



The Internet unplugged

There is an ever-increasing number of companies offering cheaper access to the Internet, and in fact you can now get all the Internet access you need for as little as £10 per month without having to look too hard. However, you still need to consider what is often something of a forgotten cost – your telephone bill. Although you may only be paying £10 per month for as much time spent using your Internet account as you like, you must remember that you will still be running up telephone costs all the time you are online.

It's simple to save money by cutting back on the time you spend connected to the online service you are using, and to this end we will take a closer look at E-mail, which can be used for more than just sending mail messages, as well as how offline readers can be worth their weight in gold.

E-mail is often, and quite rightly, regarded as being the most important application that the Internet has to offer. While this is undoubtedly the case, there is far more to E-mail than just the ability to communicate with your offices abroad. For example, you can use E-mail to query an Archie database and pinpoint the whereabouts of files available for FTP over the Internet; you can transfer files from anonymous FTP sites using E-mail; you can query Internet Gophers; access the World Wide Web; you can even participate fully in Usenet Newsgroups.

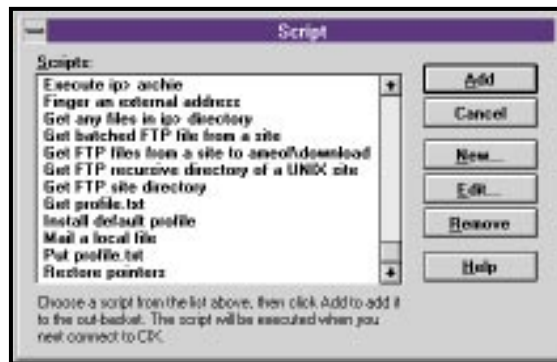
You may wonder why you would want to do this. The answer is that many people want to access parts of the Internet but don't want to go to the expense of getting a 'proper' Internet account, and you can use E-mail from any online service that has Internet E-mail access (and that's just about all of them, including many Bulletin Board Systems). But E-mail can also be useful even if you already have full Internet access, because the process of transferring files by FTP can be a slow and costly process. You have to find where the file you want is located, either by using an Archie system to search for it or by wandering through an FTP site's directories looking for the right file. Then you need to connect

to the FTP site in question and this can often be hard work, especially if the site is a busy one. You may have to try a number of times before you get connected to a popular site, and then the transfer of the file can be slowed as the amount of network traffic causes an information bottleneck. E-mail can be a simpler solution, as you can locate the file offline, request the file and then wait for it to be sent to you by E-mail. The only real costs to you are the small amount of time you will be connected to make your E-mail requests, and to download the file, together with the extra time you will need to spend uncompressing the file so you can make use of it.

FINDING AND FETCHING FILES

One of the most useful things that you can do using E-mail, and almost certainly the most popular of the hidden E-mail uses, is the retrieval of files from the Internet. There are plenty of 'Anonymous FTP' sites spread around the Internet, but most people assume that you require full-blown Internet access to get to them. This is not the case if you use an FTPmail server like the one situated at Imperial College in London. This is a special server that processes E-mail requests for files, connects to the FTP site where the requested file is stored, converts the file into UUencoded format, and then E-mails it to the user. However, before you can make any use of this resource, you need to know where the file you want can be found. This includes the filename and storage directory path, as well as the name of the Anonymous FTP site itself.

You can find this information offline too. Archie is an Internet application which you can use to find all the information on files held at Anonymous FTP sites. You can query an Archie server with a keyword and it returns a list of matching sites and directory paths. There is an Archie by E-mail



These FTP scripts come as part of the Ameol program for Cix, and make light work of getting files the offline way

server at Imperial College, which has the address of archie@archie.doc.ic.ac.uk. Send an E-mail message to this address containing the body text of just:

```
find <filename>
```

Don't give your E-mail message a title or a subject line as this will only confuse the server. If your mailer program doesn't like leaving the subject line blank then use a single space instead and this will fool the software into thinking you have completed it. In return, you will be sent an E-mail message which contains the details you need.

Don't worry if you don't know the exact filename, as you can also query Archie to look for all filenames that contain the keyword you have entered. So if you wanted to find a file that contained the keyword 'direct' you would include the following body text in your E-mail request:

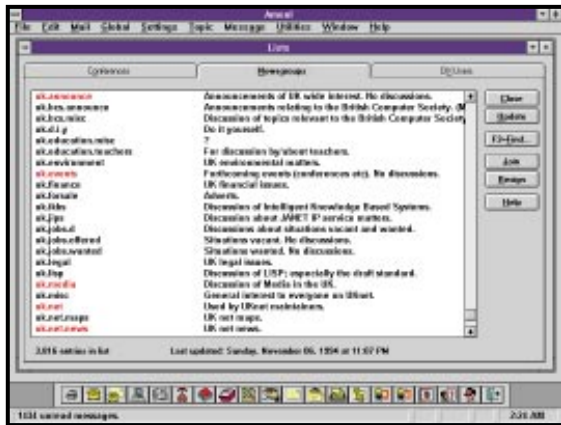
```
set search sub
find direct
```

So now you should know what the file is called, and exactly where to find it. The next step is to request the file from the FTPmail server at Imperial College. Address your E-mail to: ftpmail@doc.ic.ac.uk, and once again, leave the subject line blank and don't give your E-mail a title of any sort, just include this body text:

```
open <ftp site>
cd <directory path>
<set file type>
get <filename>
quit
```

You will have been given the informa-

Only having access to, or the budget for, simple E-mail services needn't leave you a lonely hitchhiker on the hard shoulder of the information superhighway. Both FTP sites and Usenet Newsgroups can be written to and read via simple E-mail messages, at minimum cost. Davey Winder gets you online, offline



Selecting Usenet Newsgroups to subscribe to at your leisure, offline with Ameal and Cix



Gophermail in action, this is the sort of menu you get sent. You just let X mark the spot and then return the E-mail

tion to use as the <ftp site>, <directory path>, and <filename> arguments by the Archie search that you did. But you may be wondering what the <set file type> argument is about. When files are being transferred by FTP, the default settings assume that they are text files. If you are requesting a binary file then you need to inform the server of this so that it can change the default type. If you fail to do this you will get a useless file. To set the file type for binary files, just use the argument of <binary>.

To get more information about FTPmail or the Archie by E-mail service, including command set options, send an E-mail message to either ftpmail@doc.ic.ac.uk or archie@archie.doc.ic.ac.uk, with no subject line, containing just the body text:

help

Once you have made your request to Imperial College you should receive an acknowledgement of your request within a few hours, but it may take anything up to a day or two to actually process your request and deliver your file. The FTPmail server at Imperial is busy, so your request will be placed into a queue and the acknowledgement you receive will inform you of your place in that queue. Unfortunately, this method of Internet access isn't quick. For example, the FTPmail server that you've made the request to has to connect to the specified Anonymous FTP server to get your file for you. An FTPmail server can have the same problems of getting on to a popular and busy FTP site as you do.

When the requested file arrives, it comes as a set of smaller E-mail messages. The reason for this is that there are limits to the size of E-mail messages that some mailer programs, and some networks on the Internet, can carry. Therefore the UUencoded file will be

split into small chunks, each forming a separate E-mail message. For example, a program in the region of 500Kb in size would be split into nine or 10 messages. When you receive these UUencoded messages you will have to piece them together manually for UUdecoding, although programs such as Wincode will do this for you.

If all this seems too time-consuming, there are a couple of offline FTP alternatives. Some online services (such as Cix) implement a 'batchftp' system, which allows you to make a FTP request for a file (or files) while online, then disconnect while the service goes and fetches the file from the Anonymous FTP site. When you connect an hour or so later, the file should be sitting in your Internet directory on the

system waiting for you to download it. This isn't strictly offline, but it does save you connect charges and it is particularly useful when you are after more than just the one file during a session.

The second solution is to use a service such as WinNet-UK which is operated by the PC User Group (and was featured in *PC Direct* February 1995). This is primarily an offline E-mail and Usenet News service, but also has an easy-to-use FTPmail interface – if you are a Windows user that is. You are presented with a window that guides you through the process, you just fill in the blanks and then let WinNet-UK do its stuff – an easy way of getting files from Anonymous FTP servers offline.

USING USENET

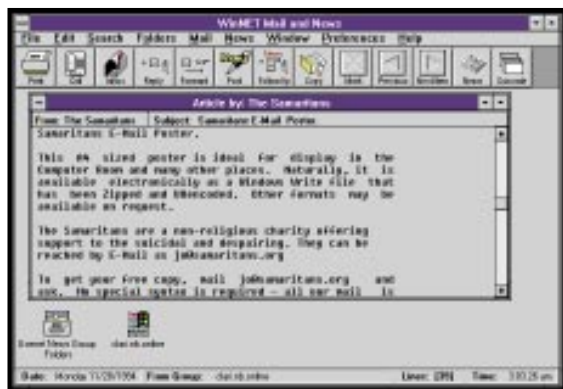
Usenet by E-mail is also possible, and not as difficult as you might first imagine. You can both read Usenet News and post articles to Newsgroups using just E-mail. Posting articles is really very simple indeed, you just send the article as an E-mail message to:

<newsgroup>@news.demon.co.uk

Of course, you need to know the exact name of the Usenet Newsgroup that you want to post to first. Let's say you wanted to post an article to the alt.security Newsgroup, you would E-mail the article text to: alt.security@news.demon.co.uk

Offline readers

Cix is blessed with offline readers for just about every platform. The officially supported program for Windows users is Ameol which offers a lot in the way of Internet interactivity such as access to Usenet, FTP, Archie and the World Wide Web. Also very popular among Cix users are the range of OLR's from Ashmount, which includes WigWam and PowWow. Ashmount is also developing the Apollo offline reader for Delphi users, which should offer a high degree of Internet access as well when finished. WinNet-UK is also becoming a very popular method of going online, offline.



WinNET-UK offers perhaps the easiest offline Internet option

You can read Usenet without a Usenet feed by taking the slightly complicated route of using a 'Gophermail' service such as the one situated at gophermail@calvin.edu. Keeping the subject line blank, and using the `alt.security` Newsgroup that we posted a message to in our previous example, here's how you would go about reading Usenet by E-mail.

Send the following message to the gophermail@calvin.edu address:

`Split=32K bytes/message`

`Menu=100 items/message`

`#`

`Name=alt.security`

`Numb=1`

`Type=1`

`Port=4320`

`Path=news group alt.security`

`Host=saturn.wwc.edu`

It may take anything from an hour to more than a day, depending on how busy the gophermail server is when you make your request, for the reply to come back to you. When you do finally receive one, it will take the format of a Gopher menu, from which you select the Usenet postings that you want to read. You make your selections by placing an 'X' next to the menu items you want to read, then sending the whole

text of the message, from the start of the menu onwards, back to the gophermail server.

E-mail isn't the only way to access Usenet offline. You could also read Usenet postings by subscribing to one of the many mailing lists that act as a mirror, or in some cases a selective archive, of Usenet Newsgroups. Of course, you will end up with the complete contents of the subscribed Usenet Newsgroup in your mailbox which could make for a very large download. It would

probably be in your best interest to peruse the contents of your mailbox and only download those postings that look like they will be of interest. You can discover which Usenet groups are available as mailing lists by sending an E-mail message with no subject line and containing the body text:

`LIST GLOBAL/Usenet`

to `LISTSERV@vml.nodak.edu`

However, the simplest methods of participating in Usenet offline are available to users who have accounts with Cix, Demon, or WinNet-UK. Cix users can participate fully using one of the many offline readers available such as WigWam, PowWow, Matrix, or the officially supported Ameol program.

Ameol makes the whole process easy. It will search for Newsgroups that match your interests which you can join at the click of a button, all messages are threaded so you can follow the conversation, and posting articles is as easy as writing an E-mail message.

Demon users receive their Usenet data offline by default. Using the standard Dos-based software for Demon is fine, but it's better to download the Newswin newsreader from the Demon FTP archives and use that instead. Newswin provides excel-

lent offline Usenet for Windows users, and was especially written for use with Demon.

Finally, we come back to WinNet-UK. This is one of the best Internet offline solutions. WinNet is well specified for Usenet use, subscribing to Newsgroups is as easy as with Ameol for Cix, the threading is good if slow, posting is easy, and as little time as possible is actually spent online. Downloading the initial list of newsgroups can be time-consuming whereas with Cix and Ameol it's simple and quick.

GOPHER GOLD

Earlier on we showed you how to use the gopher offline by way of the Gophermail service that was used to read Usenet News. This isn't the most intuitive method of using one of the Internet's most useful resources, but it does work and it does minimise the time you have to spend online.

To get help on options available to you when using Gophermail, send a message with the body text:

`help`

to gophermail@calvin.edu

Gophermail works by you making a request, receiving an E-mail Gopher menu in return, and then selecting the menu item you want to move to by marking it with an 'X' alongside. The completed menu is returned by E-mail, and you then get sent the next layer in the menu structure. You continue to navigate this way until you finally arrive at the information you were looking for.

It is also possible to access the World Wide Web using E-mail. The beauty of the Web comes in many flavours, not least of which is the attractiveness of the graphical browsers used to access it, which you lose with an E-mail search. However, just to prove how much Internet access can be accomplished using E-mail, here is how to do it: you first need to know the URL of the World Wide Web site you want to visit, an URL is the Uniform Resource Locator that pinpoints the Web pages exact Internet location. For our example let's say it is the financial quotes site at <http://www.quote.com>. To reach this site you would send an E-mail message, with no subject line, containing the text:

`www http://www.quote.com`

to `listproc@www0.cern.ch`

Then in order to explore the pages at that Web site you would have to wait for the reply which lists available 'links' in the form of other URLs, and send another E-mail message using the format:

`deep <URL>`

Where `<URL>` is the link to which you want to travel. You can get stock market quotes by E-mail this way. Send a message with the subject title of 'help' to services@quote.com to find out how.

Remember, you can get E-mail access to the Internet through *PC Direct's* CompuServe forum, details of which can found on page 436.

UUencoding binary files

Sending binary files by E-mail isn't as straightforward as just posting it electronically. There are problems that arise as a result of binary code being 8bit information, whereas most mailing programs and handlers can only deal with 7bit information. This is because E-mail was originally intended to be used purely to send Ascii text (which is 7bit) and not a lot else. If you were to send a binary program, for example, an image file, then you would almost certainly find that it would unusable to the recipient as the mailing programs used would strip out the extra bit. In order to successfully send binary files by E-mail you must first convert the 8bit binary to 7bit Ascii, and this is accomplished in one of two ways. The most popular method involves a program called UUencode. This has stood the test of time and about 90 per cent of files sent by E-mail are sent UUencoded. On receipt, the file needs to be converted back to its normal binary format, and

this process is known as UUdecoding. The second method involves a new 'standard' called Multipurpose Internet Mail Extensions (MIME). MIME is gaining in popularity and is implemented in a number of E-mail programs now. It uses a similar method to the UUencode program for converting the binary information, but has advantages such as the ability to auto-execute a MIME attachment after the recipient has read the E-mail. Someone could send you E-mail about a product, and then a quick-time movie clip of the product demo could be executed without any intervention from the user.

Currently though, UUencoding is the method you are most likely to encounter, especially if a file has come from a Usenet user or you are using the FTPmail methods described in this article. There are UUencode programs available for most platforms, with a particularly good Windows implementation in the form of Wincode.