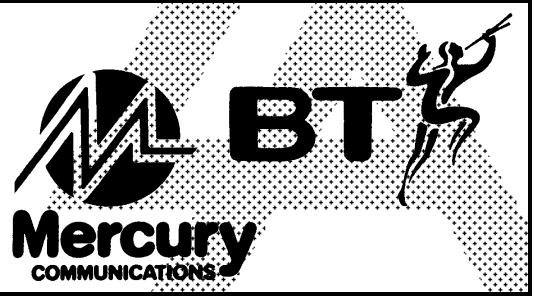


# THE LIBERATION OF TELECOMMUNICATIONS: A BRITISH SUCCESS STORY

JOHN HARRISON



If you want to talk to someone who is a long way away, you could stand on top of something big and shout very loudly. But this will annoy people a lot, and probably won't work anyway.<sup>1</sup> Human beings, being very inventive creatures, have found many better ways of doing this.

## THE HISTORY OF TELECOMMUNICATIONS IN BRITAIN

The first method of instant long-distance communication was the telegraph. Cooke and Wheatstone patented the first commercial telegraph in 1837. This was used by the railways. Samuel Morse later improved the system, introducing Morse Code, and by 1858 the first trans-Atlantic telegraph cable was laid. The telegraph was soon a world-wide service.

Having always had the power to open people's letters through the institution of the Royal Mail, the British Government saw the unhindered communication made possible by the telegraph as a threat to its control. Never a body of men to leave a good thing unregulated, in 1868 it passed the first of the Telegraph acts, giving a telegraph monopoly to the Post Office. The advantages of the technology, however, were by now proven and ten years later the Post Office was handling 50 million telegraphs per year.

Alexander Graham Bell and his assistant Thomas Watson were by now experimenting with a method of converting air vibrations caused by sound into electrical current and reversing the process at the far end to reproduce the sound. A primitive telephone was born, and in 1876 Bell patented the device. The earliest telephones were simple point-to-point links. Telephony had many detractors who said it would never

catch on, but in 1878, Queen Victoria had a demonstration at her Isle of Wight retreat and was very enthusiastic.

A switched service was soon introduced which would allow a subscriber to call any other subscriber, the connection being made manually by a human telephone operator. This costed £20 a year — about the same as a servant's wages!

Despite the initial high cost, business users took up the new service in increasing numbers and the government found this a threat to its telegram monopoly. In 1880 a Telegraph Act declared that a telephone call was a telegram! This brought the telephone service under government regulation and service providers had to apply for licences. 16 years later, the Post Office took over the trunk lines and bought all the routes for a mere £459,114 3s 7d. By 1911, most local telephone systems were under State control and by 1913, the only independent carrier was Kingston Communications, controlled by the Hull Corporation.

Over the next few decades, falling costs from economies of scale, and from the introduction of mechanical switching to replace human operators, helped to spread the telephone network until it covered most of Britain. However, the underlying technology — the method used to send the message — didn't change.

## BRITISH TELECOM

Telephony remained the exclusive province of the Post Office until the Thatcher era. The new British Conservative Government faced the undoubted challenge of translating its free-market rhetoric into a practical policy. Although the long term vision of an efficient, market-responsive, telecommunications industry was emerging in their minds, the means for achieving this was still far from obvious. On 21 July 1980, Keith Joseph (Secretary of State for Industry between 1979 and 1981, now Lord Joseph) announced to the House of Commons the Government's intention of liberalising the telecommunications market.

In 1981, British Telecom was split from the Post Office, but remained in State control.<sup>2</sup> Being a State Monopoly supplier, British Telecom cared little for its customers, and telephone charges remained high by international comparison. Getting a telephone installed could take months and public pay phones, often vandalised or dirty, frequently failed to work. Big business was fed up with British Telecom, which did not

## Economic Notes No. 55

ISSN 0267-7164 ISBN 1 85637 234 0

An occasional publication of the Libertarian Alliance,  
25 Chapter Chambers, Esterbrooke Street, London SW1P 4NN  
www.libertarian.co.uk email: admin@libertarian.co.uk

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John Harrison works for Mercury Communications in Basingstoke, England, having graduated in electronic engineering at Southampton University.

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Director: Dr Chris R. Tame Webmaster: Dr Sean Gabb  
Editorial Director: Brian Micklethwait

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stand up well to international comparisons, and was longing for a viable alternative.

### THE DEREGULATION DEBATE

The Government determined that British Telecom should face some effective competition. The problem was that any company setting up a rival operation would stand no chance of competing against an established operator who already controlled the entire market. Any company trying to win part of British Telecom's business could be undercut by British Telecom using its monopoly profits for cross-subsidy.

The arguments that raged at the time were similar to those now occurring over British Rail. Some people argued that British Telecom was a natural monopoly — how could you split up a network? In response to the threat of deregulation, British Telecom threatened that competition would force it to raise charges for local calls by up to 50 per cent.<sup>3</sup>

Competition would not be possible. They argued that the whole point of a network was that everyone had to be connected to it. Who would subscribe to a rival network? Rural customers would not be able to get telephones any more, the quality of telephone calls would deteriorate and prices would rocket as a privatised monopoly exploited its position to milk customers for profit. The Government, while dismissing these arguments, largely failed to convince many of its own supporters of the merits of privatisation, or that competition was even possible.

The Post Office Engineering Union was strongly opposed to the deregulation of the sector<sup>4</sup> and the Government realised the damage that this union could cause if it called a strike. The Government also believed that reducing the POEU's power was necessary if British Telecom's management was to improve the company's performance. And the way to reduce the POEU's power was to introduce a competitor to BT. Hence the 1981 Telecommunications Act, which gave the Secretary of State for Industry the power to licence alternative telephone network operators.

In 1981, a consortium of companies consisting of Cable and Wireless, British Petroleum and Barclays Merchant Bank set up Mercury Communications Ltd.<sup>5</sup> In 1982 Mercury was awarded a licence to operate as a telecommunications carrier.

Mercury concentrated its initial activity on providing communications links in the City of London, where the highest concentration of heavy telecommunication users exists. This gave Mercury a customer base amongst Britain's biggest companies, and by the end of 1983 Mercury had completed its first London to Birmingham link.

In 1984, the Conservative Government, driven as much by Keith Joseph's belief in deregulation as by a need to raise money, privatised British Telecom, crea-

ting British Telecommunications PLC.<sup>6</sup> The company inherited an extensive, albeit obsolete, telecommunications network, and an extremely overmanned and inflexible staffing structure. This was in contrast to Mercury, which was a small company, with a brand new digital network, although with only limited coverage outside London.

Privatising BT and introducing competition gave the company the sort of impetus to improve its services that years of State control had failed to provide. BT not only started modernising its network, introducing some digital exchanges, but also cut its costs by disposing of thousands of staff. Despite the reduction in manning levels, the waiting list for new line installations was virtually eliminated and the time taken to connect new customers was cut from weeks to days. Over time, routine maintenance also improved and it became possible to find a pay phone which worked.

The next major development in the industry was in 1985, when OFTEL published terms for interconnection of the Mercury and BT networks. As a result of the agreement, customers with BT lines would be able to press a button on their phones to choose Mercury for their long distance calls. An equivalent service for customers with PBX's (private switchboards) allowed the PBX automatically to choose the lower cost routing. This meant that for the first time since the Post Office telephone monopoly was established, customers were able to make a real choice between competing private telecommunications providers.

### THE UNIONS

The POEU reacted fiercely to the agreement and resumed a boycott of ordinary telephone services to Mercury and its shareholder companies. On 20th June 1983, when BT gave the first interconnection order, the engineers assigned to the task refused to carry it out. BT responded by suspending them and the work was done by BT managers. Union threats of reprisals against Mercury customers cost the fledgling company millions of pounds,<sup>7</sup> and for a time looked like threatening its existence.

On 5th October 1983, Mercury took the POEU to court over its industrial action, claiming that the unions action against Mercury was a political strike, and not "relating wholly or mainly to" such matters as the terms and conditions of employment or a loss of jobs. This was the first test of Norman Tebbit's 1982 Employment Act. The court found in favour of the POEU, Mr Justice Mervyn Davies stating that the substitution of "relates wholly or mainly to" for "connected with" in the 1982 Employment Act made no substantive difference to the definition of a trade dispute.<sup>8</sup> The union had argued that interconnection would threaten job security for BT employees. On appeal, however, Mercury produced a leaked document, showing that BT had signed a job security agreement with the union, which showed that job security was

not the purpose of the industrial action. The Court of Appeal granted an interim injunction ordering the POEU to cease any action against Mercury. The dispute was eventually settled out of court, with the union undertaking to take no further action against Mercury in connection with the dispute, and Mercury agreeing not to sue.

### **BOGUS SCIENCE**

Having lost in the courts, the POEU and its Labour allies changed tack in their attempt to prevent a telecommunications market developing. In order to carry high capacity telecommunications, needed for trunk networks, three major technologies are available: optical cable, copper cable and digital microwave radio. Copper cable, as well as being expensive, is also an obsolete technology. Mercury had built much of its network along British Rail lines, using optical fibre, but laying optical cables in urban conditions requires channels to be dug under roads and pavements. This is understandably slow and expensive, so in order to get its network up and running quickly, Mercury would need to use radio links mounted on the tops of buildings.

Rumours were circulated about microwaves leading to damaged skin tissue, nervous disorders and even to deaths, and when Mercury applied for planning permission to place an aerial on the Sunley Building in Manchester, Manchester City Council's Planning Committee turned it down. The POEU had argued that research done in Eastern Europe suggested microwaves might attack the nervous system, and its success in Manchester encouraged the union to lodge objections to Mercury planning applications with several Labour-run councils. Despite the fact that the intensity of the microwaves Mercury was to use was an order of magnitude lower than those permitted under the British Safety Standard, far lower than those used in the Eastern European study, and even in the direct line-of-sight of the radio antenna is attenuated sharply with distance, it seemed that the Labour councillors wanted to believe the POEU's horror stories for their own political reasons. It took a public enquiry to get the Department of the Environment to overturn the decision.

### **MOVES TOWARDS A TOTAL FREE MARKET**

In 1987 Mercury signed an agreement with Hull Telephone Company to set up an interconnect, and domestic customers in Hull were able to choose between BT and Mercury for all their long distance calls. The argument that telecommunications is a natural monopoly — that telecommunications competition is impossible — had been conclusively broken.

OFTTEL conducted a review of the BT/Mercury duopoly and decided that anyone meeting certain minimum standards should be allowed to offer a telephony service. The stage was set for cable TV operators to

start moving in. Having laid miles of ducting in residential streets to carry television cables, it was logical that they should also carry telephone wires and provide a cheaper local alternative to BT. Initially, most of these cable operators looked to Mercury to provide them with modern digital exchanges, but some aim to provide equal access for BT and Mercury. Eventually some may set up interconnections with each other. By January 1992, the cable companies were providing 30,000 telephone lines.

Outside the cable areas, Mercury is gaining thousands of customers each month using its "blue button" telephones, which provide cheaper long distance calls for customers who have BT lines. By March 1993, Mercury had over 10% of the UK telecommunications market.

These developments show that because a Conservative Government took decisions which were right in principle, even though few people could have predicted exactly how things would turn out, customers now have more choice, lower prices and better quality services.

Some people would claim that with improving technology, this great improvement would have happened anyway, even with a nationalised British Telecom. The Labour Party points to high profits and claim that BT is making excess profits to which it is not entitled.

All the best lies are sugared with a few grains of truth to make them easier for the credulous to swallow. Technology can indeed improve the technical quality of a connection, but it is only the profit motive that makes a business focus on improving the service to customers. A monopoly supplier has a captive customer base and does not need to please them in order to keep them. Had it not been seeking profits, BT would not have modernised its network. Moreover, without private telecommunications companies paying large sums to buy them, why would anyone risk any money developing digital exchanges?

BT makes huge profits partially because it is a huge business, and partly because of its unnaturally large market share. This market share is a direct result of the fact that it used to be a State-controlled monopoly and because breaking it up prior to its flotation was not a viable option.<sup>9</sup> If BT's market dominance is such a bad thing then the State telephone monopoly should not have been created in the first place! A private monopoly is better than a public one because, as with BT, competition will cause it to either lose market share, in which case it is no longer a monopoly, or improve its service. Either way, the consumer benefits.

### **NEW OPPORTUNITIES**

Both BT and Mercury now face the prospect of free competition from all comers. As their market position is threatened, each will respond in its own way. BT is looking towards becoming an international telecomms

player, while Mercury is focussing on widening its UK customer base and expanding to continental Europe. As Terry Rhodes, Mercury's director of strategic planning and competition, points out:

Mercury was, of course, born out of belief in competition, and has always operated in a competitive environment.<sup>10</sup>

Rather than seeing increased competition as a threat, Mercury sees it as an opportunity. Mike Harris, Mercury's Chief Executive, writes:

The familiar old Mercury-BT duopoly is dead. Long live competition. We must ensure that we are geared up to generate and seize fresh opportunities. There will be plenty of them.<sup>11</sup>

There will indeed be many new opportunities in telecommunications. We have long had portable telephones, but the calls have been expensive and all-too-easily eavesdropped. Vodaphone and Cellnet have long offered analogue networks, but sound quality has always been variable and coverage patchy. Now new digital technology allows secure communications with clear reception and as the bandwidth needed for a call is reduced, the cost of calls becomes far lower. Mercury One-2-One has entered the arena, for the first time offering some calls for free and the other mobile players have responded with their own price cuts. Competition is driving down prices — again the consumer benefits from the operation of the market. Expect the reductions to continue.

Not everyone is enthusiastic about these new services. The same forces which sought to restrict the ownership of printing presses on the grounds that they might well be used to publish things with which Church and State do not agree, may well see unrestricted secure communication by the masses as a threat. Freedom of speech is not guaranteed by any constitution in Britain, and we can be sure that, as with broadcasting to many people, politicians will seek to put further restrictions on what we can see, hear and say. But the news for the censors is grim. The military have long used digital radio for its security value; now that this new technology is available to the public it will be harder and harder to monitor messages, let alone control them. The only way to stop digital technology being used in ways that the censors might disapprove of is to ban it altogether and that would be economic suicide. We would be left behind by nations with more relaxed legislators.

### **BUT TELEPHONY IS ONLY THE BEGINNING**

As technology advances, driven by the vast potential profits to be made from new and imaginative products, things which were thought to be science fiction are becoming reality. Imagine a world where you can get in touch with anyone, wherever they are, and speak to them face to face, send them a document or a piece of music, play video games against them, or draw them a

picture — all without having to remember any phone number. This is already possible, using existing technology. It will just be a matter of time before it can be done cheaply enough to make it a saleable product. We are only in the early days of virtual reality but look at what is already possible.

As these changes happen, behaviour will start to change to accommodate the new possibilities. Home-working will increase as it becomes more costly to physically transport people to their place of work and far cheaper to take their work to them. This could also have a great impact on the standard of living of some sections of the disabled, as it becomes easier for them to earn a living from home. The threat to Government control will increase as people have access to more information. If 0898 sex lines upset the 'moral majority' today, just think how video phones and adult interactive video games will annoy them!

There is perhaps no other industry where the beneficial effects of the free market in contrast to State monopoly control have been demonstrated more unmistakably than in telecommunications.

As the industry has advanced, in leaps and bounds, the critics of deregulation and privatisation have had to search more and more desperately to find reasons for its "failure".

### **NOTES**

1. Neither is this a good way of communicating information that you wish only the called party to receive.
2. This was carried out by the passing of the British Telecommunications Act, which received Royal Assent in July 1981. The Act set up the new corporation with a general duty to "provide throughout the British Islands ... such telephone services as satisfy all reasonable demands for them." (Ch 38)
3. Page 28 of *Phone Wars* by Keith Bradley, published in 1992 by Century Business (Random Century House, 20 Vauxhall Bridge Road London SW1V 2SA) in 1992, ISBN 0-7126-9826-4. This is a very good book for anyone wanting to read the story of Mercury Communications.
4. Stan Orme, Labour's Industry Spokesman reminded the House of Commons of the POEU's anti-deregulation stance. See "Joseph to rule on rivals for Telecom", *Financial Times*, 16th April 1981.
5. Cable and Wireless later achieved full control of Mercury Communications by buying the stakes of its two partners and in 1993 it sold a minority stake in Mercury to Bell Canada.
6. Telecommunications Act, 1984.
7. "Fears of Industrial Action Blocks Philips/Mercury Network Pact", *Electronic Times*, 29 September 1983.
8. Mercury vs. Scott-Garner 1984 ICR 74, p. 94.
9. Although the technology for interconnect between competing carriers was available, interconnecting to BT's decrepit analogue exchanges would have been extremely costly and the quality of connections would have been unacceptable.
10. "The Competitive Environment" from *Messenger* "Results Special", 22 June 1993, p. 3. *Messenger* is the Employee newsletter of Mercury Communications, published by the Employee Communication Unit, Mercury Communications Limited, 26 Red Lion Square London WC1R 4HQ.
11. "Why Re-invent Mercury" from *Imagine Bulletin*, Issue number 1, November 1993, p. 1. *Imagine Bulletin* is published by the Employee Communication Unit, Mercury Communications Limited.