Hard cheese and soft warranties

What happens when your hard disk dies and the dealer warranty bears no resemblance to the original? Stephen Rodda takes a case in point.

Hard disk failures seem to be all the rage recently. No sooner did I mention on CiX that I'd had a hard disk go West on me than I heard from many, many, more people who had experienced the same thing in the recent past. Luckily, many had had as good, or better, service than I. But unfortunately some were left holding an expensive dead dog. In the greatest majority of cases the problems turned out to be with Seagate drives.

Now, don't think I am saying anything against Seagate; as the largest supplier of hard disks, you'd expect people to have more problems with Seagate drives, purely from a statistical standpoint. The problems people were experiencing weren't to do with the fact that the disks had died, (because sometimes, this happens) — their problems were concerned with getting their warranties honoured.

Apparently, Seagate warranties the drives to their distributors — in some cases for three years. It is then the distributor who will pass on the warranty (or not) to your dealer, who in turn will pass on a warranty to you. By this time the warranty may not bear any relationship to the one which the manufacturer originally supplied. It is the dealer's duty to return the drive to its distributor, who should return the drive to the manufacturer, who will replace it, or repair it under the warranty.

What if your dealer says that the drive only had a one-year warranty (when it was advertised as having a three-year one)?

Tough luck. Hard cheese. You might just as well throw the drive into the bin.

I thought that a situation like this shouldn't be left alone, so I decided to contact Seagate direct. The company's PR people gave a better response: if you find this happening to you, they say that you should contact one of the company's distributors in the country concerned (this offer is valid throughout the world) and
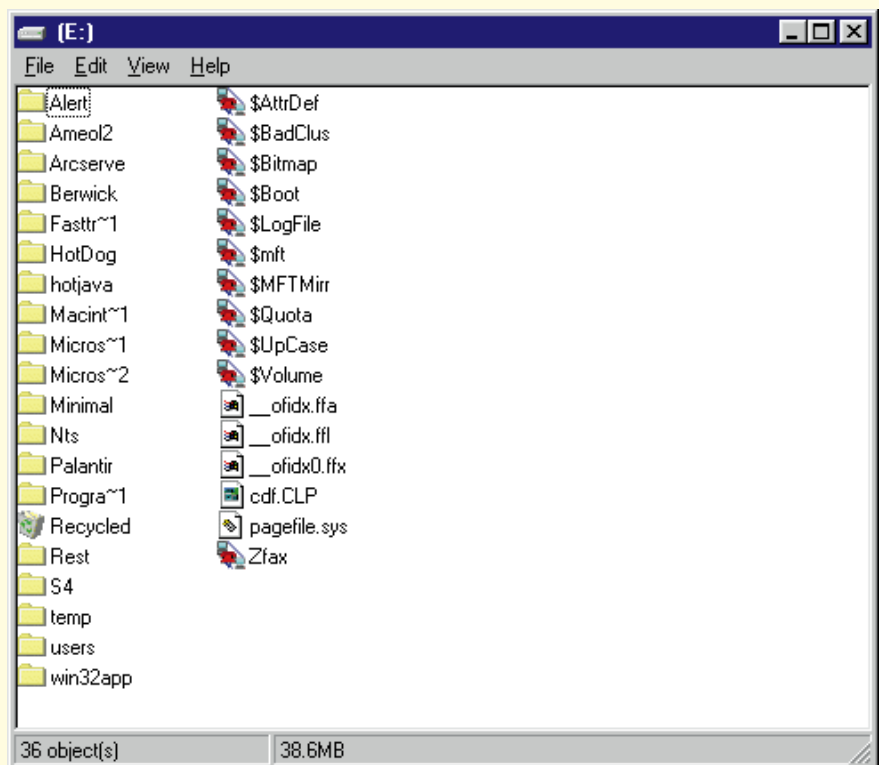

Fig 1 *Screen shot of an NTFS drive mounted under Windows 95 — notice the lack of long filename support in the 0.90 version of NTFSDOS under Windows 95*

Naughty net

The Internet is playing up at the moment. Or at least it is between the Netherlands and the UK. Goodness knows they can build something that will work even in the event of nuclear war, but it falls over as soon as British Telecom gets near it.
Actually, that's not quite true. British Telecom, bless its cotton socks, started it all off. Poor old Beattie seems to have been having regular attacks of amnesia during the past month or two: the *PCW* production desk has only been receiving my copy when I get tiddled off with poor Internet response and use a direct telephone line to connect and file it.

This month, the failure was due to an outfit called Ebone.net — or so I assume. It's certainly in a router in this outfit's own class C address, so I suppose it's them. I guess they neither trust it nor like it enough to give it a name (or perhaps Ebone.net doesn't want people to know it's them). The rub is that Joe Bloggs can't just mail these people and say "Hey, pull your socks up you naughty people" (or words to that effect), "I'm getting pretty ghastly traceroute figures and it's your router that's to blame". Oh, no. It doesn't work like that. Your email gets bounced, even when you send it to "postmaster", contravening the RFCs (Requests for Comment — documents which specify exactly how the Internet works, or how it should work).

Now I don't mind my packets taking 13 or 14 hops to get to Surbiton, where they used to take five or six, it's just that from my end they seem to be going from Amsterdam via Stockholm to Paris and then to the UK. I'm sure as eggs are eggs there has got to be a shorter route somewhere. Once

this month, I was even getting routing via Los Angeles.

We'll soon see what's happening and if my hair survives I'm also including my traceroute output so that you can see for yourselves how dire things have become.

As a little update to this, it seems that when things are quieter, the router takes a more direct route. I had a little look at the routing just before I went to bed (I'm never early to bed) and at 2a.m I was actually connecting in seven hops. It looks as though someone needs to sort something out.

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MS-DOS Prompt
Auto

Microsoft(R) Windows 95
    (C)Copyright Microsoft Corp 1981-1995.

C:\WIN95\Desktop>tracert tom

Tracing route to tom.compulink.co.uk [194.153.0.51]
over a maximum of 30 hops:

  1   141 ms   143 ms   153 ms  du-ams-2.access.nl.demon.net [194.159.73.18]
  2   148 ms   154 ms   158 ms  cow-2.router.nl.demon.net [194.159.73.12]
  3   137 ms   153 ms   154 ms  Amsterdam-EBS.ebone.net [193.0.15.129]
  4   205 ms   223 ms   165 ms  Stockholm-ebs.Ebone.NET [192.121.155.10]
  5   412 ms     *        *     Paris-EBS1.Ebone.net [192.121.156.33]
  6   878 ms   751 ms   794 ms  192.121.156.58
  7     *      887 ms   812 ms  telehouse-smds-f0-0.ukcore.bt.net [194.72.7.1]
  8   819 ms     *      912 ms  baynard-smds-s1-0.ukcore.bt.net [194.72.0.1]
  9  1009 ms   906 ms  1013 ms  baynard-access1-e0.ukcore.bt.net [194.72.4.34]
 10   870 ms   697 ms   573 ms  cix.customer.bt.net [194.72.10.34]
 11  1055 ms  1032 ms     *     conferencing-gw.compulink.co.uk [194.153.0.5]
 12     *      935 ms     *     tom.compulink.co.uk [194.153.0.51]
 13     *     1212 ms  1011 ms  tom.compulink.co.uk [194.153.0.51]

Trace complete.

C:\WIN95\Desktop>
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The Internet is crawling at the moment — or at least my bit of it is

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make arrangements, direct. This is also valid if your dealer has succumbed to financial pressures and gone into liquidation. So what I thought would be a bag of rotten tomatoes becomes a bouquet! Seagate, please stand up and take a bow for looking after your customers.

With Sony, it appears that the company follows very much the same procedure. When asked, Sony said that any customers of dealers who had ceased trading should contact its national information centre for repairs or whatever might be required.

NTFS drives

Those of us who run more than one operating system (like NT and Windows 95 and Linux), will have found that there are advantages to having NTFS (and Linux) partitions in that the operating systems which own these partitions perform faster, or better, or both.

In my own case, I have an NTFS partition from which I couldn't read files when running under Windows 95 or Linux. For some time now, there has been a read-only Linux device driver which allows NTFS partitions to be added to the Linux filesystem, yet nothing for DOS-based machines. Until recently, that is. Taking the work which was done for Linux, there is now a DOS version of the work carried out by Martin Löwis for the Linux driver on ftp://ftp.ora.com/pub/examples/windows/win95.update/ntfsdos.html (also available on CiX in the windows/files.nt topic and on this month's cover-mounted CD-ROM as ntfsdos.zip). It installs as a network ➡

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Ameol2 - Administrator - [Mail/postmaster]
File  Edit  CIX  Mail  News  View  Folder  Message  Settings  Window  Help

        cix  updates        (F) 11/35   Number   Name                 Subject
    macvpc                               605      To: sales@demon.net  Re: Leased line
        cix  general        0/32         606      gshawa               Upload to windows/files_32
    Mail                                 607      mediaemail           NEXOR announces enhanced X.400 m
        postmaster          29/615       608      datan@freenet.hut.fi THE SAMBA SUITE
        Messages            0/10         609      segcom               DTP Work
        stephen             0/0          610      holly@newsdesk.com   NEWSdesk Breaking News Headlines

Message 608 from datan@freenet.hut.fi on 28/05/96 at 12:37.  29 unread messages in folder.

Received: from [194.218.155.210] ([194.218.155.210]) by freenet.hut.fi (8.7.5/8.7.3) with SMTP id
Date: Tue, 28 May 1996 12:37:11 +0300 (EET DST)
Message-Id: <199605280937.MAA14813@freenet.hut.fi>
X-Authentication-Warning: freenet.hut.fi: Host [194.218.155.210] didn't use HELO protocol
X-Sender: datan@freenet.hut.fi
X-Mailer: Windows Eudora Version 1.4.3b4
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: the_bear@cix.compulink.co.uk
From: datan@freenet.hut.fi (Lars Fredriksson)
Subject: THE SAMBA SUITE
Apparently-To: the_bear@cix.compulink.co.uk

Hello !

I only want to ask where from I can get the Samba suite, do You have any
good WWW  adress.

I'm sorry for my bad English - I'm Swedish you know !

- Lars Fredriksson
  datan@freenet.hut.fi

8420 unread messages                                                    11:40 am
```
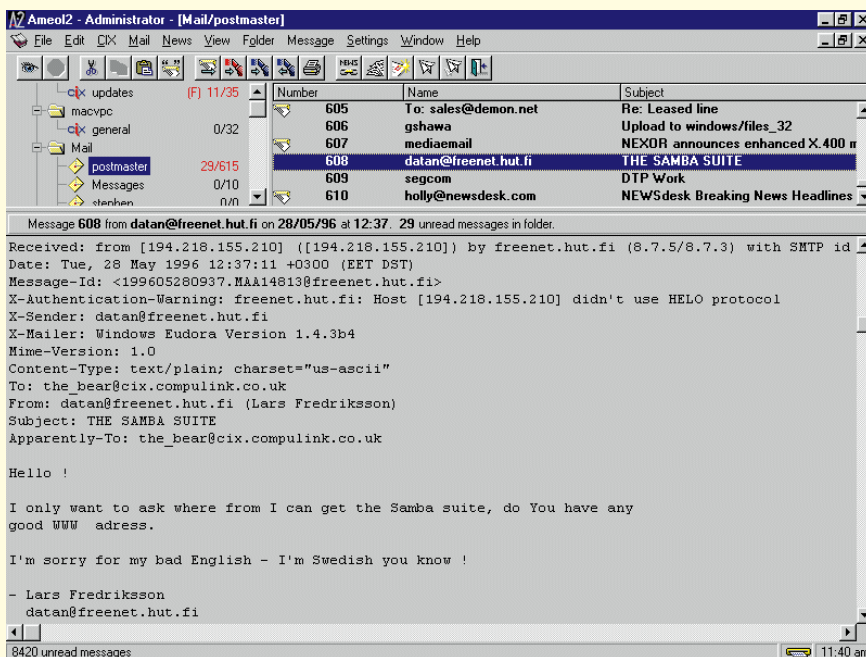
Fig 2 *People often ask me about CiX. I access the service by telnet via demon in Amsterdam and currently use the CiX offline reader, Ameol, pictured here*

redirector in DOS from within the AUTOEXEC.BAT file and is then available in Win3.1 and Win95.

There is one small caveat, which is that it doesn't support long file names under Windows 95 but allows all read operations under Windows 3.11, I'm told. I removed all traces of 3.11 (I think) from my machines quite a while ago, although my colleague Jeff's Macintosh still runs Soft-Windows 3.1 it isn't suitable for the testing of a device driver giving nearly direct hardware access.

When the driver executes, it looks through all the drives on the machine and identifies those which have an NTFS format. It then mounts these as read-only, under unused drive letters. I found it to be totally foolproof in operation. I'm certainly looking forward to it being read-write and integrated with Windows 95, possibly as a service installable under the operating system proper.

See the screen shot (*Fig 1*) — under Windows 95 (you'll have to believe that it *is* Windows 95) for the details of the drive which is attached.

Problem postbag

● *"I am relatively new to the world of networking and am helping in a part time job setting up a network. I currently run three Pentium PC's using Windows 95 peer to peer networking, but need to expand.*

The final system will need to cope with around five PCs (all Pentiums with 16Mb or more), a modem for Internet (mainly email but occasional web browsing), and a variety of UNIX-based workstations (SUN,

DEC and so on). I am looking at a high-end Pentium or Pentium Pro for a server but have very little idea what network system should be running on the server, Novell looks preferable as it has the lower system requirements.

The fileserver needs to be kept within a budget of £2,500 including network software. Can Novell 4.1 handle workstations based on '95, NT and UNIX or would NT be the more realistic choice? Also, can I put the modem on the server and have everything access it through there? Please help!"
Keith Rowe

Firstly, we are looking at a networking system which essentially runs the TCP/IProtocol, which you'll have to use for the UNIX-type workstations. Once we've decided which protocol is being used, we decide which transport we want to run.

Currently, there are three eligible forms of read-write filing system which run over TCP/IP: there is NFS (Sun's own — and extra under NT); FTP, in my opinion only valid for masochists; and Samba, a Lan Manager-like filing system which will run on the UNIX (and Sun and DEC) machines and allow them to connect to an NT machine which is publishing shared drives.

If you were to be running Novell Netware, you would have to pay quite a lot more for the NFS connectivity (which is also the case with NT) — in my opinion, it isn't worth it. Please also remember that the DEC machine might want to run DEC Pathworks, although there shouldn't be any problem with running Samba there, too.

Now that we've looked at the connection possibilities, what remains is the modem sharing. There are a couple of strategies which immediately spring to mind. The first is to use NT which will allow the sharing of a modem, but the modem cannot be started from any workstation; the server must explicitly request it.

Alternatively, you could look at a Linux server which would provide Samba shares which are visible to Windows machines, UNIX machines with Samba client software and so forth, and which can also share a modem over your network.

Whichever system you choose, you'll need a computer to start with, so why not begin by getting the computer and installing *PCW*'s Linux CD which was our free cover-mounted CD-ROM on the May issue? You can then determine whether you like Linux and whether you're

comfortable with the operating system as a file server. If you do like it, I can guarantee that it will be stable and will out-perform most other file servers with the same specification.

● *"I'm sure you've been asked this question hundreds of times before: I have a Pentium 75MHz system with 8Mb RAM and a 1Gb HDD. I am thinking of networking this (running Win95) with a very cheap PC. I would like the second PC to be diskless, using the Pentium as a file-server. The distance between the two PCs will be about 30m.*

As I would like to keep the prices to a minimum, I am thinking of a 386SX 25 with 4Mb RAM. Would this be unbearably slow, — especially running Office Pro 95? What would be the effect on the Pentium's performance and, finally but most importantly, what is the best way to do all this?"
Alexi Margo

Windows 95 doesn't provide for remote booting and therefore a ROM in the network card would not influence the 386 to retrieve DOS code from the Pentium.

You can, however, achieve much the same effect by booting the 386 from a floppy disk containing Microsoft's DOS client software for Lan Manager and then loading the Windows software from the Pentium. The main drawback here is that you would have to provide for Windows on the 386 to perform swapping over the network.

This would, essentially, be incredibly slow. I also wouldn't dream of running Windows 3.1x in this configuration (possibly you might just get away with it if you were running a properly-tuned networking package like NT or Netware, or with a SCSI disk on the server), let alone Windows 95 on 4Mb of RAM.

I think the time has come to evaluate whether this 386 is upgradeable or not and to act accordingly, running DOS or Linux on it rather than the current, bloated, GUI operating systems and applications. Personally, I curse Office Pro 95 on a 32Mb 486-50 with 4Gb of disk space. I think you'd have to have the fire brigade in pretty regularly to peel you off the ceiling if you persisted in running that software on your hardware specification. My advice to you is to look at the 386 and see whether you can give it a motherboard transplant.

Once you have decided what to do, you can get a length of thin ethernet (it would probably work out cheaper than twisted pair) cabling and connect a couple of terminators onto the ends and then connect the machines up using a couple of networking cards.

A small point here; I would really suggest you get hold of multi-type networking cards. These seem to be available now at a very small premium and they allow you to connect them to either thin ethernet or twisted pair cabling.

● *"I've a couple of questions I'd like to put to you. But first a bit of background: I've now mastered patching and compiling Linux kernels and have patched my 1.2.8 kernel with the IP_MASQUERADING patch and have managed to get it working. FTP won't work at present but the Web does. It wasn't that difficult really.*

My questions relate mainly to Samba. I've downloaded Samba and compiled it (rather than upgrading to a 1.3 kernel). It seems to work as far as I have tested it, but it does seem to need to run over TCP/IP. Is it possible for the Linux box to talk NetBIOS over the network rather than TCP/IP?

If TCP/IP is necessary this would cause problems as my own machine jumps frequently between Linux and WfW, and when it is running WfW, the TCP/IP stacks on the other machines cause these machines to grind to a halt (obviously they can't get through to my machine via TCP). If TCP/IP is necessary, is it possible to have two winsock stacks running simultaneously, or to run one stack that can cope with two different ranges of ip addresses as my machine would need both talk to the network and to my Internet provider. Any ideas?"
Malcolm Holmes

Since getting Linux to talk NETBIOS is not feasible (well, it's possible, just like anything else, but I doubt if anyone's done it), you must use Microsoft's own TCP/IP stack for Windows in order to talk TCP/IP to Linux.

Once you've done that, you use Winsock to connect as usual. On the other hand, you could use Linux as a gateway and firewall machine — you pays your money and you takes your choice. ■

CiX is on 0171 296 6999, or you can join up without the normal £25 joining fee by setting your modem to dial 0171 296 1255 (n81), then, when asked if there is a special code, enter "friend".

PCW Contacts

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