11	NSWC-WO
CMU-CMMP	LBL-UNIX	NUSC
CTO-DDS	LL-11	NUSC-NPT
DEC-MARLBORO	LLL-COMP	NWC
DTI	LONDON-VDH	NYU
DTNSRDC	MOFFETT-ARC	SRI-UNIX
FNWC	NADC	SU-ISL
GUNTER-UNIX	NDRE	