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Prime Minister (2)

I have asked the  
CPRS to let you have  
advise on this.

MCs 23/7

PRIME MINISTER

SYSTEM X

We had a brief discussion of System X on 6 July (your Private Secretary's letter of 7 July refers). This minute and the attached paper set out the position as I currently see it.

2 Following E(TP)'s decision on 22 April, British Telecommunications have sought and evaluated proposals from the three System X manufacturing companies, GEC, Plessey and STC, for a single focus for management responsibility for System X. BT have advised me that Plessey is the only credible leader and that System X production should be concentrated in Liverpool. The implication of BT's assessment is that whatever the nature of the transition arrangements, GEC and STC would be obliged, effectively as a consequence of administrative fiat, to withdraw from the public switching business over the next few years.

3 While I am deeply concerned that this industry has failed in the main to appreciate the serious situation it faces I am convinced - as I believe you are - that such an action by Government is unacceptable. Having said that neither we nor the industry have the luxury of doing nothing, not least because the freedom to procure in the most competitive markets which a privatised BT will have will further point up the essential



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2.

weakness of the industry. I am encouraged however by signs that, prompted by recent events, the companies are recognising the dilemma. Within the past 48 hours Arnold Weinstock has told Kenneth Baker privately that GEC would be prepared to separate off its public switching and transmission activities and merge them with Plessey's public switching business to form a 50/50 controlled company which would be responsible for all home and overseas main switching business, including research and development; or to sell 50% of the GEC telecommunications business to BT, - he would lend BT the money to do this now, in exchange for BT shares after privatisation (he felt strongly that BT should have an investment in the manufacturing side of the industry). Without disclosing the source of the proposal Kenneth has sounded out Plessey on this. Their initial reaction is to be disinclined to enter any such arrangement, partly because of the difficulty they see in separating the public and private switching businesses and also because of GEC's alleged long record of failure in such joint arrangements. Both companies have made it clear that they see no role for STC although both may be interested in buying it at a suitably low price.

4 It is apparent that a more positive attitude is emerging at least in some parts of the industry and this should enable hitherto unlikely options to be considered.

5 I shall wish to report to E(TP) after the Recess on BT's assessment and to explore with colleagues alternative courses.



There will however be no easy solution to the System X problem. Over-capacity in the industry and the sharp impact of technology upon equipment cost, unfortunately ensures this. The starkness of the situation is set out in the attached draft memorandum, which I envisage as the basis for a paper for E(TP) in due course. The options set out are necessarily tentative and represent our thinking at an early stage; they will of course be amended in the light of reactions to proposals such as Arnold Weinstock has just mooted. We shall also need to explore them with BT and the companies and we may have other possibilities to add then.

6 I am copying this to the Chancellor, Kenneth Baker, John Sparrow and Sir Robert Armstrong.

*J. P. Spencer*

*PP*

P J

23 July 1982

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DRAFT

SYSTEM X AND THE UK TELECOMMUNICATIONS INDUSTRY  
MEMORANDUM BY THE SECRETARY OF STATE FOR INDUSTRY

The UK telecommunications industry is no longer world class; its share of world exports has steadily fallen from 25% to 6%. System X, which was meant to revive the industry, shows many signs of being a commercial failure, particularly overseas. In 6 years British Telecommunications (BT) has spent over £200m on development; further development requiring comparable expenditure will be needed until the late 1980s. Yet only four trial exchanges are operating in the network; these are preproduction systems with no export potential: the first commercial exchanges will not be ready until end 1983.

2. Half a dozen rival systems are already being sold in export markets. There is, as yet, no prospect of serious System X export business: even when it comes, it is likely to need substantial financial support from Government. And exports are not the 'icing on the cake'; without major export orders BT's own procurement will not be nearly enough to provide, for the 3 companies, the minimum production levels for competitive international pricing. Either continuing subsidy of the home switching industry by BT will be needed (with its obvious impact on the financial prospects for the privatisation of BT) or a regenerated, competitive industry must evolve - and quickly.

3. This position needs to be achieved against the inevitable contraction of each company's revenue base as technology leads to a sharp decline in equipment cost. Currently BT's annual public switching procurement totals ca £500m; by 1990 it will have fallen to £190m, a total which is about 80% of GEC or Plessey's current BT

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switching orders. For the 3 companies to maintain their present order books by 1990 exports will need to rise by £300m per year. In 1981 our main switching exports totalled £14m. Given that the accessible world switching market in 1990 is estimated to be less than £1000m and there are half a dozen international switching companies already established in the markets the magnitude of the task is clear. There will be a major loss of jobs (15,000?) unless we secure very substantial exports. In the long term only one - at best two - companies can hope to survive.

4 There is little doubt that System X is - or will be - a technical success. Its obvious shortcomings are attributable to:

a. the nature of the development arrangements. There is no focus of management: no single person or authority is clearly in charge. The consensus basis of development has resulted in unnecessarily long and costly timescales. BT funding the programme means that the companies are not subject to the discipline of committing their own resources.

b. inadequate commitment to exports. There are far too few people, including those of the right calibre, on the ground overseas and directing operations from home. The companies at heart regard exports as 'gravy' rather than the crucial factor generating the volume essential for competitive pricing and furthermore call for large sums from Government to support their export programmes. In general the attitude of the companies is unenthusiastic; by contrast our rivals are almost hyperactive: in India where a £200m digital switching contract is under consideration (for which GEC has bid, and is seeking Government support altogether totalling £55m) CIT-Alcatel has a team of around 30 technical and marketing experts supporting their bid.

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c. production is divided over 3 sites. As a consequence economies of scale cannot be achieved and management problems are exacerbated.

5. In November 1981 the companies applied to my Department for assistance towards the cost of developing export variants of System X. Kenneth Baker made clear to them that he was not prepared to provide assistance unless there were changes in the arrangements for exports. He made a number of relatively modest proposals (including the setting up of an adequately funded joint export company) and invited the companies to suggest alternative solutions. They were unable to agree collectively on their response. Subsequently Plessey advised me of their serious intention to enter the North American market by the acquisition of a US main switching company (negotiations are still in progress) and proposed that they should be given the sole responsibility for the development and manufacture of System X at home and overseas.

6. Over the past month I have visited the main System X centres of all 3 companies and held discussions with senior management. All agree that there are serious shortcomings in the existing arrangements and that a strongly export-orientated business is essential for the medium/long term viability of their respective companies. I endorse this view.

7. My observations have confirmed me in the view that the current unsatisfactory position, both from BT's and the companies' standpoint stems from the central role in System X design, specification, project management (and 100% funding of development) which BT assumed in 1976 at the outset. It is essential that the relationship between BT and the companies be redefined: the companies must be free to design and develop at their own risk and in competition; BT should specify only functional requirements and then procure competitively from the

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companies. The market, both domestic and overseas, will then determine the survivors. Without this realignment of proper responsibilities and functions the industry cannot hope to be successful nor indeed can BT have the freedom of action which as a privatised company it will increasingly seek.

8. A new dimension has been added to the problem with our intention to privatise BT. While for the next 2-3 years BT's aspirations to purchase equipment in the most competitive markets can be moderated by Government and public pressure, this will not obtain for a privatised BT: the price deficiencies of an unreformed British industry will then be starkly revealed. We face the risk of the world's fourth largest public switching market being satisfied by imports within a ten year period.

9. E(TP)(82)1st, item 2 on 22 April, considered my paper E(TP)(82)3 which reported on the current position of the System X programme and suggested that it could not be successful unless fundamental changes were made to the arrangements for development and manufacture. It was made clear in discussion that we were not committed to any particular solution to this problem and that the wider implications of any one company being given sole responsibility for System X would need to be examined by colleagues before any decision could be taken. The Sub-Committee agreed however that BT should be authorised to seek proposals from the 3 companies for a single focus for management responsibility for System X and asked me to report on BT's discussions and evaluation of the proposals.

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10. Following the E(TP) decision, the companies were approached by BT and subsequently submitted their proposals. BT have advised me that Plessey is the only credible leader and that System X production should be concentrated in Liverpool. BT have already moved in this direction: partly due to STC's shortcomings, Plessey have recently been made responsible for almost two-thirds of the research and development work on System X. BT's view is alternative solutions would do nothing to resolve the underlying problems.

11. Concentration of most if not all, of BT's System X procurement upon Plessey, as recommended by BT, certainly offers a route towards the establishment of a world class company in production terms. A financial appraisal of Plessey's ability to undertake sole responsibility for System X made by the Industrial Development Unit of my Department has confirmed that the company has the necessary financial strength. That they also have the enthusiasm for it is also clear. However I am less sure that this is matched by the management skills essential for a task of this magnitude. Furthermore their financial projections indicate that they would be seeking £30m, in roughly equal shares from BT and my Department, for the funding of System X export variants and the development of a successor to System X.

12. A further aspect of the BT 'single focus' proposal disturbs me: as a check on the competitiveness of their chosen supplier, BT would wish to procure 10% or so of their main switching equipment from another source, possibly an overseas supplier. While recognising BT's arguments, to permit this course when the traditional suppliers have been forced to shed labour would present major difficulties. I have pointed out already in this paper however that a privatised BT could not be constrained in its procurement.

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13. Something must be done - and soon. The companies' response to BT has indicated a way forward. There is no doubt that BT's proposal for Plessey be given sole development and production responsibility for System X has several attractions, not least in enabling BT's procurement power and Government's development and export assistance to be concentrated upon a financially sound company with a good technical record: the combination could be successful. I am unhappy however at the prospect of Government being seen to put companies out of business, for whatever reason, effectively by administrative fiat. I am convinced that to proceed along this path would be fraught with political and commercial difficulties which may be insurmountable.

14. Nevertheless BT's approach to the companies has served to concentrate their minds upon the dilemma facing the industry and, uncomfortable though it will certainly be, the preference for the companies rather than Government to resolve it. It is in this light that we need to consider and explore alternative options urgently. These include:

a. do nothing. This option has no attraction: System X management will remain diffuse; over-capacity in the industry will continue; few exports will be generated; for two or three years BT will continue to purchase (at considerable profit to the companies) uncompetitively priced British equipment; thereafter a privatised BT will increasingly look elsewhere. Coupled with the sharp fall in the cost of switching equipment expected at that time (BT's procurement forecasts show a fall from ca £380m to £200m in the period 1986-89), this option is likely to result in the industry facing a rapid and probably irreversible decline.

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b. a merger of the telecommunications activities of two or more of the companies. A single jointly-owned company has several attractions although fundamental difficulties would remain, not least that the interests of the partners are competitive not complementary; for some time there would inevitably be multiple site production and resistance to plant closures, and access to capital would be via the parent companies and would delay decisions. Most importantly, true integration of two (or three) such widely different business attitudes would probably take longer than the industry has to put itself right. The first company to express interest in the merger route was STC, but only last week Lord Weinstock said that GEC would be prepared to merge its public switching and transmission activities with Plessey's to form a 50/50 controlled company. Plessey have expressed initial opposition to this idea in view of what they see as past GEC failures in cooperative ventures. They also see insuperable difficulties in distinguishing between private and public switching. The GEC proposal could however form the basis for rationalisation of the industry, and despite the attendant problems further refinement of this proposal should be encouraged. Another possibility put forward by Lord Weinstock is for BT to buy 50% of GEC's telecommunications business in return for BT shares after privatisation. GEC has also expressed interest in acquiring a block of BT shares sufficient for it to influence or control BT's procurement policy.

c. To move to competitive procurement as quickly as possible. The essence of this option is that there should be a speedy move to competitive procurement by BT and that the companies should have responsibility for design and development work (and the funding of it) squarely placed upon them individually as soon as possible.

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Division of the development work means that no company is currently able to design and manufacture all of System X. Not until end-1983 will there have been sufficient interchange of information between the companies to permit production of System X by each company. BT's procurement plans then envisage each company being given 25% of the business with the remaining 25% going to the most competitive bidder.

The option of moving to a full exchange of information as soon as possible, linked to more competitive procurement and with the companies funding 50% (or more) of the remaining development and themselves being responsible for all future development, is an attractive one. It is unlikely to be welcomed warmly by the companies who have grown used to the 'cost plus' regime of BT. Company-funded development, coupled with truly competitive procurement, should provide a powerful spur, not least to the necessity to win exports to provide the volumes essential for competitive pricing.

BT's concern over this option is the risk of delay to the System X programme because the companies will jockey for position by hindering the full information exchange. They estimate this delay could amount to 3-10 months although a threat by BT to use its procurement power (eg for TXE 4A exchanges) to penalise non-cooperation should minimise slippage. This option should however also stimulate the companies to complete their full in-house System X capability by funding themselves the areas of development crucial to their business and where they are currently dependent upon the others. Weighed against the establishment of a competitive environment, coupled with the adoption by BT of a proper customer/contractor relationship, the possible delay to BT would seem acceptable. Certainly should closer scrutiny prove this option to be feasible it would seem to me to offer

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the most helpful route forward.

In the shorter term this course would do nothing to resolve the economies of scale and the multiplicity of production sites; it will also lead to 3 separately developed variants of System X which could compete against one another in all markets. The provision of export assistance to companies could however be tied to their performance. In time the likelihood is that this option would see at least one company wither on the vine in the 1980s.

**CONCLUSION**

There is a clear need to resolve the System X dilemma. I invite colleagues to agree that:

- a. the inherent political and industrial difficulties make impracticable the assignment of sole responsibility for System X development and production to any single company at this time;
- b. the companies should be encouraged to consider how they might together rationalise their public switching activities to ensure a **viable** UK industry with substantial overseas business;
- c. arrangements for System X exports should be reviewed by the companies and BT;

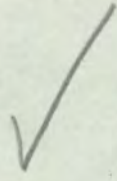
d. BT should be asked to:

- i. advise on how to ensure the earliest possible exchange of information between the companies to enable System X to be produced independently by each company;
- ii. explore how an early move to a competitive procurement situation can be achieved;
- iii. place responsibility for future design and development and its funding with the industry;
- iv. consider whether on completion of the export review proposed in sub-paragraph (c) above it should withdraw from British Telecommunications Systems Ltd.

With the agreement of colleagues I would propose to initiate discussions with BT and the three companies along these lines and to report in the early autumn.

DEPARTMENT OF INDUSTRY

22 July 1982



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Qa 05998

To: PRIME MINISTER

From: JOHN SPARROW

26 July 1982

System X

1. The minute of 23 July by the Secretary of State for Industry reviews a number of options for rationalising System X production, and proposes that he should discuss some of these options with BT and the three companies, reporting back in the Autumn.

2. I agree that to do nothing is not a realistic option. The domestic (BT) market will shrink by more than 60 per cent in money terms over the rest of the decade, although as part of this is due to low prices it is not clear whether GEC or Plessey could meet it on their own. The fragmented UK industry is not at present competitive internationally, and after privatisation BT will be under strong competitive pressure to buy abroad. Hence the industry will in any case need to rationalise and shed labour. How far it needs to shrink depends on exports - but in a tough world environment economies of scale look necessary and exports will only grow, from their present low level, if there is unified management and far more effective effort than has been shown by the firms so far.

3. It must be remembered that BT has the prime responsibility. As well as being sole customer, it has taken the lead in developing System X. It should therefore take the lead in rationalisation, and Ministers should only intervene if there is a clear need. But in deciding whether or not to intervene, they should have full knowledge of BT's assessment of the companies' proposals (mentioned in paragraph 2 of the Secretary of State's paper).

4. Of the two options put forward by Lord Weinstock, the second - GEC to sell 50 per cent of its telecommunications business to BT, to be paid back in BT shares after privatisation - seems to me impossible to reconcile with Ministers' objectives. It would take BT heavily into manufacturing, with a commitment to GEC on procurement policy which would reduce UK competition and do nothing for exports.



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5. This leaves three options:

(i) Single company: to allow BT to assign sole responsibility for the development and production of System X to one of Plessey, GEC and STC.

(ii) Joint venture: to get two or three of the companies to merge their public switching activities into a single business.

(iii) Competitive procurement: to pass over to the companies full responsibility for design and development work and then allow BT complete freedom to purchase from the most competitive supplier.

6. Single company. BT's assessment is that Plessey is the only credible leader. The arguments are set out in paragraph 11 of the paper - it would provide an effective world-scale producer, with the necessary financial strength and enthusiasm, but management skills are more doubtful, and Plessey are asking for £30m. for further R and D. The Secretary of State has concluded that to shut out GEC and STC, on whatever terms, would be unacceptable because of the inherent political and industrial difficulties. But the underlying industrial difficulty of reducing capacity in the industry will arise under any option.

7. Joint venture. This is GEC's preferred option, and is discussed in paragraph 3 of the covering note and 14b. of the main paper. In brief, Plessey oppose it because they see insuperable difficulties in splitting public from private switching, and because past co-operative ventures with GEC have been unsuccessful. The present joint sales promotion company (British Telecommunications Systems Ltd.) has not been a success.

8. Competitive Procurement. (Paragraph 14c. of the main paper). This would eventually force some rationalisation on the companies, but would waste perhaps another year while they were forced to exchange information enabling them to compete. It has the merit of requiring the surviving companies to fund their own development, e.g. for exports, although this would be possible, and desirable, under the other two options. But each surviving company might still remain uneconomically small for world markets.



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9. Conclusion

In effect the Secretary of State is asking for agreement that he should explore the last two options with BT and the companies. He will report back in the early Autumn. Ministers will want to consider whether it is right to eliminate the first (single company) option at this stage. They may also want to ask to see a full BT assessment of the options, when the Secretary of State reports back; and to stress that the Government should seek to avoid appearing to take over from BT the prime responsibility.

10. I am sending a copy of this minute to Sir Robert Armstrong.

P.

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