NAME

phquery − fuzzy address resolver backend for sendmail

SYNOPSIS

phquery [**−d**] [**−i**] [**−l**] [**−p**] [**−x** *service_type*] [**−f** *from_address*] address [address2] ...

DESCRIPTION

Phquery relies on the *qi*(8) people name server to resolve fuzzy addresses, e.g., those sent to *jp-morgan@uiuc.edu*, *John-Morgan@uiuc.edu*, or *ka9wgn@uiuc.edu*. The local portion of the address (left of the "@") may be either a *ph*(1) alias (jp-morgan), name (John-Morgan), or amateur radio callsign (ka9wgn) field.

N.B., *ph* only guarantees the uniqueness of the alias field. Should there be two or more John-Morgan s in the ph database, *phquery* will return an error message suggesting alternatives. Also note that while ph names have blanks, sending a blank embedded in a mail address, no matter what quoting is done, is likely to be zapped by some intervening mail system. Therefore blanks in full name addresses should be replaced with dashes ("-"). Thus "John Morgan" becomes John-Morgan.

Phquery is not meant to be invoked directly by users. Instead *sendmail*(8) will invoke it as a non-final mailer for addresses that have a remote portion of *uiuc.edu*. See the NOTES section below for a quick sendmail.cf hack that will enable *phquery* alias resolution to be done locally instead on on the machines MX'ed for *uiuc.edu*.

The call sequence runs as follows:

Sendmail resolves one or more addresses in a message from, say *joe@chicago.edu* to *someone@uiuc.edu*.

Sendmail invokes *phquery* as

```
phquery -f joe@chicago.edu someone
```

The text of the mail message is read by *phquery* on the standard input. *Phquery* consults the network *qi*(8) server to locate the email address *doda@ux1.cso.uiuc.edu* for the alias *someone*.

The header line "X-PH: V<version>@host.domain" is added to the mail message where *host.domain* is the host where *phquery* did the translation. Sendmail is then invoked again to transport the message to its destination.

−d Turn on debugging statements, disable removal of temp files, and don't vfork/execve sendmail for error or mail delivery. Enabling debug also disables *syslog*(3) statements unless re-enabled by a subsequent **−l**.

−i Issue a usage and copyright statement.

−l Enable use of *syslog*(3) routines to record signicant events using the LOG_MAIL facility.

−x *service_name*
Look up the single alias *service_name* and send the message to the email address returned. This feature at UIUC supports outgoing email to facsimile.

−f *Address*
Use *Address* as the From: address in the forwarded mail and as the recipient for any error messages. If not specified, *phquery* will use the contents of the From: field in the message header block instead.

−r A synonym for **−f**.

−p If set, all error returns are copied to Postmaster.

NOTES

A vanilla sendmail site can use the syntax *some-one@uiuc.edu* provided at least one of the following is true:

a) the sendmail uses MX records,
b) it has a mailhost or smarterhost relay that does use MX records,

c) the rules below have been put into their sendmail.cf file.

Macro M is defined to be the domain for which mail is to be accepted for. At UIUC, it is simply

DMuiuc.edu

To invoke *phquery* locally, add the following rule to ruleset 0 just prior to selecting the local mailer:

```
R$+@$M			$#PH  $@$w $:$1
```

And define the PH mailer as follows:

```
MPH,	P=/usr/local/libdata/mail/phquery, F=DFMhnmur,	A=phquery $u
```

If the IDA sendmail is used, then the steps are slightly more involved. Assuming again that the domain is uiuc.edu, proceed as follows.

1) Add phquery support to sendmail.cf:

```
cd sendmail/ida/cf
```

Add the lines below to the m4 file for your machine

```
define(ALTERNATENAMES, uiuc.edu)
define(MAILERTABLE, LIBDIR/mailertable)
```

Build the sendmail.cf file and install it in the standard location.

2) Assuming LIBDIR was defined in the Makefile as /usr/local/libdata/mail, the next steps are

```
cd /usr/local/libdata/mail
cat > mailertable
PH!your.host.domain			uiuc.edu
^D
cat > Makefile
mailertable.dir:	mailertable
	./dbm -L make mailertable mailertable
^D
```

Type 'make' and restart the sendmail daemon.

SEE ALSO

sendmail(8)

BUGS

Undoubtably. Please send comments and suggestions to **paul-pomes@uiuc.edu**.

N.B., the **−p** option sends copies of failed mail to Postmaster. While usually a discreet person, it would still not be wise to discuss sensitive topics via email. This is useful advice at any time.

AUTHOR

Paul Pomes, UIUC-CSO