

PLR SAHAEED



10 DOWNING STREET

From the Private Secretary

23 October, 1984

IDEM STUDY - STAGE 1 REPORT AND THE WAY FORWARD

Thank you for drawing my attention to Michael O'Connor's letter of 1 October about the IDEM study. You asked for my reactions.

Although I recognise that the requirements of this small office could never be decisive, I have to confess to some disappointment that the Steering Group are minded to drop the SIDEM proposal for the time being. The major advantage of electronic mail from our point of view is speed; and in the great majority of cases where speed is important, so is security.

Having said this, there is a moderate flow of unclassified and restricted text to and from Downing Street - including drafts and other correspondence reaching the Garden Rooms, and most of the input to and output from the Press Office. There may, therefore, be some point in our "plugging in" to any MIDEM system, though it may be sufficient for us simply to have access to a terminal located in the Cabinet Office.

I hope the above is of some assistance to you in co-ordinating the Cabinet Office response. If you would like to discuss, please let me know.

DAVID BARCLAY

M. Childs, Esq.,
Cabinet Office

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CF file



JL

10 DOWNING STREET

From the Private Secretary

25 October 1984

Many thanks for sending me a copy of your proposed reply to CCTA about the IDEM study.

This crossed with my letter to you of 23 October. You may wish to revise your draft in the light of my comments. This may mean dealing with No. 10's requirements in a separate paragraph, since clearly our need for SIDEM as opposed to MIDEM differs substantially from the needs of the Cabinet Office at large.

(DAVID BARCLAY)

Mike Childs, Esq.,
Cabinet Office.

MB

David

We spoke re the attached draft reply to CCTA, in which I am intending to put in "markers" to ensure Cabinet Office involvement.

A certain element of crystal ball gazing has been necessary but Mike O'Connor appears to accept this.

Please let me know if you wish to make any changes.

Mike Childs

Refers to: CCTA letter O'Connor - Steel (MOD)
dated 1-10-84. IDEM STUDY etc.

DRAFT LETTER

Mr M O'Connor
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Our reference
ITB 5/014

IDEM STUDY STAGE 1 AND THE WAY FORWARD

Thank you for the opportunity to comment on the Logica paper and your options on the Way Ahead.

The Cabinet Office is very pleased at the good progress that is being made on the IDEM project and we fully support your option 1, to proceed with MIDEM only for stage 2. Our previous experiences in this area lead us to believe that the problems involved in the installation of a pilot are quite formidable enough without the additional complication of highly classified information. We would however, not wish to lose sight of the possibility of SIDEM following closely on the heels of MIDEM (say 12 months later). By that time, the basic system problems should have been resolved and the project staff will be able to concentrate on the more difficult problems of SIDEM.

The Cabinet Office will undoubtedly wish to participate in the pilot MIDEM but at this stage of development of our IT strategy, it is difficult to forecast with any accuracy, numbers of terminals or LANs. If our IT plans run to programme, we will have a LAN installed in GOGGS with signal cabling to about 250 offices. In 1985 it is not expected that more than 30 of those offices are likely to have workstations and not all of these will wish to use

MIDEM, although we would provide a link via a gateway from the LAN. In addition, other LANs (~~in the widest sense of the word~~), will have been established, eg some parts of our 70 Whitehall building, the Civil Service College at Sunningdale, the Civil Service Commission at Basingstoke and the Medical Advisory Service in London. Each will probably wish to link to MIDEM eventually, probably through a network gateway. It would seem therefore, that your planned porting for the MIDEM system that permits only connection of two such gateways may require revision. The Cabinet Office priority would be to link the GOGGS LAN as early as possible. It is also likely that the 10 Downing Street Press Office would wish to be connected at an early date unless the separate Information Office System is in existence in some different form before that time. The remaining departmental LANs would require to join the system as and when they become established but I have attached our best estimate of this in the annex to this letter.

There is also a requirement for Cabinet Office connection to any proposed SIDEM system, particularly from 10 Downing Street and our 70 Whitehall building. I have consulted Mr D Barclay and Mr J L Wright about their respective special requirements and the annex also includes their estimates.

M L Childs
Information Technology
Branch

ENC

**ESTIMATES FOR THE MIDEM SYSTEM
FOR THE CABINET OFFICE**

LOCATION	END '85		END '86		END '87	
	LAN	W/S	LAN	W/S	LAN	W/S
GOGGS	1	30	1	60	1	120
70 Whitehall *	-	1	1	10	1	10
10 Downing St Press Off	-	1	-	1	-	1
Civil Service Commission	-	-	1	10	1	20
Civil Service College	-	1	1	30	2	50
Medical Advisory Service	-	-	1	12	1	20

* Includes:
Main Registry
Committee Section
Distribution Section
Civil Contingencies Unit

POSSIBLE SIDEM APPLICATIONS

LOCATION	END '85		END '86		END '87	
	LAN	W/S	LAN	W/S	LAN	W/S
GOGGS	-	-	-	1	-	1
70 Whitehall	-	-	-	2	-	2
10 Downing Street	-	-	-	1	-	1



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*disapp! -
min adv is good
min att - high level
see need to discuss
? handle things Caboff*

Date: 1 October 1984

Dear Sir

IDEM STUDY - STAGE 1 REPORT AND THE WAY FORWARD

You may recall that I first wrote to you about the IDEM study on 24 February. We have now received from Logica the report on Stage 1, a copy of which is enclosed.

- Report in folder at back of file

The Steering Group(SG) has reviewed this report, its analyses and its conclusions, and has recommended that we proceed to Stage 2 of the study. As you will see from the report, the end product of Stage 2 will be an implementation plan and a draft operational requirement.

However, before we do this, we wish to consult you and other departments, seek your reactions to the report and its findings, and, I hope, obtain your support to going forward to Stage 2.

Let me summarise the position we have reached. During the Stage 1 study, the consultants found that there was a case to be made for two systems. One would be a Mainstream IDEM (MIDEM) system capable of carrying either classified material up to "Restricted" or material with an "in-confidence"/privacy marking. The other system would be a Secure IDEM (SIDEM), carrying any material up to and including "Secret": its principal application, at least initially, would appear likely to be the interdepartmental distribution of F&CO telegrams.

The SG is anxious to maintain the momentum and interest in the IDEM project generated in Stage 1. It therefore wishes to see Stage 2 under way by early November if possible. Before then,

however, it is necessary to decide whether, and how, both MIDEM and SIDEM should be progressed. For reasons detailed in the report and summarised in Annex A to this letter, it will not be possible for the foreseeable future to have a single IDEM system which can cope with the spectrum of material from unclassified to secret. Two systems, MIDEM and SIDEM, would be required; and they would have to be entirely separate.

In the light of this, the options we face are:

- OPTION 1. MIDEM only for Stage 2
- OPTION 2. SIDEM only for Stage 2
- OPTION 3. MIDEM and SIDEM for Stage 2
- OPTION 4. No further action on either MIDEM or SIDEM.

Working in reverse order, OPTION 4 would mean taking no action until the technology is available to enable a single system which will provide the functionality and ubiquity of the MIDEM system with the security of SIDEM. The SG considers that such a delay, perhaps of 5 years, should not be contemplated. The inevitable consequences would be piecemeal developments in and around central government of high and low security electronic mail systems, with deleterious effects on general efficiency and effectiveness, and on the development and use of IT standards.

OPTION 3 would imply further development of both MIDEM and SIDEM in Stage 2 in a co-ordinated manner. The main objection to this lies in the fact that some departments do not wish to contemplate two separate systems. Moreover, the management and financial aspects could be complex and difficult, both here at the centre and, we suspect, in departments too.

From the findings of the report, as well as some earlier work by the Official Committee on Government Telecommunications, the SG believes that OPTION 2, SIDEM only, might find support, but only from a limited number of departments. As procurement for the whole system, including a small number of radiation-proofed terminals would be likely to proceed via single supplier, the issues of IT standards and interworking would not arise and would not need to be addressed. But the requirement of system high security - with all its implications - would be an onerous burden which would inevitably result in a system of limited scale and limited

utility. Many otherwise potential users of an IDEM system who have only low classification material to send would not be able to access the system. Furthermore, as the report advises, there would be little scope for SIDEM to develop. For these reasons, we anticipate option 2 would not be favoured by most departments. Nevertheless, some departments may be interested in a SIDEM system on some basis if this could be arranged. The SG has suggested that the issue be referred to the Official Committee on Government Communications, who have a long-standing interest in such a system. If there is sufficient support (including the necessary financing) in pursuing SIDEM, the Agency is prepared to consider the issue further with those departments.

The SG favours proceeding with Stage 2 addressing the MIDEM system only (OPTION 1). There are several reasons for this preference, but the chief amongst them is the fact that there is widespread support from departments for a ubiquitous MIDEM system which is affordable. The setting up of MIDEM would mean grasping the nettle of IT standards, which departments have said they would welcome as it will help them in specifying their internal systems and strategies. The MIDEM system will have a strategic migration path which can accommodate OSI standards as they evolve, and face the issue of multi-level software security as it becomes available (5 years or more away, we believe). More generally, it will optimise the service-wide investment in IT and the GTN/ISGN.

Could I therefore ask you to consider all these issues. In order to maintain the timetable it would be invaluable to have your response by **Friday 26 October**. I hope you can then offer a statement of your position on IDEM and say whether, in principle, you can and will commit your department to linking to the MIDEM system if and when it is developed. I would also welcome some indication (then if possible, or later, if not) of how many terminals you would anticipate accessing the system from your department by, say, end 1985, 1986 and 1987, given the estimate of the charges shown at Annex B. (In passing, I should mention that the timetable means that you will probably be looking to your initial IDEM commitment in financial year 1985/86). I recognise that you may need to have more time to consider the detail of your involvement. But you will understand that some estimate will be essential as the system design is firmed up. The SG, who of course include potential MIDEM subscribers, have discussed the

likely initial applications of MIDEM, and their views on these are set out at Annex C.

To help with formulating your responses to the report and the issues raised in this letter, there will be a **presentation** of the findings of the report at **2.30 on Wednesday 10 October in Riverwalk House**. This presentation, by Logica, will be to a service-wide audience and I hope that you and your colleagues will be able to come along to Riverwalk House - or be suitably represented - and use the occasion to ask questions on any aspect of IDEM.

On a practical point, if there are any points raised the IDEM report that you would like to discuss prior to the presentation, please contact either myself or the SG secretary Bill McKinley (211 8692). Could you also let Bill know whether or not you will be able to attend the presentation on 10 October?

I know I can speak for all members of the SG, as well as for Logica, in saying that we have found that the feedback from the Consultative Group has been of real help in formulating the ideas presented in the report. Although this report will be widely circulated, the SG will once again be looking to the Consultative Group for considerable guidance during the course of the next stage.

I am sending copies of this letter, its enclosures and the report to the other members of the Consultative Group, to the departments who took part in the study but were not on the Consultative Group and to the Chairmen of the IT Steering Groups of those departments not involved in the IDEM study. The circulation list is at Annex D.

*Yours ever
Michael*

Michael O'Connor

MIDEM AND SIDEM - SECURITY REQUIREMENTS

1. If it were technically possible, the SG would have preferred to recommend a single IDEM system capable of carrying material from unclassified to secret. For this to be possible, a system of multi-level software security would be required. This would enable person A to access only unclassified material, person B up to confidential and person C up to secret. Persons A and B would be unable to "look-up" further than their authorisations. Such systems are being developed but are probably still around 5 years away, and even then are likely to be very expensive.

2. The alternative to multi-level software security is system high security. This means that every user of the system is authorised to access material at the highest classification on the system. Thus if a document classified as "Secret" is on the network, the assumption is that all users are permitted to access "Secret" material, as there is no sure way of preventing such access on existing computer and communications systems.

3. The current national security specification for system high security is demanding on the user and is not compatible with the office practice and needs of most civil servants. Terminals and their environments would in most cases have to be radiation proofed, and a high level of physical security would be required of the premises housing a SIDEM terminal.

4. The SG noted the views of several of the departments participating in the Stage 1 study to the effect that the existing rules on handling classified material in electronic form appeared to be cumbersome, and inappropriate to the vast majority of office applications. Whilst having every sympathy with these views, the SG recognises that this is a difficult area that was under review by the authorities. In light of this and taking account of the state of development of multi-level software security, the SG decided to recommend the (separate) consideration of the 2 systems, MIDEM and SIDEM, so that each option may be taken forward on its own merit.

ANNEX B

CHARGING FOR MIDE M

1. There are two kinds of costs associated with the MIDE M system. The first is the cost of the central facility, including both equipment and staff costs, and the second is the cost incurred at the departmental level, principally for the provision of suitable modems and encryption units.
2. For a pilot system of the size specified in the report (250 terminals, 2 office system gateways), the cost of the central facility is estimated at about 250,000 pounds. The planning assumption is that departments will be providing their own terminals, which will have been purchased for reasons other than electronic mail. The cost of equipping a word processor or personal computer with a modem and encryption unit is estimated to be in the range 1,000 - 1,500 pounds. The cost of interfacing an office system with MIDE M will depend on the size and functionality of the particular system, but is estimated to be in the range 5,000 - 25,000 pounds.
3. After discussion with the appropriate divisions within CCTA, the SG has made the following recommendation. Because the initial implementation of MIDE M will be a working pilot, the CCTA shall fund the provision of the central facility. Departments shall, however, be required to meet the access costs for their terminals and office systems, as described in the preceding paragraph.
4. It is expected that the pilot phase of MIDE M will run for 12 months. Thereafter it is anticipated that the pilot system will mature into a fully operational electronic mail system. The SG recommends that when this stage is reached, the system shall be charged for, and any further investment recovered, according to the CCTA procedures for cost recovery, which are being developed in the light of implementing the Director's review of CCTA. It is, however, likely that the charging mechanism applied to the GTN/ISGN will also be the most appropriate for MIDE M.

EARLY APPLICATIONS OF MIDEM

1. Central Government Finance. The exchange of information between Treasury expenditure divisions and departments' finance divisions would seem to be a leading candidate for MIDEM. The exchange of PES and Estimates information on a MIDEM system which enabled format retention and an editing/annotating facility was seen by Treasury as being of real value. The view was evidenced by some initiatives in expenditure divisions to trial Telecom Gold for this purpose, and the Estimates Clerk had contacted the CCTA about the use of Teletex for the same purpose. When told of MIDEM, he was enthusiastic about the possibilities, and such interest would suggest links between Treasury and every department.
2. Private Offices. The security requirements need refining, but the permanent secretaries' and ministers' private offices in all departments may benefit from connection to the MIDEM system.
3. Local Government Finance. The study revealed that this "information circuit" embraced about 12 departments, including the SO and WO, with the central interest focussed on DoE and HMT.
4. Referring to Table 2.1 of the report (page 14) the SG felt that, while the communities set out in this table represented the large, discreet uses for a MIDEM system, it could well be that, in the light of the final report and having had more time to reflect, departments would find several other, perhaps less formally defined, uses for the system. It was also important to realise that the Stage 1 study did not survey all departments, and as stated in the report, had tended towards caution in drawing up the list of potential users.
5. Finally, the SG realised that some departments might wish to use MIDEM for **intradepartmental** electronic mail between different locations until their own systems were in place. Although primarily intended for interdepartmental purposes, such initial applications of MIDEM were in keeping with the spirit of the IDEM study in stimulating interest in electronic mail as well as contributing to the general effectiveness and efficiency of the civil service.

CIRCULATION LIST

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