A LOOK AT THE FUTURE OF COMMUNICATIONS

M P R Hamer
Citibank NA
UK

Introduction

The availability of effective and reliable telecommunications at prices competitive with other developed countries will be essential in the 1980s if Britain is to keep up with other countries in all major economic activities. If the telecommunications infrastructure of Britain proves to be inadequate in terms of availability, scope for development of the information technologies, reliability, or price, then major economic activities will divert to other countries or fail to compete in world markets.

The major users have been making statements like this to the Government for some time now, and the Conservative party recognised the importance of telecommunications before it came to power, making the restructuring of the Post Office one of its key targets.

Unfortunately there are a number of very significant problems in telecommunications in Britain today which, in spite of the efforts of the Government, threaten to (perhaps irreparably) damage the prospects for development in many business sectors in the early 1980s.

The short-term picture painted by this presentation is, because so much hangs in the balance right now, deliberately pessimistic. However, the picture it paints must be taken seriously by anyone involved in the management of telecommunications in any commercial sector, otherwise we risk being left behind in the world while we sit around congratulating ourselves as a nation on some very marginal improvements.

THE NEED FOR DE-REGULATION

The problem which the new Telecommunications Act aims to solve is this: how do you get a single, gigantic organisation to at the same time plan a reliable, steadily-growing, nationwide utility where planning periods are based on equipment lives of up to 30 years and planning decisions need to look 10 years ahead, and at the same time participate in a rapidly changing innovative field of technology where developments over periods as short as 6 months can have a major impact on services available? A simple version of the answer to this problem is: you don't. This is the immediate view of de-regulation: if the telephone company or PTT is quite good at providing basic telephones, but its data modems, PABXs, telephone answering machines, etc are (a) several years behind the times, (b) subject to long waiting lists, and (c) expensive, then why not let the telephone company/PTT get on with what it's good at and leave the rest to companies who seems more able and more enthusiastic to give the user what he needs.

However, there is another level to de-regulation. Faced with real competition in the attachments market, telephone administrations like AT&T in America suddenly find that they can be quite good at providing such products after all. And, given that they have to adopt new attitudes towards their business in these areas, a kind of new life begins to permeate the whole company, giving a more innovative approach to their bread-and-butter business of providing a basic network.

The legislation can therefore be viewed as aiming to do two things: give the user what he needs, and stimulate British Telecom to become more responsive to users' needs in the future.

HOW FAR SHOULD IT GO

The problem that faced the Department of Industry officials in drafting the Bill, is just how far should de-regulation/de-monopolisation go. There seemed to be a lot of confusion over the set of related issues involved. In fact it is important to differentiate clearly between:

- demonopolisation, that is, taking away the exclusive privilege of British Telecom in certain activities, such as the supply of data modems and extension telephone instruments, or (more controversially) private circuits

- certification, that is, the mechanism by which equipment is tested and certified as fit for connection to public networks

- power to license, that is, the right to grant permission to bodies (including British Telecom) to operate each particular telecommunication service

So, for instance, there was a choice between defining what services are to be provided by Telecom on a monopoly basis and what services are to be open to other suppliers, or assigning in the Act the right to decide to, say, the Secretary of State, so that changes can be made from time to time without an Act of Parliament. The latter approach was the one eventually decided upon: the Act is thus basically an 'enabling' one.

To take another example of a possible area of debate, the certification of equipment could be carried out by Telecom or by an outside body, but if it were done by Telecom there could be a de facto monopoly created by the way the certification is carried out. This issue was resolved in favour of the user - i.e. a separate certification mechanism is to be set up.

Discussions of these often became bogged down in issues of definition. To add to the confusion there was intensive lobbying by interested parties, notably the UK telecommunications suppliers, with the aim of slowing down and limiting the chances of selling equipment direct to users. It seems that the industry would prefer to have Telecom act as a buffer between them and the marketplace, purchasing equipment from them and renting it to the user, rather than face the threat of open competition with other suppliers for sales of equipment.

As a result the issue of how far to go in the Act remained open to debate until very late in the day.

THE MEMORANDUM

In July 1980 the Secretary of State for Industry issued a memorandum outlining the general approach of the new legislation. This dismayed many users because it seemed to be far less progressive than early statements had led them to expect. For instance, it indicated that Telecom might be given control over the 'commissioning' of non-Telecom equipment connected to the network, thus opening up the possibility of the present waiting lists for Telecom equipment simply being replaced by waiting lists for an engineer's visit to commission privately supplied equipment.

It seems that the memorandum was prepared in a hurry and that, lacking basic technical information, officials relied heavily on advice from associates in Telecom, who naturally suggested wordings which favoured the no-change lobby.

The discussions which followed were drastically hampered by the existence of the memorandum. Since the Department was reluctant to back down on the contents of the memorandum. However, after months of lobbying from the TUA and other bodies the Department gradually gave way on many points, the most dramatic of these being on the maintenance of PABXs, when the official line was modified during Commons debate of the Act, after a large body of opinion in favour of liberalisation had grown within the Government back benches.

THE OUTCOME?

The supply of 'attachments' direct to users by companies other than Telecom and their connection to the network by means of plug and socket arrangement will certainly be permitted. This will remove the present uncertainties about which data modems, special telephone instruments, Prestel-type sets, etc can be used on the network and, more importantly, get over the problems of the waiting lists of up to two years that have existed for some Telecom products. Also the cost to the user of terminal devices will fall as a result of competition between suppliers.

The question of PABXs seems to be resolved, but the timing of de-regulation seems to be in some doubt, with figures such as "two years" being mentioned as the phasing-in period. A wider range of PABXs will be available on direct-purchase from suppliers, and BT will be forced to compete much more effectively in the PABX market. It will eventually be permissable to have new digital PABXs maintained by private maintenance agents, rather than BT. The costs of PABXs will almost certainly fall as a result of competition.

The thorniest question of all is that of private circuits. In London the number of outstanding orders almost trippled during 1980, although the recession has been merciful to BT and assisted them in cutting back queues in recent months. The damaging effects of these delays on the whole business community in London, particularly the City, have been stressed to the Government. It is quite likely the Department will license companies other than Telecom to provide private circuits in 1982. Alternative services could be provided particularly in London, using the latest digital microwave technology. It is possible that the current waiting list for circuits could be swallowed up by a private circuit company almost at a stroke in 1982/3.

THE EFFECT ON TELECOM

Based on the US experience I think it can be predicted with almost certainty that the effects of the new environment on British Telecom will be:

- increase in efficiency, particularly on lead times
- lower prices for attachments
- better range of Telecom-supplied attachments
- restructuring of private circuit tariffs
- a more customer-oriented approach to business

In the short term there may be a feeling of hopelessness within Telecom - a feeling that the Government have in some way cheated on them - but staff at all levels will soon begin to enjoy the new environment and, overall, Telecom revenues will actually increase because the total market will expand enough for a less than 100 per cent share to be more in cash value that the present value of business under monopoly conditions.

FUTURE CHARGES FOR TELECOM SERVICES

Given that attachments and PABXs will be obtainable at much lower costs, the charges for basic network services will become increasing important to the business community. In the last year or so Telecom have failed to meet the White Paper target of a 5 per cent fall in real prices per annum. The present state of Telecom does not seem to offer the prospect of any reduction in real prices for some time - possibly not until System X begins to have a significant impact of the cost of running the network.

As a rough guide it can be assumed that real prices (adjusting for inflation) will rise at 5 per cent per annum for at least the next four years on basic services, except private circuits. (A rise of around 20 per cent in tarriffs is expected in October of this year.)

On private circuits the next but one rise of 50 per cent could be reduced if not entirely cancelled as a result of competition if the licensing of other companies goes through.

THE LONGER TERM

It is always difficult to predict more than a year ahead, but I will attempt to outline the likely developments in the 1980s.

The competitive environment created by the new Act, and the subsequent executive actions by the Secretary of State, will open up a much wider range of options to the user. There will be more and cheaper 'attachment' type devices, such as modems, facsimile machines, special telephone instruments, answering machines, etc; more and cheaper PABXs; alternative sources of private circuits, data services, mobile/portable radiotelephones, and so on.

Also, more and more areas of work will involve telecommunications in some form: communicating word processors in offices, on-site data collection in a wide range of industrial situations (inventories, work flow monitoring, etc), and increased use of the telephone to conduct business. The last of these might seem to be a statement of past trends, but there are still many things not done by telephone which could be. Credit card telephone sales, for example, have still to gain acceptance in some commercial areas.

Taken together, the broadening of choice combined with the requirement for greater application of telecommunications in all business activities, will place the person or teams of people who make decisions on telecommunications more in the limelight. They may even get paid more. It will therefore be essential to acquire skilled and knowledgeable telecommunication experts in a much wider range of companies and down to much smaller sized companies.

CONCLUSION

The next few years will be an exciting time from the point of view of all users of information technologies. The effective use of telecommunications will become increasingly important in almost all commercial sectors. The opportunities are there and it is up to all users to make sure that they get what they need from British Telecom and all other suppliers of services and equipment.