government on the web

a report by the comptroller and auditor general

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executive summary

1 In mid-1998 approximately 7.3 million people in the UK had access to the Internet and the World Wide Web either at work or via home PCs. A year later the numbers involved had grown to over 10 million people, and in some estimates even higher. As citizens and enterprises shift towards electronic means of communicating with each other, they will increasingly expect to interact electronically with government also.

Why is the Internet important for government?

2 The development of the Internet, and of the World Wide Web in particular, presents a key opportunity for government to provide higher quality services directly to citizens in innovative ways at lower cost. Government departments may be able to achieve significant improvements in the provision of information to the public, especially allied with 'open government' and 'freedom of information' policies. Information can be made available 24 hours a day whatever location people are accessing from. Customers who know their own personal circumstances in detail can search for exactly the information they require. Eventually, many citizens may have the opportunity to conduct most of their business with government electronically.

3 Web-based technologies can also be used to facilitate 'joined-up' government. Web sites can provide virtual 'front-ends' or entry points to otherwise fragmented organisational arrangements, allowing citizens to transact with several departments and agencies and across different tiers of government simultaneously. Someone newly out of work, for example, might use government Web sites to look for and apply for a job, claim and receive benefits, obtain all information about starting up a business or retraining and apply for educational courses. Similarly, citizens should soon be able to notify many different public agencies that they have changed their address by sending a single electronic form to a central Web address, from where the information will be automatically forwarded to multiple government departments and public agencies. In the near future citizens will also be able to make electronic transactions with government, for instance paying their taxes in the same way that they conduct e-commerce.

4 Government departments and agencies could already achieve substantial cost savings by encouraging citizens and enterprises to seek information and conduct dealings with them in lower-cost ways. Once Web provision has been made, the marginal cost of someone accessing an agency Web site is virtually zero, while the marginal costs of handling letters, phone calls or front office visits are considerable. (Poorly presented Web information will tend to erode this advantage, however, if it generates avoidable e-mail traffic). Web technologies generally involve modest investment outlays in relation to other administrative costs which they can displace. They also lend themselves to an evolutionary 'build and learn' approach, where the risk of large-scale mistakes apparent in some other public sector information technology projects is greatly reduced.

5 Web-based technologies are not just important for external communications and interactions. In the form of 'intranets' they also can have important implications for large organisations in expanding their ability to make a range of business information more accessible to staff and allowing costs to be cut and efficiency improved. Key applications include human relations, cutting administrative costs, providing a front-end for databases, and providing internal access to the organisation's Web sites. And by adopting their business processes to make them 'Web-enabled', government departments and agencies may be able to achieve very significant improvements in the quality of their services, and in the provision of information to the public sector.

6 Government on the Web raises some salient possible problems for future social policy though. It will be very important to ensure that citizens (and very small firms) without Web access are treated equally and do not become disadvantaged in their future dealings with public agencies. There is a clear potential for the skewed development of Web access across social groups to lead to greater levels of social exclusion or to new forms of inequality. The government has recently signalled initiatives designed to counteract such a possibility, including measures to make cheap access to PCs available in areas of social exclusion and to connect local libraries, colleges and other public facilities to the Web without per-minute phone charges. Electronic information provided by citizens or firms to government must also be appropriately secured and citizens' privacy and commercial confidentiality protected. And as in the private sector, the development of

Web dealings with citizens also needs to be controlled and policed to prevent new opportunities for fraud, misuse or risk to public agencies' IT systems being created.

7 But it would be a mistake for government to delay implementation too late by being overly risk-averse. Government relies heavily on four tools for getting things done: - law and regulations to compel citizens and firms to behave in particular ways; financial provision to provide subsidies or support; government staffs arranged into expert organisations capable of tackling social problems; and its central position in social networks - the fact that citizens will provide government with free information, and also pay special attention to government messages. As British society becomes increasingly Internet- and Web-orientated, a government not on the Web will become less and less visible, and its central position in social networks will decline. If government becomes less prominent in society's information networks it will have to rely instead on the much more expensive tools of authority, finance and government organisation to accomplish tasks.

What we covered in the report

8 This study aims to establish a baseline for monitoring the future progress of government on the Web. First, we looked at leading private sector organisations to see how they handled the challenge of the Internet (see Comparator A on page 60). We found a wide range of innovative strategies used by firms to communicate electronically with their customers. Internet shopping and e-commerce in particular are rapidly expanding the markets of retail companies. All the firms interviewed stressed the strong commercial value of Web sites, substantial cost savings achieved through displacing activities onto the Web, improved perceptions of customer-care, and the advantages of using Web sites as part of an incremental process of continual organisational learning and improvement.

9 Next, to establish overall patterns of Web use across central government, we conducted a census of all departmental and executive agency sites, coding objective features of the sites' design (Part 1). We also surveyed departmental permanent secretaries and agency chief executives to gather their views, achieving a 75 per cent response rate. We followed up with an e-mail survey on more detailed issues sent to expert staff members nominated by the chief executives.

10 To see how citizen-orientated departments can utilise Web-technologies we looked at the Department of Social Security (DSS) and its four agencies, each of which currently maintains its own distinct Web site (Part 2). To examine how business-facing central government agencies are responding, we looked also at the Department of Trade and Industry (DTI) group of agencies, including its headquarters, Companies House, the Patent Office and five of the research councils (Part 3).

11 We also looked at the central co-ordination, control and guidance of government Web sites by some Cabinet Office units and other agencies, who brief central ministers, overview changes, develop central initiatives (such as the Government Secure Intranet) and have a very small development budget to foster central co-ordination (Part 4). The main trend has been for departments and agencies to develop their Web-based technologies autonomously, with only minimal general assistance and central direction to departments on the transition to electronic government. In the period 1995-6 Britain was ahead of other European governments and much of private business in the UK in developing a central public access Web site (called **open.gov.uk**) and in creating a basic Web presence for a large number of agencies. But that central impetus has now flagged and British government Web sites currently looked disconnected and relatively hard to navigate. Government departments began using e-mail extensively only in 1998, several years behind private business and the universities.

12 Finally to assess UK progress against overseas governments, we looked at Web developments in three comparable countries (see Comparator B on page 68). Australia has both a more coherent overall public Web sites framework and ambitious plans to develop electronic transactions - for instance, 75 per cent of tax forms are already filed electronically. The Australian Job Search site gives citizens full access and search capability to a database of jobs all over Australia. Intranets are also used pervasively throughout Australian administration. The United States' federal government has a very large number of sites, some of which (notably the Internal Revenue Service, the Social Security Administration and the Environmental Protection Agency) are far ahead of British counterparts in their levels of use and facilities provided. But US sites are not linked by any strong central site for federal government as a whole, and the multiplicity of sites within many federal departments has in some respects increased citizens' problems in understanding a tangled pattern of government responsibilities. Germany has generally been slower to develop government on the Web than Britain, but does have some useful federal government sites despite strong separation of departmental responsibilities.

What progress has been made in British government so far?

13 The Government has recognised the importance of actively promoting public agencies' presence on the Internet and the Web. In Autumn 1997 the Prime Minister pledged that by 2002 a quarter of transactions between citizens and government should be capable of being conducted 'electronically'. This 25 per cent target has been construed broadly to include systematic phone transactions as well as computerised payments and Web-based interactions. The March 1999 White Paper on *Modernising Government* specified

more ambitious targets for later dates in 2005 and 2008. It makes clear that the transition to more joined-up patterns of 'information age government' will require a fundamental transformation of many central departments' and agencies' business processes.

14 Existing responses by departments and agencies in Britain to the development of the Internet and the Web have been patchy and relatively slow. A majority of central government agencies have now established external Web sites, but the provision of site facilities is still in its infancy. Many sites are not yet regularly kept under review and updated in line with a coherent development strategy. Most British government sites currently provide extensive information in an 'electronic brochure' mode, but have few more advanced features or interactive capabilities. Relatively few, mainly business-facing agencies have so far developed simple Web-based transactions - such as facilities to download electronic forms, interrogate agency databases, or accomplish dealings electronically. Agencies' chief executives and departments' permanent secretaries recognise that Web-based and e-mail transactions will become increasingly important to their modes of interacting with businesses and with other government agencies over the next five years. But they still feel that unequal access by citizens to personal computers and to the Internet will be an important factor restricting the development of Web and e-mail interactions with the public at large.

15 The DSS Web sites are well used, mainly by non-business users. But they lack any coherent overall plan and are run on very low budgets with infrequent redesigns and without many facilities. There is as yet no capability for citizens to conduct transactions on the Web or use e-mail. The departmental group as a whole has yet to acquire much detailed information about which kinds of transactions citizens will want to undertake via the Web. The Web site of the largest DSS agency, the Benefits Agency, has been effectively invisible to all its staff until very recently. The agency's planned pilot intranet could play a key role in helping to shift benefits administration into phone-based formats, but its development relies on major IT investments which stretch into 2001. On current projections the DSS group as a whole will meet the 25 per cent electronic transactions target by 2002 so long as payments are included, but not if they were to be excluded. However, longer-term planning in the DSS and its agencies has recently begun to change to take more account of Web developments. Some pilot projects on ways of providing more accessible electronic benefits information have been initiated, and the department has ambitious plans for introducing new gateway processes by 2005.

16 The Web sites in the DTI departmental group have somewhat smaller, but still appreciable, numbers of users, mainly in workplaces. These sites have been building up their facilities actively over time. They are well-run, account for much larger (but still objectively small) shares of agencies' running costs, and have become progressively more central to many agencies' mode of operating. The two trading agencies are using their Web sites as fundamental parts of their business operations, and the research councils are developing on-line grants application processes and anticipate moving to fully 'digital environments' for holding and providing information. Some DTI agencies have strategies for evolving towards 'zero-touch' technologies in disseminating information, and the group as a whole will easily meet the 25 per cent 'electronic' transactions target by 2002 (whether payments are included or excluded).

17 With respect to internal communications, progress with intranets across the UK government has been limited. Many agencies now have pilot intranets or partial intranets, but full intranets are still quite rare. Over the next two years new systems will begin to come into play in our case study departments which should introduce major changes, improving the accessibility of information to staff and cutting internal communication costs. However, making intranets central to the life of organisations requires considerable commitment by top management, significant investment on a larger scale than for external Web sites, and firm but creative management of the information and facilities made available.

18 Central agencies have played a restricted role as yet in monitoring or energetically promoting the adoption of Web technologies in government, despite the possibility of achieving important cost savings. For instance, the DSS handles around 160 million phone calls a year already (with mostly paper-based administrative systems), at an approximate minimum cost of around £2.40 per call (based on one of its most efficient call centres). If only two per cent of phone calls (one in fifty) could be shifted to people looking up material on DSS Web sites then a theoretical saving of £7.7 million might be achievable. Similarly a rough estimate of the costs of handling phone calls within the DTI is around £2.60 per call. Thus the scope for similar savings across government is considerable indeed. There is a need for the Cabinet Office and the Treasury to find new ways of adding impetus to the timely adoption of new Web and Internet technologies by departments and agencies.

19 Central agencies and sections within the Cabinet Office have launched an important initiative, the Government Secure Intranet (GSI), which has been successful in stimulating Whitehall departments and some agencies to using e-mail more extensively for their external communications since 1998. However, this development represents a very late adoption of e-mail by government departments, and the GSI has attracted criticism for delays in developing directory services and more extended facilities. Whether GSI will settle down to become just a high level e-mail network with enhanced security features, or will instead develop into a genuine pan-government intranet (or possibly a 'government portal'), is not yet clear.

Why has progress not been faster?

20 Firms which innovate effectively can capture a bigger percentage of market share, cut their costs faster and are able to increase their profits or improve their market position ahead of competitors (see Comparator A). But in much of the public sector there are no equivalent 'market' pressures for departments and agencies to respond effectively and quickly. Instead there are some strong organisational learning barriers to the prompt and committed adoption of the new technologies, and a general tendency for the 'risk-averse' responses to be seen as only belatedly to implement changes.

21 Some business-facing agencies are beginning to spend significant sums on external Web sites. But in many large departments and agencies the level of spending on the Web site forms as yet only a tiny fraction of one per cent of their budget for running costs. Because Web-based spending has been seen as 'below the radar' in budgetary terms, budget lines and management responsibilities for developing a Web presence have tended to be fragmented. Staff with 'new-media' expertise (that is, in communicating via the Web) are relatively rare in central government; many sites are out-sourced in restrictive ways; and sites have tended to be only infrequently reviewed. Agencies seem to pay little attention yet to monitoring or systematically growing the usage of their sites. Techniques for measuring the costs and benefits of government Web sites are still rudimentary.

22 Because intranets are more expensive and are often linked to major IT procurement issues, they have generally been submitted to more formal investment appraisal than external Web sites. But in comparison with private sector companies or overseas government agencies, UK departments remain very cautious in making the investment necessary to build cost-effective and well-used intranets.

What more could be done? Recommendations

23 The major sections of the report (Parts 2, 3 and 4) include many more detailed findings, but there are three main groups of general recommendations:

A On the construction and monitoring of government Web sites

A1 Central government agencies with executive functions (that is, Whitehall departments, Next Steps agencies and non-departmental bodies with executive roles) should maintain an *active* Web site. (See page 7 which sets out what is entailed.) All government bodies (including advisory or other non-executive bodies) which are conducting a public consultation should maintain an active Web site at a minimum for the duration of the consultation period through to publication of any report or recommendations.

A2 Departments which supervise other agencies (such as health boards, health trusts or local authorities) should review any central policies or advice which they issue on Web provision to consider bringing them into line with the recommendations in A1.

A3 All agencies with a Web site should collect and publish in their Annual Reports meaningful usage information (including the number of user sessions) on their site over the last year. They should also provide 'bare bones' cost estimates for their Web site on an annual basis, and make an estimate of the additional costs of publishing content or providing facilities for transactions on the Web.

A4 Agencies should prepare and keep under review a new media strategy (distinct from their main IT strategies) covering:

- developments to their Web site(s); and
- developments to their intranet, where appropriate.

At senior management or board level, agencies should regularly compare rates of return in the form of cost savings or quality of service improvements to be gained from Web-based improvements alongside alternative investments.

B On the management of external Web sites and intranets

B1 Within overall government policies for combating social exclusion and maintaining a consistent quality of service to all citizens and enterprises, agencies should encourage citizens and enterprises seeking general information to access agency Web-sites wherever possible - rather than such enquiries coming via visits, letters, or phone calls.

B2 Departments and agencies should manage their Web sites to ensure that:

- the site does not grow beyond a feasibly managed size;
- the whole site is well-used, without dormant sections (left unrevised for long periods) or desert sections (not visited by any significant number of site users);
- information on the site is prioritised to fit with users' needs and current government policies, especially the home page and the subsequent two to three layers of pages;
- the site functions as a central point of reference for citizens, enterprises and partner organisations inside and outside government in their dealings with the agency;
- policy documents, regulations, and other information are made available in accessible electronic formats on the site; and
- forms for citizens or enterprises to submit can be downloaded from the site and increasingly also submitted electronically.

B3 Departments and agencies need to recognise that effective Web development strategies will increase the use of e-mail for communications from and to citizens and firms. They should review their internal performance targets (which already apply to handling postal, phone and fax contacts from citizens and enterprises) and consider how they may appropriately be extended to cover e-mail contacts also. Systems for receiving, distributing and responding cost-effectively to external e-mail contacts should be devised and put in place where they do not yet exist. Agencies may need to consider the introduction of partly automated systems for handling the most frequent and most straightforward forms of e-mail contact. A well-designed Web site should answer people's questions first time in an accessible way, without creating a need for further communication.

B4 Where departments and agencies develop intranets, they should carefully manage them to ensure that:

- the intranet becomes a central point of reference for all the agency's staff in their daily work;
- all the information provided is reliable and kept up to date by content providers;
- the whole intranet site is well used, without dormant or desert sections;
- the intranet does not grow beyond a feasibly managed size;
- the intranet mirrors the agency's Web site to those staff who do not have external internet access; and
- key agency policy documents and information are stored and made available in electronic formats on the intranet.

Agencies should consider the benefits of allowing partner organisations inside and outside government to gain access to designated sections of their intranet.

C On the central management of change to put government on the Web

C1 The Cabinet Office should collate data on overall use of Web access across government, and should publish an annual survey of Web use and the costs of Web provision across central government. It should assist departments and agencies to develop standard and meaningful ways of measuring Web use, costing Web provision and assessing the benefits of Web accesses. Future monitoring of the achievement of the 25 per cent 'electronic' transactions target by 2002 (and of subsequent targets in the *Modernising Government* White Paper) should distinguish between systematic phone transactions, computerised payment systems, and the more normal sense of 'electronic' transactions (that is, using Web sites, e-mail and e-commerce).

C2 Within overall government policies for combating social exclusion and maintaining a consistent quality of service to all citizens and enterprises, the Cabinet Office and Treasury should seek to encourage the displacement of general information-seeking into accesses to departmental or agency Web-sites wherever possible - rather than producing visits, letters or phone calls. Within the policy goals for achieving the progressive 'electronic' delivery of public services set out in the *Modernising Government* White Paper, the Cabinet Office and Treasury should set agencies and departments realistic but demanding targets for growing Web-based interactions and transactions. The central departments should consider what incentive regimes and monitoring processes can best encourage agencies to innovate here, for instance, incorporating reference to targets for displacing contacts onto their Web site into the 'public service agreements' negotiated between the Treasury and departments.

C3 The Cabinet Office should consider whether cross-government standards should be set in place providing minimum benchmarks for how agencies and departments must handle e-mail enquiries.

C4 The Cabinet Office should review arrangements for providing a government-wide central point of Web access for citizens and enterprises, with a view to strengthening their administrative and budgetary capabilities in this area. It should consider how the relaunch of the **open.gov.uk** site under a more intuitively accessible name and with a different brand identity might best foster the government's policy goals of increasing electronic transactions. The Cabinet Office should also review procedures for allocating site names (called URLs and domain names) to departments and agencies, with a view to developing consistent naming conventions for government sites that will enhance their accessibility.

C5 Web provision for central government as a whole should be actively managed to develop continuously increasing usage, the promotion of cost-effective public administration and management, and the enhancement of joined-up government. Central management of the change process needs to span across from information and communication technology issues, to promoting efficiency and better quality public services. The Cabinet Office should review and strengthen the current rather fragmented means by which a 'corporate' stance for central government as a whole emerges in a rapidly developing ICT environment. For instance, it may need to look again at the allocation of responsibilities between sections within the Cabinet Office, the role of 'information age' champions in departments, and the working committees and networks which currently facilitate joint learning about government on the Web.

C6 The Cabinet Office should review the management and funding of the Government Secure Intranet, to ensure that it fulfils its intended potential and secures wide acceptance as a preferred channel for handling interactions between citizens or enterprises and government agencies.

What counts as an active Web site?

- All information provided is up to date, authoritative, accurate and reliable. It may safely be used by citizens and enterprises in guiding their own decision-making.
- Static information, and the agency's home page, are regularly reviewed, revised and re-presented once every six months at least.
- The site gives a good basic picture of the agency's work and scope of responsibilities. It communicates current government objectives and strategies for the agency's policy area.
- The site provides a full central contact route for the agency (that is: phone, fax, e-mail and postal addresses). Behind the contact route there is an established procedure for logging, distributing and responding to each contact.
- The site includes enhanced directory services in some form, to enable citizens or enterprises to find an appropriate phone, fax, and e-mail contacts for specific inquiries.
- The site provides an immediate e-mail route to the Webmaster for comments about the site itself. These comments or complaints are responded to on a daily or two-daily basis. Complaints about site features not working are tested on external access machines in a variety of configurations, and not just on internal systems.
- The site implements 'joined-up government' policies by providing links to related government agencies. The following links are always provided in full:
  - Who we are accountable to: the 'parent' department or agency;
  - Agencies we supervise: any 'children' agencies;
  - Our main partner agencies: other government agencies with which close working relations exist.
- The site has reverse links on all the government sites which it itself links to.
- The site provides a links page to selected recognised non-governmental organisations or company partners with which the agency works closely, in accordance with a centrally-set government policy on external links.
- The site address (its Universal Resource Locator or URL) is included in all letters, correspondence, leaflets and publications of the agency. Agency staff know the site address and can give it accurately and reliably in response to telephone enquiries. Those dealing with enquiries are familiar with the site's layout and can answer questions by phone about the information provided on it. The site address is designed to be memorable or findable by someone who knows the agency's name. The agency takes all appropriate steps to broadcast and develop knowledge of its site address.