

Better Public Services through e-government

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL HC 704-I Session 2001-2002: 4 April 2002



The National Audit Office scrutinises public spending on behalf of Parliament.

The Comptroller and Auditor General, Sir John Bourn, is an Officer of the House of Commons. He is the head of the National Audit Office, which employs some 750 staff. He, and the National Audit Office, are totally independent of Government. He certifies the accounts of all Government departments and a wide range of other public sector bodies; and he has statutory authority to report to Parliament on the economy, efficiency and effectiveness

with which departments and other bodies have used their resources.

Our work saves the taxpayer millions of pounds every year. At least £8 for every £1 spent running the Office.

Better Public Services through e-government



REPORT BY THE COMPTROLLER AND AUDITOR GENERAL HC 704-I Session 2001-2002: 4 April 2002 This report has been prepared under Section 6 of the National Audit Act 1983 for presentation to the House of Commons in accordance with Section 9 of the Act.

John Bourn Comptroller and Auditor General National Audit Office 8 March 2002

The NAO study team comprised Michael Whitehouse, Nick Lacy, Geraldine Barker and Dave Clark. We commissioned a paper on the cultural barriers to egovernment from Professor Helen Margetts (University College London) and Professor Patrick Dunleavy (London School of Economics and Political Science). We also convened an expert panel to advise us throughout and it comprised:

Professor Patrick Dunleavy

Stefan Czerniawski (Deputy Director - Office of the e-Envoy)

Jane Gibbs (Head of e-Commerce - Office of Government Commerce)

Jenny Crighton (Audit Commission)

This report can be found on the National Audit Office web site at <u>www.nao.gov.uk</u>

For further information about the National Audit Office please contact:

National Audit Office Press Office 157-197 Buckingham Palace Road Victoria London SW1W 9SP

Tel: 020 7798 7400

Email: enquiries@nao.gsi.gov.uk

Contents

Executive summary

Recommendations

Annex

10

8

Action taken in response to the Committee of Public Accounts recommendations in their report – Improving the delivery of IT projects – January 2000 (First Report 1999-00, HC 65 1999-00.

Part 1

The challenge – Achieving e-government 13

What is e-government	13
Why e-government is important for the delivery of public services and departments' efficiency	14
Progress departments have made in implementing e-government	19
Why we undertook the examination	24

Part 2

The risks that need to be managed to 27 achieve e-government

Supply side barriers	27
Departments' strategies for improving services through IT-enabled business change	35
Ensuring that IT suppliers deliver intended services	38
Citizens not accessing services electronically	43

Part 3

Delivering the benefits of e-government 49

Greater choice		50
Better accessibili	ty	52
More convenience	ce	54
Faster delivery		56
Improved efficier	су	58

Appendices

1. Study Methodology	63
References	64
Footnotes	64
Bibliography	66
Websites	66
Glossary	67

executive summary

In this section

What is e-government 1

The risks that need to be 4 managed to achieve e-government (Part 2)

Benefits of e-government 6 (Part 3)

1 Information Technology (IT) provides opportunities to deliver public services which are accessible more quickly and available at times and in ways which are more convenient to citizens (**Example 1**). Increasingly, both private and public sector organisations are also using new technology to improve their operational efficiency. Central civil government departments currently have underway around 100 major IT projects in their initial stages of procurement with a total value of about £10 billion¹.

What is e-government

2 Electronic or e-government means providing public access via the Internet to information about all the services offered by central government departments and their agencies; and enabling the public to conduct and conclude transactions for all those services for example paying tax, claiming and receiving benefits, getting a passport. It is also about departments harnessing new technology to transform the internal efficiency of government departments.

EXAMPLE 1 – How e-government can improve public services and departments' efficiency. The example of the Land Registry

How the public can access information and advice more quickly. The Land Registry's website¹ provides a range of information on:

- property prices by geographical area;
- information on how to find out about property ownership;
- forms for lodging applications to register land.

How the public can interact with the Land Registry on-line

- view computerised land registers;
- view details of pending applications and searches;
- apply for copies of any register or search;
- send correspondence electronically to any Land Registry District Office.

How the Land Registry is improving its efficiency

- Using information technology the cost per unit of work has reduced in real terms from £27 to £22.
- 1. www.landregistrydirect.gov.uk

Source: NAO examination of the Land Registry

- **3** To achieve this the Government has set the target that 100 per cent of services should be available on line by 31 December 2005². This does not mean that people are going to be obliged to use the e-government route. For example some people will not have access to Internet services or may prefer not to use them. But because of the benefits set out in this report in terms of greater choice, convenience, speed, accessibility and efficiency departments are expected to encourage the public to use the e-government route, as well as making it possible for them to do so. E-government is also requiring a fundamental change in the way departments operate. Civil servants are having to develop new IT and change management skills as well as the confidence to use IT to deliver services.
- 4 This report considers (i) departments' progress in achieving e-government; (ii) the risks that need to be managed; and (iii) sets out the benefits of e-government with examples of how they can be achieved. The report highlights good practice which if more widely applied could help departments achieve the benefits of e-government. Our findings are based on an examination of 13 IT-enabled change projects being implemented by departments and other public and private sector organisations³.

Progress

- **5** The Office of the e-Envoy, as part of the Cabinet Office, is responsible for formulating common policies and guidelines to underpin and monitor departments' implementation of e-government. Departments are responsible for meeting the target for making all services available electronically by 2005 and for securing the benefits of improved public services and efficiency by implementing IT projects and associated change programmes. Departments have developed e-strategies which set out how they intend to deliver services electronically which have raised a number of issues (**Figure 1**) that need to be resolved if e-government is to be successfully implemented. The Office of the e-Envoy is working with departments to address these issues.
- **6** The Cabinet Office are promoting e-government through strategic direction a number of reports have set out how service delivery can be improved through modern technology; advice and guidance; advice to the Treasury on the projects provided with financial support the Capital Modernisation fund and the Invest to Save Budget finance innovative projects that improve public services; and the implementation of key projects.
- **1** Issues raised in departments' e-strategies which need to be addressed if e-government is to be successfully implemented
 - Civil servants' ability and aptitude to use IT need significant development (19 out of 20 departments identified this as an issue);
 - More resources are required to support IT-enabled change programmes (19 departments identified this as an issue);
 - **Further technological improvements are needed to update existing IT systems** (15 departments identified this as an issue);
 - More reliable assessments of costs and benefits are required. Generally, departments lack baseline data against which to monitor and measure improvements in efficiency made possible by IT (14 departments identified this as an issue);
 - **Partnerships with other organisations are needed to deliver integrated IT services** (16 departments identified this as an issue);
 - The risk of IT-enabled change adversely affecting existing services requires careful management (13 departments identified this as an issue).

Source: NAO examination of departments' e-strategies.

- 7 At November 2001, just over half of the 520 services which departments routinely provide to citizens and businesses were available on-line. The Office of the e-Envoy estimate almost all will be available by 1 January 2005. The services which are unlikely to be e-enabled are those which require face-to-face contact for example with victims of crime. Most of the services currently on-line provide information for the general public such as how to apply for a passport (Figure 2).
- 8 Departments are developing their systems so that citizens will be able to carry out transactions electronically such as applying for and getting a driving licence or claiming and receiving benefits. As yet very few services are provided in this way. It is these types of transactions that because they are usually routine and high volume have the most potential for efficiency gains if they are provided on-line. For example, by departments reducing staff numbers or by redeploying staff to other priorities or more complex work. The risk that services which offer the best potential for efficiency gains are not delivered electronically is, in part, addressed by the target. There is, however, a further risk that the services are delivered electronically but not used by citizens. Departments, therefore, could meet the service delivery target and the full benefits of e-government may not be realised. This suggests that the target may need to be refined to include measures of take up of electronic services.

2 Progress in achieving e-government

Benefits of e-government	Benefits	Progress
The public can access information and advice on-line	Citizens to be able to access a wide range of information often 24 hours a day for example, on food safety, job vacancies, how to apply for a passport, advice on learning to drive as well as a number of sources of help such as NHS Direct.	Most of the 274 services on-line at November 2001 provide this type of advice and information. Fifty-two per cent of government services are on-line. This is compared to 59 per cent of government websites which have on-line services in Germany and 50 per cent in Australia. ⁴
The public can interact on-line with departments to apply for and receive a range of services	Citizens to be able to apply for and receive a service totally on-line. For example, submitting an application for a driving licence on-line which is processed electronically and the citizen then receives the licence in the post, or applying for a passport on-line or claiming benefits.	While departments' electronic capability to do this is developing only a small number of services are available electronically.
Significant improvements in departments' operational efficiency are possible	Labour intensive manual processes can be replaced by electronic systems. This can happen in two ways – (i) services provided for the public can be provided electronically; for example, receiving and initially vetting claims for grants or other forms of assistance – only the more complex cases may have to be dealt with manually; and (ii) converting support activities to electronic processing; for example, purchasing and e-tendering, maintaining personnel records and processing travel claims. Private sector experience suggests that it is not unrealistic to expect efficiency savings of up to 10 per cent in an organisation's total running costs from converting to IT applications and from the associated re- engineering of existing methods of working.	As yet, departments have not established baselines or methodologies to assess the extent to which efficiency improvements made possible by IT are being achieved. Much depends on sufficient numbers of the public interacting with departments on-line to the extent that manual services can be significantly reduced or no longer need to be provided. The Treasury are testing transaction cost baselines in a few departments to identify a common approach to measuring efficiency gains.

The risks that need to be managed to achieve e-government (Part 2)

- **9** There are two main risks (**Example 2**) which departments have to manage if the benefits of e-government are to be achieved:
 - Citizen take up The risk that groups in society are excluded from the benefits for example those without access to a computer and the public see no advantage in accessing services electronically and take up is low.
 - Supply side barriers The risk that departments do not provide the services citizens want to access electronically or fail to take advantage of new technology to improve services and efficiency or that IT suppliers do not deliver the intended services to cost, time and quality requirements.
- **10 Citizen take up** The public will only be prepared to interact with departments electronically if they see real benefit in doing so and the service is easily accessible. Trust is needed so that people are comfortable with providing personal information on-line⁵. As Professor Helen Margetts and Professor Patrick Dunleavy comment in the paper which we commissioned them to write on the cultural barriers to e-government⁶, citizens' existing perception of departments will influence their attitude to electronic services. If they have a low expectancy of a government organisation then they are unlikely to look for that organisation on the Internet and will be more inclined to continue to use traditional paper methods and face-to-face contact in their dealings with organisations. This suggests that departments may increasingly need to use intermediaries such as banks, building societies, post offices, retail outlets to provide services to citizens as people already have experience of transacting with these organisations on a day-to-day basis.
- **11 People have different needs**. Departments, therefore, need to have a good understanding of the needs and preferences of the users of their services. The elderly for example, have a range of requirements depending on their income, health, general well-being and where they live. Other groups such as students, children, parents, the unemployed and businesses will have different requirements. There is, however, considerable variation in the quality of information which departments have on their key users and client groups for example on the frequency and ways in which citizens access government services.
- 12 People may be suspicious of IT either because they are unfamiliar with it or have concerns about how departments might use information which they provide electronically. Citizens may be simply uninterested or do not know that a range of public services are available on-line. Departments have to communicate with the public so that they know what is available and have realistic expectations. To achieve this departments need marketing strategies which are clearly targeted at the key users of their services. Very few of departments' e-business strategies have as yet considered how best to market e-government services or have formulated action plans for doing so.
- **13 Citizens require the ability and confidence to use IT**. To avoid any group in society being excluded departments need to take this into account in designing public services. Only 7 per cent of those in the lowest income group have home Internet access compared to 71 per cent of those on higher incomes. There is a risk therefore that groups of people may be excluded from the benefits of e-government. To facilitate access to IT so that all members of society can interact with departments on-line if they want to the Government are providing public access points such as in libraries and Citizens Advice Bureaux which people can use free of charge. For example, the UK now has 1,500 on-line centres and a further 4,500 are planned by the end of 2002

EXAMPLE 2 – Key risks for the Office of the e-Envoy and departments to address when implementing e-government

CITIZEN TAKE UP

- **1 Familiarity** it can take time for developments such as the Internet which have yet to become a normal established part of every-day life to be accepted by some people. There is a risk that unless services are regularly used by citizens take up of electronic services will not increase over time.
- 2 Expectation some citizens have low expectations about IT and what it can deliver this innate scepticism has to be overcome. There is a risk that when departments test new systems before going live initial problems or failure can reinforce people's low expectations.
- **3 Ease of use** unless new services are easy to use and not complex there is a risk take up will be low for example, websites that are conservatively designed, use bureaucratic language and contain no incentives to explore the site will remain largely unused.
- **4 Benefits** the benefits for the public of interacting with departments on-line must be clear or else demand and subsequent take up will remain low.

- **5** Social exclusion groups in society such as the elderly, unemployed, those on low income and those with learning difficulties may not have easy access to the Internet. Citizens will not take up services delivered electronically if they do not have access to a computer or other means to access the Internet for example through intermediaries. Unless ways are found to enable these groups to access the services they require in a way that best fits their needs, these groups will be marginalised from the benefits of e-government.
- **6 Costs** there is a risk that if the cost of accessing services on-line is expensive or time-consuming because the service has been badly designed people will not want to use it.

SUPPLY SIDE RISKS

- 1 Leadership if senior management does not provide sufficient leadership and commitment to implementing e-government, for example experience of high profile IT failures can lead to a reluctance to implement IT projects, which may mean the opportunities to realise the benefits of new technology for improving service delivery and efficiency are missed.
- 2 Re-engineer ways of working departments may fail to reengineer services and ways of working believing that technology induced change will be minimal and that the benefits will be modest. In doing so they will fail to realise the benefits of e-government in terms of improved efficiency and service delivery because they will rely on existing increasingly inefficient channels of service delivery.
- **3** User focus if departments do not sufficiently understand citizen needs and fail to provide services in the way that meets them it will lead to low take up of services delivered on-line. For example if departments only replicate existing services on-line they will fail to secure the improvements offered by innovative on-line solutions to service delivery.
- 4 Marketing and segmentation departments fail to market services sufficiently to key user groups which means services available on-line are not fully used by citizens. This may be because departments perceive a need to communicate with all citizens in the same way but different groups such as students and the elderly will need different approaches which suggest departments need to adopt an increasingly sophisticated segmentation and targeting of user groups.
- 5 Incentives departments do not provide adequate incentives for staff or citizens to use services leading to lower than expected take up. For example departments may impose higher levels of security than are required to maintain user confidence which in doing so may exclude users from making full use of the service because they lack the technology to access it or fail to provide staff access to the Internet and to the departments' websites.
- 6 Supplier key IT projects on which service delivery depends are delivered late, over budget or to a lower standard than specified which leads to breakdowns in service delivery and lower standards of service or departments fail to take opportunities to improve electronic service delivery because of their reliance on one supplier.

targeted at the most deprived local authority wards. Access to departments online is also available through intermediate technology such as call centres, for example NHS Direct. This enables people to get the benefits of e-government by staff using IT to deliver a wider range of services.

- 14 Citizens may need incentives to encourage them to access services electronically. Examples include sharing with citizens reductions in departments' running costs made possible by IT in the form of lower fees and charges; reduced waiting times for services such as processing applications for driving licences and passports; providing a more personalised service and free access to services or some form of financial reward. Our analysis of departments' e-strategies found that while most considered that incentives were important to encourage the take up of services on-line few had identified or introduced any.
- **15 Supply-side barriers** Departments' IT projects have in the past experienced significant technological and managerial problems which have either delayed their implementation, increased their costs or resulted in their failure. The Committee of Public Accounts' Report Improving the delivery of IT projects published in January 2000 highlighted eight key lessons which departments needed to apply to improve project performance. The action taken by the Office of the e-Envoy and the Office of Government Commerce⁷ in response to the Committee's recommendations is set out in the Annex to this summary. This includes 'gateway' reviews for all procurement (including IT) projects at critical stages in their development.
- 16 As Professor Helen Margetts and Professor Patrick Dunleavy comment in their paper there is a risk that problems with implementing large-scale IT projects may have created a negative attitude in departments towards information and communication technology. Barriers to the development of e-government can also arise from departments' cultures and values because new technologies challenge existing ways of working. For example by taking an overly risk-averse approach to implementing electronic service delivery projects, an unwillingness to divert resources from established ways of doing things, an insistence that there are limited opportunities to displace high marginal cost interactions such as visits into low marginal cost interactions such as call centres and by not providing staff with the means to use IT such as providing them with Internet access. Implementing e-government means that departments need to address these cultural issues and tackle obstacles to technological change. This suggests that departments need strong leadership, incentives and a clear understanding of citizens needs to deliver services electronically.
- 17 As with all forms of procurement there is a risk that suppliers' IT solutions will fail, will not meet departments' expectations or will be delivered late or over budget. The Office of Government Commerce have issued a range of advice on dealing with suppliers and holds regular meetings with strategic⁸ suppliers of IT services to review their performance. Better information on supplier performance is needed, however, across departments which needs to be carefully monitored by the Office of Government Commerce and this requires a common set of indicators and a consistent approach to assessing performance.

Benefits of e-government (Part 3)

- **18** Our examination suggests that there are five key benefits which departments need to focus on delivering:
 - **Greater choice.** The capability of IT to store large amounts of information which can be retrieved very quickly provides a range of opportunities to offer new services and more choice for citizens. *For example, the Public Record*



Office through the PROCAT part of its Archives Direct 2001 programme – now known as The Nation's Memory – offers considerably more options in the types of information searches which the public can undertake and which are more intuitive and easier for non-academics to use (paragraph 3.2).

- Better accessibility. People want to be able to access public services without having to complete a range of forms and visit different local offices. If they are well designed, IT systems can provide information in much simpler easier-to-use formats and because IT can provide easy access to a large number of databases, services can be often provided from one location or access point. *Hertfordshire County Council has used IT to improve access by making 80 per cent of council services available through a Customer Service Centre which is open 67 hours per week 8 am to 8 pm Monday to Friday and 9 am till 4 pm on Saturday. Hertfordshire residents can carry out transactions on-line early examples include ordering and paying for birth, death and marriage certificates, renewing library books and booking research time at the County Archives (paragraphs 3.3 and 3.4).*
- More convenience. Convenience is about making services available when people want to use them and in ways that best meet their needs. For example, the Lord Chancellor's Department are piloting a programme which will enable solicitors to issue and serve petitions for less serious cases for example via e-mail. A judge considers the petitions and where possible resolves them without the need for a court hearing. Initial results suggest that the average time taken to provide judgement on a civil case can be reduced from 21 to five days and interested parties do not have to lose time attending court sessions (paragraphs 3.5 and 3.6).
- **Faster delivery.** IT can speed up service delivery for example, by applications being transmitted electronically and their accuracy validated on-line, workloads being scheduled more efficiently and internal working processes being re-engineered to improve their productivity. *The Planning Inspectorate for example, has by introducing IT-based systems and using technology as an opportunity to re-engineer its existing working practices and provide faster processing of planning appeals reduced the number of incomplete appeals through better quality advice and guidance (paragraph 3.7).*
- Improved efficiency. Private sector companies undertaking significant IT-enabled change programmes consider that value for money improvements in the region of as much as 10 per cent of total operating costs should be realisable. Improvements are likely to be achieved by (i) replacing manual processing of high volume routine claims and applications by IT systems; (ii) better and more accurate information allowing departments to target their activities and improve productivity; (iii) converting internal support activities such as procurement to IT-based systems; and (iv) using IT to assess whether backroom processes remain essential, whether they need to be significantly redesigned to support IT methods of service delivery, or whether they could be provided by other means by being outsourced.

The extent of the efficiency improvements which can be achieved are exemplified by – the Oracle Corporation saving of \pounds 71 million through the deployment of web-enabled, self-service application for functions such as personnel records, training, travel expenses and pay; and British Gas productivity improvements with it now processing 29,000 invoices per staff when previously only 6,400 paper invoices per staff were processed (paragraphs 3.8 and 3.9).

Recommendations

19 E-government has considerable potential to improve public services and departments' efficiency. The Office of the e-Envoy and departments have underway a number of programmes and initiatives to achieve e-government. To build on these and make further progress we recommend:

FOR THE OFFICE OF THE E-ENVOY

- 1 Accelerate the dissemination and adoption of good practice by departments on how to encourage citizens to take up services available on-line. The major challenge is how to encourage people to access services on-line. If sufficient numbers do not do so the considerable potential improvements in departments' efficiency will not be achieved. Departments are generally unsure as how best to encourage take up. The Office of the e-Envoy is well placed to provide advice and develop networks to disseminate good practice on how to do this.
- 2 Develop a cost methodology to assess the potential to improve operational efficiency and customer benefis through IT-enabled business change and to measure its achievement. Departments are uncertain as to the efficiency improvements and customer benefits that IT-enabled business change should be capable of delivering. A methodology is needed to assess the potential costs, efficiency gains and service improvements which can also be used to monitor achievement. This should cover for example, (i) displacement costs - the net saving or cost after the initial investment in IT of transferring from manual to assumptions on productivity improvements that should be achievable; (iii) assumptions about the length of time it should take before efficiency gains should begin to be realised; (iv) and the implications for service users in terms of reductions in fees and charges and improvements in quality. Such a methodology needs to be applied consistently by all departments so that it can be used to encourage, measure and report the achievement of efficiency gains.

- 3 Set targets and effective strategies for the take up of services on-line. Departments have a target to have all services available on-line by 2005. To focus their efforts on encouraging citizens to access services on-line departments should also set realistic take up targets for services supported by action plans to achieve them. The Office of the e-Envoy should advise departments on the development of appropriate take up strategies for services delivered on-line and monitor their implementation.
- 4 Actively market e-services to the public. Departments need to do more to increase the take up of electronic services where there is clear added value to users and where there is good potential for efficiency gains. Departments can do this by setting take up targets and effective strategies for services delivered on-line, marketing key services delivered on-line to specific user groups and developing incentives for them to take up the services. Incentives might include transferring some of the cost savings to users, providing free services and faster service delivery. Departments need to work together more closely to develop more integrated electronic services for client groups such as the elderly.
- 5 Tackle the barriers to civil servants using IT. E-government is requiring a fundamental change in the way departments operate. Unless civil servants develop appropriate IT and change management skills and have the confidence to adopt innovative approaches to deliver better public services the benefits of e-government will not be achieved. Strong leadership and sufficient high quality training is needed to convince civil servants of the benefits of new technology for them. For example, by reducing the burden of routine work, enriching jobs by delivering better services, by providing financial incentives and rewarding innovative approaches to using IT.
- 6 Adopt an approach to IT-enabled change which realises efficiency gains. To achieve the significant improvements in operational efficiency which e-government makes possible departments need to (i) set clear targets at the outset of a project for achieving efficiency improvements; (ii) have strong leadership to ensure that the improvements are realised; and (iii) establish a quantified baseline of current performance against which to measure the achievement of efficiency gains and to take remedial action if progress is less than planned.

FOR THE OFFICE OF GOVERNMENT COMMERCE

- 7 Build on the results of gateway reviews to improve departments' management of IT projects. Gateway reviews are an important initiative for improving the performance of IT projects. The reviews have already identified the need for better business cases underpinning departments' investment in IT projects, to have more developed IT project management skills, and to measure the benefits achieved by IT projects. The Office should continue to concentrate its efforts in working with departments and other central units to remedy these short comings. It should also continue to monitor departments' performance focusing in particular on how well the good practice which the Office is promoting becomes embedded in departments' approaches to implement IT-enabled change.
- **20** In addition the following reports include a range of good practice to which is also relevant to achieving e-government:
 - Progress in achieving Government on the Web (to be published);
 - NHS Direct in England (HC 505, 25 January 2002); and
 - e-Revenue (HC 492, 14 February 2002).

9

Annex

Action taken in response to the Committee of Public Accounts recommendations in their report -Improving the delivery of IT projects - January 2000 (First Report 1999-00, HC 65 1999-00)

Committee's recommendations

- 1 Key decisions on IT systems are business decisions not technical ones and should involve senior management.
- 2 The management and oversight of IT projects by skilled project managers is essential for ensuring that projects are delivered to time and budget. The successful implementation of IT systems calls for well conceived risk management and sound project management methodologies.
- 3 The end users must be identified before the project commences so that their needs are taken into account fully during design and development.
- 4 Training must address the needs of users and of those operating and maintaining the system.
- 5 Departments should consider carefully whether projects are too ambitious to undertake in one go particularly if the project connects with the business operations of other parties, or depends on the development of IT undertaken by other parties.
- 6 Departments should have contingency plans to maintain adequate levels of service in the event of project failures.
- 7 There is a need for a high degree of professionalism in the definition, negotiation and management of IT contracts given the large sums of public money at stake.
- 8 Organisations should learn lessons from the projects and undertake post-implementation reviews to establish whether the project met its business objectives, user expectations and technical requirements and secured the benefits anticipated.

Action by departments

- 1 The need to be aware of the risks posed by IT projects is included in the training provided for senior managers. Senior Responsible Owners are now also appointed for all major IT projects. The Senior Responsible Owner is the individual in the department responsible for ensuring that an IT project or programme of change meets its objectives and delivers its intended benefits (paragraph 2.8 of this report refers).
- 2 Departments have developed risk frameworks which set out their approach to risk management in their areas of responsibility. Individual projects have risk assessments which feed into departments' overall assessment of risk (NAO report: Supporting Innovation: Managing risk in government departments HC 864 August 2000 refers).
- 3 Some departments have begun to segment their end users of their services to reflect their characteristics and different needs. In this way services can be designed which are more likely to meet users' needs (paragraph 2.25 of this report refers).
- 4 The Office of Government Commerce gateway reviews (part of the gate 4 assurance process) confirm that plans for training have been put in place (paragraph 2.5 refers).
- 5 Major projects are scrutinised by staff independent of the project team to assess the feasibility of the project and whether it is too ambitious to undertake in one go. For example, the Office of Government Commerce's gateway reviews of large, novel IT projects consider projects at critical stages in their development four before the award of the contract (to confirm the strategic assessment, the business justification, the procurement strategy and the investment decision) and two looking at service implementation and confirmation of the operational benefits (paragraph 2.5 of this report refers).
- 6 Contingency planning should be part of departments' approach to risk management. The Office of Government Commerce is developing new guidance on managing risk and procurement. All new IT projects should have trained project managers in place (paragraph 2.8 of this report refers).
- 7 Following the Cabinet Office report "Successful IT: Modernising Government in Action", the Office of Government Commerce has published a procurement brief which gives procurement teams a route map through the procurement process and identifies the key sources of IT procurement guidance available (paragraph 2.16 of this report refers).
- 8. Senior Responsible Owners of IT projects are now required to carry out post implementation reviews once their project is completed. The Office of Government Commerce have developed a questionnaire to help them do this (paragraph 2.9 of this report refers).

Part 1

The Challenge -Achieving e-government

What is e-government?

1.1 Electronic or 'e'-government means making the full range of services which departments and their agencies provide for citizens and businesses accessible electronically (Figure 3). It is also about departments harnessing new technology such as the Internet⁹ and

3 Ways in which IT can improve services and efficiency

delivering services and carrying out their core activities **(Example 3)**. Central civil government departments currently have underway 100 major IT¹¹ projects in their initial stages of procurement with a total value of £10 billion.

Intranets¹⁰ to improve their operational efficiency in

Salford Council used IT to improve its call handling services, through the development of a call centre, which deals with residents phone enquiries concerning council services. The call centre is almost entirely paperless, most of the processes are e-enabled, with staff having all information available at the desktop. Before it launched its new system, the council answered just 17% of its calls. Now between 70% and 90% of calls are answered depending on

the level of demand.

The National Gallery have used IT to launch a new web site which is easier to navigate. Visitors can access information using speech browsers. Information to help plan a visit has been added in a selection of foreign languages, and there is more information for visitors to help them get the most out of their time in the gallery.

NHS Logistics use IT to operate an integrated supply chain. Their e-commerce solution allows Trusts to browse and order products from their e-catalogue. This single electronic system handles nearly £600 million of NHS expenditure every year, consolidating deliveries and transactions, saving costs for the NHS.

erce rder ngle ery

OPERATIONAL

EFFICIENCY

SERVICE

DELIVERY

PROCUREMENT

The Ministry of Defence uses IT in defence systems to enable information exchange with other parts of the Department. For example, HMS Ark Royal, one of the Royal Navy's Invincible Class aircraft carriers, has been fitted with some 140 terminals as an extension of the mainly shore based Navy Star system.

The Driver and Vehicle Licensing Agency use IT to computerise their records. The information held on the DVLA vehicle register is used to register and license vehicles, and provide related law enforcement and road safety assistance to the police.

OGC buying.solutions use of IT allows departments to browse and order products and services on-line which saves on the costs associated with administration of orders.

- 1.2 E-government means that the public should be able to obtain information and transact electronically with departments for example, when someone needs to submit a self assessment tax return, apply for a passport, obtain information about job vacancies and seek health information and advice. Businesses should be able to conduct electronic transactions with departments for example, to make VAT returns, receive payment from departments for goods and services and to tender for new work.
- 1.3 This report is about departments' progress in implementing e-government in particular how departments are using IT-enabled change to improve public services. This part examines:
 - Why e-government is important for the delivery of public services and departments' efficiency;
 - What progress departments have made in implementing e-government; and
 - How we set about the examination.

Why e-government is important for the delivery of services and departments' efficiency

- 1.4 E-government has many potential benefits (Example 4) which include:
 - Greater choice providing citizens with a greater range of services and delivery channels such as the Internet, call centres, and face to face contacts which better meets their individual needs and preferences;
 - Better accessibility giving citizens greater access to the range of services delivered by departments by providing better, easier to use information on-line and joining up services at the point of delivery;
 - More convenience providing services in a way which suits citizens' and businesses' needs for example, by providing services on-line, 24 hours a day seven days a week, enabling people to obtain information and carry out transactions with departments when it is convenient for them to do so;
 - Faster delivery providing faster more accurate services for example, on-line services which enable citizens to obtain information more quickly than by post or by visiting a government office; and by electronic data interchange which enables businesses to transmit large amounts of data quickly and easily to departments; and
 - Improved efficiency replacing manual processing of routine high volume work by IT systems should reduce staff requirements and deliver financial savings or allow staff to be redeployed to other priorities. It can also be used to make the purchasing of goods and services more efficient.

EXAMPLE 3 – Hong Kong's experience in implementing its e-government programme

Key lessons learned

e-government calls for:

a fundamental transformation of how departments operate - It requires leadership to drive the changes in the civil service, to break down bureaucracies and barriers among departmental boundaries, to manage many complex and inter-related IT implementation and business process re-engineering issues;

identification of high-priority services for electronic service delivery which usually have a high transaction volume and involve a large group of clients to create a critical mass, foster the interest of the public to get used to the new channel of service delivery, and increase the confidence of the public in the conduct of electronic transactions;

adoption of innovative business solutions with the flexibility of operation and the incentives. E-government services can also help to drive the overall adoption of e-commerce in the business sector and the wider community;

change in mindset of the civil service - e-government is the transformation of government, not mere implementation of technology, changing the mindset of the civil service from a traditional department-centric thinking into a customer-centric and user-friendly approach. Training and cultural change are thus of utmost importance for the successful implementation of e-government; and

consideration of the needs of different sectors in the society. E-government should address the needs of poorer people who do not have access to a personal computer, people who do not have the essential computer skills, and people with disabilities. Hong Kong has provided free access to public computer facilities, and designed the systems to enable use by citizens with varying degrees of computer literacy.

Source: e-Government - Benchmarking Electronic Service Delivery - A report by the Office of the e-Envoy July 2001.

EXAMPLE 4 - The key benefits and costs of e-government

Benefits

For citizens and business

- speed faster services for example the UK on-line services provide quick access to a range of information on life time events such as having a baby.
- accuracy the on-line tax return form calculates the revised tax to ensure it is arithmetically correct.
- accessibility for example by providing access to publicly held information over the Internet which means people do not have to visit government offices to obtain it.
- choice from a wider range of service delivery channels - Internet call centres', telephone, e-mail.
- **convenience** from having services available 24 hours 7 days a week.

For departments

better information - electronic data interchange services enable organisations to send large quantities of data securely and more quickly larger employers now often transfer pay as you earn tax details to Inland Revenue.

increased productivity - for example lower transaction costs from using call centres to free resources previously used to deal with routine cases to handle more resource intensive complex cases.

efficiency gains - through eprocurement and use of the intranet, electronic filing leading to more flexible working arrangements.

Costs

IT infrastructure development

including design, programming, testing and implementation and maintenance of IT system such as software upgrades.

Operation of data security and privacy measures, gateways portals, authentication and encryption services, data validation and audit.

Backup, continuity and contingency planning and operation, and risk analysis.

Administration of services including call centres, operating help desks and client support services, updating of client records, password and identification services.

Training of staff for example to be able to use new technology and deal with enquires at a call or contact centre.

Marketing and advertising of services including financial incentives for users.

Procurement costs of purchasing new technology and contracts for intermediaries to deliver services.

An example: The Land Registry²

The Land Registry have implemented improvements using developments in technology to streamline and automate their process including:

- computerisation of the processing of applications to register land. The process used to involve up to 12 different members of staff, it can now be completed by one in all but the most complex cases;
- conversion of paper title registers and plans into electronic format, scanning deeds and documents held by the Land Registry;
- made electronic services available to customers through call centres and online through Land Registry Direct which subscribing users can use to view computerised registers and title plans on screen and to conduct searches themselves;
- developed a one stop shop facility through which requests for searches such as Land Registry, and Local Authority searches can be made and received electronically - the National Land Information Service.

To achieve this the Land Registry have:

- re-engineered processes, for example by combining the legal and mapping processes involved in creating the register through a combined intelligence system. This has been facilitated by the redesign of its IT systems.
- used developed technology for example to scan 17 million title plans so that they are stored and can be accessed electronically;
- consulted with customers to seek their views on the level of service they require and how systems and processes can be improved; and
- continuously trained and communicated with staff.

NOTES

1. A Call-centre is a group of staff trained and equipped specifically to field telephone calls efficiently and to answer routine queries with the aid of databases giving details of products, services and customers. More specialised enquiries are routed to skilled employees. IT in call centres can allow the operator to better respond to the caller's problem by accessing relevant information from a computer to answer the enquiry.



- 1.5 Some of these benefits are already being realised. For example, house buyers can now get up to date information on average property prices within a post code area in minutes through the Land Registry's website whereas before they had to carry out time consuming research telephoning estate agents and consulting local property papers. The Land Registry has also reduced its internal processing costs by 20 per cent over 4 years, this equates to £52 million (at 2002 prices) by moving to more electronic based systems. In the private sector, the savings have been significant. For example, the Oracle Corporation has achieved internal efficiencies of £70 million by using web enabled self service applications for functions such as personnel records, training, travel expenses and pay.
- 1.6 Successful e-government requires appropriate technology, infrastructure and systems; the commitment of public sector workers who have the right IT and change management skills; and strong project management. If these requirements are not met IT projects are likely to fail. Many reports by the Committee of Public Accounts and the NAO have drawn attention to the consequences for value for money when IT projects and programmes of business change with a significant IT element are not well managed (Figure 4).
- Some user groups can be disadvantaged because they 1.7 lack the education (some 20 per cent of the population have some literacy problem¹²) or confidence to use new technology or cannot access services because of different physical or language abilities. Only 7 per cent of those in the lowest income group of the population currently have home Internet access compared to 71 per cent of those in the highest income group. Between 5 and 10 per cent of households do not have a telephone connection which can be used to access the Internet¹³. Low income groups are less likely to have easy access to a computer. There is a risk, therefore, that groups of people may be potentially excluded from the benefits of e-government thus creating a "digital divide". To minimise the risk of such a divide departments need to market carefully the benefits of e-government to encourage take up, for example, the Office of the e-Envoy's website www.letsallgeton.gov.uk provides information on the advantages to citizens and business getting on-line. Departments also need to continue to make access easier through a variety of electronic mediums and where people get advice, information or support for transactions over the phone or face to face the staff providing the service should have the appropriate IT to deliver the service efficiently.

Risks associated with e-government

	•		
CC.		ntı	on
-3C		յս	UI
	esc	escri	escripti

Examples

Delays in implementing new technology puts service delivery at risk

If new technology is not implemented or delayed then improvements in service provision cannot be realised and departments will not realise efficiency gains from improved working practices for example from enabling suppliers to tender for work electronically. An initiative by the Home Office to improve their performance in handling immigration, asylum and citizenship cases was delayed because of late delivery of computer systems. (The Home Office: The Immigration and Nationality Directorate's Casework Programme (HC 277, 1998-99)).

The design and development of the Benefits Payment Card took much longer than expected and cost the Department of Social Security ± 127 million in nugatory system development and over ± 300 million in lost opportunities to prevent fraud.(The Cancellation of the Benefits Payment Card Project (HC 257, 1999-2000)).

Departments' staff lack the necessary training, skills and experience to use new technology

A range of skills is needed to make an IT project a success - business development skills to ensure the opportunities are identified and benefits, costs and risks are assessed; technical support when the system is in operation; and project and change management to implement IT and make it work. Skill shortages in departments can result in delays, unsustainable IT system development, extra costs and ultimately poor services for example if staff are not trained in how to deal with grant claims submitted electronically the system will remain largely paper based and potential efficiency gains lost.

The failure by the Passport Agency to assess and test adequately the time needed by staff to learn and work the new passport processing system contributed to delays in issuing passports in Summer 1993. (The United Kingdom Passport Agency: the passport delays of Summer 1999 (HC 812, 1998-99)).

The Gaming Board, which regulates casinos, bingo clubs, gaming machines and lottery organisers, was short both of staff with information technology skills and of other IT resources, and therefore had limited ability to improve the ways in which it worked, for instance by being unable to utilise fully risk assessment to reduce the frequency of routine inspections. (The Gaming Board: Better Regulation (HC 537, 1999-2000)).

There were errors in the claims for Jobseeker's Allowance processed by the Benefits Agency using a new computer system because 79,000 staff still required training over a long period to use the new system after it was introduced. (Committee of Public Accounts 58th Report 1997-98).

Departments do not take the opportunities offered by new technology to improve services

If departments do not grasp the organisational, cultural and technical changes needed to harness the benefits of modern technology, improvements in working practices will not be realised for example, if departments do not invest in website development they will be out of step with modern business methods, their services will not match citizens' expectations and they will waste taxpayers' money by continuing to use outdated forms of service delivery.

Opportunities to join up are missed

Departments develop IT systems independently which makes it more difficult for them to share information and provide joined up services and take advantage of the opportunities offered by Resource Accounting and Budgeting and harnessing their collective purchasing power, and realise the savings from e-procurement. Inadequate information technology in the Department of Social Security was a major obstacle to improving the organisation of pensions work and reducing the risk of repeating failures to inform the public of changes in their rights. (State Earnings-Related Pension Scheme: The failure to inform the public of reduced rights for widows and widowers (HC 320, 1999-2000)).

NHS Trusts had inadequate information systems to monitor and plan the better use of key resources such as beds and theatre times to reduce the number of cancelled operations and delays in discharging people from hospital. (NHS Executive: Inpatient Admissions and Bed Management in NHS acute hospitals (HC 254, 1999-2000)).

None of the three computerised systems on which the Prison Service recorded information on prison officer sickness absence information was able, individually, to provide fully reliable and easily accessible management information about the extent, nature and causes of absence. (Managing Sickness Absence in the Prison Service (HC 372, 1998-99)).

The three main departments responsible for the criminal justice system, the Crown Prosecution Service, Home Office and Lord Chancellor's Department, operate separate information systems which were not designed to communicate with each other limiting the progress of criminal cases and the collection of information on the overall performance of the system. (Crown Prosecution Service; Lord Chancellor's Department; Home Office -Criminal Justice Working Together (HC 29, 1999-2000)).

The computer system used by the Prison Service to support parole did not enable communication between prisons and the Parole Board and all communications therefore had to be made by telephone or paper delaying the parole timetable. (Parole (HC 456, 1999-2000)).

4

Risks associated with e-government (continued)

Description	Examples				
Demand for services is significantly different from what departments expect					
Demand for services does not match forecasts used in the business cases to support IT implementation. As a	West Midlands Regional Health Authority developed an electronic trading system using a business plan that was speculative and unrealistic because estimates of supplier take up were significantly overstated. (Committee of Public Accounts, 57th Report 1992-93).				
result services are over or under used which can lead to delays in service delivery or the demand for services cannot be met and the	Take up of self assessment Internet filing is unlikely to improve significantly until on-line forms provided by the Inland Revenue and its intermediaries offer clear added value to customers. (E-revenue, HC 492, January 2002).				
potential benefits from e-government projects are overstated which in turn leads to poor allocation of resources.	The Passport Agency's new computer system was designed to replace an ageing system and produce a more secure passport but delays in issuing passports were exacerbated by the Agency's failure to deal with the impact of a higher than expected volume of applications for child passports. (The United Kingdom Passport Agency: the passport delays of Summer 1999 (HC 812, 1998-99)).				
Waste through poor project design, management and implementation					
Departments' project design, management and implementation continues to be weak as they do not adopt the good practice suggested by the Committee of Public Accounts and Cabinet Office reports on implementing IT projects. This leads to waste and missed opportunities to improve services.	The Home Office's poor specification of expected outputs, weak service monitoring and inadequate control of purchases contributed to the National Probation Service Information Systems Strategy costing some 70 per cent more than forecast. (The Implementation of the National Probation Service Information Systems Strategy (HC 401, 2000-01)).				
	The original specification by the Ministry of Defence for a system that could handle large quantities of classified information failed to include a requirement that it should be able to link to other computer systems which contributed to the system being abandoned and the writing off of costs of £41 million. (Committee of Public Accounts, 18th Report 1998-99).				
	Some of the software designed for Patient Administration Systems in NHS Trusts was not designed to meet current demands for waiting list data, for example it does not allow patients who have been suspended from waiting lists to be reinstated once the period of suspension has ended. (Department of Health: inpatient and outpatient waiting in the NHS (HC 221, 2001-02)).				
Lack of suitable performance measure	s to monitor and evaluate the impact of new technology				
IT projects are not linked to Public Service Agreement targets as a result priorities are based on areas which are	The Government have set the target that 90 per cent by volume of routine purchasing should be done electronically by 2001 but need to have clearer definitions and clarity as to how the target will be measured. (Modernising Procurement (HC 808, 1998-99)).				
easy to implement rather than those which offer the greatest benefit. A lack of monitoring information on what modern technology contributes to improved services and efficiency results in poor option selection for future projects and reinventing the wheel.	The NHS Executive did not have clear plans to evaluate fully the impact of their 1992 and 1998 information technology strategies which were designed to improve the quality of information about patients and enable the NHS to deliver better health care. (The 1992 and 1998 Information Management & Technology Strategies of the NHS Executive (HC 371, 1998-99)).				
	The NHS Executive only introduced formal evaluation mechanisms of the Hospital Information Support Systems Initiative four years after its introduction which limited the number of lessons that could be learnt to inform the development of integrated systems in other hospitals. (Committee of Public Accounts, 7th Report 1996-97).				

Potential users of electronic government are excluded

In planning and designing new forms of electronic services delivery insufficient consideration is given to making sure that all those intended to benefit have access to the necessary technology or where they are likely to be reluctant to access services electronically the potential benefits are communicated to them. Where citizens still prefer to use traditional paper methods this option is still available to them. The Department of Social Security needed to learn actively and incrementally about what their customers want and were able to do so using the Web if they were going to increase the number of electronic transactions with citizens. (Government on the Web (HC 97,1999-2000)).

Source: National Audit Office

"**The Office of the e-Envoy** consists of 244 staff with annual expenditure of £22.3 million. The e-Envoy reports directly to the Prime Minister" Source: Office of the e-Envoy

Progress departments have made in implementing e-government

- 1.8 The Office of the e-Envoy as part of the Cabinet Office is responsible for ensuring that the quality and efficiency of government services is transformed by the development of electronic delivery of services to make all government services accessible on-line by 2005 (Figure 5).
- 1.9 The Cabinet Office and the Treasury promote and support e-government in six ways (Figure 7 overleaf). The Office of the e-Envoy support departments in the development of egovernment and monitors its implementation through reviews of departments' e strategies¹⁴, for example to ensure that the strategies are aligned with the Public Service Agreements and Service Delivery Agreements¹⁵ agreed with the Treasury. The Office also provides advice through training and guidance and promotes the development of cross-cutting services through for example, the Government Secure Intranet. The Office of Government Commerce, as part of the SPRITE¹⁶ Programme, is responsible for working with departments

to ensure that the recommendations of the *Successful IT: Modernising Government in Action* report become embedded in their organisational working cultures (**Figure 8 on page 21**). The Programme includes monitoring and reporting departmental progress.

1.10 Departments had to prepare by October 2000 plans (e-business strategies) for delivering their services electronically and to report progress to the Office of the e-Envoy every six months starting in July 2001 (Figure 6).

6 What should departments' e-strategies cover?

- The services that will be made available electronically.
- How IT is being used to improve operational efficiency.
- Planned investment in technology and how this will be financed.
- Risks associated with the IT programme and how these are being managed.
- How civil servants' IT skills are being developed.
- How compatibility of different IT systems is being achieved.

Source: Office of the e-Envoy

Responsibilities for implementing e-government

government secure intranet and UK

campaigning for change within

Online portal; and

government.

Office of e-E	nvoy	Off	ice of Government Commerce	De	partments
The Office h	as three core objectives:	The are	e OGC's e-government responsibilities to:	De im	partments are responsible for plementing e-government in particular:
the world	d for e -commerce by 2002;		as part of the SPRITE Programme, to		meeting the Government's target
to ensure has acce	e that everyone who wants it ss to the Internet by 2005; and		work with departments, agencies and non-departmental public bodies to ensure that the recommendations of		tor making all services available electronically by 2005; and
to make available	all Government services on-line by 2005.		the "Successful IT: Modernising Government in Action" report become		securing the benefits from e-government in terms of improved services or efficiency by implementing
The Office's are to:	e-government responsibilities		embedded in their organisations' working cultures;		IT projects and related programmes of change.
monitor providing	departments' progress in g services electronically;	1	support civil government departments' implementation of the Office of Government Commerce Gateway		
review d strategies e-govern	epartments' e-business s for implementing ment;		Review process for all IT projects; to provide Gateway review teams of senior, experienced and skilled people to undertake Gateway reviews of all		
formulate framewo underpir	e common policies, rks and guidelines to a departments' ratation of e-government;		high risk IT projects, and to provide review team leaders for Gateway reviews of all medium risk IT projects;		
 deliver k gateway, 	ey IT projects such as the knowledge network and		provide advice and guidance to departments about the procurement of IT services and systems; and		

provide framework agreements to help support the efficient procurement of e-government infrastructure.

Source: NAO

part one

7 How the Cabinet Office and the Treasury are promoting e-government

1. Strategic Direction	A number of Cabinet Office reports - e- government - A strategic framework for public services in the Information Age, Successful IT Modernising Government in Action, E-government - Electronic Government Services for the 21st Century - have set out what e-government is about by putting users first, how the management of IT projects should be improved and how service delivery and efficiency can be improved by the use of modern technology.			
2. Advice and guidance	The Cabinet Office have developed a range of guidance to support departments implementation of e-government and associated programmes of change such as the Information Age Skills Toolkit which enables departments to assess whether they have the range of business and technical competencies to implement IT projects; and the customer segmentation toolkit which provides support for departments in identifying their customers and their needs to provide responsive services. The Senior IT Forum (sponsored by the Office of Government Commerce as part of the SPRITE programme) identifies ways of working more closely with key suppliers of IT systems so that they better meet departments' needs. The Cabinet Office have also developed the e-Government Interoperability Framework which sets out technical standards and policies to ensure departments' IT systems can communicate and exchange information. The Office of Government Commerce provides guidance on the successful delivery of IT projects and the SPRITE programme ensures departments are aware of the guidance available			
3. Monitoring progress against e-targets	The Cabinet Office are monitoring departments progress in meeting the electronic service delivery targets that 100 per cent of services should be available on the Internet by 2005. Other targets have been set for e-tendering (100 per cent by 2002), e-procurement of low value goods and services (90 per cent by March 2001), electronic filing of departments' documents (100 per cent by 2004) and take up of e-services delivered by the Inland Revenue and Customs and Excise (50 per cent by 2005). The Treasury are monitoring department progress against public service and service delivery targets. The e-Envoy publishes regular reports setting out progress towards meeting these targets.			
4. Review of departments plans and projects	The Office of the e-Envoy reviews department's e-strategies every six months to monitor how departments are implementing e-government initiatives. The Gateway review process established by the Office of Government Commerce undertakes independent review of all major procurements including IT at critical points in their development.			
5. Financial support	Support for IT projects is provided by			
	 the Capital Modernisation Fund which funds innovative projects that improve key services or public infrastructure (£2.7 billion in 1999-2002 of which £658 million has been allocated by the Treasury to IT projects for example £18 million to provide resources for the Department for Education and Skills to develop an IT system to match jobseekers to employers on-line). The Invest to Save Budget which funds innovative projects that improve services through partnership working between public sector bodies. Many of the projects which have been allocated £242 million since 1999 use new technology to improve services such as the National Land Information Service initiative between the Land Registry and local government's Improvement and Development Agency to reduce the time it takers to buy a house by providing a one stop shop for conveyances delivering property information held by many organisations. 			
	 Knowledge economy funding from the Spending Review 2000 to departments to put services on-line and support universal access. 			
6. Implementation of key projects	Common standards need to be applied so different departments' systems are compatible and information on them is secure for example through			
	the Government Secure Intranet - a secure web-based facility which gives government users access to departments' internal directories and intranets. It also provides a range of information services through links to other sites outside of government.			
	the Government Gateway - provides secure infrastructure and authentication facilities necessary to allow citizens and business to transact direct with departments electronically and route to information services provided by departments. Three services are available VAT returns to Customs and Excise, Area Aid applications to the Department for the Environment, Food and Rural Affairs and PAYE returns to the Inland Revenue.			
	■ Knowledge network - a 24 hour government wide service which provides core information to aid briefing. The Cabinet Office are developing policies on ensuring the security of transactions, responding to privacy and data protection legislation, use of intermediaries to deliver services, mix of service channels and customer segmentation.			
	UK On-line Portal space - provides a single access point to all departments on-line information and services organised around life episodes such as moving home.			
	e-procurement - Office of Government Commerce pilot projects looking at the implementation of e-procurement and electronic tendering and the implications for process efficiencies and the needs of suppliers.			

20

Source: NAO

8 Key reports on e-government

Modernising Government White Paper March 1999	Information age government is one of the Modernising Government programme's five key commitments. It includes developing an IT strategy for Government to establish cross-government co-ordination machinery and frameworks on such issues as the use of digital signatures, smart cards, web sites and call centres; and to benchmark progress against targets for electronic services.
Committee of Public Accounts Report - Improving the delivery of Government IT projects (HC 65 1999-00) January 2000	Drew out lessons from more than 25 cases from the 1990s where implementation of IT systems had resulted in delay, confusion and inconvenience to the citizen and in many cases poor value for money. The Committee recommended that departments' senior management should be involved in key decisions on IT systems and users' needs should be identified and taken into account in design and development. They also recommended that departments should consider breaking complex projects down into manageable parts and highlighted the need for skilled project managers, professional negotiation of IT contracts, training for staff on how to use IT and the importance of effective contingency plans.
Treasury Minute on the First Report from the Committee of Public Accounts 1999- 2000 - Improving the Delivery of Government IT projects March 2000	The Government accepted all the Committee of Public Accounts recommendations and approved new mechanisms to improve the delivery of IT projects such as peer review of high risk projects, requiring suppliers to provide detailed plans for how they intend to deliver a project, making IT projects a priority for the work of the Office of Government Commerce, establishing systems for collecting and sharing information about the progress of IT projects, making IT projects a feature of CMPS events for ministers and working with the Computer Software Services Association to build better relations with suppliers.
E - government - A strategic framework for the public services in the Information Age (Cabinet Office) April 2000	 Set out the e-government strategy for how departments should make the most of the opportunities of new technology by: improved service delivery - using the Internet to provide better access to services where and when there is demand; better information - greater use of electronic media for knowledge sharing; efficiency gains - more efficient business processes such as records management and e- procurement; building services around citizen's choice - taking opportunities to join up services at the point of delivery.
Successful IT: Modernising Government in Action (Cabinet Office) May 2000	Recommendations for improving the implementation of IT projects covering management of business change, projects and risk, incremental development of IT changes, benefit realisation, skills and learning lessons.
E-government - Electronic Government Services for the 21st Century (Performance and Innovation Unit, Cabinet Office) September 2000	The Government strategy for electronic service delivery of government services to the citizen based on ensuring that ESD is driven by the use citizens make of it and by their preferences, opening ESD to private and voluntary sectors and putting in place incentives and structures to make sure transformation happens.
Performance and Innovation Unit report on Data Protection and Privacy (September 2000)	Identifying various aspects such as the risks and costs, as well as the benefits of data sharing
Progress Report on "Successful IT: Modernising Government in Action", E-Envoy, Cabinet Office (December 2000)	Sets out progress on 19 of the recommendations in Cabinet Office's report in May 2000 'Successful IT'.
e-Government - Benchmarking Electronic Service Delivery - Office of the e- Envoy (July 2001)	Report looking at the experience of countries in implementing e-government and the general lessons learned.
UK online second annual report the e-Envoy (December 2001)	Reviews progress made in meeting the Government's objectives for the knowledge economy and an updated UK online strategy including recommendations that the Office of the e-Envoy will work with departments to introduce e-business strategies for key customer segments and ensure there is a strategy with a measurable baseline to maximise take up of e-services.

Achievement so far

- 1.11 The Government's target for the implementation of e-government is that 100 per cent of services should be available on-line by 2005. Achievement so far is:
 - Just over half of services (274) which departments routinely provide to citizens and business were available on-line as at November 2001 (Figure 9)¹⁷;
 - around three-quarters (386) are expected by departments to be on-line by 31 December 2002; and
- nearly all services are expected to be on-line by 31 December 2005. The services which are unlikely to be e-enabled are those which required face to face contact for example with victims of crime, those claiming asylum or welfare to work interviews or the authentication of supporting documents.
- 1.12 Most of the services currently on-line provide basic information for the general public such as how to apply for a passport. Apart from revenue collection transactions such as self-assessment tax returns and VAT there is very little opportunity for citizens and businesses to carry out transactions with departments electronically such as applying for a driving licence or claiming benefits (only 7 services, 3 per cent provide

Services available on-line¹⁸ by department as at November 2001

Department	Number of Services on-line	Example
Department for the Environment, Food and Rural Affairs	54	cattle tracing system enabling reporting and tracing of cattle movements on-line - www.defra.gov.uk
Department for Transport, Local Government and the Regions	45	provision of information to motorists on issues such as learning to drive www.motoring.gov.uk
Department for Education and Skills	36	provision of on-line services for teachers for example on advice on setting up after school learning activities and clubs www.standards.dfes.gov.uk
Home Office	29	obtaining application forms for grants to reduce youth offending www.youth-justice-based.gov.uk
Department of Trade and Industry	32	the Small Business Service (SBS) Website www.businesslink.org and call centre 0845 600 0096 provide access to information and advice for Small/Medium Enterprises available from the DTI and other organisations
Department of Health	14	information about healthcare via a telephone service - NHS Direct www.nhsdirect.nhs.gov.uk
Ministry of Defence	14	RAF website provides information on low flying exercises
Foreign and Commonwealth Office	8	obtaining application form for visas
H M Treasury	6	a self analysis kit for firms to find out how likely they are to be affected by the phasing out of national currencies in the Euro area on www.euro.gov.uk
Department for Work and Pensions	5	advertising job vacancies from the Employment Service
Lord Chancellor's Department	4	on-line issue of money claims
Department for Culture Media and Sport	4	information available on-line about Lottery distribution bodies www.culture.gov.uk
Department for International Development	2	 on-line ordering of publications and research material
Export Credits Guarantee Department	2	provision of Export and Credits Guarantee Departments' services on www.ecgd.gov.uk
Others ¹	19	services of www.eegu.gov.uk
TOTAL	274	

NOTE

1. Others cover Land Registry (one service), Public Record Office (7), British Trade International (1) Ordnance Survey (7) and Office for National Statistics (3).

Source: Office of the e-Envoy

22

grants or benefits on-line and none collect revenue). It is these types of transactions which because they are routine, and high volume provide most potential for efficiency gains by releasing staff to concentrate on more complex cases or by redeploying them to other areas of work. The Public Service Agreements for Customs and Excise and Inland Revenue include targets that by 2005 100 per cent of services are offered electronically with a take up of at least 50 per cent¹⁹.

How the UK compares with other countries

1.13 Many countries are seeking to make their public services available electronically and face similar challenges to the UK (Example 5 overleaf). A recent survey²⁰ of 22 countries found that the UK's e-government capability was not as advanced as Canada, Singapore and the United States. The survey concluded nevertheless that the UK is well positioned to make it possible for citizens to transact with departments electronically for a number of public services over the next year (Figure 10).

- 1.14 The UK's approach to e-government is similar to that of other countries:
 - Many countries Australia, Finland, the Netherlands and the UK - have defined a vision of what they expect e-government to deliver in terms of improved services and more efficient administration;
 - Most countries have established a central department such as the Office of the e-Envoy and specific e-targets to give strategic direction and priority to achieving e-government.

10 Assessment of the state of development of e-government in other countries



- Some countries like the UK have introduced single portals so that a number of services can be accessed from one entry point such as <u>www.firstgov.gov</u> in the USA and <u>www.canada.gc.ca</u> in Canada;
- Countries such as USA, Canada, Singapore, Hong Kong and the UK are more advanced in making it possible for citizens to transact electronically with departments for example, submitting tax returns online. But even where this is possible the number of people and businesses doing so has, as yet, been lower than expected.

Why we undertook the examination

1.15 E-government is still evolving and some departments and agencies are more advanced than others. This report assesses the progress which departments have so far made and what more needs to be done to ensure that e-government delivers better public services and improvements in departments' efficiency. We focus particularly on action taken in response to the Committee of Public Accounts' recommendations on how the management of IT projects should be improved. By drawing on examples of successful implementation of e-government the report highlights good practice which if more widely adopted could help secure the benefits of e-government.

How we carried out the examination

1.16 The report focuses on two issues:

- How departments are managing the risks involved in achieving e-government change (Part 2); and
- What more needs to be done to achieve the benefits of e-government (Part 3).
- 1.17 We reviewed departments' e-strategies, undertook comparisons with private sector organisations and local authority approaches²¹ to IT-enabled change and with developments in other countries (**Examples 6 and 7**). We also commissioned a research paper on *Cultural Barriers to e-government* from Professor Helen Margetts, Director of the School of Public Policy, University College London and Professor Patrick Dunleavy, London School of Economics and Political Science. More detail on our methodology is provided in Appendix 1.

EXAMPLE 5 - Australian Childhood Immunisation Register website

www.1.hic.gov.au/general/acircirghom enables approved providers to access immunisation data and to transmit information about immunisation services they have provided. For example the display of antigens and doses a child requires. Parents can request an immunisation history statement for their child from the Internet site. These changes make it easier for both providers and parents to ensure that children are appropriately immunised. A strong focus is maintained to address security and privacy, preventing the use of immunisation information for any purpose other than for which it was originally given. It also provides information about a child's immunisation status to help determine payment of the Child Care Benefit and the Maternity Immunisation Allowance.

EXAMPLE 6 IT projects examined in this report

Information Management Programme (Office for National Statistics)

A programme to improve the access and the availability of data and information both for customers by modernising IT infrastructure and re-engineering existing information systems.

Government Gateway (Cabinet Office), Public Record Catalogue (PROCAT) (Public Record Office) and Electronic Tendering (Office of Government Commerce)

IT project with high technical content with limited customer focus covering traditional area of government activity - bill paying, procurement, payroll, information systems.

Back office process involving major change in working practice or large systems development and implementation with significant risk to services if IT system goes wrong.

County Court Projects (Lord Chancellors Department), National Land Information Service and e-conveyancing (H M Land Registry) and Planning casework and portal project (Planning Inspectorate)

IT project, part of a wider project to use electronic communication technology to provide services to the public.

Source: National Audit Office case study examination

EXAMPLE 7 – Implementing e-government in France

- 1. In 1998 the French Prime Minister launched a programme to develop e-government services in France. In 2001, France spent just over £0.5 billion on the development of e-government. France's programme for information technology for modernising public services has two main streams:
 - To improve public services for example by providing public access to government departments using the Internet such as through public access points in post offices, local administrations, public libraries, moving the State's Mintel services onto the Internet, distributing public information free of charge, making government accessible by e-mail and simplifying procedures and administrative forms.
 - To improve the operation of public administration by modernising how the state operates by developing intranet solutions, and networks, setting up local information systems, training of staff and updating computer systems.

Improving access to French government services

- 2. Two central agencies were established to support and measure the progress and facilitate cross-agency links and services and the government set an electronic services delivery target for all administration. The number of government websites has since grown to nearly 4,200 with 1,700 municipalities websites.
- 3. In October 2000 the government portal www.Servicepublic.fr was launched which enables citizens and business to access public sector information free of charge and guides users to public services. In January 2001 the site had 400,000 million pages per month accessed by users. The site will be developed to provide links to regional and local government websites. There are also thematic and sectoral portals in all the ministries.
- 4. A range of public services are available on-line such as tax declaration and payment www.minefi.govv.fr and VAT returns. Nearly 65 per cent of the most requested forms are available for downloading via the Internet making government forms available on-line has led to rationalisation of the main forms. At the end of 2001, 100 electronic procedures were available for citizens and companies.
- 5. To increase the wider take up of e-government services and address the 'digital divide' the Prime Minister has launched an inter-departmental initiative to create 7,000 public Internet access points by 2003. In October 2001, 2,300 public Internet access points were available.

LESSONS LEARNED

- Services need to be provided via multiple channels. Departments should use traditional as well as new technologies and give priority to the channel which best meets user needs for example, telephone applications such as call centres can in some cases provide better service solutions then the Internet. This suggests that departments need to distinguish between the different needs of users and diversify access according to the target group.
- People need incentives to use Internet services the low take up of services by users raises issues about the quality of service being provided and equality as yet only 35 per cent of French citizens have access to the Internet at home.
- There are still a number of cultural, regulatory and legal barriers within government and society to the use of electronic service delivery for example some civil servants in departments may be unfamiliar with the potential uses of new technology and will need retraining and reskilling. There could also be a resistance to new working methods. Certain user groups such as the elderly may prefer to use traditional service delivery channels.
- The benefits of e-government are difficult to estimate because take up of services is uncertain, the benefits from investments in new technology may take some years to be fully realised if take up is slow. As a result some of the efficiency gains expected from e-government may be overstated. This is particularly the case when existing service delivery methods have to be retained. Many groups which prefer not to use new technology for example are the citizen users of services such as social or financial services where the potential to achieve improved efficiencies are the greatest.
- The potential benefits from departments sharing information on citizens is constrained by legislation on privacy, which prevents sharing of personal information, provided to one government organisation with another. Even in France where citizens have a unique identification number different codes are used for tax assessment, social security.
- The risk of introducing new technology can be reduced if services are delivered using proven established technology and systems which users are familiar with for example the smart card used by patients in France when they visit their doctor to obtain reimbursement of treatment costs from social benefit agencies has been extended to other benefit entitlements.

Part 2

The risks that need to be managed to achieve e-government

- 2.1 There are two main risks which departments have to manage if the benefits of e-government are to be achieved. This part considers the action being taken by departments to manage these risks:
 - Citizens not accessing services electronically the risk that the general public see no advantage in accessing public services electronically and take up is low. We consider initiatives being taken by departments to encourage take up by citizens and businesses.
 - Supply-side barriers the risk that departments do not provide the services citizens want to access electronically or do not take advantage of new technology to improve services and efficiency; or IT-enabled change projects fail because they are not technically sound or well managed; or that IT suppliers do not deliver the intended services to cost, time and quality requirements. We examine the impact of *initiatives such as Gateway reviews*, *SPRITE*¹⁶ and departments' e-strategies and how departments are improving their management and co-ordination of IT suppliers.

Supply-side barriers

2.2 We commissioned Professor Helen Margetts, Director of the School of Public Policy of University College London and Professor Patrick Dunleavy, London School of Economics and Political Science to consider the cultural barriers to the implementation of e-government. They identified a number of supply-side barriers to the development of e-government and these are summarised in Figure 11 overleaf. These barriers derive from departments' cultures and values which can run counter to the type of environment which encourages the development of electronic service delivery. If departments do not address these problems for example by demonstrating clear leadership, tackling obstructionism and embracing new technology there is a risk that the benefits of e-government will not be realised.

- 2.3 Private sector companies usually only invest in IT if it is likely to lead to increased revenue by enabling companies to offer new and better services to customers and to improve their operational efficiency. By enabling companies to improve the way in which they do business IT is a means to an end (Figure 12 overleaf). Similarly departments' investment in IT projects should reflect their potential to improve the delivery and cost effectiveness of public services. But this can only be achieved if IT projects and the associated changes in working practices and business operations are well managed. Departments' IT projects have, however, experienced significant implementation problems both technological and managerial which have had an impact on the quality of service to citizens.
- 2.4 The Committee of Public Accounts' Report Improving the delivery of Government IT projects published in January 2000 highlighted a number of key lessons, based on the Committee's examination of 25 IT projects, which departments needed to implement if the benefits of e-government are to be achieved (Figure 13 on page 29). Since the publication of the Committee's report two initiatives by the Office of Government Commerce -Gateway Reviews and the SPRITE¹⁶ (Successful Projects in an IT Environment) programme are seeking to improve the performance of departments' IT-enabled business change projects.
- 2.5 **Gateway reviews** introduced by the Office of Government Commerce in February 2001 are required for all new procurement projects. The reviews are carried out by a team of experienced personnel, independent of the project team, who consider projects at critical points in their development. There are six critical points known as Gateways; four before the award of a contract (to confirm the strategic assessment; the business justification; the procurement strategy and the investment decision) and two looking at service implementation and confirmation of the operational benefits. The aim of gateway reviews is to improve the performance of procurement projects by providing assurance that a project can progress safely to the next stage of its development or implementation.

1 Four supply-side barriers to the development of e government which departments need to address

1 Organisational culture - Departments approach to implementing new technology may be strongly influenced by previous high profile IT project failures which are unlikely to foster an environment where managers explore the potential innovative solutions offered by Internet technology. Managers may rely on technical experts within departments who have limited experience of the potential benefits of new technologies. Also existing contractual arrangements with suppliers be difficult to change to without incurring large additional costs.

Departments may be reluctant to adopt electronic service delivery because user groups do not have access to the Internet. In contrast, private sector companies value the potential of the Internet to provide them with information about what electronic services their customers will and will not use. Changes to web-based services can be assessed almost immediately via easily obtainable usage statistics and the e-mail responses of customers. Departments reluctance to institutionalise this method of assessing the value of electronic offerings is a cultural barrier to the development of e-government.

- 2 Organisational values The way departments tend to operate for example to insist that innovations are fully tested and to treat all users the same work against web-based development for example, the use of e-mail challenges traditional ways of how correspondence should be dealt with as it falls between a telephone call and a letter; information on the web can be more easily targeted to specific groups this suggests departments need to adopt increasingly sophisticated segmentation and marketing of services; and the benefits sharing of information can only be realised if departments develop a networked approach rather than develop electronic service delivery in a centralised way.
- **3** Organisational demand Web development can be hampered by staff not having Internet access and not being able to see their own departments' web site while at work whereas internal innovation can act an incentive for example in the Netherlands <u>www.overheid.nl</u> ranks the best local government web site.
- 4 Channel rivalry if departments stick to traditional and predicable forms of delivering services and do not embrace new technology which often involves re-engineering working practices then opportunities to improve services and efficiency will be lost. This is often shown by a tendency to find reasons for inaction; an unwillingness to divert resources from established ways of doing things; demands for more resources to progress e government; the need for precise financial cases to support developments without considering the consequences of not developing electronic interactions with citizens; failure to assess the marginal costs of dealing with users via office visits, letters, phone-calls and call centres; and adopting a 'wait and see' approach to electronic service delivery to settle down before developing e-based solutions.

2 Typical private sector approach to implementing IT projects intended to improve business performance



Source: National Audit Office examination of private sector case studies

28

2.6 Gateway reviews have been carried out on over 100 major central civil government IT projects in the early stages of procurement involving around £10 billion of expenditure. The common areas requiring improvement (Figure 14) were similar to those highlighted in the Committee of Public Accounts' Report. Seventy-six per cent (35) of the projects reviewed up to June 2001 had three or more aspects requiring improvement. While the gateway reviews indicate that good practice in managing IT projects is not been fully adhered to project sponsors and managers have been alerted to the deficiencies. Of the six IT projects we examined in detail two had been subject to a gateway review (Figure 15 overleaf). We found in these two cases²² that the recommendations of the reviews were beneficial and had been acted upon. Departments are responsible for ensuring that the recommendations of all reviews are implemented before projects proceed to their next critical stage. More generally the Office of

Committee of Public Accounts recommendations -Improving the delivery of IT projects January 2000

- 1 Key decisions on IT systems are business decisions not technical ones and should involve senior management
- 2 The management and oversight of IT projects by skilled project managers is essential for ensuring that projects are delivered to time and budget. The successful implementation of IT systems calls for well conceived risk management and sound project management methodologies
- 3 The end users must be identified before the project commences so that their needs are taken into account fully during design and development
- 4 Training must address the needs of users and of those operating and maintaining the system
- 5 Departments should consider carefully whether projects are too ambitious to undertake in one go particularly if the project connects with the business operations of other parties, or depends on the development of IT undertaken by other parties
- 6 Departments should have contingency plans to maintain adequate levels of service in the event of project failures
- 7 There is a need for a high degree of professionalism in the definition , negotiation and management of IT contracts given the large sums of public money at stake
- 8 Organisations should learn lessons from the projects and undertake post-implementation reviews to establish whether the project met its business objectives, user expectations and technical requirements and secured the benefits anticipated.

Source: Committee of Public Accounts First report 1999-00 Improving the Delivery of Government IT Projects. Government Commerce is using the information on the lessons learnt to drive improvements in best practice and operational guidance to improve project performance. The Office is also reviewing project performance across departments to identify systemic weaknesses requiring specific action.

2.7 The successful implementation of IT projects also often depends on integrating state of the art technology with old and now frequently antiquated back room processes. E-commerce is a good example as it involves converting time consuming administrative procedures so that detailed tender information can be provided to contractors electronically who can then submit tenders on-line. Achieving this integration can be complex and if not done well can result in project failure. The Office of Government Commerce has under way a series of pilot projects to identify how such integration can be best achieved.

14 Improvements required as identified by Gateway reviews of IT projects up to 30 June 2001

- More appropriate skills. This weakness occurred in 76 per cent of reviews highlighting a shortage of IT and contract management skills together with insufficient involvement by senior managers.
- Need for stronger project management. Forty-three per cent of reviews highlighted the need to strengthen project controls, to have project boards meet regularly and to sign off key elements of the project before proceeding to the next stage.
- The need for better involvement of key stakeholders was highlighted in 43 per cent of reviews particularly consulting the users of IT services to ensure that projects met their needs cost effectively.
- Better risk management. 54 per cent of reviews identified the need for better risk management including contingency arrangements in the event that the project failed or was delayed; and the need for risk management to be a continuous process throughout the life of projects. There was also a concern that the emphasis was more on technical and not management risk.
- More market knowledge. Reviews expressed concern that project teams often lacked sufficient market knowledge particularly of factors likely to influence IT suppliers' performance and prior experience of managing projects.
- The need for better financial control was identified in 26 per cent of reviews. This included formulation of budgets, financial modelling and estimation and monitoring of costs.
- Success criteria. 54 per cent of reviews found that projects lacked quantified criteria for assessing the success of projects in terms of the improvements to be delivered in departments' operational efficiency and quality of services for citizens.

Source: Office of Government Commerce gateway reviews of nearly 50 IT projects with a total value of £16 billion.

15 Government Gateway Project - Office of e-Envoy

What is it? The Government Gateway is the technical infrastructure that makes it easier for citizens and businesses to carry out any transactions with departments electronically in a secure environment. The Gateway does not provide services or transactions directly but makes it easier for citizens to access government services from any point of entry. For example, where transactions involve more than one department, it will provide a service to the end user by routing the transaction around all the appropriate departments and obtain the information they need. It also provides links to other services and gives security to both the user and departments.

The first phase of the Gateway Project went live on 25 January 2001 with three pilot services: Inland Revenue - Pay as You Earn Internet services for employers and their agents; Customs and Excise - completion of Value Added Tax return for business and the Department for Environment, Food and Rural Affairs (formerly the Ministry of Agriculture, Food and Fisheries) Integrated Administration and Control System Area Aid Application for farmers.

The procurement did not run smoothly. The Office of the e- Envoy had given Compaq, the preferred bidder instructions to proceed (to the value of £6.77 million) while the contract was being negotiated. One factor in this decision was of the lead-time involved in meeting the requirement and the need to have the Gateway operational by 25 January 2001 so that Inland Revenue and the Department for Environment, Food and Rural Affairs could use the system for transactions in 2001. By September 2000 it became clear that the Office of the e-Envoy and Compaq could not reach agreement on the contract. The Office of Government Commerce to manage the project in house. Contracts were placed with various companies to deliver different parts of the requirement. Phase 1 of the project was delivered for £15.6 million plus VAT. A non-exclusive deal has been signed with Microsoft to license the intellectual property rights to the Government Gateway, which will allow the costs of the system to be recovered through royalties.

Impact of gateway reviews

A key element in the management and control of the project has been the use of Gateway Reviews. These have identified issues which needed to be addressed and informed decision making at key stages within the project. The project team implemented the recommendations to ensure the delivery of the first phase of the project despite the problems with the initial procurement. For example:

- The first review helped to inform the decision to terminate negotiations with Compaq and to manage the project in house;
- Two further reviews identified ways in which the project management structure, risk management and contingency planning could be strengthened;
- A further review assessed the extent to which these issues had been addressed and found that they had been;
- Reviews held after the system had gone live have assessed the strength of the system's operational effectiveness and the ability of the team to support the system on a day to day basis. These have identified three risks that departments do not see enough advantage in joining the Gateway; that take up by users remains low because of the need to obtain digital certificates, the lack of incentives and inadequate marketing; and that if demand increases the Gateway will not be able to satisfy demand. The review suggested that these risks need to be managed outside the project team elsewhere in the Cabinet Office. To address these risks, the Office of the e-Envoy has:
 - set up an inter-departmental working group to examine the issues raised by digital certificates;
 - adopted a portfolio approach to bring new departments and services onto the Gateway by grouping those with similar functions together to work with them to establish how the Gateway can help them improve electronic service delivery; and
 - begun developing a facility that it will be easier for departments to add new services onto the Gateway.

Source: NAO examination of the Gateway project. More detail can be found on the NAO's web site www.nao.gov.uk

6 What does the SPRITE programme involve

- **Cross-government implementers network** to enable departments to share lessons learned and best practice.
- Guidance on the role of Senior Responsible Owner, modular and incremental project development, risk management, business case development and post-implementation review.
- Senior IT forum jointly sponsored by the Office of Government Commerce and the Computer Software and Services Association to address joint government/industry issues related to IT-enabled projects.
- Project data base on key IT suppliers and projects to facilitate lesson learning.
- **Leadership** for implementation of the Successful IT report recommendations.

Monitors and measures progress of departments embedding change in working practices and reports progress to ministers.

Source: SPRITE

- 2.8 **SPRITE**. In May 2000 the Cabinet Office published Successful IT: Modernising Government in Action recommending a range of actions to improve the delivery of IT projects. In December 2000 the e-Envoy reported progress in implementing these recommendations which included:
 - the development of a business skills assessment toolkit to help departments assess the skills implications of their e-business strategies;
 - seminars for senior civil servants so help them understand the organisational skills needed to implement e-government;
 - the establishment of senior responsible owners in departments responsible for delivering key projects;
 - a model to enable key staff working on major IT enabled projects to identify the key risks and skills needed to implement the project;
 - the SPRITE programme run by the Office of Government Commerce to help departments agencies and non-departmental public bodies improve the performance of IT projects by working with them to ensure that the recommendations become embedded in their working practices (Figure 16).
- 2.9 The Office of Government Commerce assessed progress in July 2001 by 21 departments which deliver the majority of services to citizens and business and found that action was being taken on a number of fronts. This is confirmed by the second UK on-line annual report in December 2001 which showed that 98 per cent of departments had appointed Senior Responsible owners for major projects, 95 per cent had business cases in place and 83 per cent include an assessment of realised benefits when carrying out a post implementation review. The Office of Government Commerce found aspects that still require further progress:
 - more training of Senior Responsible Owners and inclusion of their responsibilities in their personal objectives;

- development of business cases for IT-enabled change - so that departments' approach reflects Office of Government Commerce's guidance;
- more robust post implementation reviews of projects - to provide sufficient information to measure the benefits realised against project targets; and
- strengthening of procurement roles and advice needed within overall project management skills.
- 2.10 The seven departments which we examined recognised that business cases justifying investment in new technology should set out the intended benefits as precisely as practicable. Departments are finding it difficult, however, to determine the level of savings and the extent of service improvements that IT can reasonably be expected to achieve. In particular, some departments are unsure as to how efficiency savings made possible by IT will be achieved without considerable investment in training and reskilling of staff - a concern raised by the gateway reviews. Assumptions about customer demand for electronic services are also uncertain. The Inland Revenue are at the forefront of the development of e-services in the public sector and their experience acts as a valuable lesson to other government departments. For example, despite an advertising campaign during 2000-01 which cost some £1.9 million to encourage people to submit selfassessment tax returns for 1999-00 electronically only 39,000 individuals did so in 2000-01 compared to the Inland Revenue target of 315,000.
- 2.11 It is clearly important, therefore, that business cases underpinning investment in IT are well researched and practical implementation issues adequately addressed. Drawing on our review 7 public sector and 5 private sector IT programmes **Example 8** sets out six key requirements which business cases for IT-enabled change projects should cover.



EXAMPLE 8 – What the business case for an IT – enabled business change project should cover

The business case should include:

The business objectives for the project – including how it meets wider government and departmental objectives and fits in with business change programmes

What the business case should cover

- How the IT project supports the achievement of the department's key objectives and public service agreement targets
- The supporting user needs analysis which demonstrates that the services delivered on-line are needed by key user groups
- The rationale for the service delivery channel for example online delivery versus face to face or call centre
- The rationale for the mix of services (information and transactions) to be provided on-line
- The new or up graded IT systems that will be needed to deliver the service
- The changes in working practices and operations needed to deliver the new service

Example

- The Office for National Statistics has used a number of ways to understand better its users' needs. The Office has reviewed its products to see how they need to change and how they can best be delivered – on paper or electronically via the website for example, customers were segmented by type and by the frequency with which they used the data. On the basis of this research and customer consultation, the Office decided on the best way to deliver data and services for each group.
- RAC Motoring Services (RAC) introduced new working practices for patrol staff and trained call centre staff before implementing the new technology so that staff become familiar with the new working methods and problems could be solved before the new IT was introduced. This enabled the RAC to deal separately with the people and technological issues involved in the new ways of working in order to reduce risk to customer service during the transition.

The critical success factors and how they will be measured including the cost, time and quality standards

- The likely take up rate of the service by users to measure benefits realised
- The marketing strategy for the target groups including incentives to encourage services to be used on-line
- The expected improvements in the speed and accuracy of the service and user satisfaction
- The development, implementation and maintenance costs of providing the service
- The savings from transferring existing transactions on-line
- The Foreign and Commonwealth Office and the Department for Transport, Local Government and the Regions have set up Programme Monitoring Units to monitor e- programmes. They also provide a link between the departments' e- strategies, programmes and project. The Units provide, advice and guidance on good practice and to monitor performance and benefits realised.

The business case should include:

What the business case should cover

- Efficiency savings for the department from rationalisation and joining up of processes
- The productivity improvements from staff using IT
- Improvements in user and management information to enable the department to develop better services
- How the savings and improvements in services will be monitored and realised

Analysis of the options for meeting the business objectives to ensure that the preferred option value for money, is affordable, is achievable and is supported by users and key stakeholders

- Approach to assessing the options for implementing the IT project – whole life cost assessment and benefit appraisal of options including the do minimum option
- Resources needed, for example has allowance been made for the resources needed to maintain and upgrade a website and provide back office support
- Source of funding, for example from efficiency savings or from deals with suppliers
- Profile of when costs and benefits are likely to come on stream including sensitivity analysis of the key assumptions and impact on options

Example

- Oracle track the savings from introducing new technology and has saved over £70 million by the deployment of web enabled, self service applications for such functions as personnel records, training, travel expenses and pay. It set measurable efficiency targets to provide an incentive for management and staff to implement the changes in working practices. IT also enables senior management to track progress and focus resources on areas which provide efficiency gains such as electronic procurement.
- The Office of the e-Envoy's Gateway project provides a secure IT infrastructure for citizens and businesses to transact with departments on-line. The Office of the e-Envoy estimate that central development of all the hosting, security, networks, certification and password procedures and Government Secure Internet connectivity necessary for departments to provide seamless transactional services to citizens by 2005 will cost less than 1/5th of what it would cost if all departments developed their own solutions.
- AGW Anglian Water Services spend some £300m a year on the procurement of goods and services. It centralised 80 per cent (by value) of procurement, improved its management information, introduced a corporate procurement card, and brought in procurement professionals prior to changing its procurement approach. This involved entering into a partnership with other utility firms to set up an e-procurement market place www.achillesmarket.com with key suppliers to reduce transaction costs and improve the value they get from their procurement expenditure. This has led to a 60 per cent reduction in transaction costs from moving to electronic transactions.

The business case should include:

Assessment of risk, which should cover the risks to the project and their impact on wider business objectives and services to citizens taking account of the sensitivity of preferred option, and how key risks will be managed.

Skills, experience and competencies needed to implement the project and sustain the service and improvements in efficiency including the capacity of the organisation to manage IT-enabled change

What the business case should cover

- Impact of key risks on service delivery
- Assessment of internal risks for example shortage of experienced project managers leading to delay in implementation
- External factors for example how the intellectual property rights for any new system will be protected, how access for different groups to the on-line service will be secured and the capacity of systems to deal with variations in user take up of on-line services
- Contingency arrangements for example to deal with the failure of partner organisations to deliver the service
- Internal skills available and what experience needs to be brought in
- Changes needed in working practices to secure improvement in services and efficiency
- Support for staff for example training for staff using new technology

The roles and responsibilities of key stakeholders for example private sector partners and other agencies involved in implementing the project Consultation with key stakeholders (staff and other agencies responsible for implementing the service, users – chizens, business and other public sector organisations)

Example

- The Public Record Office used risk management to ensure that its electronic records catalogue project remained on course. It adopted an incremental approach to project implementation to test out the new technology and learn more about customer needs.
- The Land Registry has sought to reduce risk by adopting an incremental approach to IT development. Also where appropriate for its Management Information System, it has purchased off the shelf systems which have a proven track record, and adopted realistic project timing.
- The Land Registry's on-line service provides a cheaper and faster service than the manual postal system. In implementing the on-line service it has retrained staff to operate the new IT system.
- British Gas used software technology to reduce its overheads and improve its purchasing activities. By providing new IT managers were enabled to work from their homes which eliminated the need for 400 depots. Software was used to improve the performance of its human resources staff. In 1994 it employed one human resource professional for every 30 staff, now it employs one for every 130 staff. All this involved training staff in the new ways of working.
- The Planning Inspectorate has obtained key customer views and canvassed staff in the development of the new web-based planning advisory and casework systems and has involved users in the development of IT change.
- BT Group use IT to obtain and share information about customers, suppliers and products for example on why bids for new work were successful or unsuccessful.

Departments' strategies for improving services through IT-enabled business change

- 2.12 All departments have prepared strategies setting out how they intend to deliver services electronically and the resource implications. The strategies have gone through various stages of development following review and advice from the Office of the e-Envoy. Our analysis of 20 departments' strategies (Figure 17 overleaf) found that they raised a number of issues which need to be addressed if e-government is to be successfully implemented:
 - Staffs' ability and aptitude to use IT need significant development (19 of the 20 departments identified this as an issue). Departments are tackling this in different ways (Example 9 on page 38). The Ministry of Defence have undertaken a skills audit using the e-business skills toolkit developed by the Cabinet Office to identify skills shortages and to develop an action plan to deal with them. Other departments such as Customs and Excise and the Department for Transport, Local Government and the Regions have major training programmes and are recruiting IT specialists.
 - More resources are required to support IT-enabled change programmes (19 departments identified this as an issue). Achieving the benefits of IT requires investment in both technical infrastructure and systems development. In addition, departments' backroom processes often need to be rationalised and redesigned. Most of the expenditure needed to do this is having to be found, from internal efficiency savings although some additional funding is available from the Capital Modernisation Fund and Invest to save budgets. Departments are looking at new ways of financing by pooling resources with partner organisations and by entering into private sector deals. For example, the Government Gateway project (Figure 15) is funded jointly by the Cabinet Office and Inland Revenue with support from the Capital Modernisation Fund.
 - Technological improvements are needed to update existing IT systems (15 departments raised this). The delivery of more services on line is put at risk if departments are slow to modernise existing IT and fail to adopt appropriate standards to ensure that different systems are interoperable, secure and meet data protection and privacy needs. Common standards need to be applied so different departments' systems are compatible and information held on them is secure for example, through the Government Secure Intranet²³, Government Gateway²⁴ and the Knowledge

Network²⁵. The Cabinet Office are developing policies on ensuring the security of transactions, respecting privacy and maintaining security where services are delivered electronically through third parties. Some smaller departments are concerned about the cost and practicality of obtaining the necessary accreditation covering document security and transfer which is required before they can connect to the Government Secure Intranet.

- More reliable assessments of costs and benefits are required (14 departments raised this). Generally, departments lack baseline data against which to monitor and measure improvements in efficiency made possible by IT. For example, departments need reliable information on the cost of delivering a service or carrying out a transaction to assess how this is likely to change. Some departments are beginning to address this - the Department for Transport, Local Government and the Regions are developing a framework for delivering the benefits of IT which includes assigning specific responsibility to senior managers for achieving improvements in services and efficiency, assessing and monitoring costs and regularly reviewing achievement. The Treasury has asked four departments to undertake studies of the relative costs of transacting through traditional delivery channels and on-line, to develop a better understanding of the scope for efficiency gains.
- Partnerships are important to deliver integrated services (this was raised by 16 departments). Citizens often rely on a number of public, private and voluntary organisations to provide related services. For example, drivers at some point will need to contact one or more of the Driver Vehicle Operator (DVO) organisations (Example 10 on page 38). These bodies are working together to redesign their processes to meet the needs of their users better so that no matter how a DVO service is accessed the IT supporting the transaction will enable a full, joinedup response. A common DVO portal now existsmotoring.gov.uk with two call centres linked together. Departments strategies recognise that to secure the full benefits from modern technology they need to work closely with other departments, agencies and the voluntary and private sectors. The DVO agencies are working with local authorities, the courts, car hire companies, the motor insurance industry and Customs and Excise to identify ways of improving services to users of their services. The Office of the e-Envoy proposed an e-business strategy covering all organisations involved in the criminal justice system and the Lord Chancellor's Department has supported this proposal.

Issues identified in Departments' e-strategies which need to be addressed if e-government is to be successfully implemented





37

part two

EXAMPLE 9 – Five key business skills needed for e-government

Leadership - strategic understanding of the role of IT in service delivery with clear links to business programs.

Business systems development - management of ITenabled business change programmes, project management, risk management and application of e-commerce techniques to government departments.

Acquisition - finance, deal making, relationship management IT professionalism.

Specialist user skills such as statistics, economics and accountancy.

Information professionalism - knowledge management and records management.

Source: Cabinet Office Information Age Skills Toolkit.

EXAMPLE 10 – Driver Vehicle Organisations

- Vehicle Certification Agency
- Driving Standards Agency
- Driver and Vehicle Licensing Agency
- Traffic Area network
- Vehicle Inspectorate

- The risk of IT-enabled change adversely affecting existing services requires careful management (This risk was identified by 13 departments). The scale and number of IT projects underway is putting pressure on departments' project management capabilities. All departments' strategies recognise the extent of the cultural and operational changes that are needed to deliver services electronically. There is a risk, however, that this change programme could adversely affect the day to day business of departments with service delivery and efficiency being reduced in the short term before the benefits of new ways of working have an impact. Customs and Excise are tackling this risk by breaking their IT change programme into smaller parts which are easier to manage and implement (Figure 18).
- 2.13 The Office of the e-Envoy has also drawn departments' attention to (i) the need to recognise the extent of the change required in their existing processes to achieve e-government; (ii) the importance of not treating e-government as something separate from their core activities but making it an integral part of their day to day business; and (iii) the need to give sufficient attention to data protection and ensuring the confidentiality of information provided electronically by the public.

Ensuring that IT suppliers deliver intended services

2.14 Departments depend on IT companies to develop, install and support IT systems (Figure 19 on page 40). Gateway reviews have been carried out on over 100 major civil government IT projects in the early stage of procurement involving around £10 billion of expenditure, so departments are a major source of business to the IT industry (Figure 20 on page 40). As with any form of procurement, however, there are risks which must be managed:

Risks

- Suppliers provide IT solutions that do not meet departments' expectations, are delivered late or over budget.
- Suppliers unduly influence departments to accept ready made off the shelf solutions which are not suitable. Some balance is, however, needed. IT solutions should not be unduly technology/supplier led with insufficient attention being given to what is most likely to meet user requirements. Conversely, departments should not develop expensive bespoke systems when proven cheaper off the shelf products are available.
- IT systems fail or are unreliable putting service delivery to the public at risk.
- Departments become too reliant on one supplier.

18 Customs and Excise's - e-strategy

Benefits - Value in terms of improved services or efficiency

Benefits categorised as customer service, effectiveness, joined up government and efficiencies. Implementing the e-business strategy will support the delivery of key Public Service Agreement targets.

Increases in productivity to release 1000 staff posts from support functions to directly contribute to the department's Public Service Agreement targets;

Improved customer service - 6 per cent improvement in the Customer Service index by April 2002 from 1999 baseline;

Savings from procurement - 3 per cent annual procurement savings and reduce transaction costs by 50 per cent by 2004;

Potential to improve tax revenue - visit to traders result in revenue - average £8,000 per 80,000 (productive visits) out of 160,000 visits ie £640 m a year. A 1 per cent improvement in targeting would yield £6.4m.

Better information to target fraud, to raise compliance and identify errors at a much earlier stage. Also risk ratings can be used to reduce levels of assurance for compliant traders

Provision of new services for example on-line automated processing for business VAT registration

Key risks

Existing IT infrastructure is unsuitable to handle volume and type of transactions associated with e-business.

Changes in working practice divert attention from day to day business -which leads to a 'change fatigue'.

The rate of take up of e-services may not meet government targets either because infrastructure/service is not appropriate or customers decide not to use the services electronically.

Insufficient project management capability puts delivery of e-projects at risk.

Shortage of IT skills put implementation of new services at risk.

Costs

Investment strategy: - Capital and current spending of £150m on implementing business change and Information Strategy systems in the three year period starting in 2001-02.

Measures to mitigate risks

Infrastructure up grade funded under Private Finance Initiative arrangement with external supplier.

The change management programme is broken down into measurable parts and adequately resourced.

The Department has developed a customer relationship management and marketing strategy. This focuses on customer needs rather than method of tax collection.

Working in partnership with the Inland Revenue to implement necessary legislative changes (to enable sharing information between departments). IT training and recruitment is being developed to tackle skills' shortages.

Source: NAO examination of departments' e-strategies

Services provided by IT suppliers

What departments use IT suppliers to provide

- For consultancy advice on the options for using IT to improve services and efficiency for example on whether an Internet solution is appropriate for the service being delivered.
- To provide the IT infrastructure (hardware) and software systems to support the service
- To train staff in how to use IT
- To provide the Internet technology which enables departments to streamline internal processes, such as human resource functions and expense claims, to improve internal productivity and save administration costs.
- To provide management information systems for example by providing information on the types of citizens or businesses using e-services, their patterns of use and take up rates so that services can be developed so they better match user needs.
- To develop marketing strategies to increase the take up of e-services so that users receive the benefits and departments are able to realise efficiency gains
- To set up new systems for purchasing goods and services using Internet technology such as e-tendering or e-procurement.
- To advise on the development and operation of departments' websites.
- To check and test the security and interoperability standards of IT systems.

Source: NAO analysis of departments' IT suppliers

20 Departments' key suppliers of IT services 2000-2001

BT Group ICL/Fujitsu EDS Ltd over £200 million Siemens Payments received from departments 2000 -2001 £ million £100-200 million Sema Group £50-100 million Computacenter Ltd **Bull Information** Chessington/ADP CSL Group Ltd £25-50 million Systems Ltd **Supplier**

Source: Suppliers

Examples

Examples of the range of IT projects involving suppliers:

- the Driver and Vehicle Testing Agency (Northern Ireland) has a £9.5 million contract with Service and Systems Solutions to provide the design development and management of an IT based booking system to enable customers to book tests over the telephone and on Internet;
- the Planning Inspectorate engaged Kudos to develop its website (cost £35,000) and IBM to develop the Planning Portal (£2 million);
- the Government Portal (Gateway) The Office of the e-Envoy have a non-exclusive license arrangement with Microsoft for the intellectual property rights of the Government Gateway;
- the Police Information Technology Organisation has a five year software maintenance and support contract (£3.5 million) with Software AG (UK) Limited to provide support for its IT systems;
- e-tendering the Office of Government Commence has a contract with the Royal Bank of Scotland using TrustMarque's technology and software to pilot the system with ten departments. The £700,000 pilot is being funded partly by the Office of Government Commerce (£400K) and partly by The Royal Bank of Scotland and TrustMarque (£300K).

2.15 To manage these risks departments must:

- have a clear understanding of the intended benefits that they are seeking to achieve from IT-enabled change in terms of improved services, efficiency gains and delivery against key objectives;
- specify clearly their requirements to potential suppliers of IT infrastructure and services;
- select the right supplier on the basis of whole life cost and quality using appropriate contractual arrangements with incentives to deliver the work on time, to cost and quality standards; and
- manage the risk associated with IT-enabled change such as ensuring continuity of service delivery in the event of the IT project being delayed.

What has the Office of Government Commerce done to help departments address supplier risk?

2.16 The Office of Government Commerce has:

- produced guidance to assist departments in implementing IT projects; for example on IT procurement, IT- enabled business case development which emphases the need to break large projects down into smaller components to reduce risk and to have adequate contingency plans in place. The Office of Government Commerce has produced best practice guides focusing on helping top management to reduce supplier risk²⁶. This guidance is available on their website www.ogc.gov.uk.
- published a procurement brief which provides Senior Responsible Owners leading IT projects and procurement teams with a route map of the procurement process and identifies the key sources of IT procurement advice and guidance for business managers and IT practitioners such as the Office of Government Commerce Best Practice Toolkit²⁷ programme management guidance and PRINCE²⁸ and project management guidance;
- established Gateway reviews which by examining procurement projects at critical stages in their lifecycles, provide regular opportunities to check on the progress of all major procurement projects and take remedial action;
- worked with the IT industry. In response to the Cabinet Office report on Successful IT: Modernising Government in Action, the Office of Government Commerce and the Computer Software and Services Association have set up a Senior Forum to address joint government/industry issues related to the acquisition and implementation of government ITenabled projects. The Office of Government Commerce is also working to identify the obstacles which discourage small and medium-sized suppliers from competing for business from departments; and

- set up a Supplier Intelligence Service to strengthen departments knowledge of the IT market so that they are better informed in negotiating with potential suppliers.
- 2.17 The Office of Government Commerce is also working with departments to improve the information available on procurement expenditure by supplier and type of purchase including IT. The Office has identified the main strategic⁸ suppliers to departments and is holding regular meetings with them to review their performance as well as suppliers' views on departments' performance as customers.
- 2.18 It is as yet too early to assess whether these initiatives are having an impact in making departments more intelligent customers in dealing with IT suppliers. Better information on supplier performance is needed as well as more widespread understanding by departments that the supplier is not just the immediate supplier but includes those further down the supply chain. Departments need regular assurance that all firms in the supply chain have reliable contingency arrangements in place to ensure delivery. Suppliers' performance across departments should be carefully monitored and this requires a common and consistent set of indicators and approach to assessing performance.

What are departments doing to manage supplier risk

2.19 Departments are managing supplier risk in a number of ways:

Risk of IT solutions not meeting requirements - there are two complementary ways by which departments are seeking to manage this risk. Firstly, by being much clearer about what their requirements are (this is involving much more research and analysis early on) and communicating these to potential suppliers. Secondly, by improving their knowledge of IT solutions which the market can supply to meet their requirements.

The Public Record Office consulted widely in determining how best to store records electronically while at the same time enabling them to be retrieved quickly and having the facility for the public to undertake a range of data searches. It was not until the Public Records Office was satisfied that it had fully established its requirements that it engaged consultants to define the kind of system it needed²⁹.

The Land Registry, in considering the most suitable electronic solution for e-conveyancing, proposes to consult a range of potential suppliers as early as possible about the technical solutions available rather than rely on a single supplier²⁹.

Risk of suppliers not delivering on time or to budget early engagement with suppliers to determine a realistic timetable and project milestones is important as well as close monitoring by departments and regular communication with suppliers.

A post implementation review of the Government Portal (Gateway) Project identified the following lessons:

- Suppliers should not be allowed to lead the project; departments should have sufficient knowledge and expertise to excise appropriate oversight of the project's development and assess carefully any change in the project proposed by suppliers.
- Project managers should have the expertise, knowledge, confidence and senior management support to take decisions on the management of the project quickly.
- It is not enough to have a robust working relationship with the main contractor, the department must develop knowledge of, and work closely with, everyone in the supply chain.
- Any key points of principle on contract terms such as ownership of intellectual property rights should be clearly stated and agreed with potential vendors at an early stage of the procurement.
- At key stages in the project daily contact with key suppliers is vital to ensure that potential problems are identified early and resolved.

Risk of not selecting the right supplier - departments need good working knowledge of the IT suppliers' market particularly those working in areas of direct relevance for example, human resource, procurement, knowledge management IT specialists. Without this departments run the risk of not appointing the company likely to deliver the best and most cost effective solution. Departments should seek evidence of suppliers proven track record in providing a reliable service. This should not rule out smaller suppliers who may have developed specialist expertise of direct relevance to a department's core activities. The procurement process should allow all potential suppliers to bid.

For its PROCAT project which provides an electronic catalogue of historic information the Public Records Office selected IT consultants who had proven experience in developing specifications in similar systems in libraries²⁹.

Risk that supplier poor performance adversely affects public services - the initial design of IT-enabled change projects should include an assessment of the need for contingency arrangements should the new system be delayed, experience initial teething problems or ultimately fail. There should also be sufficient pilot testing before a new system goes live. Suppliers should be required to demonstrate that the system is fit for purpose before they receive final remuneration. If a system goes live and fails or is of poor quality the public's confidence can be lost and difficult to recover.

The **Public Record Office** found that a build and learn approach ensured that it was able to provide continuity of service to its users. The Office first developed an interim electronic catalogue and used the lessons learnt from developing this and from users' comments to develop the final version. The transition from the interim system to the full system was done as seamlessly as possible without incurring the risks of a "big bang" approach²⁹.

2.20 Departments are now more alert to the importance of managing their IT suppliers better. Two focus groups of IT suppliers which we organised with the Computer and Services and Software Association (CSSA) - the trade association for the UK Computer Industry raised, however, a number issues concerning departments' performance as clients.

There is a tendency for departments to concentrate too much on technological aspects rather than consider the wider implications particularly the opportunities which IT offers to re-engineer existing procedures and working practices and so realise efficiency improvements. Suppliers drew attention to the cautious approach which some departments adopt to IT with the risk that opportunities to be innovative and improve service delivery are missed.

Suppliers also consider that departments often do not adopt a sufficiently strategic approach to IT. New systems are developed in departments which have good potential to be replicated elsewhere in the organisation or joined up with other departments delivering related services to similar groups of people. For example, Jobcentre Plus brings together the Employment Service which runs jobcentres and those parts of the Benefits Agency which provide services for people of working age to enable people claiming benefits to look for a job. Services are provided through a range of a channels including the internet, customer contact centres and Employment Service Direct - a phone service for people looking for a job to find a vacancy.

Citizens not accessing services electronically

- 2.21 If the significant improvements in departments' efficiency made possible by IT are realised this will enable better use to be made of taxpayers' money. The resources released could be redeployed to improving public services. Efficiency improvements will only be achieved, however, if the public are willing to interact with departments and agencies electronically in sufficient numbers. If this happens it should be possible to reduce the number of civil servants involved in time consuming manual procedures or redeploy them to other priorities.
- 2.22 Research by the UK Consumers Association publication Which? On-line, The Net Result: Evolution not Revolution June 2001 suggests that while citizens see the Internet as a means for obtaining information they are less sure about using it to carry out basic transactions particularly those involving exchange of personal information. Resistance to using the Internet increases by age with 85 per cent of people over 55 surveyed saying that they never intend to use it compared to 1 in 3 of under 35 year olds. Research by Gartner - the market research organisation³⁰ in May 2001 found that people in UK, Germany, France, Italy and the Netherlands want information about public services to be more accessible. People also say that they want to be able to make health care appointments on line, very similar to being able to book cinema and theatre tickets on the Internet and to be able to notify one single point if they change their address rather than having to contact a number of organisations. The lowest priority for people was being able to complete tax returns electronically. While there is growing acceptance and demand to access public services through the Internet this is as yet by no means universal. If e-government is to become a reality departments need to do more to encourage and to incentivise the public to interact with them electronically.

2.23 We commissioned Professor Helen Margetts, Director of the School of Public Policy of University College London and Professor Patrick Dunleavy, London School of Economics and Political Science to consider the cultural barriers which need to be overcome to secure to widespread public take up of electronic services. Their findings are summarised in **Figure 21**.

What needs to be done to encourage citizens to interact electronically with departments

- 2.24 In the private sector, companies seeking to get people to buy their goods or services, normally firstly **determine the preferences** and interests of their potential customers what is likely to attract them to the product or service; secondly, **market the service** to customers so that they are aware of the service and the advantages to them of buying it; and finally ensure that there are appropriate **incentives** to encourage people to buy the goods or services. This approach is equally relevant to encourage citizens to interact with departments electronically. We assessed the extent to which departments adopted this approach.
- 2.25 Segmenting users to determine their needs and preferences. Groups in society who use or rely on public services have different requirements. The elderly have a range of different needs depending on their income, their health and well being and where they live for example, whether they reside in an urban or rural area or have retired overseas. Similarly, other groups such as students, children, the unemployed, businesses all have different requirements and preferences. By segmenting the users of their services, departments can identify their specific requirements and preferences. Departments can use such information to design electronic services which, by better reflecting their needs, are more likely to encourage citizens to use them.

Seven barriers to take up of electronic services by the public which have to be addressed

- 1 Social exclusion groups in society such as the elderly, unemployed, those on low income and those with learning difficulties may not have easy access to the Internet.
- 2 Familiarity it can take time for developments such as IT which have yet to become a normal established part of every day life to be accepted by some people.
- 3 **Expectancy** some citizens have low expectations about IT and what it can deliver; this innate scepticism has to be overcome and it is important that departments test new systems before going live as initial problems or failure can reinforce peoples' low expectations.
- 4 **Ease of use** unless new services are easy to use and not complex take up will be low for example, websites that are conservatively designed, use bureaucratic language and contain no incentives to explore the site will remain largely unused.
- 5 **Benefits** the benefits for the public of interacting with departments on-line must be self evident or else demand and subsequent take up will remain low.
- 6 **Costs** if the cost of accessing services on-line is expensive or time consuming because the service has been badly designed people will not want to use it.
- 7 Solemnity while the subject matter is serious government web sites that are conservatively designed, use bureaucratic language and contain no incentives other than strict functionality for users to explore the site are likely to be significantly under used.

Source: Cultural barriers to e-government by Professor Patrick Dunleavy and Professor Helen Margetts

- 2.26 The Office of the e-Envoy is working with departments to get a better understanding of the groups in society who use or rely on their services. In May 2001 the Cabinet Office commissioned Andersen to bring together existing work on customer segmentation being done by departments, to identify the principles of applying customer segmentation in government and to develop a toolkit for departments to use in applying those principles (Example 11). The project found that there was no consistent approach or common methodology used by departments to assess the different characteristics of key client groups. The Office of e-Envoy have since organised several workshops with the e-Government strategists of departments to promote better analysis of user needs and preferences through customer segmentation and have commissioned research of users experiences to help redesign the UK on-line portal. There remains, however, considerable variation in the quality of information which departments have on their key users and client groups. Some departments have identified who their key users are, how these logically group together and which services they particularly need. Most, however, have only done very limited analysis. Information on client groups is needed to develop service take up strategies and policies for improving public services (Example 12).
- 2.27 Marketing to encourage people to interact with departments on-line. Accessing information about public services on-line and carrying out a range of transactions electronically are still relatively new. Some people remain suspicious of IT either because they are unfamiliar with it or have concerns about how departments might use information which they provide electronically³¹. Some people are simply uninterested or do not know that a range of public services are becoming available on-line. Some groups in society may be concerned that they will no longer be able to access services in traditional ways and therefore need assurance that they will not be disadvantaged or excluded. Conversely, some peoples' expectations about what departments should be able to deliver electronically may be unrealistically high in terms of what is cost effective. For all these reasons departments have to communicate with the public so that they know what is available and have realistic expectations. To achieve this departments need marketing strategies which are clearly targeted at the key users of their services.
- 2.28 Marketing is a skill more familiar in the private sector but is increasingly one which departments need to develop. **Example 13** summarises some of the good practice recommended by the Chartered Institute of Marketing which is equally relevant to departments in convincing the public of the benefits of accessing public services on-line. Particularly important is for departments to assess need from a citizen's viewpoint rather than from the departments' position. This helps identify opportunities to work with other departments to deliver services, ways in which the service can be improved for users and potential efficiency gains.

EXAMPLE 11 – What is customer segmentation?

Customer segmentation is a method for dividing and categorising users of services into groups based on their behaviour, characteristics, expected service needs and preferred choice of delivery. By identifying customer segments organisations can match services better to users and work with other organisations to deliver improved services. Segmentation can also assist in developing targeted incentives to increase the take up of services.

EXAMPLE 12 – Ten questions which departments should consider in assessing the needs of the users of their services

- 1 Who are the key or potential users who rely on the department for services information or advice?
- 2 What are their particular needs?
- 3 How can these users be segmented for example, by need, location, behaviour, demography and preferred methods of access Internet, telephone, face to face?
- 4 For each segment or "group" what are the key services which they require and what is current and likely demand?
- 5 To what extent are these segments reliant on services provided by other public sector organisations with potential for joint service delivery?
- 6 What resistance or reluctance is there likely to be interacting with departments on-line and how can this be tackled?
- 7 How are potential users of IT provided services likely to react, what behaviour aspects need to be taken account of?
- 8 How can access to IT be improved for different groups of people?
- 9 Are there issues of trust and confidentiality of information that concern the client group?
- 10 Are there intermediary organisations for example, Post Offices, retail outlets which the group are particularly familiar with and which could provide an access point for an on-line service.

Source: NAO

44

EXAMPLE 13 – Good practice in marketing services which is equally relevant to departments in encouraging citizens to interact on-line

Know your market and your customers: Market research should establish exactly what people want, what they are prepared to pay for, and what alternatives are already available to them. Without a thorough knowledge of the people the service is being providing for, what they want, and what they already have, it is difficult to meet customer needs. A few years ago budget airlines did not exist, but surveying consumers revealed that a demand existed for no-frills air travel and the sector is now very successful.

See yourself in the way that customers see you: It may make sense from an internal point of view to offer one service from one department, and a related service from another department because that's how you are arranged, but the customers will not see it that way. They see one organisation with which they expect a seamless relationship. Internal communications and resources must be managed to provide this.

Segment your audience to provide relevant services: Not all customers want the same thing. Your offering should be flexible enough to combine or exclude elements as consumers wish to use them. Provide services designed to meet the needs of consumers - not the wishes of the supplier. A good example of this is in the utility sector where companies are able to supply gas, electric and water - but equally allow consumers to purchase supply of just one or two of those.

Talk to customers in terms of benefits rather than features: Don't say "A development loan is structured to facilitate repayment over either 24 or 36 months", say "With a development loan you can develop the technology to revolutionise your product and compete in overseas markets". Financial services are strong on this recognising that financial security is the thing that appeals to most people - not the particular interest rate structure which you might think would be the main attraction.

Communicate your brand values: Too many businesses still believe that a brand is an organisation's ability to reproduce a logo consistently across signage, stationery, etc. A brand is about communicating what you are through what you do. If you want people to think of you as customer-led and commercially aware then you don't build an unfriendly automated response system that puts people on hold listening to music they can't stand for twenty minutes.

Consider the role of physical evidence: Marketing services presents a challenge that marketing physical goods does not. If consumers have something they can touch and feel they know what they are getting for their money. The small amount of physical evidence that consumers do have - a letter, statement, web page, etc. - has to communicate everything about your brand. If the service is a quality service, then the physical evidence has to project quality as well.

Think about how you stay in touch with your consumers: Different services lend themselves to different types of communication, as do the needs of different customers. Think about which customers relate in which way(s) and build in flexibility to allow for change or integration. Many call centres can now talk to customers on the phone guiding them through a web site. On-line banking is considered a massive boon by many, while others prefer to visit branches and make their transactions with a person. NatWest's recent advertising highlights the requirements of different consumer segments.

Encourage customer loyalty: Word-of-mouth advertising has long been recognised as the most effective form of communication with consumers. If what you do is good people will tell their friends, if what you do is bad they'll tell their friends and anyone else they can think of. Providing a good service is a prerequisite for encouraging customer loyalty, but not enough on its own. Structuring costs or benefits so that advantage is derived over time is one way of achieving this. Consider web sites that are tailored. The first time you use it you take the time to input details that are recognised on return visits - thus saving you time.

Source: Chartered Institute of Marketing

Our analysis of departments' e-business strategies found that few set out the need for concerted marketing of e-government services and had action plans for doing so.

- 2.29 Incentives which encourage the public to interact on-line. People will not take up electronic services if they do not see clear benefit to them in doing so. Improving departments' internal operational efficiency is unlikely to be an incentive unless citizens receive some tangible benefit. Departments need to be creative in designing incentives. As Professor Margetts and Professor Dunleavy point out in their paper on cultural barriers⁶ where individuals are accustomed to a conflictual, inflexible relationship with a government organisation on paper, they are likely to expect that an electronic version of the organisation will be the same and they are likely to be less willing to divulge information electronically than they would be to their bank, for example. Examples of incentives for citizens and businesses include:
 - Lower fees and charges for public services the extent to which reductions in departments' running costs are passed on to the public in reduced charges.

User led approach to e-government

- Speed of delivery the public are likely to see benefit if the time it takes a department to process a claim or application for a passport or driving licence is reduced.
- Quality of service providing a more personalised service for example, a person's details are logged and tracked so that when he or she contacts a department at a later date these are immediately to hand and they do not have to be provided all over again.
- Free access providing access through public service websites in kiosks, libraries and other public places so that no one is excluded from the benefits because they do not have access to a computer at work or home.
- 2.30 The main way, however, of ensuring that the public want to interact with departments on-line is by departments adopting a user-led approach to developing and implementing e-government (Figure 22). This means justifying every IT project in terms of the ultimate benefit it will provide in terms of better and more efficient service delivery IT should never be an end in itself (Figure 23). Our analysis of departments' e-strategies found that most considered incentives were important to encourage the take up of services on-line but few had identified the specific types of incentives that needed to be in place.



46

Key stages in a user led approach to e-government

Customer segmentation - is the process of analysing and categorising customers by similar characteristics, such as life stage events (for example business start-ups); customer behaviour; and customers' characteristics. Once the needs of different customer segments are understood, the organisation can then consider how to develop its services so that they meet their needs and can decide how to market them so that targeted customers use them.

The Office for National Statistics has used information on its key users to determine the sort of electronic service delivery which would best help them in their work. It segmented its customers by type and the frequency with which they used statistical data and on the basis of this research decided on the best way to deliver data and services for each group.



Customer Relationship Management systems are essentially sophisticated electronic databases on which information can be collated and analysed on the volume and nature of customer contacts with an organisation. The organisations which we consulted in preparing this report found them to be crucial in providing the information necessary not only to develop a customer segmentation approach, but also to re-engineer services so that they meet the needs of customers.

Hertfordshire County Council has used its Customer Relation Management system to manage case files and workload in its Children, Schools and Families directorate so that it is possible to have "one child, one file, one caseworker" and to provide a seamless service to children and their families in need of help.



Incentives - for example, by involving customers and potential users in the development of systems. Some organisations have identified this as a key issue and are working to educate potential users of the benefits of electronic systems of delivery and seeking their views on how the system can meet their needs.

The Office of Government Commerce piloted e-tendering across departments to test whether features of the Royal Bank of Scotland's e-tendering system met departmental needs. Suppliers were incentivised to get involved in the pilot, as they could access the system without charge during the pilot period. The information gathered will be used to assess the type of system most suited to future usage.

Source: NAO

23

Part 3

Delivering the benefits of e-government

3.1 This part of the report considers five key benefits of e-government with examples of how they are being achieved:



Greater choice – providing users with a greater range of services and delivery channels such as the Internet, call centres, and face to face contacts which better meets their individual needs and preferences. *We draw on the example of the Public Records Office*.



Better accessibility – giving citizens greater access to the range of services delivered by departments by providing better easy to use information on-line and joining-up services at the point of delivery. *We consider the approach adopted by Hertfordshire County Council.*



More convenience – providing services in a way which suits citizens' and businesses' needs by re-structuring services based around users' needs, for example, by providing services on-line, 24 hours a day 7 days a week, enabling people to obtain information and carry out transactions with departments when it is convenient for them to do so. *We consider the approach adopted by the Lord Chancellor's Department*.



Faster delivery – providing faster more accurate services, for example, on-line services which enable citizens to obtain information more quickly than by post or by visiting a government office; and by electronic data interchange which enables businesses to transmit large amounts of data quickly and easily to departments. *We draw on the example of the Planning Inspectorate*.





Improved efficiency – replacing manual processing of routine high volume work by IT systems should reduce staff requirements and deliver financial savings or allow staff to be redeployed to other priorities. It can also be used to make the purchasing of goods and services more efficient. We consider the approach adopted by *Her Majesty's Land Registry, Oracle and other private sector companies.*

A Greater choice

3.2 The capability of IT to store large amounts of information which can be retrieved very quickly provides a range of opportunities to offer new services. For example, someone looking for employment can access information on-line about vacancies, and select those to apply for which best fit their gualification or work experience in the place they want to live. If they are subsequently successful in getting the job and decide to move, they can via the Internet obtain information about transport and other support facilities in the area. Well designed IT-enabled services can make it possible for people to make more informed choices about how best to meet their needs and self select the services which they require. For example, the Public Record Office has found that placing its catalogue on its website has resulted in the users of its services making more sophisticated enquiries and better use of the Office's records (Example 14). The Oracle Corporation has used Internet technology to develop a self-service help site so that customers can choose the advice they need to resolve software problems without having to contact a member of Oracle's staff. Providing more services and greater choice can also open up new markets and sources of revenue. The Land Registry, for example, through its Land Registry Direct Service is attracting new users who want to carry out land searches such as large retail companies looking for new sites.



EXAMPLE 14 – Greater choice and improved efficiency – the approach adopted by the Public Records Office at Kew

How is IT used? The Public Record Office holds over 150 kilometres of records. PROCAT is part of an overarching programme – Archives Direct 2001, which is now known as the Nation's Memory – the aim of which is to enable users to access a range of services including catalogues, leaflets, publications, the ordering of documents in advance of their visit to the Office and to see digitised images of some records. PROCAT is an on-line electronic catalogue to the Public Record Office's holdings which can be accessed any time and is easier to maintain than the traditional catalogue. The catalogue went on the web in March 2001. The software development project cost a total of \pounds 1 million and was delivered on time and to the required specification.

The Public Record Office has adopted a build and learn approach to the conversion of paper catalogues into electronic form which has improved the access, availability and accuracy of services. It has also improved the Office's internal efficiency and enabled them to identify better how services can be further improved focusing on the needs of users and providing opportunities for new sources of revenue.

How have services to the public improved?

- greater choice provides options for information searches which are more intuitive and easier for nonacademics to use;
- faster service reduces the amount of time spent searching for relevant documents and allows more productive time researching – Users can access remotely at any time and either order images of documents by email or phone, or pre-order to see originals when they visit the Public Records Office which means less waiting time;
- accessibility brings to researchers' attention sources they may not have considered before;
- convenience there are over two million "hits" on the site each month. Staff are finding that readers are asking more intelligent and educated questions which indicates that PROCAT has been successful in educating users about what is available.

What internal efficiencies have been realised?

- very routine word processing and editing work no longer has to be done. There used to be a full time administrative unit performing this task, but these staff can now work on more productive projects.
- there is less chance of errors in the catalogue because of on-line access to the whole catalogue which allows easier cross checking; the provision of authority controls;

- better management information provided from the electronic system is helping the Public Record Office to develop the services it offers. For example, they can track which catalogues readers have accessed and the documents they subsequently order, which helps them to identify the most popular series of records and consider how they might make access to them easier;
- greater accuracy the process of putting the catalogue on-line exposed weaknesses in the catalogue data such as inconsistencies in information.

How was the change programme achieved?

Through the development of an electronic finding aid on-line which provided a seamless hierarchical catalogue of records which was user friendly but met international professional archive standards. The Public Records Office adopted an **incremental build and learn approach** to this with pre-cursor projects to investigate different options and to prove the technology, to test the editorial process and to gain technical experience of presenting an electronic finding aid on-line and pilot the catalogue on the website. This provided information on the types of users, the sorts of browsers they wanted to use and the types of enquiries they were making, which was fed into the development of the on-line catalogue – PROCAT.

Key lesson

Need for an incremental rather than a "big bang" approach – testing each key stage to be sure it works before proceeding to the next stage rather than implementing the complete system all at once.

Other lessons learned:

- Senior managers and users were involved in the project development at all stages. The Keeper of Public Records chaired the Archives Direct Programme Board and the Director of Government, Information and Corporate Services chaired the PROCAT project board. The project board also had a number of internal user representatives, external user views were sought through focus groups, open days and an on site user trial, on-line e mail access and comment forms and consultations with Departmental Record Officers.
- The maintenance of a dynamic risk register with weekly planning meetings to decide how risks were to be managed worked very well particularly when the system was going live.

Source: NAO examination of the Public Record Office's PROCAT system. More detail can be found on the NAO's website <u>www.nao.gov.uk</u>

B Better accessibility

- 3.3 Citizens and businesses want to be able to access public services without having to go through time-consuming administrative procedures involving considerable form filling. IT can help by providing a range of ways by which the public can interact with departments, for example, through the Internet with access available through a range of channels such as personal computers and digital television (**Example 15**); by telephone to a call centre such as NHS Direct which then uses IT to route the call and access advice; and by face to face contact with the public sector worker using IT to access information to deal with the enquiry.
- 3.4 The advantages are that a range of interrelated services can be provided from one location because IT can provide easy access to a large number of data bases which is not usually possible manually without considerable effort; and if they are well designed,

IT systems can provide information in much simplier easier to use formats providing advice on health, education and legal issues and information on weather, transport and overseas travel. As a consequence the public can be better informed on a range of issues and direct their requests for support and assistance to the public sector organisation best suited to help them. Hertfordshire County Council, for example, faced with the challenge of a population which is becoming increasingly more IT literate (over 50 per cent of people in the county have access to the Internet) and which was critical of the accessibility of the Council's services used IT to implement a major programme to transform the way in which public services are delivered (**Example 16**).



EXAMPLE 15– Digital television

Currently 40 per cent of households have access to digital television and this is estimated to increase to 88 per cent by 2008. Digital television allows users to navigate fairly easily through multi-channelled mediums. Assumptions about citizen take up are, however, subject to some uncertainty. These are partly about expense and the extent of people's trust and confidence in using new technology to provide information on-line.

EXAMPLE 16 – Better accessibility of public services – the approach adopted by Hertfordshire County Council

How is IT used? Hertfordshire County Council provides education, environment, social, culture and leisure, fire and rescue and road services to a population of one million people. In 1997, it faced a situation where there was growing demand for its services, but its ability to meet this demand was restricted by budgetary pressures. Faced with this challenge and with a population which was becoming increasingly IT literate (over 50 per cent of people in the county have access to the Internet), and who were critical about the accessibility of Council services, Hertfordshire County Council decided to use technology to transform the way it delivers services by making them **more accessible**.

How have services to the public improved

- The public have better access. Over 80 per cent of council services are available through the Customer Service Centre which is open 67 hours per week from 8 a.m. till 8 p.m. Monday to Friday and 9 a.m. till 4p.m. on Saturday;
- Services accessible via the Council's website are available 24 hours a day, 7 days a week;
- It is possible for Hertfordshire residents to carry out transactions on-line – early examples include order and pay for birth, death and marriage certificates, renew library books and book research time at the county archives; and
- There is a faster and better quality service for the public with 80 per cent of queries resolved by Call Centre staff.

What internal efficiencies have been realised?

■ Library services have found that typical transaction costs have reduced from £4 to conduct a face to face transaction to deal with a query to 10p if the query is resolved over the Internet.

How was the change programme achieved

The Council has used IT to meet increased citizen demand for its services within existing budgets by establishing new forms of access through a customer service centre and a transactional website – all calls to the Council are routed through the centre which can handle 80 per cent of them without redirecting to other staff. Through the transactional website users can renew library books and order copies of death, marriage and birth certificates among other transactions.



Key lesson

information about the nature of user contacts and how services are delivered was key to successful implementation. Initially , much of Hertfordshire's information was "inspired guess work" derived from a process mapping exercise, but development of the customer information base and management information systems has helped to fill the gaps and is influencing the development of new services;

Other lessons learned

- leadership the Chief Executive outlined the vision for transformed services and personally ensured that it got the support of all key stakeholders in the Council;
- cultural change the Council wanted a step change in the way in which enquiries were handled and how the Council was perceived, this was achieved by recruiting and training new staff specifically for the Call Centre. The emphasis is placed on customer-facing skills rather than traditional process management skills.

part three

C More convenience

- 3.5 With shops and other retail outlets having much longer opening hours and providing the facility to order and purchase goods and services on-line 24 hours a day, people expect public services to be delivered in ways which are more convenient to them. Convenience is about making services available when people want to use them. For example, the Lord Chancellor's Department are piloting a programme which enables solicitors to issue and serve petitions for less serious cases via e-mail. A judge considers the petitions and where possible resolves them without the need for a court hearing. Initial results suggest that the average time taken to provide judgement on a civil case can be reduced from 21 to five days (Example 17).
- 3.6 Another example of a more convenient form of service delivery is the RAC Motoring Services command and control system which enables call centre staff to give customers more accurate information about how long they will have to wait for a patrol staff to arrive to assist them and the likely seriousness of the breakdown. Call centre staff ask drivers a series of questions to identify the likely fault so when patrol staff arrive at the roadside they can often deal with the problem more quickly. Call centre staff can also provide customers with updated information on the progress of jobs. The information collected gives the RAC better information about customers and the services they need, so new services can be developed and existing services improved.



EXAMPLE 17 – Convenience – the approach adopted by the Lord Chancellor's Department

How is IT used? The Court Service's Courts and Tribunals Modernisation Programme is a co-ordinated programme of existing and planned projects designed to deliver modern, customer-focused services. Three of the programmes earliest projects are :

- PREMA (Preston E-mail Application Service) using e-mail to reduce the time taken to deal with individual cases,
- the Kingston Pathfinder Court using technology to improve the administration of court cases;
- On-line Issue of Money Claims using the Internet to provide a 24 hour service.

How have services to the public improved?

PREMA (Preston E-mail Application Service) – is a pilot project being run at the Preston County Court. Under the scheme, solicitors will issue and serve petitions via e-mail. A judge will consider the applications and where possible resolve them without the need for a court hearing. The aim of the project is to determine the benefits of using e-mail to deal with this type of court work, determine potential reduction in cost and time of dealing with cases via e-mail and identify the types of case most suited to this approach. The project has demonstrated the benefits and acceptability of using e-mail in administering specific types of court cases. **Monitoring returns show, for example, that the average time taken to provide judgement on a civil case is reduced from 21 days to five days.**

Kingston Pathfinder Court projects demonstrate the types of new technology that could be introduced to provide a better service to court users and reduce the amount of time taken to deal with cases. Kingston Crown Court has been equipped to demonstrate this new technology, including the use of electronic information screens outside each courtroom to keep court users up to date with proceedings in each courtroom, electronically presented evidence such as photographs, maps and witness statements, and digital audio recording of case proceedings. The Court Service is also investigating the use of e-mail and the Internet to disseminate information from the courtroom, for instance using e-mail the court clerk will be able to instantly e-mail information, such as the outcome of cases, from the courtroom to the local prison.

The projects have piloted and `proved' the underlying IT infrastructure needs for installing **new computer technology** in courtroom environment. It has enabled the Court Service to move forward to live operational pilots of in-court technology including Digital Audio Recording, Electronic Presentation of Evidence, and Improved Information to Users.

On-line issue of Money Claims – Using the Court Service website, this project will allow on-line completion of a request to issue a money claim. The service was launched in February 2002. The service requests details of the claimant, the defendant and the details of the claim. The information can then be submitted to the Court Service to validate the information and process it for despatch to the defendant. The aim of the service is to provide a guaranteed processing time of 48 hours. The project will result in a 24-hour service enabling the issue of a claim at any time of the day or night.

What internal efficiencies have been realised?

It is too early to quantify efficiency improvements because the project is at a pilot stage.

How is the change programme being achieved?

A key feature of this IT-enabled change programme is carefully piloting each project to ensure that the planned benefits are achievable and cost effective

Key lessons

- The PREMA project has highlighted the substantial improvements in turnaround times of individual cases. County Court judges have commented that they prefer to work via e-mail as it is easier, quicker and reduces the circulation of paperwork through the court.
- Early lessons learnt from the Kingston Pathfinder Court include the need to be clear in specifying what equipment is required and also to ensure there is a clear mutual understanding between departments and suppliers of what is required of the technology and what can be supplied to meet this requirement.

Source: More detail can be found on the NAO's website <u>www.nao.gov.uk</u>

D Faster delivery

3.7 The length of time it usually takes for someone to receive a service from a department such as a response to a general enquiry or an application for a driving licence can be influenced by many factors – the efficiency of the postal services in delivering the application, the extent to which the form has been filled in accurately, the volume of work being processed and the efficiency of a department's internal processes. IT can speed up each of these activities, for example, by

applications being transmitted electronically and their accuracy validated on-line, workloads being scheduled more efficiently and internal processes being re-engineered to improve their productivity. The Planning Inspectorate, for example, by introducing IT-based systems and using technology as an opportunity to re-engineer its existing working practices can now process planning applications and appeals much faster (**Example 18**).



56

EXAMPLE 18 – Faster delivery – the approach adopted by the Planning Inspectorate

How is IT used? The Planning Inspectorate is an Executive Agency which supports the Government on appeals and other casework under Planning, Housing, Environment, Highways and allied legislation relating to England and Wales. The Agency is developing a Planning Portal to provide an electronic planning advisory service linking the public, business and other users of the planning system to a wide range of advice, guidance and services on planning and related topics. It is also developing a new Planning Casework Service, which will be one of the services available over the Planning Portal, which will enable people to submit, view and track appeals and other casework which it deals with over the Planning Portal. There will also be a facility to pay fees on-line. An interactive on-line planning application form and XML schema are being developed for local planning authorities as part of the Planning Portal Project. Tool kits will be provided free of charge to local planning authorities to enable them to provide their own planning related services through the Portal. The two main projects will help reduce delays in the processing of planning appeals, improve accessibility to the planning system, enable the exchange of documents electronically between all parties involved in the planning process contributing to faster processing of planning appeals and other casework dealt with by the Inspectorate.

How will services to the public improve?

- Faster processing of planning appeals and a reduction in the number of abortive planning applications through better quality advice and guidance.
- A one stop shop for planning related information and services, resulting in a more accessible and open planning systems.

What internal efficiencies will realised?

- Reduction in the staff time and cost of distributing leaflets and forms.
- Reduction in printing costs.
- Reduction in staff time spent answering queries from the public, government offices and agencies.

How is the change programme being achieved.

■ Focus on user needs – The two project teams looked at the planning process from user and staff viewpoints which helped to define the scope and describe the characteristics of the new services, outlined changes that will need to be made to implement the new services and explained how those accessing the services will be able to use them. This was done in consultation with the organisations involved through the planning process – Local Planning Authorities, Royal Town Planning Institute, Government Offices, the Environment Agency, Planning Agents, planning inspectors and staff and were used to form the basis of the business case for the investments into new services.

- Sound project management through the use of an adapted version of the PRINCE2 methodology, establishment of a Programme Board, Stakeholders Board, Project Assurance Team, and project board and design and implementation project team for each of the two projects.
- Clear requirements for suppliers A clear statement of requirements and a blueprint setting out the long term vision of how services will develop were drawn up and used as the basis for the competitive tender so that the chosen contractors will subsequently be able to progress the project without the need to refer back to the Inspectorate for extensive clarification or additional information. The consultants were selected with a good track record of developing information rich websites within the public sector.
- Continuous performance measurement A detailed business process analysis and design is being carried out with the development and implementation of new organisational structures, team roles and working practices within the Planning Inspectorate.
- Adoption of an appropriate procurement strategy to address supplier risk. This involved reviewing the business processes first, preparing a risk management plan with technical, business and financial counter measures, allowing time to consider the most appropriate procurement route, conducting regular, frequent and formal review meetings to focus on issues, expected results and final outcomes, using performance measurement to monitor and manage the project, using the Gateway Review workbooks to plan what products will be required at different stages of the projects and developing a Strategy for live operation, including a commercial model for operating and sustaining the Portal.

Key lesson

The importance of adopting a fully integrated approach involving assessment of users' needs, how best to rationalise existing processes with a clear focus on delivering better quality services.

Source: NAO examination of the Planning Inspectorate. More detail <u>can be found on the NAO's website <u>www.nao.gov.uk</u></u>

E Improved efficiency



- 3.8 IT has considerable potential to improve departments' internal efficiency. There needs to be an initial investment in IT infrastructure and skills development but the longer term benefits could be considerable. Our discussions with private sector companies which are undertaking significant IT-enabled change programmes suggest that it is not unrealistic for public sector organisations to be seeking value for money improvements in the region of 10 per cent of their total operating costs. Efficiency improvements are likely to come from:
- Replacing high-volume routine processing of applications by electronic systems. By moving to an IT system, and then re-engieering the process, the Land Registry for example, reduced the number of staff involved in a non complex land case from 12 to one (Example 19).

EXAMPLE 19 – Improved efficiency – the approach adopted by Her Majesty's Land Registry

How is IT used? For several years the Land Registry has been implementing a change programme and improvement using developments in technology to streamline and automate its processes where appropriate. The Land Registry has computerised its system for processing applications to register land.

What efficiencies have been realised?

THE LAND REGISTRY

- The cost per unit of work has reduced from £27.48 in 1995-96 to £22.52 in 2000-2001;
- Fees for registering land have reduced by 40 per cent overall since 1993;

LEGAL PRACTITIONERS

■ Anticipated savings per transaction expected to be generated by the legal practitioners through using e-conveyancing are £21 made up of clerical work: £15; preparing and copying documents: £3; postage: £1.75; and storage of papers £1.25.

How was the change programme achieved

The Land Registry has:

- computerised and re-engineered its system for processing applications to register land. The process used to involve up to 12 different members of staff, it can now be completed by one in all but the most complex cases; converted 17 million paper title registers and plans into electronic format and is currently scanning deeds and documents held by the Land Registry and Land Charges; and made its services available to customers through call centres and online through Land Registry Direct which subscribing users can use to view computerised registers and title plans on screen and to conduct searches themselves;
- Used a management information system to monitor work on a daily basis; informing day to day management decisions such as where to allocate resources; to monitor the success of new systems, processes and procedures; to plan; budget and forecast for future workload;
- purchased off-the-shelf packages ensured that adequate support is available. The Land Registry's management information system has been purchased under licence from a software company who update it to meet the Agency's developing needs

Key lesson

Involve users in any new development. Increasing user focus has provided the impetus for much of the change introduced by the Agency which is now finding that customers are pushing for change. A director of training and education has been appointed for the e-Conveyancing project to enable both Land Registry staff and customers to be equipped with the knowledge and skills to use the system effectively. Its approach to new service delivery such as Land Registry Direct and the National Land Information Service has been to facilitate and enable the change by educating and engaging the commitment of users to the change, finding a partner to deliver it and then letting them run the service introducing IT-enabled change

Other lessons

Adopt realistic timetabling and thorough but flexible planning of IT projects by:

- involving procurement staff, the Office of Government Commerce and suppliers as early on in the process as possible;
- bringing top management into the decision making process as early as possible; and
- making allowance for projects taking longer than expected. For example, previous experience of advertising contracts in the Official Journal of the European Communities has meant that, for the e-Conveyancing programme, the Agency is assuming that the process will take 18 months and is planning accordingly.

Source: NAO examination of Her Majesty's Land Registry. More detail can be found on the NAO's website <u>www.nao.gov.uk</u>

- Better and more accurate information allowing departments to target their activities for example, supporting small businesses in ways which are more likely to maximise effectiveness while at the same time improving departments' productivity that is, more impact for the same resources. Anglian Water have used the information gathered by e-procurement to improve control for example, to reduce maverick buying off agreed contracts.
- Replacing internal support activities such as procurement, personnel records, training and arranging travel and reimbursing expenses. Oracle, with worldwide staff of 40,000, realised internal efficiencies of £11 million through the use of web enabled self service applications for functions such as personnel, training, travel expenses and pay (Example 20). Similarly Anglian Water have reduced procurement transaction costs by 60 per cent where e-procurement has been used (Figure 24).
- Using IT to assess critically existing backroom processes to determine if (i) they remain essential; (ii) whether they need to be significantly redesigned to support IT methods of service delivery; or (iii) whether they could be provided by other means by being outsourced. For example, the Office of Government Commerce's e-tendering pilot is aimed at removing the administration involved in tendering by providing an electronic forum to ensure that in answering enquiries, departments supply the same information to all bidders and that there is an instant record of when documents are sent and received.
- 3.9 As yet it is not possible to determine the extent to which departments are achieving major efficiencies from using IT. This is because very few departments have established baselines against which to measure improvements. There is also a potential risk that as IT provides more data and new and more advanced ways of doing things, staff redefine their jobs so that staffing levels remain unchanged. Experience in the private sector indicates that preventing this from happening requires strong leadership to ensure that efficiency and productivity improvements are realised.

- 3.10 Our analysis of each of the examples of how the benefits of e-government have been achieved reinforce the need for departments to:
 - Have reliable information on the current demand for public services and the pattern of use by people. This should form the basis for assessing how IT can be used to improve delivery particularly in terms of providing more choice, better accessibility and convenience. The implications for the demand for services of moving to IT-based delivery should also be assessed.
 - Critically appraise existing working practices and ways of doing things. Providing staff with new IT will not in itself lead to better public services, it is often the accompanying changes to working practices and backroom processes made possible by IT which improves public services.
 - Secure senior management support and leadership. IT specialists are important but the new approaches made possible by IT require the full commitment of senior management to drive through and sustain improvements in public services.
 - Involve potential users in the development of new systems. Both those who deliver services and those who rely on them should be consulted to ensure that the proposed changes are likely to be practicable, cost effective and result in sustainable improvements in public services.
 - Build in rigorous testing before systems go live. IT-based services need extensive testing and piloting to ensure that they will operate as intended. This should include gaining sufficient assurance that accessibility will not be a problem and the ability of the system to deal with upgrades in technology. One way of tackling this is by adopting a build and learn approach to prove the technology works.
 - Establish a baseline and monitor improvements. Departments need to establish a baseline for current standards of service delivery and operational efficiency. Such baselines should be used to monitor and assess cost and the delivery of sustainable improvements, and if progress is less than planned indicate the need for action.
 - Meet people's expectations. If a member of the public finds an on-line service difficult to use or if they phone a call centre and are put on hold for a considerable length of time, or have to go through various electronic options before they receive a satisfactory response, they will become irritated and disillusioned. They will have little incentive to interact with departments electronically. It is essential, therefore, that ease of use is a paramount consideration in the design of services delivered through IT.

60

EXAMPLE 20 – Improved efficiency – the approach adopted by ORACLE

- 1 Oracle is a worldwide corporation providing IT software and support to the private and public sector in 145 counties with over 40,000 staff (4,000 in the UK) and with turnover of \$11billion (£7.8 billion) a year. Oracle's Chairman in 1999 set Oracle the target of making \$1 billion (£0.7b) of savings in 2000-01 from harnessing the benefits of the Internet. This target was achieved (audited by Harvard Business School) and has been raised to \$2 billion (£1.42b) for 2001-02.
- 2 The savings have arisen from:
 - consolidating IT (\$200m) (£142m) such as the reduction from over 100 e-mail servers worldwide to two.
 - improved sales (\$550m)(£392m) through the availability of self-service applications to both customers and internal sales staff, leading to increases in sales force productivity of between 10 per cent and 20 per cent.
 - better procurement (\$150m) (£107m) by the adoption of electronic procurement applications to automate internal transactional processes, reduce contract leakage, and free up procurement professionals for more strategic sourcing activities.
 - internal efficiencies (\$100m) (£71m) through the deployment of web enabled, self-service applications for such functions as personnel records, training, travel, expenses and pay.



Key lessons

- Delivering improvements in services and efficiency requires strong leadership, clear targets and buy-in from management, employees, suppliers and customers. To obtain buy-in, incentives are required such as quicker more accessible services for customers, savings in transaction costs for suppliers and better information for management on the organisation's activities. For example using Internet technology, Oracle have developed a `self-services' help site for customers to resolve their more basic software problems without recourse to initial direct contact with a member of Oracle's staff. This enables specialist staff effort to be focused on the more complex cases that need their involvement, leading to higher overall levels of customer satisfaction.
- Significant efficiency gains have been obtained by using Internet technology to modernise, streamline and standardise business processes and services, for example in gathering business intelligence about customers and suppliers.
- Customer relationship management has been improved by better recording and monitoring of information customers' demand for services, their views on the quality of service obtained and on new services. This has enabled Oracle to better understand the dynamics of the market place in which they operate and provide a more personalised service to individual customers.
- Clear and measurable efficiency targets provide an incentive for management and staff to implement the changes in working practice and IT system and provides senior management with information to track progress and focus resources on developing areas which have provided efficiency gains such as electronic procurement.

Source: NAO discussions with Oracle UK. More details can be found on the NAO's website <u>www.nao.gov.uk</u>



4 Other examples of efficiency gains

Improved staff productivity

British Gas – used IT to improve efficiency. Prior to the introduction of new software 28 staff in one of the more effective old regional offices processed 180,000 paper invoices in 1995. In 1998 using the new software 24 staff were needed to process 700,000 invoices – a 354 per cent improvement in staff productivity. Use of IT also means that it now requires only one personnel staff to support 30 employees compared to the previous ratio of 1:13.

How they are being achieved:

- senior management taking a long-term view of how to improve company performance;
- reorganised administrative units using new computer based tools;
- using IT software to reduce its overheads; and
- reorganising its human resource functions by transferring responsibilities to line managers.

Easier access for the public

Government Gateway project implementing central IT infrastructure to improve services and realise savings to provide easier access to services for citizens. It also allows transactions to be carried out securely. The Office of the e-Envoy estimate that central development of infrastructure will cost one-fifth of what it would cost if departments developed their own solutions.

How they are being achieved:

- Piloting three services with three departments with different technical platforms and different volumes of transactions to gauge how the system would cope if it is rolled out across government; and
- Use of gateway review process at key stages to ensure project remains on course and the benefits are realised.

Efficiency

Reduction in transaction costs

AWG (Anglian Water Services) are using e-procurement to improve efficiency to secure:

- reduction in transaction costs of around 60 per cent from moving to electronic transactions for example through electronic processing of orders and payments;
- improved collaboration with other organisations and suppliers provides opportunities for better deals and sharing of risk without reducing suppliers' margins by removing costs and waste from the procurement cycle; and
- better information on procurement activity improves control for example over payments and purchases, on suppliers' performance and what buyers are purchasing at any given time to reduce maverick buying off agreed contracts.

How they are being achieved:

- Anglian Water Services spend some £300m a year on the procurement of goods and services implemented a strategy to centralise 80 per cent (by value) of procurement, introduced systems to enable the business to raise requisitions electronically, authorise purchases and issue orders electronically to suppliers, and introduced a corporate procurement card. This was supported by bringing in new staff to raise expertise in current procurement practice; and
- Anglia Water Services then joined the Achilles market place in 2001 (www.achillesmarket.com) which will enable Anglian Water to explore joint initiatives with other utility organisations and allow it to trade electronically with 21 key suppliers using catalogues of key goods.

Savings

Office of Government Commerce – piloting of electronic tendering with ten departments was intended to assess the robustness of the original business case that identified the potential for savings in the region of £13 million for the taxpayer over a four-year period; and a reduction in suppliers' tendering costs by an estimated £37m over a four-year period based on the actual current cost of tendering and the reduction in time and costs made possible by e-tendering. E-tendering has the potential to deliver further savings as it becomes a catalyst for change in the way departments invite and receive proposals from suppliers.

How they are being achieved:

- The pilot recognises the importance of having incentives for users and suppliers to increase take-up of e-tendering;
- The Office of Government Commerce has ensured that the service provider set up a help desk to record all the issues raised during the pilot project so that lessons can be learnt and applied during full implementation; the project drew on experiences in other pilot exercises; and
- Involve other departments as much as possible in developing the system in particular front-line end users should be consulted as early as possible and their expectations should be managed.

Source: NAO examination of public, and private sector approach to introducing IT. More detail can be found on the NAO's website www.nao.gov.uk

Appendix 1

Study Methodology

What we examined

The benefits of e-government and how departments are achieving them.

The progress departments have made in implementing e-government and what more needs to be done to improve services and secure efficiency gains.

What we did

- Case studies of seven IT-enabled business change projects in departments to find out the benefits from using modern technology and how these were achieved¹.
- Comparisons with industry discussions with five private sector firms² to find out how they had implemented new technology and secured efficiency gains.
- Local authority experience interviews with two local authorities³ to find out their approach to delivering services using modern technology and joint visits with the Audit Commission team undertaking work on electronic service delivery.
- Comparisons with developments in other countries through literature and Internet searches and discussions with the Organisation for Economic Co-operation and Development and the French Ministry of Public Services - Délégation Interministériêlle à la Réforme de l'État.
- Review of 20 departments' e-business strategies to identify the common technological and cultural challenges departments face in implementing IT-enabled business change and how they are being addressed.
- Progress in implementing good practice for the management of IT projects. Review of key findings from the Office of Government Commerce gateway reviews of the key stages of IT projects and follow-up to the recommendations of the Committee of Public Accounts report on Improving the Delivery of Government IT projects (HC 65 1999-00).
- Interviews with senior staff in seven departments responsible for the implementation of the strategies to identify the approaches adopted to IT-enabled business change.
- **Two focus groups** with IT suppliers organised with the Computing Software and Services Association (CSSA) the trade association for the UK computer industry.
- A research paper on cultural barriers by Professor Helen Margetts (University College London) and Professor Patrick Dunleavy (London School of Economics and Political Science) looking at the ways departments can overcome the reluctance of their staff and potential users to provide and access services electronically⁶.

³ Local authorities interviewed - Hertfordshire Country Council and Ipswich Borough Council

References

Footnotes

- 1 Value of IT Projects covered by Office of Government Commerce Gateway reviews Gateway reviews have been carried out on over 100 major central civil government IT projects in the early stages of procurement involving around £10 billion of expenditure.
- 2 The target includes over 500 services which departments routinely provide to citizens and business. Electronic includes computers, digital television, e-mail and the network and systems that connect them to information databases such as the Internet.
- 3 Land Registry; Office of the e-Envoy; Lord Chancellor's Department; Public Record Office; Office of Government Commerce; Planning Inspectorate; Office for National Statistics; Hertfordshire Country Council; Royal Automobile Club; Oracle; BT Group; AGW Anglian Water Services; British Gas and Implementing e-government in France. Details of the cases are available on the NAO's website www.nao.gov.uk.
- 4 Global E-Government Survey World Markets Research Centre Summer 2001 review of 2,288 Government websites in 196 countries www.worldmarketsanalysis.com
- 5 On-line is defined as dealings between people and organisations such as finding out a piece of information, filling out a form or making a payment that takes place using the Internet.
- 6 Cultural Barriers to e-government by Professor Helen Margetts, University College London and Professor Patrick Dunleavy, London School of Economics and Political Science (available on the NAO's website www.nao.gov.uk).
- 7 The Office of Government Commerce is an independent Office of the Treasury established in April 2000. One of its functions is to improve the efficiency and effectiveness of the Government's £13 billion annual civil procurement budget. It provides advice to departments on procuring IT services.
- 8 Strategic suppliers are chosen by (i) size of spend across government, (ii) criticality of goods/service supplier to the delivery of government business, (iii) lack of easily available substitutes, (iv) significant market share and strategic influence and (v) extent of government business on a multi-departmental basis.
- 9 The Internet is a worldwide collection of computer networks sharing common standard and protocols of communication. The World Wide Web the 'Web' is the main Internet application.
- 10 Intranet a network linking computers within an organisation which is closed to outsiders. Its structure and user interface are based on those of the Internet.
- 11 IT (Information Technology) refers to new information technologies such as computers, digital television, e-mail and the networks and systems that connect them to information databases (such as the Internet⁹ and Intranets¹⁰). The telephone and fax are not considered new technologies.
- 12 Fresh Start: Basic Skills for Adults, March 2000 (Department for Education and Employment now Department for Education and Skills).
- 13 Closing one digital divide: ICT in deprived areas November 1999 (Department of Trade and Industry)
- 14 www.e-Envoy.gov.uk/esd.htm
- 15 Public Service Agreements set out department's objectives for public services with measurable targets for the delivery of the objectives. Service Delivery Agreements set out how each department will meet its target and the changes needed to deliver the targets.

64

- 16 SPRITE is the Successful Projects in an IT Environment Programme aimed at ensuring departments improve their organisational capability to deliver successful IT-enabled business change.
- 17 UK on-line Annual Report.
- 18 On-line is defined as dealings between people and organisations such as finding out a piece of information, filling out a form or making a payment that takes place using the Internet.
- 19 Spending Review 2000.
- 20 E-Government Leadership Rhetoric Vs Reality Closing the Gap. Report by Accenture April 2001
- 21 Organisations with major IT developments or providers of IT services consulted by the NAO Hertfordshire County Council, Ipswich Borough Council, RAC Motoring Services (RAC), Oracle, BT Group, Anglian Water Services and British Gas.
- 22 The Government Portal (Gateway) Project and Office of Government Commerce e-tendering project.
- 23 Government Secure Intranet A secure web-based facility which gives government users access to departments' internal directories and intranets. It also provides a range of information services through links to other sites outside of Government.
- 24 Government Gateway provides links to government departments for the public with the security and authentication facilities necessary to allow electronic transactions to take place as well as providing the route to information services provided by departments.
- 25 Knowledge Network is a 24 hour government wide service which provides access to core information from across government to aid briefing.
- 26 Revised the suppliers financial assessment guidance financial assessment element of CUP Guidance No 60 Supplier Appraisal Guidance that was published in 1997.
- 27 The OGC Best Practice Toolkit is a single point of reference for guidance on procurement, programme, projects, risk and service management to help departments achieve IT-enabled business change.
- 28 PRINCE 2 Project in Controlled Environments is a project management method and was first developed by the Central Computer and Telecommunications Agency (CCTA) as a UK Government Standard for IT project management.
- 29 More detail can be found on the NAO's website www.nao.gov.uk
- 30 A Market Research Organisation Gartner study of citizens' attitudes to e-government across Europe @ e-government: What are Citizens really looking for? May 2001.
- 31 Departments have to comply with the Data Protection Act and demonstrate that information in their custody is protected against breaches of confidentiality, error and fraud.

References and websites

Bibliography

Closing one digital divide: ICT in deprived areas November 1999 (Department of Trade and Industry)

Data Protection and Privacy, Performance and Innovation report (September 2000)

Democracy, Bureaucracy and Public Choice - Professor Patrick Dunleavy

e-Government - A strategic framework for public services in the Information Age, Cabinet Office, April 2000

e-Government - Benchmarking Electronic Service Delivery - A report by the Office of the e-Envoy July 2001

e-Government - Electronic Government Services for the 21st Century (Performance and Innovation Unit, Cabinet Office) September 2000

e-Government Leadership: Rhetoric Vs Reality - closing the Gap by Accenture July 2001

e-Government: Ready or Not? British Telecom Plc, July 2000

e-Government: what are citizens really looking for? Gartner study May 2001

e-Government - use of the Internet and related technologies to improve public sector performance - The Audit Office of New South Wales, September 2001

Fresh Start: Basic Skills for Adults, March 2000 (Department for Education and Employment now Department for Education and Skills)

International Benchmarking study 2000 - Department of Trade and Industry.

Information Age Skills Toolkit Cabinet Office

Improving the delivery of Government IT projects -Committee of Public Accounts first report 1999-00

Modernising Government White Paper March 1999

Progress report on "Successful IT: Modernising Government in Action", e-Envoy December 2000

Successful IT: Modernising Government in Action (Cabinet Office) May 2000

The IS Management Handbook

UK Consumers Association publication Which? *The net result: Evolution not revolution* June 2001

Websites

Advice for motorists from Department for Transport, Local government and the Regions - *www.motoring.gov.uk*

Advice for teachers by Department for Education and Skills - *www.standards.dfes.gov.uk*

Australian Childhood Immunisation Register - *www.1.hic.gov. au/general/acirairghom*

Canadian government - www.canada.gov.ca

Department for Culture, Media and Sport - www.culture.gov.uk

Department for the Environment, Food and Rural Affairs - www.defra.gov.uk

Export Credit Guarantees Department - www.ecgd.gov.uk

Office of the e-Envoy - www.e-Envoy.gov.uk

Office of Government Commerce - www.ogc.gov.uk

UK online - www.ukonline.gov.uk

United States government - www.firstgov.gov

The National Audit Office - www.nao.gov.uk

Glossary

Call centre	Is a group of staff trained and equipped to field telephone calls with the aid of databases giving details of services and uses.
Government Gateway	Provides links to government departments for the public with the security and authentication facilities necessary to allow electronic transactions to take place as well as providing the route to information services provided by departments.
Government Secure Intranet	Is a secure web-based facility which gives government users access to departments' internal directories and intranets. It also provides a range of information services through links to other sites outside of government.
Intranet	Is a network linking computers within an organisation which is closed to outsiders. Its structure and user interface are based on those of the Internet.
Internet	Is a worldwide collection of computer networks sharing common standards and protocols of communication. The World Wide Web ('the Web') is the main Internet application.
IT (Information Technology)	Refers to new information technologies such as computers, digital television, e-mail and the networks and systems that connect them to information databases (such as the Internet and Intranets). The telephone and fax are not considered new technologies.
Knowledge Network	Is a 24-hour government-wide service which provides access to core information from across government to aid briefing.
PRINCE 2	Project in Controlled Environments is a project management method and was first developed by the Central Computer and Telecommunications Agency (CCTA) as a UK Government Standard for IT project management.
Public Service Agreements	Set out departments' objectives for public services with measurable targets for the delivery of the objectives for public services with measurable targets for the delivery of the objectives.
Service Delivery Agreements	Set out how each department will meet its targets and the changes needed to deliver the targets.
UK on-line portal	Provides a single access point to all departments on-line information and services organised around life episodes such as moving home - www.ukonline.gov.uk
XML schema	Defines the data and data format that can appear in a web-based form.