

I am starting to question the sanity of those in charge of NHSnet. Although the Government wants a totally wired-up world (especially in the NHS) the actions of those making decisions about NHSnet are running as counter to this as it's possible to be. It's almost as if they have a vested interest in making NHSnet fail.

Consider this: NHSnet has been going since 1993: it's supposed to be the way of connecting the NHS together. Sending clinical e-mails is one of the core functions of NHSnet. Without it we might as well not bother to get connected. Yet despite the announcement last June that agreement had been reached on encryption processes, the Information Authority has just confirmed that this applies to pathology results only, and that there is no agreement for encryption of e-mails.

*Nor is there any date set for this to be agreed! It may be a further two years before we can send clinical information over NHSnet!*

I submit that this is institutional negligence. Were I to run my practice in this way I would long ago expect to have been hauled up before the Health Authority, if not the GMC. In the fast-moving world of IT, it has taken the NHS seven years—that's right, *seven years*—to get absolutely nowhere over this, but in a way which has precluded anyone else from doing anything about it.

When it was conceived (before the Internet really took off), NHSnet was a good idea: it was intended to act as a wide area intranet for the NHS. But it never got moving: it adopted standards that were high, but unwieldy (like X-400 messaging), yet provided none of the infrastructure needed to work these easily. Where were the X-400 address-books? Where is the encryption mechanism? There's no point in managers gloating over how many practices are attached to NHSnet if those connected can only look up non-confidential information and little else.

Yet to judge by the response of the Department, it would appear that NHSnet is working well. They have draconian standards—for example, to make sure that hackers can't get in via the back door—which is why we've all had to sign agreements saying that we won't allow our clinical systems to have an open, unprotected modem. Such standards! Such care!

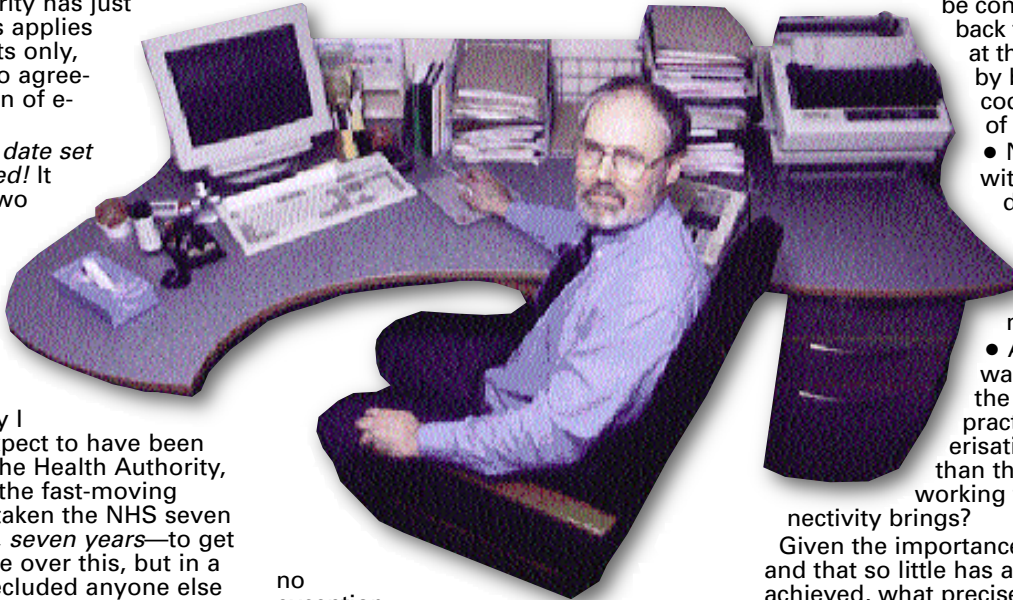
Such pomposity in the face of alternative, easier solutions.

I wouldn't mind this attitude if NHSnet were one of several alternatives from which we could choose: then we could ignore its high, impractical and expensive standards (and absent software) in favour of something else—for example, sending messages over the Internet, encrypted using PGP or similar. But the managers don't want this: they want NHSnet to be the way of connecting the NHS. Nothing else will do: *yet they don't provide us with*

*the wherewithal to utilise its functions.*

But why do we need a separate NHS-only intranet, anyway? There's a simple point to be made here about security. If you want to find out the contents of someone's bank account the last thing you'd do would be to try to hack into the bank's computers—they're far too well-protected for that. There's a much easier way—bribe a bank teller. I'm told that for a hundred pounds private detectives can get a lot of information that way.

This simply goes to show that in any profession—however well respected or ethical—there is always a certain percentage of bad apples, and the NHS is



no exception. Even though NHSnet is supposed to be separate from the Internet, segregated off, and accessible only to those that work in the NHS, bribing someone will get you the information you want. In an organisation that's much bigger than the banking system there will be quite enough takers to make a mockery of confidentiality.

It follows therefore that all clinical or confidential e-mail messages on NHSnet need to be encrypted. We can't rely for security on NHSnet being closed to outsiders.

But if we have to encrypt everything, then why bother with NHSnet? Why not run NHS communications (suitably encrypted) across the Internet? It would be far simpler, and much cheaper.

Irrespective of whether we have the NHSnet or Internet, what action is needed now?

1. Agreement on encryption of e-mails. We need this *yesterday*.
2. A mechanism for key management and validating electronic signatures, to go with (1). (The Zero-Click option, as described in the News section (Page 24) provides encryption at an individual level, but encryption is only half the answer to the problems posed by widespread use of NHS e-mail, though Zero-Click do have key management facilities ready to roll.)
3. Regulations to force all departments of all hospitals (i.e. all consultants' secretaries) to be on-line. Then we can all send referrals and receive replies electronically, information

which can be inserted directly into the electronic record.

4. Far better-quality address books, more comprehensive, and carefully kept up to date. *This is not an optional extra.* (Fortunately it looks as though these are set to be on-line in December 2000.)

The pity of the situation is this—many of us are raring to get our hands on NHS interconnectivity. It will make *such* a difference to the ease with which we work and the way in which we can send and share clinical information. With on-line medicine there will be:-

- No more laborious typing of letters on a word processor—electronic files which are then committed to paper, only to be converted manually back to electronic form at the other end either by being scanned or coded. (What a waste of secretarial time!)
- No more faxing, with its potential danger of incorrect dialling and the wrong people receiving confidential information.
- And what better way to encourage the less IT-literate practices that computerisation is worthwhile than the fluid, joined-up working that true IT connectivity brings?

Given the importance of a wired NHS, and that so little has actually been achieved, what precisely is the position of the NHS in all this? Why, oh why are the IT managers missing the blindingly obvious point that without e-mail encryption we might as well all go home? OK, we can access their wonderful databases and sites—health authority and PCG/PCT information, NICE and the National Library for Health—but this information for the most part could be put openly on the Internet (and in many cases, through mirroring of sites, is.)

And why is Alan Milburn not doing anything about it? Does he not know? Doesn't he care? It strikes me as odd that the government is always berating doctors for not being modern in outlook—yet by its own actions the state of NHS IT is demonstrating forcibly that it is the Department of Health that is behind the times, not the profession.

The government will of course argue that it is the profession that is holding up development, by insisting on more robust encryption. (Not that you'd notice the government taking much notice of what the profession has said on other subjects, such as targets, demand, manpower...) Elsewhere the government has simply brushed aside objections and enforced its will by regulation: so why hasn't it got its act together on NHSnet?

In short, we need action. We need encryption and we need it *now* (together with its attendant infrastructure).

And bearing in mind the total debacle of NHSnet, I think we also need a few managerial heads to roll.

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