e-Revenue

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e-Revenue

Contents

Summary and recommendations

Part 1

The development of electronic services   9

Part 2

Take up of existing services   13

Part 3

Appendices

Summary & recommendations

Introduction

1   The development of the internet over the last decade has opened up new opportunities for individuals and organisations to communicate electronically. The United Kingdom is one of the world's leading e-commerce markets, and some 37 per cent of the public have internet access at home. Such electronic, or 'e', services offer Government the opportunity to improve services in innovative ways at potentially low cost.

2   The Inland Revenue e-strategy (July 2001) sets out how the department will contribute to Government initiatives to make the United Kingdom the best place to do e-business and how it intends to achieve its targets that:

   ■ Fifty per cent of services will be available electronically by 31 December 2002.

   ■ All services will be available electronically by 31 December 2005.

   ■ There will be a 50 per cent take up of the Inland Revenue's electronic services by 31 December 2005.

3   The Inland Revenue is at the forefront of the development of e-services in the public sector and their experience acts as a valuable exemplar to other Government departments. Early developments focused on providing e-services to core customer groups, in order to meet the 50 per cent availability target by 2002. To date, some 30 per cent of services are available electronically, either from the internet or by using other electronic communication systems. Key achievements include an award winning web site for the provision of tax information, the provision of forms and guidance on-line, the option to complete and return Self Assessment forms electronically and that large organisations can send tax details for their employees and subcontractors across an electronic data interchange facility. The Inland Revenue developed one of Government's first transaction based e-services in a very short space of time. The introduction of the internet service for Self Assessment, however, met teething problems, making it difficult for taxpayers to send their tax returns electronically.

4 The Inland Revenue has learned from its experience and we examined what progress has been made in applying these lessons. In particular, our report focuses on the take up of existing services and what is being done to improve those available to business and individuals.

5 We have collated information from within the Inland Revenue and elsewhere. In addition to reviewing documents and interviewing key staff, we have sought the views of a panel of experts, commissioned research into the constraints to using e-services, invited the department's Internal Audit Office to review staffing issues on our behalf and examined developments with leading private sector companies and overseas revenue authorities.

Main findings and conclusions

6 Lessons learned from the Inland Revenue's experience to date are applicable to other Government departments and agencies. The annex to this summary highlights a number of specific good practices on how to encourage take up and improve services available.

7 The department won an award for its web site in 2000, and it contains a wealth of useful information (http://www.inlandrevenue.gov.uk) **(Figure 1)**. Legislative changes enable the department to rely on electronic submission via the internet as confirmation of receipt of a tax return, and the Inland Revenue is the first central Government body to offer customers the opportunity to pay any outstanding amounts via the internet. Whilst initial achievements focused on meeting the 50 per cent availability target by 2002, the Inland Revenue recognises that more fundamental change will be required in future to encourage take up.

8 Particular difficulties were experienced in submitting completed returns. System records showed that nearly 4 out of 5 attempted submissions in 1999-00 did not succeed first time. The department noted that there could have been a number of reasons – the taxpayer may, for example, have input invalid data or not filled in a box that needed to be completed. And there are a number of instances of taxpayers making numerous attempts – which distort the figures. But it is indicative nonetheless of early problems. Many of these have been resolved and performance has improved - although the proportion of successful attempts for first time submission had only reached 44 per cent on average between April and September 2001, it improved further to an average of 70 per cent for the quarter ending December 2001.

1   **The Inland Revenue web site**

The Inland Revenue web site is at www.inlandrevenue.gov.uk

Source: Inland Revenue

9 The public are concerned about the security of transactions made across the internet. The Inland Revenue has addressed this issue by building appropriate measures into their systems and by commissioning an external evaluation of the effectiveness of security measures for the Self Assessment internet service. The evaluation confirmed the system is secure.

Encouraging take up

10 The Inland Revenue sees its target of achieving a 50 per cent take up of e-services by the end of 2005 as a clear expression of its commitment. But the target is ambitious and, based on progress so far and experience elsewhere, is unlikely to be achieved.

11 The target was set at an early stage of the programme to cover all e-services and the Inland Revenue recognises that it has acted as a useful stimulus in developing initiatives to encourage take up. The department acknowledges, however, that the target is a formidable challenge and levels of take up to date vary between its different customer groups. Whilst the target might be achievable for some, such as large businesses, it is unlikely to be attained across all groups.

12 Whether or not the target is met, it remains important to encourage taxpayers to take up the Inland Revenue's e-services. A high take up is not only an indicator of a good quality e-service, but would enable the Inland Revenue and users to achieve considerable financial savings. A company's employee tax details sent or received via the electronic data interchange service each month, for example, improves accuracy by up to 50 per cent. The greater accuracy requires less administrative checking and fewer queries, saving time for the business organisation and the Inland Revenue. Experience elsewhere suggests that significant savings can be realised in successfully implementing e-services. Whilst it is difficult to predict confidently the savings achievable, the department estimates that when take up reaches 50 per cent across all activities, this might enable savings of some 1,300 posts. Where savings materialise, it is likely the Inland Revenue will seek to re-deploy staff into other areas of work.

13 The Inland Revenue has actively promoted public awareness of its e-services. Marketing of e-services in 2000-01 and 2001-02 cost some £4.4 million and focused on the internet service for Self Assessment. The majority of expenditure was on the television campaign where the Inland Revenue expected the advertisements not only to boost internet filing but also to remind people generally of the 30 September filing deadline. Other initiatives included internet and newspaper advertisements and leaflets sent with each Self Assessment form.

14 Take up of e-services has varied according to the services available.

- Business interest in the electronic data interchange service for Pay As You Earn tax returns has been high. Some 660 businesses have contacted the Inland Revenue to inquire about this new service and 49 of them, which because they include payroll bureaux represent 5,000 employers, now send tax data for 6 million employees electronically to the department each year. The main constraint on take up has been the need to deal with a large number of requests from companies, and the Inland Revenue has not been able to actively pursue larger companies that might not realise the service exists.

- The take up of the internet service for Self Assessment, however, has been less encouraging. Some 39,000 taxpayers used the service for the tax year 1999-00 to submit returns by 5 April 2001, compared to a projection of 315,000. Compared with the projection for submission of 2000-01 tax returns by 5 April 2002 of 200,000, 50,125 people had completed their returns by 4 January 2002.

Summary & recommendations

15   High take up of the Inland Revenue's e-services depends on taxpayers finding some clear benefit for themselves in dealing with the Inland Revenue in that way. There are already clear benefits to organisations able to send Pay As You Earn tax data to the Inland Revenue by electronic data interchange. The Carter Review[1], commissioned by the Chancellor of the Exchequer and published in November 2001, also noted the benefits of e-services for payroll and proposed that it should be mandatory for large employers. There are also some benefits for taxpayers using the Self Assessment internet service, in particular: an assurance that the return is arithmetically correct; convenience; confirmation that the return was received; and faster processing of any tax refunds. But taxpayers expect further added value from completing their tax returns electronically. Internet users typically look for a time saving - such as a simplified form or being able to rely on the department completing many of the questions from existing data on the taxpayer's behalf.

16   The Inland Revenue is actively addressing customer needs to encourage take up. The department appointed a Marketing Director from the private sector in January 2001 to develop a departmental strategy which will include initiatives to promote the internet service for Self Assessment. In Spring 2001, the department's Electronic Business Unit contacted those people who had successfully or unsuccessfully filed their tax return electronically by 5 April 2001 to seek their views of the service.

17   Take up of the internet service for Self Assessment will only improve significantly once on-line forms offer further added value to customers. The Inland Revenue is moving from its existing arrangements for taxpayers to file a tax return towards a 'portal' environment offering secure personalised services, such as the option for taxpayers to view their account as well as the facility to file a tax return electronically. It will take time and resources to re-design existing services. Simplification of the form would require legislative change and drawing on data stored elsewhere in the department to complete many of the questions on behalf of users would require new software to link existing computer systems. The Inland Revenue commissioned Ezgov Inc. in Summer 2001 to examine how to increase take up of the internet service for Self Assessment in 2002. Based on their findings a number of changes are planned to make the service easier to use and to validate entries before taxpayers submit the completed form to the Inland Revenue.

Improving and expanding the range of services available

18   The Inland Revenue has an ambitious programme to develop further e-services for customers. From early 2002, the Inland Revenue will begin a pilot exercise with 20 companies to allow them to check their account details on-line with a full launch later that year. The Inland Revenue is also looking to offer this service to Self Assessment customers at a later date. The success of the future programme rests largely on how the Inland Revenue manages the associated risks. Some risks, such as the scale and speed with which the public access the internet are outside the Inland Revenue's control. Other risks, such as the likely take up of e-services, can be addressed, to some degree, by the department.

Summary & recommendations

1   *'Review of Payroll Services', 2001 Pre-Budget Report by Patrick Carter*

19   E-services require a more customer orientated approach which will require changes in the way the Inland Revenue operates. The Inland Revenue set up an Electronic Business Unit in Spring 1999 to provide support to customers and the software industry, and to encourage intermediaries, such as the Consumers Association who provide a bespoke service for taxpayers that is compatible with the Inland Revenue's own e-services.

20   The Inland Revenue recognises that it will be difficult to achieve high take up simply by e-enabling existing tax return services. Radical changes to some processes will be required in order to provide services that users want and which offer added value, and this will require the Inland Revenue to identify exactly what a customer wants from a service. The Inland Revenue has adopted this approach by fully involving all stakeholders in the development of Corporation Tax e-services.

21   In order to remain at the forefront of the development of e-services in the public sector, the Inland Revenue recognises the need for effective and professional project management. Indeed, its existing processes and departmental methodologies already reflect many of the government wide recommendations from the McCartney report[2] on improving IT project management. Drawing on the good practices identified from this report, the Inland Revenue's experience and our discussions with other organisations, we identified five important factors particularly relevant to e-services:

- Clear and visible leadership from the top.

- E projects need to be part of a wider business change.

- Project risk analysis.

- Skilled staff to develop and deliver each project effectively.

- Monitoring the outcome of each project to learn lessons.

22   The Inland Revenue has adopted a number of good practices, such as build and learn, from the private sector on how to manage e-service projects and to minimise the risk of failure. The programme for the development of e-services has been broken down into over 40 projects and each product is tested before it is finalised. But deciding when a product is ready to be market tested is critical; too late and work may prove nugatory, too early and the organisation's reputation might suffer. The Inland Revenue encountered such difficulties in the first year of Self Assessment internet filing and have applied the lessons learnt to future projects such as the planned Corporation Tax e-service. Good practices we identified within the Inland Revenue included making sure key risks are addressed fully, progress is monitored closely and that potential problems are dealt with promptly.

23   The Inland Revenue, like overseas revenue authorities, has outsourced much of the work around the development of e-services. Inland Revenue staff manage each project and operate the service once it is available to the public. The Electronic Business Unit have successfully recruited and trained sufficient staff to date, and such efforts will continue to be a high priority in future as new services become available and take up increases. Most staff have been in post six months or less and the fast turnover has meant it is imperative that individuals are trained quickly.

Summary & recommendations

Recommendations

24 Based on progress so far and experience elsewhere, it is unlikely that the Inland Revenue's target to encourage 50 per cent take up of its electronic services by the end of 2005 will be met. The department needs to build on the progress made in developing e-services to provide a clear benefit to taxpayers to use such services in future. The Inland Revenue should:

i   Undertake a comprehensive programme of customer needs analyses to establish what individuals and businesses require from the department's e-services. The department has started such work for Corporation taxpayers and, to a lesser extent, for Self Assessment taxpayers.

ii   Review the existing target of 50 per cent take up of e-services by December 2005. One overall target does not take account of the variations in customer interest and the range of possible financial savings across each e-service. A number of targets tailored to specific customer groups, such as businesses or individuals might be more appropriate.

iii Target short term efforts to improve take up of the electronic data interchange service for Pay As You Earn tax data because this offers clear added value to large businesses and efficiency savings to the department.

iv Continue to re-organise existing Inland Revenue e-services to reflect more closely customer demands. This might involve further development of customer facing areas, in accordance with the private sector good practices identified in paragraphs 3.10 to 3.13.

v   Build on existing progress to refine the management and development of e-services along the lines of the good practices identified in Part 3. In particular:

- Test products early.

- Remedy issues arising and, if necessary, be prepared to stop development or withdraw the service from users.

- Carry out timely project evaluations to learn lessons and disseminate good practice.

25 Many of the Inland Revenue's good practices identified in this report are applicable across Government. Other departments and agencies should seek to emulate the good practices in the following section.

Good practices applicable to other Government departments and agencies

Our examination of the Inland Revenue's e-services identified a number of good practices applicable to other Government departments and agencies. The good practices include:

1   E-services is a fast changing environment and it is important to be near the forefront of developments. This will involve taking well managed risks and might involve accepting that some projects will not be a success.

On encouraging take up

2   Encouraging take up is not straightforward and persuading the public to use a new service takes time. This means consulting the public and other key customers to identify: what they require from the e-service; what would encourage them to use it; their concerns; and, wherever possible and cost effective, to make sure the product meets them.

3   Each new service needs to offer additional benefits to persuade potential customers to use it. Benefits might include a more convenient and easy to use service, being able to complete a transaction more quickly, being able to rely on the e-service to pass relevant information on to other Government organisations, or a cash saving. Building on the research into customer views and needs, each e-service should offer appropriate benefits and these should be highlighted when marketing the service.

On improving the e-services available

4   The successful introduction of e-services requires changes in the way an organisation works as much as technological innovation. It is vital to have the commitment of all staff, especially senior managers, as well as suppliers and other key stakeholders. Anticipating and managing the cultural changes needed is essential.

5   The e-services programme needs to be flexible to accommodate new developments in the sector and to be responsive to customer demands. Development work for the programme should be broken down into a number of smaller projects that can be prioritised. Each project should be pilot tested at an early stage to gauge customer reactions and remedy any teething problems.

6   The e-services programme should differentiate more complex projects, such as those that might offer joined up transaction based services, from more straightforward projects, such as services that offer information only. More ground breaking projects might meet customer needs better, but will often involve changes to an organisation's 'back office' computer systems and, therefore, will take longer to develop.

7   It is important to have the right people with the right skills to develop and operate e-services and to provide appropriate help desk support. Existing staff might require training and support to handle the new systems. And it might be better to encourage private sector organisations to develop front end software for customers to use. Such an approach enables Government to continue to concentrate on improving its own core activities.

8   Marketing the product only when satisfied that it is working properly and meets customer needs. To do otherwise risks destroying confidence in the product which can take considerable time and effort to recover.

9   Regularly evaluating each project and monitoring customer reactions closely. Timely project evaluations ensure lessons are learned and disseminated. Build opportunities into each e-service for customers to provide feedback and act on the comments received.

Summary & recommendations

Part 1

The development of electronic services

1.1 The Inland Revenue is at the forefront of the development of electronic or 'e' services in the public sector. The department won an award for its web site (http://www.inlandrevenue.gov.uk) in 2000, and regularly has some 700,000 'hits' on its web pages each week. It expects to spend some £200 million between April 2001 and March 2004 developing its e-services further. More importantly the successful development of e-services will impact on all Inland Revenue's customers.

1.2 The United Kingdom is one of the world's leading e-commerce markets **(Figure 2)**. New technologies, such as the internet, digital television and third generation mobile phones offer organisations the opportunity to provide improved e-services to customers. Internet access at home is constantly increasing and now stands at 37 per cent of all households in the United Kingdom **(Figure 3)**.

1.3 Government is committed to developing e-services to make the United Kingdom the best place for doing e-business and to promote 'joined up' government. In 2000, the Cabinet Office asked departments to make the most of the new technologies, based on four guiding principles **(see Figure 4)**. The Inland Revenue has agreed three key targets:

■ Fifty per cent of services will be available electronically by 31 December 2002.

■ All services will be available electronically by 31 December 2005.

■ Fifty per cent take up of the Inland Revenue's electronic services by 31 December 2005.

1.4 This part of the report examines: the Inland Revenue's strategy for developing e-services; progress made in delivering e-services; why we carried out the examination; and, what we examined and how we undertook it.

The Inland Revenue's strategy for developing e-services

1.5 The Inland Revenue's first e-strategy (October 2000) set out how the department would contribute to the wider e-government objectives and, more specifically, how it intended to achieve its targets. The key features of the strategy were:

■ **Development of an e-channel for customers** - a customer driven approach offering a range of channels, to meet the needs of different individuals and organisations, with cost and convenience incentives to use e-channels.

2   **The proportion of businesses on-line**

The United Kingdom has a comparable proportion of businesses on-line (such as having a website, using external e-mail or using electronic data interchange services) as other leading countries
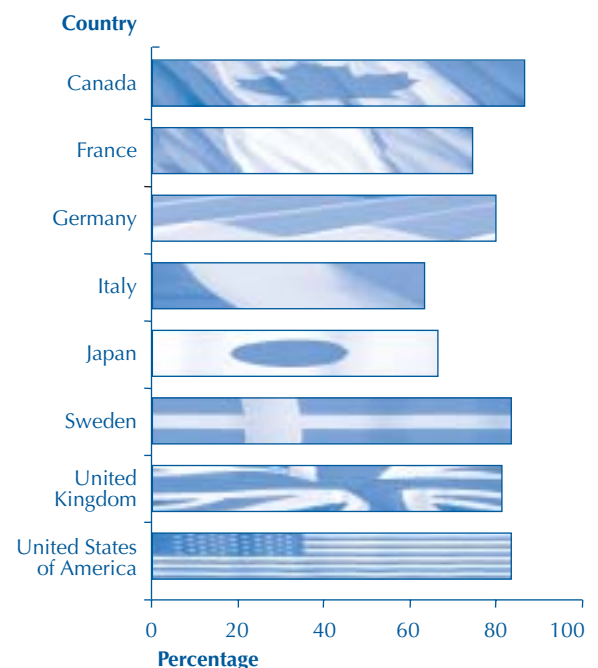
Source: International Benchmarking Report, Department of Trade and Industry, 2001

3   **The proportion of households on-line continues to increase**

The percentage of households in the United Kingdom with access to the internet has increased from 9 per cent in 1998 to 37 per cent in 2001

Percentage

Year
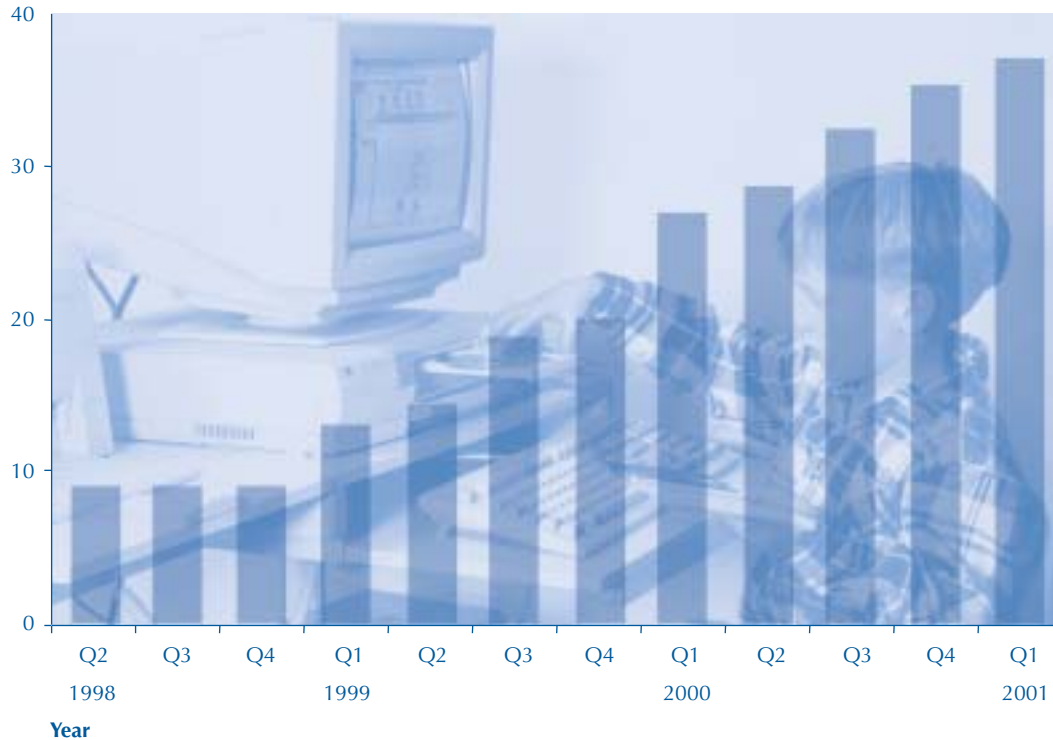
Source: Office of National Statistics, 2001

■ **Repositioning of the Inland Revenue as an enabler** - improved e-services to the taxpayer, thus reducing compliance burdens on individuals and businesses.

■ **The use of intermediaries** - encouraging other organisations, such as the National Association of Citizens Advice Bureau, the Post Office and software suppliers to provide a bespoke service for customers in conjunction with the Inland Revenue.

■ **More joined up government services** - working with other departments to meet the needs of particular customer segments. For example, providing access through both commercial and Government portals.

■ **A long term transformation of the business and staff roles** - staff will increasingly use the internet, intranet and electronic tools to support the customer.

1.6 A Cabinet Office review of departmental strategies noted that the Inland Revenue's thinking on e-services was relatively well developed and much of the strategic analysis had already been done. The review identified a number of areas where the department might improve its strategy further, in particular that whilst the strategy recognised the need to encourage take up of e-services, it did not address the consequences for the organisation.

1.7 The Inland Revenue prepared a revised strategy in July 2001. This builds on the earlier version and the broad strategic principles remain the same. Key additions include:

■ **An overarching vision.** The vision sets out how the Inland Revenue might become a customer focused, e-enabled organisation in the future. This is supported by an analysis of various scenarios that depict what impact e-services might have on the Inland Revenue's future work.

4   **The four guiding principles for the development of e-services**

Building services around citizen's choice

Making Government and its services more accessible

Social inclusion

Using information better

Source: Cabinet Office

■ **Customer Relationship Management.** The scope for a more customer centred approach based on a Customer Relationship Management philosophy.

■ **Technical architecture.** A technical framework to underpin the strategy in order to deliver services in a modular and joined up way.

1.8 In order to meet these strategic objectives, key success factors include:

■ By 2002, to have basic secure e-services and associated infrastructure and to have developed plans for radical change based on e-services.

■ By 2004, to have significantly increased take up of core services and to have delivered significant benefits from re-organising existing services.

■ By 2005, to have achieved significant business transformation, with most customer transactions conducted electronically.

Progress made in delivering e-services

1.9 The Inland Revenue established its e-services programme in Spring 1999. Overall responsibility for the programme rests with the Board Director designated as the department's Information Age Government Champion. A new team has consequently been built up to deliver these new e-services. **Figure 5** displays the high level structure put in place. The project management team work alongside the Inland Revenue's strategic IT partners, EDS, to develop new services and the Electronic Business Unit manages the services that have gone live, in particular the E-Business help desk for

customer support, support to the private sector to develop products which can use the Inland Revenue's e-services, and marketing.

1.10 The department has made considerable progress in developing a range of e-services at a time when e-commerce has gone through a period of flux. By April 2001 some 30 per cent of the department's services were available electronically. Achievements to date included:

■ **The development of internet services.** Examples include providing forms and guidance on-line, individuals being able to file their Self Assessment tax returns, employers and their agents being able to send end of year returns and both groups being able to pay outstanding amounts to the department across the internet.

■ **The development of electronic data interchange services.** Such services enable organisations to send and receive large quantities of data directly to the department securely and more quickly than by using the internet. One example, is for large employers and payroll bureaux, which are agents for a number of employers, to transfer Pay As You Earn tax details for each of their employees to the Inland Revenue.

■ **Support services.** Examples include a customer support help desk, the development of a standard template, and a third party validation service to encourage private sector companies to develop electronic tax services for customers that are compatible with the Inland Revenue's requirements.

5 **How Inland Revenue has established e-services**

The e-services Directorate liaises with the Cabinet Office and the private sector and reports to the Information Age Government Champion on the Management Board
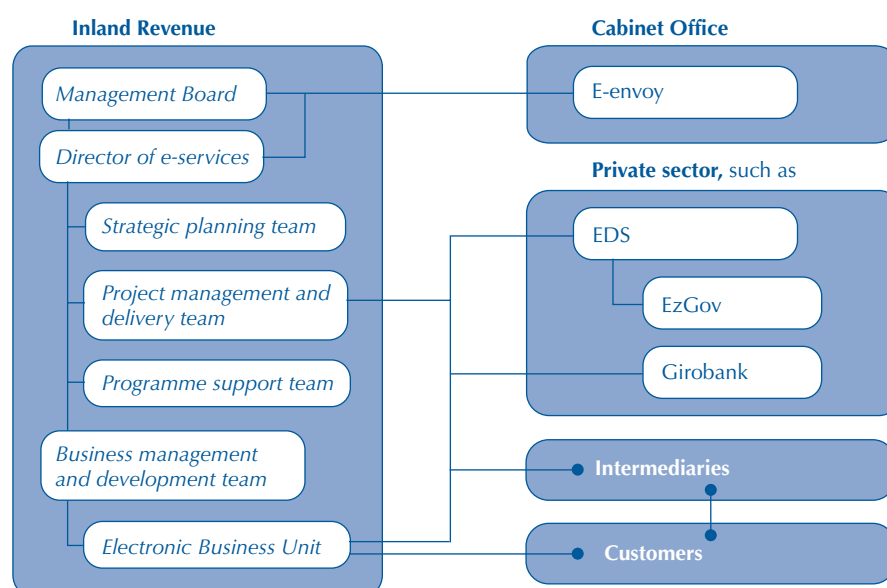
Source: NAO analysis of Inland Revenue information

1.11 The development of the internet service for Self Assessment in April 2000 was achieved in quick time, but many customers found it difficult to use and particular difficulties were experienced in submitting completed returns. In November 2000 Inland Revenue commissioned a review by Ezgov Inc. of what the problems had been, in order that they could consider what action to take. Key issues included:

■ During the initial system roll out many customers found it difficult to register to use the service because they did not know their tax reference number.

■ On average nearly four out of five attempts by the public to submit tax forms electronically were unsuccessful. Minor problems, such as certain characters, for example '/', in certain fields meant customers were unable to submit the completed form until the mistake was rectified. The department noted that there were also a number of instances of taxpayers making numerous attempts to submit their return - which distorted the overall success rate.

■ The software required to run the programme was initially distributed by sending a CD-Rom through the post, necessitating re-issue of a CD-Rom or a web site download when fixes or additional features were required.

1.12 The on-line forms for 2001-02 build on the lessons learnt. Although the proportion of successful attempts to submit a return had increased from 20 per cent to only 44 per cent on average between April and September 2001, it improved further to an average of 70 per cent for the quarter ending December 2001.

Why we carried out this examination

1.13 We examined the Inland Revenue's e-services programme because:

■ E-services are crucial to modernising government and to achieving the Inland Revenue's aim to become an enabling organisation.

■ The department has been at the forefront of the development of e-services and their good practices might be applicable elsewhere.

■ This report provides an in depth examination of progress to support our other examination of e-services across government.

What we examined and how we undertook it

1.14 We examined:

■ Customer take up of the Inland Revenue's existing e-services - Part 2.

■ How the department intends to improve and expand the range of e-services available - Part 3.

1.15 Our examination focuses on the development of e-services for all the department's tax responsibilities. The report does not cover the development of an e-service for tax credits; this is at too early a stage to warrant examination now. We focused on three specific e-services in order to draw out lessons for the wider programme:

■ **Internet service for Self Assessment:** enabling taxpayers to complete their tax return and send it to the department electronically (Appendix 1).

■ **Payments by internet:** customers can use a debit card to pay the Inland Revenue outstanding amounts electronically (Appendix 2).

■ **An electronic data interchange service:** to enable employers to send large volumes of employee Pay As You Earn tax details to the department (Appendix 3).

1.16 During the study we were assisted by a panel of experts, including a company director responsible for e-services in Abbey National Plc, a partner from Ernst and Young, a private sector specialist, a Professor from Brunel University and senior civil servants from the Cabinet Office and the Department for Work and Pensions (formerly Social Security). We are grateful for the valuable help and assistance of all those who contributed to this report. We also commissioned research from Lorien Consulting Ltd and Professor Margetts from University College London into the constraints to the take up of e-services. Further details of our methodology, the individuals and organisations we contacted and members of our panel of experts are at Appendix 4.

1.17 We are undertaking a separate examination of the progress across Government in developing e-services.

Part 2

Take up of existing services

2.1 This part of our report examines why the take up of e-services is important, progress made in encouraging take up and the barriers that might deter taxpayers from using the Inland Revenue's e-services.

Why the take up of e-services is important

2.2 A high take up is an indicator of a good quality e-service, and should also generate considerable financial savings. Paperless systems reduce the administrative burden of processing tax information. Revenue authorities across the world are attempting to measure the potential benefits. The Singapore Government has estimated that the introduction of electronic filing of tax returns via the internet and the telephone saves it some £20 million each year. The Inland Revenue also expects to make considerable efficiency savings:

■ The internet service for Self Assessment will save the department £3 per customer.

■ Encouraging large organisations to send staff Pay As You Earn details by electronic data interchange improves accuracy by up to 50 per cent and, therefore, reduces the number of queries to be followed up. A take up of around 40 per cent would save £20 million by 2003-04 (Appendix 3).

2.3 The department has recognised that the greater accuracy of e-services requires less administrative checking and fewer queries, saving time for the public and the Inland Revenue. Whilst it is difficult to predict precisely the savings achievable the Inland Revenue estimates that when take up reaches 50 per cent across all activities, this might enable savings of some 1,300 posts. Where savings materialise, it is likely that the Inland Revenue will seek to re-deploy staff in other work areas.

Progress made in encouraging take up

2.4 The Inland Revenue sees its target of achieving a 50 per cent take up of its transaction based e-services by the end of 2005 as a clear expression of its commitment to electronic services. But the target is ambitious. Experience to date elsewhere suggests such levels of take up is unlikely to be achieved. The Republic of Ireland was the only overseas revenue authority we contacted (Appendix 6) that had a similar target. And the Inland Revenue found, for example, that the California Franchise Tax Board in the United States of America has taken six years for its electronic tax return service to achieve a 21 per cent take up amongst its taxpayers. And private sector companies, such as First Direct and Abbey National Plc (Appendix 5) expect their business - and thus customer take up - to grow by around 20 per cent by 2005 from their existing customer base of some 1 million customers each.

2.5 Early market research by the Inland Revenue indicated relatively high customer interest in e-services. A survey[3] of individuals with an income over £40,000 found that 60 per cent of respondents had internet access. Some 30 per cent were interested in filing their tax returns on-line. One in five customers would like to communicate with the department via an interactive web site.

2.6 Take up of the department's e-services to date varies according to each service:

■ Some 39,000 individuals used the internet service for Self Assessment in 2000-01 to file their tax return for 1999-00. This compared to an original projection of 315,000. The projection for submission of 2000-01 tax returns by 5 April 2002 is 200,000, and by 4 January 2002 only 50,125 people had submitted their returns.

6   **An internet advertising banner for Inland Revenue**

The banner encourages internet users to visit the department's web pages on how to fill in and submit your Self Assessment tax form electronically

Ah go on.
Click here for information on Self Assessment and how to fill in your tax return online.
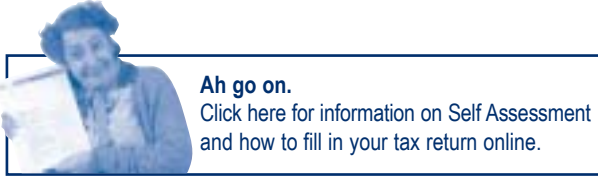
Source: Inland Revenue web site

7   **Flyer for Inland Revenue's Self Assessment internet service**

The flyer encourages Self Assessment taxpayers to submit their returns electronically

Source: Inland Revenue

- The Electronic Lodgement Service, introduced in 1997, enables tax agents (such as accountants) to file Self Assessment annual returns electronically on behalf of their clients using an electronic data interchange service. Over 267,000 returns were submitted this way in 2000-01, equivalent to seven per cent of the target audience.

- A drive in April 2000 to raise awareness of the department's electronic data interchange service for large organisations to send Pay As You Earn tax details of their employees to the Inland Revenue attracted strong interest. Some 660 businesses have contacted the department to inquire about this new service and 49 of them, which because they include payroll bureaux represent 5,000 employers, now send tax details for 6 million employees to the Inland Revenue this way.

2.7   In order to encourage higher take up, the Inland Revenue has actively raised public awareness of its e-services. Initiatives included:

- **Television and newspaper coverage.** Advertising on television and in national newspapers during 2000-01 cost some £1.9 million and £2.5 million in 2001-02.

- **Internet banners.** The department has used extensive internet advertising. Banners on its own web site **(Figure 6)** and other portals, such as the National Westminster Bank Plc and Sky web sites, and the Lycos Co UK site encourage individuals to go to the Self Assessment pages on the department's web site.

- **Flyers.** Every Self Assessment form sent out for the tax year 2000-01 included a colour leaflet explaining how taxpayers might wish to submit their return electronically **(Figure 7)**.

2.8   The department recognises, however, that greater public awareness of its e-services will not, of itself generate sufficient take up to meet its target. Take up of the internet service for Self Assessment in 2000-01, for example, represented less than two per cent of the numbers required by the end of 2005 **(Figure 8)**. Improvements in the take up of the Inland Revenue's e-services depends upon taxpayers finding some further benefit for themselves in dealing with the Inland Revenue in that way. The Carter Review proposed that it should be mandatory for large employers to transact electronically with the Inland Revenue.

Constraints that might deter taxpayers from using the Inland Revenue's e-services

2.9   There are a range of factors that might discourage individuals and businesses from using the Inland Revenue's transaction based e-services. Such constraints include:

- **Access to the internet.** Whilst a lack of access to the internet, the so-called 'digital divide' is often cited as a main constraint to Government services, it is less applicable to the Inland Revenue. Customers likely to use the Inland Revenue's existing e-services are businesses and individuals earning over £40,000 of which over two-thirds have access to the internet.

- **Security.** Whilst few respondents (10 per cent) to the department's 1999 survey considered security of their tax affairs to be of concern, this percentage might change significantly if confidential information sent over the internet ever became public.

8   **Expected take up of the Self Assessment filing by internet e-service**

Take up of the e-service will need to rise sharply in the next few years to meet the department's target. The department revised the projected figures in the light of actual take up in 2000-01.

Users (millions)

| initial estimated take up | actual take up |

revised estimated take up

Year
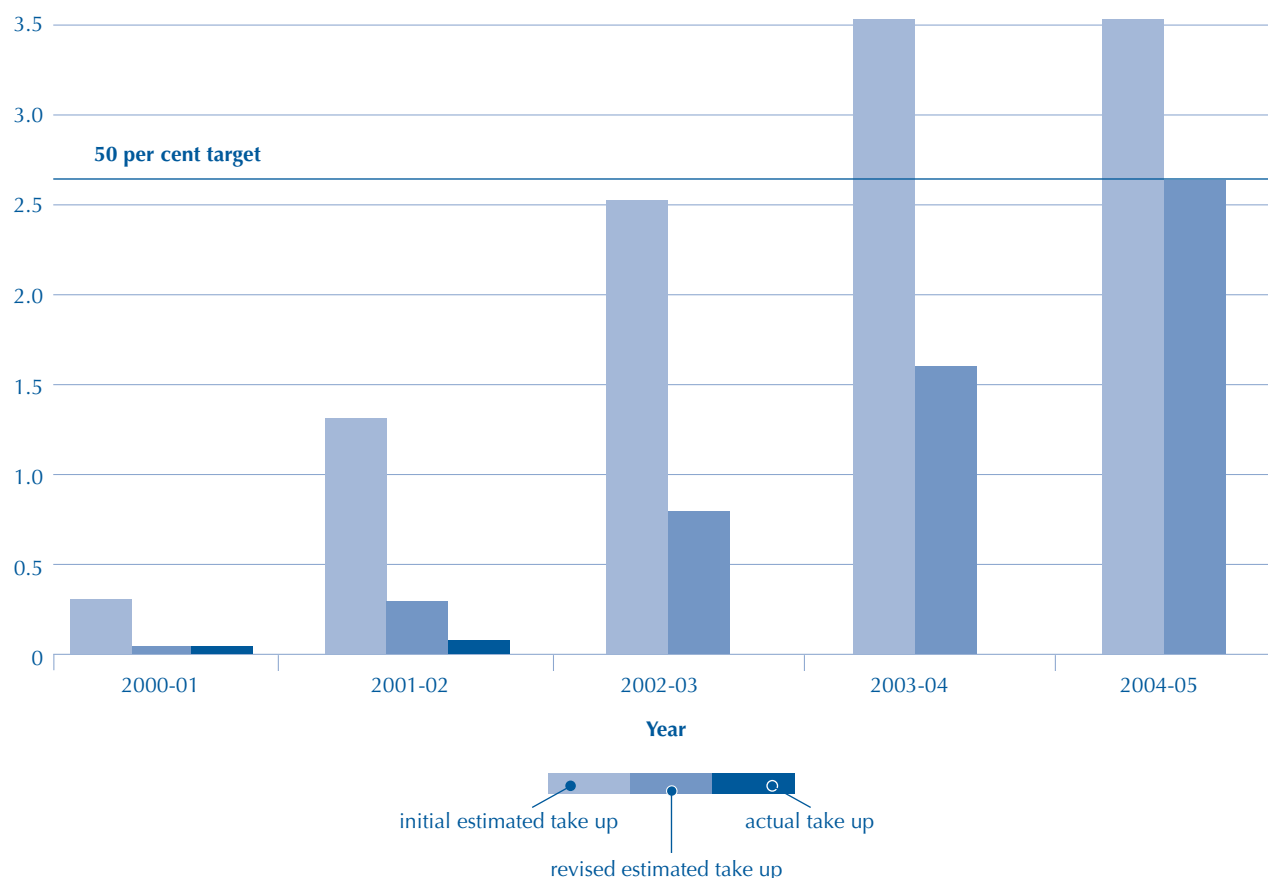
NOTE

Actual take up for 2001-02 is based on the numbers up to 4 January 2002

Source: Inland Revenue

- **A lack of confidence in services provided by central Government.** A survey commissioned by British Telecom Plc[4] identified a lack of confidence in central Government services. Some 16 per cent of respondents had a great deal or a fair amount of confidence in central Government, compared to 37 per cent for banks and 59 per cent for the Post Office.

- **A lack of value added.** Early market research conducted by the department[5] in 1999 concluded that the main constraint to take up was likely to be a lack of any need to change rather than any concerns about using the internet itself. The research we commissioned (Appendix 7) confirmed that this remains the main barrier.

2.10 The increasing sophistication of attempts by some individuals to hack into an organisation's e-services means that security remains a constant issue. The Inland Revenue has complied with existing industry standards to ensure tax data remain secure. In 2000, for example, the department commissioned an independent security test of its internet service for Self Assessment **(Figure 9)**. The department's internet services are now accessible from the Government Gateway (http://www.gateway.gov.uk), a centralised registration service for e-Government services that will also ensure a high level of security.

4   *e-Government: Ready or Not?, British Telecom Plc, July 2000*
5   *Inland Revenue Internet Filing Survey Market Research Report, Continental Research, October 1999*

9 The Inland Revenue web site proved secure

A security test demonstrated that users are restricted to the services available and cannot access confidential information

In April 2000, the Inland Revenue commissioned experts at the Defence Evaluation and Research Agency to test the rigour of the security around the department's web site.

The site proved secure. There were sufficient security measures in place to ensure that access was appropriately controlled. The Agency were unable to gain access to any confidential information.

Source: Inland Revenue

2.11 The development of the internet has raised public expectations of the quality and range of services available. An international review of e-Government by Accenture[6], however, established that no nation has demonstrated the level of sophistication of internet presence which is fast becoming the norm amongst leading private sector companies.

2.12 The availability of forms and guidance on the department's web site has met the expectations of tax agents, such as accountants and other professional advisers. A survey of some 215 agents by the department in March 2001 established that over 70 per cent of respondents thought the web site was good. The difficulties encountered by individual taxpayers using the department's internet service for Self Assessment in 2000-01, however, may have affected public perception of the quality of its e-services. A similar survey of those people that had written to the department to complain about the service last year found that even where the problem had been remedied, twelve of the 67 people contacted could not be persuaded to use the service again the following year.

2.13 The strong business interest in using the department's electronic data interchange service to transmit Pay As You Earn tax details for their employees, demonstrates that an e-service that offers clear added value to the user will overcome any antipathy to e-Government. At the time of our examination, there were five account managers in the Electronic Business Unit responsible for liaising with organisations intending to use this service. Since it

became widely available in April 2000, these managers have received a substantial number of enquiries. They were not able to initiate contact with a number of larger organisations who may have been unaware of the service (see Appendix 3). In recognition the Inland Revenue is restructuring its Electronic Business Unit (which has as one of its roles the responsibility for promoting and supporting the electronic data interchange Pay As You Earn service) to provide more resources to meet the electronic data interchange needs of the department's large business segment customers.

2.14 The internet service for Self Assessment does not offer such clear benefits (Appendix 7). The Inland Revenue's own research[7] found that individuals expected the e-service to enable them to complete their return quickly, typically in less than 15 minutes. Such an approach would require either significant simplification of the forms available or being able to rely on the department having filled in as much information as possible, perhaps from the data sent by employers across the electronic data interchange or internet channels.

2.15 The Inland Revenue's work on the internet service for Self Assessment has focussed on the ability to e-enable current systems. Providing a Self Assessment e-service that offers some added value cannot be readily achieved. Simplification of forms would require legislative change and drawing on data stored elsewhere in the department to complete many of the questions on behalf of users would require new software to link existing computer systems. Such changes require time and resources. The Inland Revenue intends to move from its existing arrangements for taxpayers to file a return towards a 'portal' environment offering secure personalised services, such as the option for taxpayers to view their account as well as the facility to file a return electronically. What is key, is that the Inland Revenue identifies exactly what a customer wants from the service (see Appendix 7). The department has adopted this approach with the development of e-services for administering Corporation Tax. In order to establish company requirements, the department held a three day workshop in April 2001 with a wide range of companies or their agents, software developers and representative bodies, to seek their views. This information is now being fed into the design of e-services. The outcome of this collaborative design work has determined the type of company service the Inland Revenue will provide.

6   *e-Government Leadership Rhetoric vs Reality - Closing the Gap, Accenture, April 2001*
7   *Inland revenue Internet Filing Survey Market Research Report, Continental Research, October 1999*

2.16 The Inland Revenue commissioned Ezgov Inc., in Summer 2001, to establish what could be done to increase the take up of the Self Assessment internet service. Based on their findings, the Inland Revenue plan to make the following changes in 2002:

- **Improved accessibility.** The service will be easier to find on the department's web site and a simplified registration and login process will save time.

- **The service will be easier to use.** A question and answer approach at the start of each session will simplify the form. 'Yes' or 'no' answers will identify which sections of the form need to be completed. There will also be a context sensitive help facility.

- **Additional facilities.** Improvements include additional tax schedules, automatic calculation of the tax liability and an on-line calculator.

- **Quicker validation.** The form will automatically check each entry and direct the taxpayer to any fields that have been incorrectly completed.

2.17 The department recruited a Marketing Director from the private sector in January 2001 to lead in the development of making the department a more customer focused service provider that enables as well as regulates. A customer focused strategy has been developed to assist with this. The key steps are:

- Define what the organisation is about.

- Define clearly the customer segments.

- Understand the needs of these segments.

- Meet customer needs through revising products and channels.

- Put in place the people and processes to meet those needs.

- The processes deliver 'right first time' solutions.

- Communicate effectively both internally and externally.

2.18 The procurement of Customer Relationship Management systems in Summer 2002 should provide the Inland Revenue with better tools to support customers and management information to complete these steps. More comprehensive and up to date information on customer reactions to the e-services will not only enable the department to improve the quality of its support services further, but also to identify and respond to customer needs more precisely.

Part 3

Improving and expanding the range of services available

3.1 This part of our report examines the Inland Revenue's future e-services programme, and identifies some key good practices required to develop and deliver projects successfully.

The future e-services programme

3.2 The Inland Revenue's e-strategy (July 2001) sets out the future programme of work for 2001 to 2005. Early projects focus on providing electronic versions of those services with a large customer base, and there are also a number of projects which aim to transform the way the department provides existing services and offer opportunities to become more 'joined up' with private sector companies and other Government departments **(Figure 10)**. Key features of the programme include:

- **Consolidation of existing e-services,** such as internet service for Self Assessment and the electronic data interchange service to improve ease of use and take up.

- **Development of new customer services,** such as external e-mail, secure messaging and a Corporation Tax service.

- **Development of services for staff,** such as the department's intranet to improve communication and working practices.

- **Infrastructure and organisational changes,** such as a more integrated service for businesses, greater use of intermediaries to provide services and help desk improvements.

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10 **E-service projects**

Inland Revenue has a range of future projects to improve its e-services. This list illustrates the key projects planned and the year they should be available to customers

Consolidation of existing services	Year
Self Assessment migration to Gateway	2001
PAYE developments	2001-03
Payments via internet (credit & debit cards and direct debit)	2001-02
Self Assessment full range of forms	2003-05
Further filing services (e.g. inheritance tax)	2003-05

New customer services	Year
Corporation Tax filing and other company services	2001-03
Oil Tax Office electronic enhancements	2001-03
Development of tax credit e-services	2003-05

Staff services	Year
Desktop internet browsing	2001-02
Internal e-mail for non-networked offices	2001-02
Internal e-Forms	2001-02

Infrastructure and organisational changes	Year
Integrated online services by customer segment	2001-05
Re-engineering PAYE	2003-05
Joined up Government, such as 'life events'	2003-05

Source: Inland Revenue, October 2001

11 **The main risks to the e-services programme**

The success of the Inland Revenue's e-services programme will depend on a number of factors, some of which are outside their direct control

Risks outside Inland Revenue's control

■ Possible delays in the development of new technologies, such as broadband access to the internet or digital television, might restrict taxpayers' access to Inland Revenue's e-services.

■ Possible delays in the development of a wide range of useful e-services by the private sector and Government might dampen public enthusiasm for e-services.

■ Security breaches, such as computer viruses and people hacking into web sites to access confidential information dent public confidence in using any e-services.

■ Doubts about the legal status of transactions across the internet might deter people from using e-services.

Risks within Inland Revenue's control

■ Inland Revenue's targets to make all services electronic by the end of 2005 might encourage the development of e-services that mirror existing non-electronic services rather than the investment of additional time to develop better quality e-services for taxpayers.

■ The e-services programme might not offer taxpayers a better quality service unless staff elsewhere in Inland Revenue recognise that the development of e-services will require changes in the way the whole organisation works.

■ Development work on each project might prove nugatory unless work keeps pace with the speed of change elsewhere to e-services.

■ It might be difficult to recruit sufficient and appropriate staff to develop the e-services programme.

■ Any technical problems or security concerns with the development of each of Inland Revenue's e-services might deter taxpayers from using the services.

Source: National Audit Office

3.3 New forms of service delivery need to be implemented in a way that minimises the risk of them failing or the quality of public services not being maintained or improved. The risks to the successful development of the Inland Revenue's e-services fall into two categories - those that are within the Inland Revenue's control and those that are not (see **Figure 11**).

3.4 The risks outside the Inland Revenue's control are the same as those faced by any organisation aiming to develop internet services. Large numbers of the public do not have access to e-services and higher levels of take up are dependent on new technologies, such as interactive television providing more people with access. And even when more people do have access, taxpayers are more likely to use the Inland Revenue's e-services if they are accustomed to using the internet for other activities and are satisfied that personal information will be kept secure. The development of e-services elsewhere in Government is the subject of a separate National Audit Office examination.

3.5 There are also a number of risks that arise from how the Inland Revenue manages its e-services programme and, therefore, are within the department's control. In the past, Government IT projects have often run over budget, missed delivery dates or failed to fulfil requirements. A Cabinet Office review[8] concluded that a change of approach was necessary, rather than think of IT projects the public sector needs to think in terms of projects to change the way Government works. The report made 15 key recommendations aimed directly at Government departments. Many of these recommendations are already reflected in Inland Revenue's project management methodologies and the department is currently applying these to its full range of projects, including e-services.

8   *McCartney Report: Successful IT: Modernising Government in Action, Cabinet Office, 2000*

3.6 Drawing on the good practices identified from past reviews of Government IT projects[9], the Inland Revenue's experience and our discussions with organisations contacted for this report, we have identified five important factors necessary for the department to minimise the risks to the e-services programme:

- Clear, active and visible leadership from the top.

- E projects need to be part of a wider business change.

- Project risk analysis.

- Skilled staff to develop and deliver each project effectively.

- Monitoring the outcome of each project and the resultant live service to learn lessons.

Clear active and visible leadership

3.7 An effective e-services programme requires strong leadership. A strong leader provides a clear strategic direction and drives the organisational change necessary for the success of the e-services programme. Private sector companies with a successful e-service have recognised this requirement. At Abbey National Plc, for example, one of the United Kingdom retail board directors has sole responsibility for the company's e-services programme and takes an active involvement in each project to deal with issues as they arise.

3.8 The Inland Revenue has also recognised the importance of clear leadership. The responsibilities of one of the Deputy Chairman of the Board includes the success of the e-services programme. Overall management and responsibility for the strategic direction rests with the E-Services Director, supported by a team of staff **(Figure 5)** and each project has a project sponsor to provide direction and monitor progress.

3.9 The department's e-strategy (July 2001) sets out an overarching vision of the way in which an e-enabled 'customer-centric' Inland Revenue may operate in 2005. It envisages prime contact with customers through self-service web-based services or digital television, and subsequent contact through e-mail, telephone, face-to-face contact and written correspondence.

E projects need to be part of a wider business change

3.10 The development of e-services will change the way Government works; it is central to the initiative to modernise Government. The benefits of new technology can be seen in the commercial sector in the development of new delivery channels for services to customers and businesses. At Abbey National Plc, for example, the development of e-services for core banking activities has meant that customers can make routine transactions over the internet and the company intends to redirect resources to focus on higher value transactions (see Appendix 5).

3.11 The introduction of e-services requires a more customer orientated approach which might require changes in the way an organisation operates. In June 2000, the Inland Revenue, in conjunction with Customs and Excise, the Department for Education and Skills, Department of Work and Pensions, HM Treasury and the Cabinet Office undertook a review[10] of what might be the outcome of switching to new methods of e-service delivery. The report drew on the experiences of the private sector **(Figure 12)** and concluded that effective e-services will require fundamental change. First Direct, for example, is an e-oriented business and as a consequence has structured itself around customer needs. Each customer facing area deals with a specific customer need, such as mortgage advice or pensions guidance and regional structures are not applicable.

12 How the private sector have addressed e-services

Inland Revenue has examined how leading private sector companies, such as Boeing, Ford and British Airways addressed e-services

British Airways

In early 2000 the company set up a team to develop e-services. It soon became clear that the benefits of e-services required business process re-engineering and the team now has the remit to develop ideas that cut across the processes of the whole company.

Boeing

The development of the myboeingfleet.com web site offered customers access to service bulletins, maintenance manuals and spares ordering. The service integrated the company better with customers and suppliers and fundamentally changed the way aircraft are designed, built and maintained.

Ford

Ford has used a web based system to exchange information with suppliers, conduct business on-line and interact with the company's existing computer systems. The initiative improved performance and generated savings of £650 million a year.

Source: Inland Revenue

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9   PAC Report: Improving delivery of Government IT projects, HC65 1999/00 and McCartney Report: Successful IT: Modernising Government in Action, Cabinet Office, 2000
10   Implications of e-Government, June 2000

3.12 The Inland Revenue has made progress in re-fashioning its business structures and processes, for example, by introducing Business Streams and a Customer Service champion, but has decided that a strong regional structure is appropriate to business delivery and in relation to local points of presence which now take many forms. Inland Revenue has also made progress in re-engineering its e-services to meet customer demands. Specific initiatives include:

■ **Electronic Business Unit.** The department set up the unit, based at Shipley, in 1999 to provide support to taxpayers and businesses using its e-services and private sector software companies planning to develop products compatible with the Inland Revenue's e-services. Responsibilities include a telephone and e-mail help desk to provide customer support, and teams to maintain the systems available and to market the services.

■ **Encouraging intermediaries.** The Inland Revenue is fostering a market so that the private sector can provide front-end services to customers and enable the department to focus on its core work. It has adopted the common internet standard, based on XML, to encourage other organisations to develop a more bespoke service for specific customer groups. The department offers a validation service to ensure commercial software is compatible with their own systems. **Figure 13** is a current list of internet intermediaries for 2001-02.

■ **Developing joined up Government services.** The Inland Revenue recognises that more progress is needed in this area. The department plans to encourage other organisations, such as retailers, the Post Office or Citizen Advice Bureau to offer advice and support to taxpayers and access to the Inland Revenue's, and associated intermediaries', e-services. Such initiatives are still at an early stage of development **(Figure 14)**, but the department recognises that it is critical to the wider Government commitment to join up services.

3.13 Such progress is encouraging. Further organisational changes might be required as the department increasingly looks to provide more bespoke services to its customers. Whilst the department's e-strategy acknowledges the scale of the challenge, such changes are not likely to be made in the next few years.

Project risk analysis

3.14 The development of e-services is a fast changing dynamic environment. Methods of delivery continue to change, for example digital television and third generation mobile phones; and an organisation's e-services on the internet have to compete with others across the world. Such an environment increases the risk that development work might be nugatory.

3.15 Whilst it is necessary to take risks to be at the forefront in the development of e-services, such risks need to be managed. Effective project management remains essential, but the traditional disciplines of long-range planning and extensive trialling before a product is released are no longer sufficient for such e-services programmes. Our discussions with the private sector and our panel of experts identified five good practices in developing e-services:

■ **Break the work into small projects.** A portfolio of smaller projects, rather than one larger project, reduces the risk of failure for the entire programme.

■ **Avoid going back over old ground.** Abbey National Plc identified three distinct phases in each project: design, development and delivery. The project team should minimise design changes during development or continuing development when arrangements are being made to make the new service available to the public.

■ **Monitor progress closely.** Circumstances change quickly with e-services and senior staff should communicate regularly with the project teams to monitor progress. The e-commerce director at Abbey National Plc, for example, meets each project team once a week to review progress.

■ **Test products early.** Transaction based e-services typically involve the integration of a number of development projects and existing systems. New services should be tested early to identify any software errors and to gauge user reactions. Lessons learned can be used to refine the product.

■ **Be prepared to stop project development or withdraw the service from users.** Early testing may highlight software faults or indicate that users do not find the product helpful. It might be better to start again rather than to continue to develop a product that is inherently flawed or is unlikely to meet customer expectations.

3.16 The Inland Revenue has recognised and applied many of these good practices adopting a build and learn approach to developing e-services as used in the private sector. The approach involves rapid development of a series of small projects, each of which is tested before release, whilst maintaining existing paper based services. Lessons learned at each stage can be fed into future projects. The emphasis is on step by step progress rather than comprehensive long range planning. The development of the payments by internet service (Appendix 2) is a good example of how this approach can work. The project was designed, developed and implemented within 4 months. Publicity was kept low key whilst the service was tested and some 2,500 users have successfully used the system since its release.

13 **Internet intermediaries**

Organisations that customers might use to send data to the Inland Revenue. These organisations have been successfully tested by the Inland Revenue to ensure tax data can be sent to the department via the internet.

Organisation	Product Name	Website Address
Self Assessment		
Assured Solution Providers Ltd	e-taxchecker.com TaxChecker Online TaxChecker Professional	www.e-taxchecker.com
CCH Software Ltd	Taxpoint	www.cch.co.uk
Consumers Association	TaxCalc 2001 TaxCalc 2001 Lite TaxCalc 2001 Plus	www.taxcalc.com
Digita	TaxSaver 2001 Deluxe CD-Rom TaxCentral Tax Return	www.taxcentral.co.uk
Drummohr Technology Ltd	Tax Assistant	www.filingbyinternet.com
E-qua via	Tax2001	www.equavia.co.uk
Forbes Computer Systems Ltd	Pro Tax	www.forbes-computers.co.uk
Inland Revenue	SA Online	www.ir-online.gov.uk
IRIS Software Ltd	IRIS Personal Tax	www.iris.co.uk
QMS Ltd	SA 2000-01	www.sa2000.co.uk
Sage (UK) Ltd	Sage Taxation	www.uk.sage.com/accountants
Solution 6	PerTAX Family	www.solution6.co.uk
Taxshield Ltd	Taxshield	www.taxshield.co.uk
PAYE		
Freeway Software	PAYE-Master	www.freewaysoft.co.uk
Inland Revenue	PAYE Online	www.ir-online.co.uk
Intex Software Ltd	Earnie	www.intex.co.uk
McGuffie Brunton	Equator	www.equatorhr.com
MIS Active Management Systems Ltd	Actigate	www.activepep.co.uk
Paladin Solutions	Paladin Minerva Payroll	www.paladin-group.co.uk
Payroll Business Solutions	Accord Payroll	www.payrolllbs.co.uk
Pegasus Software	Pegasus Electronic Submission Utility 2002	www.pegasus.co.uk
Rutherford Webb	Payrite 2001	www.ruthwebb.co.uk
Sage (UK) Ltd	Sage Payroll Professional Sage Payroll	www.sage.com

Source: Inland Revenue web site as at 11 January 2002

14 **One-stop-shops for public services**

Inland Revenue is participating in the pilot scheme

A six month pilot scheme is under way in 280 Post Offices in Leicestershire and Rutland. These offices will offer customers a one-stop-shop for simple information, advice and transactions and, in the larger Post Offices, touch screen kiosks for more specialist advice. Topics will include:

■ **Getting the best out of retirement.** How to claim appropriate support and financial assistance.

■ **Getting the best out of work.** Services and information for those looking to start or return to work.

■ **Getting the best out of my community.** Information on community facilities and services.

■ **Internet learning and access.** Practical opportunities to learn how to use the internet.

The pilot will run until February 2002 and there will be a comprehensive evaluation of the results. Those taking part include the Inland Revenue, the Employment Service, Department of Work and Pensions, Department for Education and Skills, City and County Councils, District Authorities, Age Concern, and the National Association of Citizens Advice Bureau.

Source: Inland Revenue

3.17 One of the most difficult aspects of the build and learn approach is deciding when it is appropriate to proceed with a formal release for customers to use. The benefits of releasing the product early to assess customer reaction before finalising the service need to be weighed against the risk that any major problems that come to light might discredit the service. Holding back the release for too long, however, increases the risk that the product will be overtaken by developments elsewhere on the internet and will become redundant. The department experienced this difficult question of timing when the internet service for Self Assessment was first introduced in July 2000 (see Appendix 1). The product was not fully complete before it was released, yet a major publicity campaign encouraged some 120,000 customers to test the service. Whilst the advertising campaign generated public interest in the service and the department remedied most of the errors quickly, there was considerable adverse publicity of the initial teething problems.

3.18 The Inland Revenue's experience in developing e-services to date and our consultation with those we contacted during our examination indicates four key factors to consider when deciding whether to release a new service:

- **Ensure the product is what the customer wants.** Seek the views of typical customers during the design stage and check the product developed meets those needs. The Inland Revenue has used workshops, for example, to seek opinions from small businesses before developing a Corporation Tax e-service. Such information can be used as a checklist to confirm the final product meets their needs.

- **Make sure the basics are right.** Whilst the product has not yet been finalised, the most fundamental risks, such as security issues, must be properly addressed.

- **Keep initial publicity to a minimum.** Use the initial release to gauge customer reaction and to modify the product accordingly. Only once the product is proven should the organisation raise public awareness of the new service.

- **Make time to monitor subsequent developments closely.** Comments and queries from initial users will give a good indication of how the new service will fare. Whilst the project team can remedy minor faults, managers may have to act quickly if there is a major problem. If an unacceptably high percentage of users have difficulties using the new service, it might be better to withdraw the product.

Skilled staff to develop and deliver each project effectively

3.19 The development of e-services requires a workforce with specialist IT skills. But the IT industry predicts significant skills shortages across the United Kingdom, perhaps as many as 300,000 unfilled posts, in the short term. A survey of policy managers in central Government found that 89 per cent considered that a lack of relevant skills among managers would be the biggest stumbling block to developing e-services[11]. And the McCartney review[12] found instances where departments and agencies had been left with insufficient skills and experience to challenge and validate work done by suppliers, resulting in delay and disruption.

3.20 The Inland Revenue, like overseas revenue authorities (see Appendix 6), has outsourced much of its work around the development of internet services. The department relies on its partnership arrangements with EDS for direct IT support in developing e-services. The department still requires staff to manage, design and test each project and then to operate and support the service once it is available to the public. There are some 40 staff responsible for the management and development of the department's e-services, and a further 120 staff working in the Electronic Business Unit to operate and support each service.

3.21 To date, the department has been able to rely on its existing team of IT project managers to deliver the e-services programme. EDS had faced some difficulties in finding staff with specialist skills to develop the services. The company is addressing this skills gap by recruiting staff with the requisite skills, training existing staff and by itself out-sourcing specific requirements - in particular designing web based forms.

3.22 Of the 120 Inland Revenue staff in the Electronic Business Unit involved in operating and supporting the live systems, around half work on the telephone and e-mail help desks to deal with customer enquiries. The remainder provide support for live services, including promoting the services, business security and maintenance, problem resolution, and customer satisfaction. We asked the department's Internal Audit Office to undertake a review of recruitment and training of Electronic Business Unit staff on our behalf, including a staff survey, to establish what lessons could be learnt for the future. In particular:

11   e-Government: Ready or Not?, British Telecom, 2000
12   McCartney Report: Successful IT: Modernising Government in Action, Cabinet Office, 2000

- **The E-Business help desk.** Existing staff are enthusiastic and eager to provide a good quality service. But a number of other large organisations also operate call centres nearby. Whilst this ensures a ready pool of individuals with the right skills, it also creates competition for staff. The Internal Audit Office recognised that the potential expansion of the Inland Revenue's help desk may give rise to future difficulties in recruiting and retaining sufficient skilled staff. As a consequence, the department is forging stronger links with other local employers to compare the terms and conditions offered. And the department is revising training arrangements for help desk staff to keep individuals up to date with changes to systems and the implementation of new services.

- **Service support staff.** Many of these service support staff require specific skills and experience. The majority of the staff have been in post less than six months. Whilst many have transferred from elsewhere in the Inland Revenue and have been able to bring relevant skills and experience to their new post, 69 per cent felt they had not yet received the necessary training for their particular needs. The Inland Revenue is addressing this training need.

3.23 The results of the Internal Audit Office's work demonstrate that staffing will continue to change rapidly as the range and take up of e-services develop. Whilst local management at the Electronic Business Unit have successfully recruited and trained sufficient skilled staff to date, this may become more difficult as e-services develop. The department has already started to consider the long term possible consequences on staffing by preparing a model that would show staffing needs based on a range of different scenarios. The Internal Audit Office have shared the detail of their findings with the Inland Revenue's Human Resources team preparing this model.

Monitoring the outcome of each project to learn lessons

3.24 The future success of the Inland Revenue's e-services will largely depend on the implementation of the lessons learned as the programme develops. An early lesson learned from the first year of the internet service for Self Assessment, for example, was that it was difficult to correct any minor software errors once the computer programme had been transferred onto CD-Roms and distributed to customers. As a consequence, all future internet services will rely on software that can be accessed from the internet and, therefore, can be amended and updated by the department whenever necessary.

3.25 Whilst senior staff in the Inland Revenue demonstrated to us that they are aware of the key lessons learned from their work to date, few formal evaluation reviews have been conducted. We identified two reviews that had been undertaken. The first was on the development of magnetic media to enable companies to send data to the Inland Revenue on PAYE taxes paid by their staff, a precursor to the electronic data interchange service, and dates back to November 1997. The second was a review by EzGov Inc. (November 2000) of the first year of the internet service for Self Assessment. Some 13 projects had been developed and delivered by the end of June 2001 which have not yet had a formal evaluation review. The Inland Revenue has, however, confirmed that full project evaluation reviews will be carried out in line with their departmental project management methodology once each online service has been fully implemented.

3.26 The pace of change and the nature of build and learn makes it difficult to adopt traditional formal review processes. But as the programme continues to develop, it will become increasingly important to ensure that lessons learned are evaluated and disseminated.

Appendix 1
Internet service for Self Assessment

What is Self Assessment?

1   Any United Kingdom citizen who is self employed, a company director, or has more complicated tax affairs, including higher rate taxpayers, is required each year to complete and submit a Self Assessment tax return to the Inland Revenue. Self Assessment affects more than 8 million individuals, as well as 700,000 partnerships and 300,000 trusts. Our report 'Inland Revenue Income Tax Self Assessment' (HC 56 Session 2000-2001) explains the process in more detail.

2   In July 2000 the Inland Revenue offered individuals the opportunity to complete and send their own Self Assessment tax returns electronically via the internet. Since April 2001, anyone required to complete a Self Assessment form can either complete and return the paper form received through the post; access the web site to print off a blank form to complete and return by post; or complete the on-line tax form and submit it electronically.

15   **The Self Assessment web site**

Source: Inland Revenue web site

How to send your return via the internet

3   In order to complete the form **(Figure 15)** and submit the details electronically, individuals can access the Inland Revenue web site at http://www.inlandrevenue.gov.uk. The key steps in the process are:

■   **Register to use the service.** Visit the Inland Revenue web site and follow 'internet services' and then 'internet services for Self Assessment'. From here you can link to the registration web pages where you enter your name, a password of your choice, your Unique Taxpayer Reference number and either your National Insurance Number or your Postcode. You will receive a unique User ID through the post that, together with the password that you chose earlier, will enable you to activate the service and submit your tax return electronically.

■   **Complete the tax return on-line.** Complete your return using the on-line web form on the Inland Revenue web site, or by using one of the alternative products provided by other organisations, such as the Consumer's Association, which are compatible with Inland Revenue's Self Assessment internet service.

■   **Contact the Inland Revenue (via telephone or e-mail) if you need help that you can't get from the web site.** There is a central help desk with up to 40 staff available from 8.00 am to 10.00 pm Monday to Friday and 10.00 am to 6.00 pm at weekends to deal with any enquiries you might have about this or any of the department's other e-services. If you have any tax queries, you will be advised to contact your local tax office, or the Self Assessment help desk.

■   **Ensure you get confirmation that the form was received.** The Inland Revenue will notify you on-line when a return has been received successfully.

There are benefits from sending tax returns electronically

4   The main benefits to the taxpayer are:

■   **Assurance that the return is arithmetically correct.** the on-line tax form highlights all the boxes required to be filled in, does arithmetic checks as you go along and calculates the revised tax.

■ **Convenience.** The Inland Revenue web site is available 24 hours a day anywhere in the world. You can complete the return in parts, save it and come back to it using any browser anywhere.

■ **Confirmation that the return was received** is available on-line, but not for returns sent by post.

■ **Speed of processing.** Any tax refund will be processed more quickly if the tax return is received electronically instead of through the post.

5 The main benefits to the Inland Revenue are:

■ **Improved quality of service.** The Inland Revenue is committed to providing an up to date and helpful service to all taxpayers.

■ **Efficiency savings.** Self Assessment forms sent electronically may reduce the administrative burden on local tax offices. The department's initial estimates were that each return might make a efficiency saving of some £3 administrative costs.

■ **Improved accuracy.** Information received via the internet has been typed and checked on-line so there is smaller risk that human error will result in a taxpayer having to pay too much or too little tax.

The service has improved since it was first introduced

6 The department designed and developed the internet service for Self Assessment quickly in order to meet the Chancellor of the Exchequer's commitment that the service would be available in April 2000. A registration service for taxpayers was available on schedule in April 2000, and it was possible to submit returns from July 2000. The department offered a £10 discount to taxpayers who filed their return electronically and paid any outstanding tax electronically by 31 January 2001.

7 The service remained available during the year, confirming the reliability and robustness of the underlying technology. But initial teething problems with the software and the need to download additional software from the internet caused problems for users. The Inland Revenue used its build and learn approach to make improvements. Key changes for the revised service for 2000-01 tax returns to be submitted in 2001-02 include:

■ **The forms are now available on-line.** The Inland Revenue commissioned EzGov Inc. to design and develop a web based form for customers to use.

■ **The service has been extended to a wider range of customers, for example MAC users.**

■ **Help desk staff are briefed to deal with any queries.** Better support systems and additional training means that help desk staff are more able to deal with customer queries.

■ **Key software issues have been addressed.** Many of the early teething problems have now been fixed.

■ **Usability of the products and information on the web site have been improved in response to customer feedback.**

Take up

8 Take up of the new e-service in the first year for 1999-00 tax returns was not as high as the department had estimated. The department had estimated 315,000 people might use the service. Some 129,000 individuals registered for the service, but only 39,000 successfully submitted their tax return over the internet.

9 The department revised its estimated take up figures accordingly with a projection for 200,000 to complete their return electronically over the internet in 2001-02. By 4 January 2002, 50,125 returns had been submitted successfully.

Wider lessons

10 The Inland Revenue's experience in developing the on-line Self Assessment tax service has highlighted a number of lessons which might be relevant to its own future e-services programme and those of other Government departments. In particular:

■ It is possible for the public sector to deliver a major new e-service in a short timescale.

■ The internet is a fast changing environment and it is important for a major Government department, such as the Inland Revenue, to be at the forefront. Other public sector organisations will then be better placed to utilise the lessons learnt.

■ There are benefits in putting out a product early so that initial customer feedback can make the product easier to use. It is, however, important to weigh up the risks of adverse publicity from putting out a product that is not sufficiently developed against the benefits of learning lessons quickly.

■ It is important to be able to update and revise the software for e-services quickly, as the need for changes comes to light. It is better, therefore, to use on-line systems rather than CD-Roms or downloadable applications.

■ It takes time to persuade individuals to use transaction based e-services, and there must be real added value in the service to generate take up.

■ A small financial incentive might not, by itself, provide a sufficient reason for customers to use the service.

Appendix 2 **Payments by internet**

What is paying by internet?

1   Many companies and retailers now offer their customers the choice of paying for their goods or services using a debit card or credit card over the internet. Since 10 January 2001 the Inland Revenue has offered individuals the opportunity to pay their Self Assessment tax bills over the internet using a debit card. This service was extended to businesses for Pay As You Earn payments in April 2001. The payment service that the Inland Revenue offer is a Girobank product known as BillPay™. The on-line payment solution offered by the Inland Revenue utilities Girobank's BillPay™ service.

How to pay your tax using the internet service

2   In order to pay using the internet the customer enters the Girobank website at www.billpayment.co.uk **(Figure 16)** which can be also be accessed from the Inland Revenue's web site (www.inlandrevenue.gov.uk) via a hyperlink.

3   The key steps are:

■   **Registration.** The first time that a customer uses the service they need to register with BillPay™, which requires the customer to enter a password and their name and address.

■   **Complete details of payment to be made.** The customer enters the details of their debit card, the Inland Revenue customer number and the payment amount (the minimum payment to the Inland Revenue is £1 and the maximum is £100,000).

■   **Girobank process the information.** Once the details of the payment have been entered on screen, Girobank process the information and authorise the amount on-line. Girobank then debit the bank account and credit the Inland Revenue by the amount instructed and send an electronic file to the Inland Revenue, which will be used to update the taxpayer's record.

16   **The BillPay™ web site**

Source: Alliance and Leicester Plc

What benefits are there for the taxpayer and the Inland Revenue?

4   The main benefits to the taxpayer are:

- **Better customer service.** This service provides the facility to pay 24 hours a day, 7 days a week.

- **Confirmation that payment will be made.** The on-line authorisation process provides assurance that payment will be made.

- **Another payment channel.** The service extends the range of existing electronic payment methods such as BACS, CHAPS and using your debit card over the phone.

5   The main benefits to the Inland Revenue are:

- **Efficiency savings.** These should result from reduced handling of paper and manual intervention, when compared with other methods of electronic payment.

- **Faster service.** Faster 'start to finish' life cycle for processing of payments by bypassing of clerical processes.

- **Reduced transaction costs.** Banks charge electronic payments at a lower rate.

How was the service developed?

6   The Inland Revenue originally planned to use an internet payment service that was to be part of the Government Gateway project. When the Government Gateway project encountered contractual difficulties, in Autumn 2000, it became unclear when an internet payment service would become available through the Gateway.

7   The Inland Revenue recognised that it was important to provide an internet payment service to support the 2001 Self Assessment payments peaks (from January 2001) and also to provide another electronic payments channel. Taxpayers qualified for a £10 discount if they filed and paid any tax due electronically. Small businesses also qualified for a £50 discount when they submitted their 2000-01 Pay As You Earn end of year returns and paid any taxes due electronically. The department decided to consider third party options which could be deployed in time for January 2001 and which would provide an intervening tactical solution until the issues around using the Government Gateway were resolved.

8   The department opted for BillPay™ because it was a cost effective solution. In particular:

- It was an established service that, worked and required no further development, and provided value for money.

- It could be delivered within the time frame.

- Data that Girobank would need to send the Inland Revenue could be sent using existing Girobank routes to the Inland Revenue's back end systems.

Take up

9   Initially the service was introduced to a limited population. This was achieved by:

- Limiting the publicity of the service to a press release and advertising it on the department's web page.

- Initially limiting the maximum payment to £1,999. This was subsequently increased to £19,999 and later to £100,000.

10   Over 2,800 payments have been made using the service, the majority from Self Assessment taxpayers **(Figure 17)**. These payments have brought in over £3.5 million at a transactional cost of just over £700.

17   **Payments by internet**

Internet payments up to 31 December averaged over £1,000

	Self Assessment taxpayers	Employers
Transactions made	2,456	395
Total value of payments	£3,085,000	£477,000
Transaction cost	£614	£99
Cost per £1 received	£0.0002	£0.0002

Future plans for the service

11   BillPay™ is contracted to run for at least two years. By this time the Government Gateway should offer a payment service and the Inland Revenue are presently reviewing options to determine whether BillPay™ should continue to run in parallel as a separate payment service or whether all payments by internet should go through the Government Gateway.

Wider lessons

12   A number of lessons arise from the development of the internet payments service that might be applicable to the Inland Revenue's future e-services programme and those of other Government departments. In particular:

- Being able to make payments over the internet is a crucial part of a comprehensive e-service.

- It is possible to deliver an internet payment service in a very short timescale, by using or adapting an established service. Commercial products are available that can be incorporated into an e-service at minimal developmental cost.

- Minimal publicity when the service was first introduced enabled the department to test and refine the product with a small number of users.

Appendix 3

Sending Pay As You Earn tax data across an electronic data interchange

1   The Inland Revenue communicates with more than one million employers to administer the Pay As You Earn tax system. Each month employers send the department tax details for some 22 million employees. Before the launch of the electronic data interchange service in October 1997 communication relied on magnetic media and paper forms. Data communication problems meant up to 60 per cent of records would be inaccurate, generating delays and further paperwork. The project aimed to provide a means of electronic communication with employers and payroll operators using an electronic data interchange instead. Its objectives were to:

■   Reduce the burden on employers of compliance with Pay As You Earn Regulations.

■   Reduce routine manual data processing.

■   Improve the quality of information transferred between the Inland Revenue and employers.

■   Improve customer service generally.

What is electronic data interchange?

2   Electronic data interchange is the transfer of data from an application running on the computer of one organisation to an application running on the computer of a partner organisation with no manual intervention. It is a secure communication service using an international electronic data interchange message standard known as EDIFACT. These messages pass from and to the employer's payroll system over private communications systems known as Value Added Networks **(Figure 18)**. The service is not e-mail and does not use the internet.

18   How the electronic data interchange works

Electronic data interchange enables the exchange of documents in a structured and secure format from one organisation's computer system to another's without human intervention

Details are sent across Value Added Networks (VANs)

The data are received by the department's gateway and translated back from EDIFACT

Each month data are translated into EDIFACT and transmitted through the organisation's gateway

Data are collated by EDS and transmitted to Inland Revenue

Payroll details are put onto the organisation's payroll system

Data are sent to relevant local tax offices for processing

Business   **Inland Revenue**

Source: Inland Revenue

3   Large organisations are familiar with the concept of electronic data interchange. Around 20,000 businesses in the United Kingdom already use such systems for commercial operations, such as procurement and stock control.

Benefits of using an electronic data interchange

4   The department's electronic data interchange offers benefits to the Inland Revenue and the organisations using the service:

(i)   Benefits to organisations using the service

■   Sending data electronically reduces the number of queries that have to be followed up. There is a high risk of human error from manually inputting large volumes of data onto a computer system and data sent by magnetic media can frequently be corrupted. A reduction in the typical error rate from 60 per cent of records to around 10 per cent would mean no longer having to re-check the records of some 5,000 staff each month in an organisation with 10,000 employees.

■   The organisation will be able to achieve some savings in the cost of stationery and postage required.

■   The immediate confirmation and acknowledgement of information sent over the electronic data interchange means that any outstanding issues can be dealt with at the time. As a consequence, payroll staff in an organisation will have the relevant information to hand and should be able to resolve any problems more easily.

(ii)   Benefits to the Inland Revenue

■   The Inland Revenue estimated staff savings in the region of 160 posts, amounting to some £20 million by 2003-04, based on a take up of 40 per cent amongst targeted organisations. The savings would arise because data sent by paper form would no longer require inputting onto a computer system and the error rates for these and data sent by magnetic media would fall from around 60 per cent to some 10 to 15 per cent of records.

■   A further estimated £2 million savings would arise from reduced stationery, and postage costs from not having to send out Tax Coding Instructions (Form P6) and reduced storage requirements in local tax offices for the paper forms.

5   The electronic data interchange service was first available to businesses in October 1997. Since then, a further seven Pay As You Earn tax forms, such as a P46 (new employee details), have been successfully added to the system. The service cost £1.8 million to develop between 1998-99 and 2000-01 and once it was rolled out nationally in 1999 it is likely to cost some £6.7 million to operate up to 2003-04.

Take up

6   Business interest in the electronic data interchange service for Pay As You Earn tax returns has been high. Some 660 organisations have contacted the Inland Revenue to inquire about this new service and 49 are using it. The department has noted that many of the remaining organisations that had approached the Inland Revenue had subsequently been found to be too small to be suitable for the electronic data interchange service. The participating organisations represent over 5,000 payroll schemes, involving some 6 million taxpayers. The main constraint on take up has been that the five account managers received a substantial number of enquiries. They were not able to initiate contact with a number of other organisations who may have been unaware of the service. A further constraint is the availability of electronic data interchange payroll software applications. The Inland Revenue continues to work closely with Payroll Software vendors to encourage them to include the required functionality in their payroll products.

Wider lessons

7   A number of lessons arise from the development of an electronic data interchange service for Pay As You Earn tax returns that might be applicable to the Inland Revenue's future e-services programme and those of other Government departments:

■   The internet is not the only means of delivering e-services. Other systems, such as electronic data interchange might be more appropriate for high volume transactions.

■   The steady growth in the take up of the service reflects the fact that the service offers clear benefits to users.

■   Improving take up will generate significant financial benefits to the Inland Revenue.

Appendix 4 Methodology

We used a variety of methods to examine e-Revenue:

1 Interviews, discussion and examination of documents

We carried out interviews with key personnel involved in the development, delivery and support of the Inland Revenue's e-services. We reviewed the Inland Revenue's e-business strategy, its reported progress and other key documents. We sat with help desk staff to observe customer inquiries and interviewed staff from some of the companies, such as EDS and Girobank, responsible for delivering key e-services.

2 Case studies

Whilst our examination covered all the department's e-services, we reviewed three specific e-services in greater depth to identify good practices and lessons learned. We selected the projects to represent broadly the range of services available, both internet and non internet, those that were crucial to the success of the whole programme and the payments by internet project because it is the first such government service available. The three projects selected were:

- Internet service for Self Assessment (Appendix 1).

- Payments by internet (Appendix 2).

- Electronic data interchange to enable employers to send large volumes of employee Pay As You Earn tax details to the department (Appendix 3).

3 Experiences of selected private sector and overseas organisations

Direct comparisons of performance between the Inland Revenue and other organisations should be treated with caution as a range of factors will impact on delivering electronic services including legislative, organisational, economic, political, social and cultural differences. We sought the views of senior representatives from two private sector companies at the forefront in the development of e-services to identify good practices that might be applicable to the Inland Revenue (Appendix 5). These companies were:

- Abbey National Plc.

- First Direct Plc.

We also drew on a range of existing research papers and contacted the Supreme Audit Institutions and respective revenue authorities in six countries to draw out further good practices in developing e-services (Appendix 6).

4 Research into the constraints to take up

We commissioned Professor Helen Margetts of University College London and Lorien Consulting Ltd to undertake research on our behalf into the possible constraints that might deter customers from using Government's and the Inland Revenue's e-services and what might be done to overcome such barriers. Appendix 7 summarises their work.

5 Expert panel

We invited a range of experts to advise us on our approach, emerging findings and recommendations. The members of the panel were:

- David Blair, Senior IT Architect, Department for Work and Pensions (formerly Social Security).

- John Butters, Partner, Ernst & Young.

- Stefan Czerniawski, Deputy Director, e-Government, Office of the e-Envoy.

- Ambrose McGinn, Retail E-Commerce and Strategic Development Director, Abbey National Plc.

- Colin Muid, Head of Government Sector, Business Change, Xansa.

- Bob O'Keefe, Professor, Department of Information Management, Brunel University.

Appendix 5   Private sector experiences

1   Private sector organisations have been developing e-services for a number of years and Government departments have an opportunity to learn from their experiences. This appendix summarises the achievements of two companies in the United Kingdom at the forefront in developing e-services and highlights a number of good practices that might be applicable to Government departments.

Abbey National Plc

2   Abbey National Plc converted from a building society into a bank in July 1989. The conversion enabled the company to realise £975 million of capital and to use some of this money to diversify its interests, products and services and to expand quickly. By 2000, Abbey National Plc was the fifth largest bank in the United Kingdom[13] and the second largest residential mortgage lender.

3   In late 1999 Abbey National Plc had recognised that its existing e-commerce services were behind most other financial service providers in the United Kingdom. It was primarily an 'all bricks' institution with no on-line transaction based e-services. As a consequence, the company set up a separate division within the retail bank to develop its e-commerce services. The new division was headed by a Director of E-Commerce, Retail Banking who was reassigned a seat on the United Kingdom retail board.

4   The e-commerce division developed a 'clicks and bricks' strategy which aimed to integrate the electronic channels with existing physical channels. The approach was designed to give customers choice about how they deal with the bank and increase convenience for managing their personal finances. Key achievements include:

- ■   November 1999   Launch of an e-service on Sky Active digital television

- ■   March 2000   Launch on Telewest digital television

- ■   May 2000   Launch of e-banking service on the internet

- ■   July 2000   Launch of service on Orange network

- ■   November 2000   Launch of service on NTL and ITV digitial television

- ■   June 2001   Launch of service on BTInternet.

Take up of e-services

5   Abbey National Plc has targeted its e-services towards the needs of specific customer groups, such as middle income families. The emphasis has been on providing e-services that offer a clear benefit to customers and that are readily available, either on the internet or through digital television. The internet services, for example, offer customers full e-banking capabilities so that personal finances can be managed more conveniently.

6   Take up has been encouraging, with over 1 million registrations and over 250,000 product applications. The bank recognises that take up will continue to grow steadily and anticipates growth in the use of its e-services of around 20 per cent by 2005. Abbey National Plc has not, however, set any specific targets on the number of people it expects to use its e-services by a specific date.

Improving the services available

7   A key part of Abbey National Plc's forward strategy is to continue to monitor external developments and emerging technologies. This will enable the bank to build on its supporting infrastructure and capabilities.

8   The physical branch network remains key to the business and is at the heart of the 'clicks and bricks' strategy. To provide the customer with an integrated service, Abbey National Plc has begun to introduce a convenience retailing strategy for its branch network. This involves enhancing the branch network by developing superstore branches that include Costa Coffee facilities, interactive digital television, Carphone Warehouse information and internet facilities to provide an appealing environment for customers, see **Figure 19**.

First Direct Plc

9   First Direct Plc is a division of HSBC Bank Plc, a wholly owned subsidiary of HSBC Holdings Plc one of the world's largest banking and financial services organisations. First Direct Plc was established in 1989, and in October that year set up its telephone banking service with 1,000 calls taken on the first day. The customer base grew steadily, and in 1994 the company achieved break-even for the financial year for the first time. In 1998 personal computer banking services were added, followed in 1999 by mobile phone and internet banking.

13   *Based on revenue income*

19 **The development of superstore branches by Abbey National Plc**

Source: Abbey National Plc

10   The bank comprises a small number of divisions tasked with addressing particular customer needs. These customer facing divisions, such as Customer Management, Customer Services, and Electronic Services employ around 85 per cent of the bank's 4,300 staff. The remaining divisions (such as IT, finance and people resources) provide the necessary support for the core customer facing areas.

11   The organisation of the bank is based upon two core principles:

   ■   **Knowledge of the customer base,** using integrated information management systems and customer relationship management.

   ■   **People developed to fit the business needs.** Staff are recruited with communications skills, but taught banking and company core values through a comprehensive in house training programme.

Take up of e-services

12   First Direct Plc has seen a steady growth in customers over a 10 year period rising progressively to 1 million customers by 2001. The current assumption is that future growth will remain steady. Since the introduction of internet banking, the pattern of customer contacts has changed dramatically with a growing percentage of customers now using on-line facilities in preference to the telephone.

13   Early marketing aimed at raising public awareness of the bank's e-services and was not aimed at specific customer groups. Recent marketing initiatives have proved more successful by focusing on specific customer groups to highlight the benefits of e-services. The bank, for example, e-mailed 'dormant' customers of its personal computer banking (people who had not used the service for 90 days) to encourage them to use the internet banking service instead.

Improving the services available

14   First Direct Plc has adopted a build and learn approach to the development of e-services. The bank has prioritised its programme of future projects and services, taking account of the predominantly in house IT team's capabilities. Products are pilot tested initially with a small number of selected customers to enable the final product to be refined before a high profile targeted marketing campaign.

Wider issues

15   In drawing any lessons from the experiences of Abbey National Plc and First Direct Plc it is important to recognise that there are differences in the role and responsibilities of private sector companies and Government departments, such as the Inland Revenue. Nevertheless, sharing good practices is an important two-way process for the public and private sectors. Generic principles and good practices relevant to the Inland Revenue and other Government departments and agencies include:

   ■   Achieving rapid take up of e-services is likely to be challenging. Our discussions indicated that both organisations expect take up to increase by around 20 per cent by 2005, although neither organisation has set specific targets.

   ■   E-services need to be focused around customers' needs. Customer research enabled both organisations to design services and re-organise work around these needs.

   ■   The successful development of e-services involves taking risks and minimising the impact on the organisation if things go wrong. A high profile failure would damage customer confidence in the organisation's e-services and affect future take up levels. Both organisations broke development work into a number of small discrete projects and pilot tested each one before encouraging customers to use the service.

Appendix 6   **Overseas experiences**

1   Many national governments are developing e-services and are facing similar risks and challenges as the Inland Revenue. The Inland Revenue has developed a network of contacts in many countries to compare progress and offer advice where applicable. The Canadian Customs and Revenue Agency noted, for example, that it often looks to the Inland Revenue for its leadership and experience in the development of e-services.

2   Direct comparisons between countries should be treated with caution. Differences in legislative requirements and taxation policies will impact on progress in developing e-services. In Australia, for example, taxpayers have an incentive to submit returns electronically as the majority of taxpayers are usually due a refund from the Australian Taxation Office each year and the electronic service is the quickest way of getting it. Against this background, this appendix summarises developments elsewhere and highlights a number of good practices that might be applicable to Government departments and agencies in the United Kingdom.

3   Different countries have developed their own approach and set their own targets for developing e-services. A report by Accenture in April 2001[14] examined progress made in 22 countries and concluded that all had made progress, albeit at different rates and different levels of sophistication. Cabinet Office comparisons of progress in 14 leading countries[15] demonstrated that national government targets have focussed on making e-services available to the public. The Singapore Government, has estimated that the introduction of electronic filing of tax returns via the internet and the telephone saves it some £20 million a year.

4   World wide progress in developing electronic tax services follows a similar pattern. A survey of 15 leading countries by the Organisation for Economic Co-operation and Development (OECD) in September 2000[16] found that all revenue authorities had their own web site and were focussing efforts on making existing services available electronically to their taxpayers. The Inland Revenue has been keen to take on board best practice from elsewhere and to share its own good practices and developmental ideas. The department actively participates in the OECD and has developed a network of contacts in many of these countries.

5   The OECD report concluded that the revenue authorities in the 15 countries recognised that new technologies provided an opportunity to improve taxpayer services and reduce administrative costs.

A number of the authorities already used electronic data interchange services to communicate with large businesses. Eleven countries offered the facility for taxpayers to prepare their tax returns on-line and to accept electronic filing of the completed forms.

6   We wrote to the revenue authorities in a number of countries to examine progress made since the OECD report and to draw out good practices that might be applicable to the Inland Revenue and other Government departments and agencies in the United Kingdom.

Progress made

Australia

7   The Australian Tax Office launched its web site (www.ato.gov.au) in 1995. The site provides a range of information, forms and tax calculators. Since 1991, the Tax Office has offered taxpayers an opportunity to transact electronically. Services available in 2001 include:

- **E-Tax** - taxpayers can use the service to prepare and lodge income tax returns via the internet. The service was introduced in 1998 and aimed at the 3 million individuals that prepare their own tax returns each year. The software takes users through an on-screen interview and automatically completes the tax return based on the answers to the questions. There were 27,000 lodgements in 1998-99, and this rose to 117,000 in 1999-00 and some 280,000 in 2000-01.

- **Electronic Lodgement Service** enables tax agents to lodge their client's tax returns and other tax forms electronically via a modem. Whilst a paper based tax lodgement could take up to seven weeks to process, the e-service has a ten day turnaround. The Tax Office processes some 9 million taxpayer returns each year and 75 per cent are lodged using this service.

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14   *'Rhetoric vs Reality - Closing the Gap', Accenture, April 2001*
15   *'e-Government: Benchmarking Electronic Service Delivery', Office of the e-Envoy, July 2000 and July 2001*
16   *'Survey of Taxpayer Service Initiatives Using New Technology', OECD, September 2000*

Canada

8 The Canadian Customs and Revenue Agency launched its web site (www.ccra-adrc.gc.ac) in 1995. The site provides a wide range of information for taxpayers. In 2000, the Agency offered individuals the opportunity to file directly to the Agency over the internet and current services include:

- **Electronic filing of income tax returns.** Taxpayers can file income tax returns by telephone (the 'telefile' service), across the internet (the 'netfile' service) or since 1990 through agents using the 'e-file' service. Over 34 per cent of the target population used one of these methods in 2000-01, of which 6 per cent of the target population use the internet service.

- **Electronic services for business.** A number of services, such as electronic data interchange services, existed before 1999. The Agency plans to introduce an internet service for businesses in May 2002.

- **Tax information phone system (TIPS).** This is an automated telephone service that provides general and personal tax advice.

Japan

9 The National Tax Agency has a web site (www.nta.go.jp) that contains information for taxpayers and businesses. There were some 800,000 hits on the web site in 1999. Whilst Japanese taxpayers cannot yet submit their tax returns electronically, the Agency's web site offers tax return and application forms, and a handbook to explain how to fill them in. The Agency is currently developing an on-line service.

Netherlands

10 The Dutch revenue service launched its web site (www.belastingdienst.nl) in 1999. The site is broadly structured according to the needs of different customer groups, such as the young and older people. The site offers information on tax, downloadable software and electronic forms. The e-services available include:

- **Electronic submission of tax returns.** Taxpayers can complete and submit their tax returns electronically. Some 1.3 million taxpayers submitted electronic returns in 1999, 580,000 via a modem and 720,000 on a diskette. This represents some 18 per cent of the 7.2 million taxpayers required to submit returns.

- **E-mail enquiries.** Taxpayers can e-mail the Dutch revenue service for guidance. Internet users can raise questions on an internet form which is then handled by their relevant tax office. The software enables frequently asked questions to be dealt with by a standard reply and for tax officers to deal with more complicated questions.

Norway

11 A range of downloadable software and publications are available from the Norwegian Revenue web site (www.skatteetat.no). The services available include:

- **Submission of tax returns.** Taxpayers can submit their returns electronically, either by telephone or across the internet. Some 20 per cent of taxpayers submitted their returns electronically in 2000-01.

- **Payment of taxes.** Citizens and businesses can pay income, property and sales taxes on-line.

Republic of Ireland

12 The Irish Revenue's web site (www.revenue.ie), launched in 1996, contains some 10,000 pages of information, leaflets and returns. It currently receives over 800,000 hits a month. In September 2000 the Revenue-on-Line Service (www.ros.ie) was launched and enabled businesses (both individuals and companies) to electronically file and make on-line payments, through an internet link. Large taxpayers were targeted in order to maximise impact, in conjunction with this a low key advertising campaign sought to highlight the benefits of the service to the general customer base. This approach enabled any software glitches to be rectified without any adverse publicity.

13 In the first year of operation total receipts for electronic payments totalled €1.5 billion.

Wider lessons

14 A number of lessons arise from the experiences of the six countries that might be applicable to Government departments' and agencies' future e-services programmes:

On improving take up

- Better take up of existing services will benefit the revenue authorities. However none of the authorities we contacted were able to quantify the benefits of e-services, they confirmed that improved take up would generate efficiency savings.

- Encouraging taxpayers to use e-services is not straightforward. Many of the countries we contacted recognised that there were a range of factors that might deter the public from using such e-services. Examples included security concerns and whether there was sufficient customer support. None of the countries we contacted had specific targets on future levels of take up, except the Republic of Ireland's Revenue Commissioners who have set a target of having 50 per cent of business returns filed electronically by 2005.

- A number of countries recognised the need to demonstrate the benefits of e-services in order to encourage the public to change their attitudes to Government e-services. Marketing should address issues of concern to taxpayers, and offer some sort of incentive to use the service. The Canadian Customs and Revenue Agency, for example, conducted extensive market research to establish what the public wanted from its e-services, and used this data to inform policy and service development.

On improving the services available

- There must be a shared corporate vision of what e-services can achieve. The development of e-services is not just a technological issue, it will change the way the organisation works. It is vital to have commitment from all staff, especially senior managers, as well as suppliers and other key stakeholders.

- E-services should be orientated around the needs of customers. The Dutch revenue agency's web site for example is, like the Inland Revenue's site, structured around the needs of specific user groups. And most of the tax authorities, like the Inland Revenue, had telephone and e-mail help desks to provide support for their e-services, answer queries, offer information on tax matters and invite feedback.

- The development of e-services might focus on key activities in the shorter term but there needs to be a longer term plan to modernise 'back office' systems. Tax authorities recognise the importance of joined up Government services to encourage take up and generate efficiency savings. Such integration requires improvements in 'back office' computer systems to enable better communication of information.

- E-services should be pilot tested with selected customers. Pilot testing enables a tax authority to identify any major software errors and to gauge customer reaction before a new service is marketed and made available to its customers. A number of the countries we contacted highlighted the importance of this stage and how they had modified services in response to early customer feedback in the pilot stage.

- It is important to have sufficient staff with the right skills to develop and operate e-services. Skilled e-service software developers continue to be in demand and, as a consequence, most of the tax authorities we contacted had contracted out these tasks. Skilled in-house staff are also critical to running e-services successfully and it might be necessary to provide support and training to help them to adjust to the organisational and cultural changes required. The Australian Tax Office, for example, recognises that e-business requires changes to existing ways of staff working and thinking and, as a consequence, has developed a Cultural Change initiative to support its e-services strategy.

Appendix 7 **Constraints to using e-services**

1 This appendix examines what factors might deter the public from using the Inland Revenue's e-services, and identifies what might be done to overcome such constraints.

2 We commissioned two pieces of research:

■ A review of the general obstacles to the development of e-Government by Professor Margetts from University College London, in conjunction with our separate examination of the progress across Government in developing e-services.

■ An examination by Lorien Consulting Ltd of the factors that might constrain public take up of the Inland Revenue's e-services.

Constraints to using e-services

3 We have drawn on the general obstacles identified by Professor Margetts and the work done by Lorien Consulting Ltd to identify five factors that might influence public attitudes to the take up of the Inland Revenue's e-services. This is a complex issue and we recognise the factors might differ for each customer group. Further research needs to be done to determine the magnitude of each factor for each group. The factors are:

i **Citizen demand.** Use of the internet is driven by customer demand for the services offered, and e-services should offer something that the public require. Low usage might indicate that the particular e-service does not meet public needs. The most significant constraint to take up of the Inland Revenue's existing e-services is that the public might perceive that there are few incentives to use these services. Some taxpayers might have opted to use the internet service for Self Assessment the first year it was introduced, for example, because the novelty of the service appealed to 'innovators' - people who regularly search the internet and like to trial new services. Take up will only improve if the Inland Revenue demonstrates that the e-service offers other clear benefits to users. The Inland Revenue recognises this issue and are drawing up plans to enhance the Self Assessment service for 2002 and the department is considering other ways of making the e-service more attractive.

ii **Transaction costs.** The cost to a member of the public of changing to electronic methods of communication might be high. The perceived inconvenience of changing an established way of doing something might deter people from investing the time and effort required to start using e-services instead. Potential users of the Inland Revenue's e-services, such as the internet service for Self Assessment, are likely to be 'cash rich' and 'time poor'. As a consequence, the cost of using e-services, such as telephone call charges, is relatively low for high rate taxpayers, and unlikely to deter people from using the Inland Revenue's e-services. Whereas the time required to log on to the internet and to learn how to complete the forms electronically might be a deterrent.

iii **Security.** Concerns that others could access data sent electronically might deter people. Transactions with Government departments should be secure and should be seen to be secure. There is a diverse range of opinion on the importance of security to users. The internet is characterised by an inherently high level of perceived risk and some users considered it to be a very real issue. Other users commented that such concerns evaporate once users gain experience with the internet and successfully complete internet based transactions. We were satisfied that the Inland Revenue's security standards matched best practice.

iv **Social exclusion.** This is caused by the problem of unequal access to the internet. Social exclusion is less relevant to the Inland Revenue's existing services than it is for other departments. Higher rate taxpayers required to complete Self Assessment tax returns each year and business customers are more likely to have access to the internet than other social groups. The Inland Revenue is considering ways of working with intermediaries, such as the National Association of Citizens Advice Bureau, as an alternative way for e-services to be accessed.

v **Formality.** The internet and web-based technologies are often associated with fun or enjoyment. The public might perceive communication by electronic means as inappropriate for some matters, such as personal tax. However, this concern can largely be addressed by overcoming worries about the security of such transactions. The Inland Revenue has already established a secure system.

What might be done to overcome such constraints

4 The Inland Revenue is addressing many of the above issues. We believe that focusing further effort as follows, will enable the department to improve take up:

Step 1: Understand customer needs

5 Potential users of the Inland Revenue's e-services have different customer needs and expectations. The needs and expectations of higher rate taxpayers and the self employed will differ from those of companies or charities. It is important to communicate regularly with each customer group to ensure future services meet these needs and expectations

6 The Inland Revenue has made progress in establishing what e-services the public might require. The Inland Revenue hosted consultative meetings with business leaders in April 2001 to establish what the private sector might require from the planned e-service for Corporation Tax. Other initiatives have included contacting taxpayers in Spring 2001 who had used the internet service for Self Assessment for their views and the introduction of a feedback mechanism on the Inland Revenue's web site in Spring 2001. Such initiatives will assist in developing and improving future e-services, although further work is required to develop more detailed needs analysis for each customer group.

Step 2: Have a clear strategy to encourage take up

7 The take up strategy should address the appropriate needs of each customer group identified in step 1 and what can be done to overcome the associated factors that might deter each group from using the Inland Revenue's e-services.

8 The Inland Revenue has developed a departmental marketing strategy. The strategy needs to set out more clearly what needs to be done to encourage take up of e-services. Recent initiatives, for example, focussed on publicising the Self Assessment internet service and have not covered other services, such as the electronic data interchange Pay As You Earn service.

Step 3: Develop services that add more value

9 E-services should offer customers some benefit. There are already clear benefits to organisations that can send Pay As You Earn tax data across an electronic data interchange to the Inland Revenue (see Appendix 3). Whilst there are also benefits to taxpayers using the Self Assessment internet service (see Appendix 1), progress so far in encouraging take up suggests more needs to be done. In particular, initiatives to make the form easier to complete, such as reducing the number of questions to be answered and providing data already known, for example copies of completed tax forms from previous years, would encourage more people to use this e-service. The Inland Revenue is taking forward these initiatives as part of its development of a revised Self Assessment internet service.