

Technical Update

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MailShare: Your Own Internet Post Office

Electronic mail has become an almost ubiquitous means of communication in the academic world. My support for that proposition rests entirely on personal observation. Just a few years ago the only people discussing email on campus were those who used it and understood how it worked. Today many people who talk about email on campus neither use it nor understand how it works. As the number of email users increases, every campus faces the problems and challenges of what to do with all that mail and how to service all of those email users. The University of Colorado has chosen a strategy for dealing with the demand: the so-called "distributed mainframe" model. An admitted oxymoron, this model is not unique to the University of Colorado, and what it means is that rather than concentrating computing power in one or more large mainframe computers maintained by a central office and staff, at Boulder we distribute computers, computing, and tasks among a number of machines all over campus that are linked to one another through the campus backbone network. This networked conglomeration of devices comprises a kind of "virtual mainframe" and mirrors locally the composition of the Internet globally. Newer software products allow even humble Macintoshes and PCs to join the team and take over some of the load we used to consign to The-Big-Computers-They-Keep-Over-There.

MailShare is a Macintosh shareware program that allows you to set up your own Internet mail host in your laboratory or department. *MailShare* will handle mail for both Mac and DOS/Windows users. Assuming you have a spare Macintosh (nothing fancy, just an SE-30 or a IIci), Ethernet connectivity, and a Unix computer with a gateway to the Internet on your campus, *MailShare* allows you to set up and administer a post office for your own email queue and to do the same for your colleagues, staff, students, and associates. If you are running a language lab in 1995, your extended staff probably includes some part-time/honorarium/post-doc/re-entry pattern/

semi-retired/almost-a-student-here people, too. You may have had some difficulty persuading the Large Systems People (LSPs) on your campus that these folks, too, should have an email account. Many institutions require that a person have a particular status, such as being a member of the faculty or the staff, or a bona fide student, before the LSPs can issue an email login. A precise definition of this status can be elusive (thank heavens!), and the issues get trickier if we try to define when that status has lapsed and it's time to close out someone's email queue. Local email administration allows you to deal with these ambiguities in the privacy of your own office.

Think of your email login as your Internet mail box. *MailShare* lets you set up your Internet post office. By the way, if your login looks *still* looks like **718654Q.whoknoz@beelzebub.bingo.pe.edu** and you never quite caught on to the thing about making an "alias," stay with me. Relief is in sight. You, too, can have an intuitive email login, one you have fashioned yourself, and an address that will tell the world where you are and where your lab or department is. You will be able to change your login name if you wish, or have several login names. This is very useful for dealing with "junk" email, that steady stream of listserver stuff that we develop mixed feelings about when it's time to read it. You will be able to forward your mail or unforward it whenever you wish.

What is the price for all this convenience? You need to keep the *MailShare* Macintosh host connected to the network and running day and night because mail transactions go on day and night. If you already run an Appleshare server on your network, *MailShare* can run in the background as an add-on. (Yes, you can run Apple Remote Access along with *MailShare*.) If your *MailShare* server goes down, incoming email will bounce back to the sender with an error message, and outgoing mail will not be accepted. (Any incoming or outgoing messages that have been received or accepted by the server and that have not yet been fully processed will, however, be stored until the server is back up and then sent on to the recipient or sent out automatically.) You have to provide disk storage space for all that mail—read, saved or unread—that until now has lived or languished in your email queue on your campus mainframe. Since your average telegraphic email ditty eats up less than 1,000 bytes (1K) of disk space, it will probably be a while until you fill up a 200 – 300 megabyte disk.

As with any other computer running off a hard drive, it is prudent to back up from time to time. Because you and

others will rely on your *MailShare* host to handle your email, it is advisable to identify a backup Mac that you can press into service if your primary unit goes down. You can use the Mac mail server as an ordinary workstation, but with two caveats. One, the more mail you handle, the less processing power you have available for the Mac to do anything else, and vice-versa. Two, if that word-processing job you are working on "hangs up" the Mac, likewise the flow of email stops until you restart. Moral: Pick a reliable Mac to be the *MailShare* server, put it out of the way somewhere, and keep an eye on it. The easiest way to check on it is: read your own email.

Some email users (no one that I know, of course) tend not to check their mail regularly. Along with the convenience and flexibility of *MailShare*, you inherit the task of dealing with their backlog. Diplomacy helps. I have seen email queues with several *thousand* old or unread messages in them including stern admonitions from central office mail administrators that SOMETHING HAS TO BE DONE ABOUT IT. These warnings, too, were either old or unread. Local email administration and newer technology can ease or eliminate the problem of too much old (or new) mail in a queue. Until a few years ago, those of us who used email and, well, *believed* we understood it, checked our mail using a terminal or terminal emulator. We "called up" a mainframe computer on our campus over what was for all the world a funny kind of telephone line. Then we "spoke" with the mainframe back and forth using a series of commands—special words that made things happen with our mail. We tended to forget these commands from time to time, so it was a big relief when email tools such as *Eudora* and *Popmail* came along. These handy point and click interfaces tamed the workings of email, and when we didn't need to know commands anymore, we were free at last to forget them permanently. Because *Eudora* and other popmail products are available both in Mac and DOS/Windows versions, the issue of platform and email has likewise been laid to rest permanently. And keep in mind that *Eudora* like *MailShare* is available *gratis*. You can obtain *MailShare* over the Internet at a number of sites including: **`gopher://gopher.archive.merit.edu:7055/11/mac/util/comm.`** *MailShare* is copyrighted by author Glenn Anderson (**`glenn.anderson@stonebow.otago.ac.nz`**) and may be used free of charge.

Eudora works especially well with *MailShare* since you can configure *Eudora* to remove email messages from the *MailShare* mail host and copy them onto the recipients' desktop Macintosh or PC each time they check mail. This means that

the issue of disk storage space is shifted to a large extent to the end user where, I believe, it belongs and away from you, the email administrator, and your local mail system. Furthermore, your task then is to encourage people to check—and so use—their email. This is a worthy skill for us as educators to practice, teach and promote. If a dedicated recalcitrant crops up among your email box holders, you can decide that it is time to terminate their login on a simple “use it or lose it” principle. No heavy technical slam, no complex policy determinations or status discussions are required.

OK, *MailShare* is free and brimming with convenience. But is it hard to set up? You will need a MacPlus or later, including PowerMacs, running System 7.0 or later. I suggest an SE-30 or IIci with 8 megabytes of RAM. There is no need for a color monitor. You will need a copy of MacTCP 1.1 or later (this comes free with System 7.5) or MachTen unix 2.1.1 or later with mactcpd 3.1.9 or later. You also need Ethernet connectivity between the Mac and a Unix host with a gateway to the Internet. Most campuses will have these. And you need a copy of *MailShare*.

You may not know it, but every Ethernet port on your campus network has a device name. This is generally unimportant, but it is the name that *MailShare* will use for your Internet post office. When you fire up *MailShare*, a debugging screen will appear and reveal the name of the port. Don't be surprised if it turns out to be something like **fren_23B-1**. Contact your central computing office and ask them to change the name of the port. Why? You probably don't want an email address like **clark@fren_23B-1.yukon.edu**.

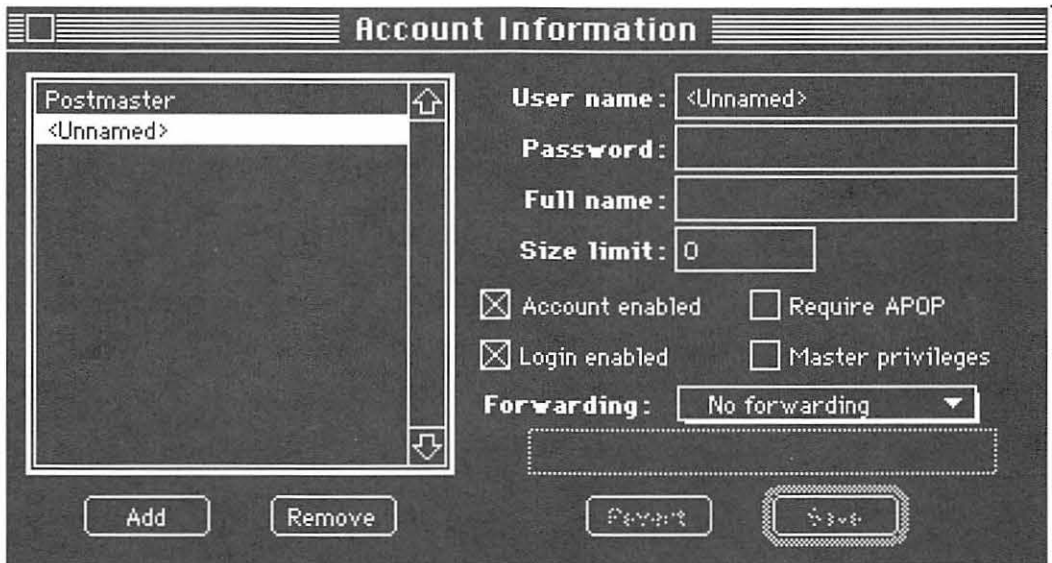
If you are part of the Modern Languages Department at Arachnid University, you can request that the name of the port be changed to **mlarachnid** (assuming this change yields a unique name). Then your address could be **clark@mlarachnid.yukon.edu**.

The more intuitive the name, the better. If there is another person named Clark in your circle of email recipients, you can chose another login such as **bev.clark@mlarachnid.yukon.edu**. You will soon get the hang of the naming conventions, and if you change your mind and your login, you can tell *MailShare* to forward mail from your old to your new email queue.

Speaking of forwarding mail, while you have the central office computing folks on the line, tell them that you would like to have email you are receiving at your existing email queue forwarded to your new local *MailShare* queue. That way you won't have to check mail in two places. They may want

to talk to you about how these changes may affect other email services for you. Rest assured that all of this is quite manageable. You may be asked by a Large Systems Person if *MailShare* supports SMTP. The answer is, yes, *MailShare* supports Simple Mail Transfer Protocol fully.

Once your server name is established, setting up email accounts in *MailShare* is easy thanks to the graphic interface. You assign the user name, password, full name, size limit (for the recalcitrants we discussed earlier), enable the account, and activate forwarding as necessary on this single screen, displayed below.



The Sending Setup screen and a Preferences screen will not detain you for long; the default values usually work fine. The Mail Log screen allows you to review the address, size, kind, date and message ID for each incoming or outgoing message. This is a big help in determining if the server is working nominally and in tracking down email messages that sometimes seem to "get lost in the system." *MailShare* can even tell you if a mail message has been successfully received by the recipient's email host. If the recipient's host is down or too busy to accept a message at the moment, *MailShare* will by default try resending the message every 30 minutes and give up after 72 hours. You can reset these values if you wish.

MailShare can support up to 64 simultaneous connections, but keep in mind that you may run out of RAM before you

get that many users on all at once. The maximum number of users/mailboxes is 32,767, but keep in mind that you *will* run out of RAM and disk space before you get that many mailboxes going. I have used *MailShare* in offices with staffs ranging in size from 12 to 30 people and with about that many email users, and it has worked very well. Be sure to get a copy of the document "MailShare quick start" along with the program. If you have a problem you can't resolve, you can send email to authors of *MailShare*. I have always received thorough, prompt, and helpful replies.

Enjoy your Internet post office! ■

Bill Wyman, who is really a German teacher, heads up the Smart Classroom group in Academic Media Services at the University of Colorado, Boulder, and has been involved with networking long enough to enjoy it thoroughly. He reads email without recalcitrance and welcomes you to send yours to Bill.Wyman@colorado.edu