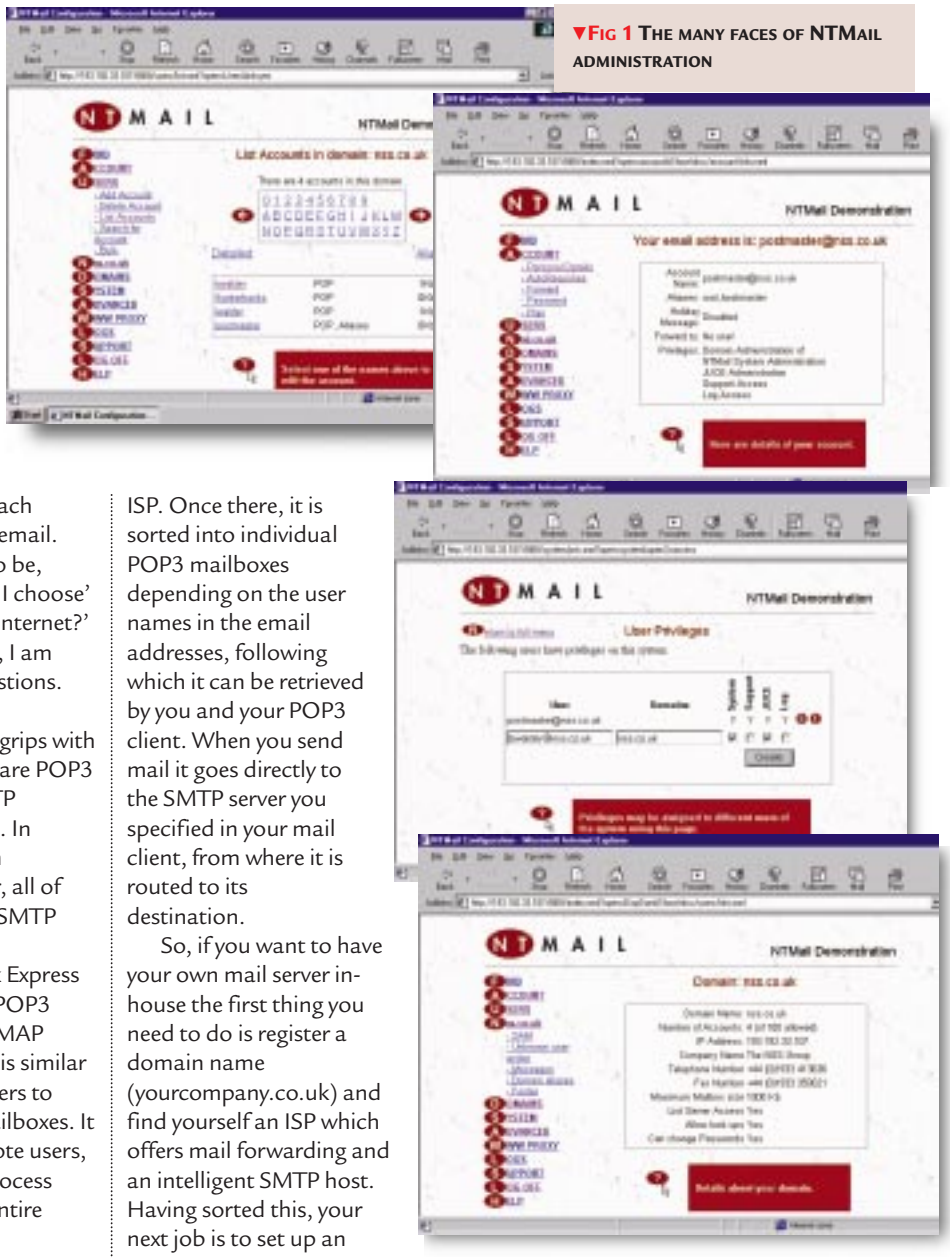
First class post

Use the power of the net to run your own email server, in-house. Bob Walder shows the way.



▼FIG 1 THE MANY FACES OF NTMAIL ADMINISTRATION

These days, few organisations are without some form of email communication, whether they operate their own mail server or rely on an Internet Service Provider (ISP). Some are still using email purely as an internal messaging medium while the vast majority have recognised the power of the internet to act as a global transport mechanism for their inter-company electronic mail.

I receive numerous queries each month regarding the subject of email. The two main questions seem to be, 'what sort of mail server should I choose' and 'how do I connect it to the internet?' Over the next couple of months, I am going to try to answer both questions.

The main acronyms to get to grips with when it comes to email services are POP3 (Post Office Protocol) and SMTP (Simple Mail Transfer Protocol). In simple terms, POP3 provides an individual mailbox for each user, all of which are usually hosted on an SMTP mail server at your ISP.

Mail clients such as Outlook Express allow you to retrieve mail from POP3 mailboxes on an SMTP server. IMAP (Internet Mail Access Protocol) is similar to POP3 in that it allows end users to retrieve mail from individual mailboxes. It provides more facilities for remote users, though, such as the ability to process headers without retrieving the entire message, and so on.

An SMTP server is always required somewhere along the line since this is how the internet ships its mail around: from client to SMTP server and between SMTP servers whenever necessary.

What sort of mail server should I choose?

The normal scenario is that mail for your account (or domain) is forwarded to a specific SMTP mail server at your ISP. Once there, it is sorted into individual POP3 mailboxes depending on the user names in the email addresses, following which it can be retrieved by you and your POP3 client. When you send mail it goes directly to the SMTP server you specified in your mail client, from where it is routed to its destination.

So, if you want to have your own mail server in-house the first thing you need to do is register a domain name (yourcompany.co.uk) and find yourself an ISP which offers mail forwarding and an intelligent SMTP host. Having sorted this, your next job is to set up an SMTP host at your end to talk to it.

In other words, you no longer want your Information Service Provider to sort mail into mailboxes for you. Instead, you want *all* the mail for your domain to be forwarded *en masse* to your own SMTP mail server in–house. In effect, you become an ISP for your internal users. There are several ways to go about this.

NTMail is one inexpensive option designed to drag mail from your ISP's SMTP host and hold it on your server until someone with a POP3 mail client connects to inspect their mailbox.

NTMail was written from the ground up as a Windows NT package and was not ported from an older 16-bit Windows or Unix application. This means that it is designed to integrate completely with the NT Operating

System and can thus take advantage of OS features such as multi-threading and multiple processors to provide excellent performance.

NTMail operates as a number of native NT services: one for the Configuration Server and another for each of the other types of service supported such as POP, IMAP, LIST, POST and SMTP. It also integrates closely with NT in its use of the Performance Monitor and also in terms of user security where the native Windows NT system database may be employed with or without NTMail's own user database. Administrators can use the familiar NT Performance Monitor to keep track of critical stats such as the number of messages per second, how many messages are queued, number of posts to lists and so on.

Installation is straightforward. With version 4, all maintenance operations can be performed via a simple web browser-based interface. This is provided by the Configuration Server which runs on a different port from any existing web servers allowing it to coexist happily with IIS, Netscape Commerce Server and the like.

A series of simple forms allows users to be added and removed, mail to be read, domains to be added and configured, and so on. In addition, specific users can be granted the right to administer particular domains.

Multiple domain support is one of the neat features of NTMail, since it is far simpler to implement than some of its rivals and each domain appears to the outside world as a completely separate system, even though they all reside on the same physical box.

As you would expect, NTMail complies with the relevant internet standards including POP3, IMAP4 and MIME (Multipurpose Internet Mail Extensions). Wherever possible, non-compliant email is made compliant by NTMail so that other servers have no problems processing it. Clearly, there is a huge range of clients that will work with NTMail.

There are two major types of log within NTMail; activity, and the email itself. It will log each inbound or outbound message as it passes through the server, recording the message itself, the time, its origin and destination. All logs 'roll over' at the end of each day, making it easy to trace what happened and when.

Other useful features include a simple web proxy, Auto Responders, which returns a standard response when someone sends an email to them, and 'robots' which will accept and process all email for a single domain. Optional extras include the JUCE anti-spam filter and an integrated anti-virus scanner.

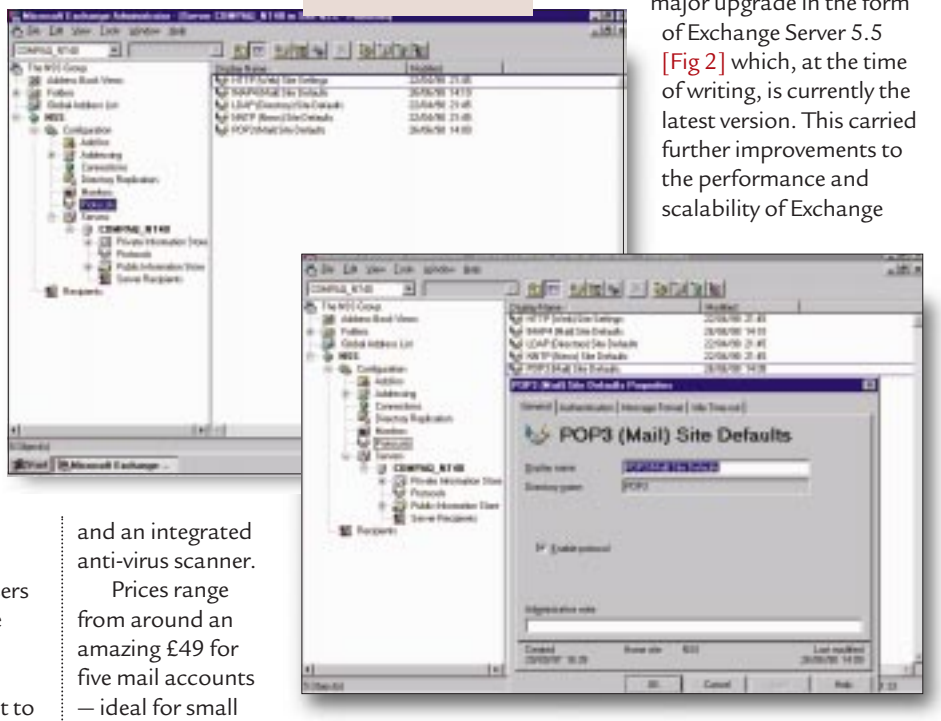
Prices range from around an amazing £49 for five mail accounts — ideal for small offices — to about £895 for 250 accounts, or £2,395 for the unlimited version (see the *PCW Contacts* box, below).

Microsoft's Exchange Server is another option, for those with more advanced messaging needs — and bigger budgets! This has undergone several major revisions since its release at the beginning of 1996.

Version 5.0, released in early 1997, was a significant upgrade. Chief amongst the new features was the boosting of internet support. POP3 support appeared, allowing Exchange to host a multitude of internet mail clients not restricted to Microsoft's own. News support (NNTP) was also introduced, allowing Exchange to serve as a true NNTP host for corporate NNTP clients as well as communicate with other internet-based NNTP hosts to replicate newsgroups.

LDAP (Lightweight Directory Access Protocol) and web integration were other significant additions which allowed remote web-based clients to access the Exchange directory and their mailboxes over the net using a standard browser. And, the Outlook client was upgraded to Outlook 97 and shipped with Exchange Server as the preferred client for both internet and corporate mail.

Less than a year later, at the back end of 1997, we saw yet another major upgrade in the form of Exchange Server 5.5 [Fig 2] which, at the time of writing, is currently the latest version. This carried further improvements to the performance and scalability of Exchange Server, increasing backup performance and removing the limit on the size of the message store. Once again, there were additions to internet support with the inclusion of a Chat Service, LDAP3 and IMAP4, further expanding internet functionality and the provision of support for a wider variety of clients.



▼FIG 2 THOSE INTERNET PROTOCOLS, IN SUPPORT OF EXCHANGE SERVER 5.5

Next month, I will look in more detail at how to persuade Exchange Server to pick up and distribute your internet mail, and how to access your mail via the web using a standard browser.

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