



Comptroller and Auditor General
Special Report

eGovernment

October 2007

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This report was prepared on the basis of information, documentation and explanations obtained from the public bodies referred to in the report. The draft report was sent to the Department of the Taoiseach, the Department of Finance and the Department of Social and Family Affairs. Relevant sections were sent to other departments and agencies. Where appropriate, the comments received were incorporated in the final version of the report.

Report of the Comptroller and Auditor General

eGovernment

I have, in accordance with the provisions of Section 9 of the Comptroller and Auditor General (Amendment) Act, 1993, carried out an examination of eGovernment.

I hereby submit my report on the above examination for presentation to Dáil Éireann pursuant to Section 11 of the said Act.

A handwritten signature in black ink, appearing to read 'John Purcell', with a large circular flourish at the beginning.

John Purcell
Comptroller and Auditor General

19 October 2007

Table of Contents

	Page
Abbreviations	
Summary of Findings	8
eGovernment	
1 Introduction	15
2 Outturn on eGovernment Projects	20
3 Developing the Public Services Broker	40
4 Managing the Development of eGovernment	59
Appendices	
A Risk assessment model for information and communications technology transformation	71
B eGovernment projects reported by departments and agencies	72
C Summary description of the Public Services Broker	90
D Glossary of Technical Terms	93
E Requirements for management, monitoring and evaluation of eGovernment projects	96

Abbreviations

CMOD	Centre for Management Organisation and Development, Department of Finance
GRO	General Register Office
ICT	Information and Communications Technology
ISF	Information Society Fund
ISPU	Information Society Policy Unit, Department of the Taoiseach
ISSS	Integrated social services system
PAYE	Pay as you earn (income tax)
PIN	Personal identification number
ROS	Revenue On-line Service

Summary of Findings

Summary of Findings

The rapid advances in information and communications technology (ICT) in the 1990s, and in particular the potential for development of widespread internet use, resulted in the emergence of the concept of the information society. This refers to the increasing dependence on ICT in all aspects of society, including in the provision of public services. On-line availability of public services, and the associated transformation of the business of public service agencies, came to be referred to as eGovernment.

In January 1999, the Government launched an action plan for implementing the information society in Ireland. This set out a series of actions and initiatives for the period 1999-2001, including development of telecommunications infrastructure (in particular, national availability of broadband), new legislation and other measures to enable both public and private businesses to operate effectively and safely on-line, and a range of eGovernment initiatives and projects.

A second action plan for implementing the information society, called *New Connections*, was launched in March 2002, covering the period 2002 to 2005. The themes of the first plan were repeated, but the second plan was more ambitious. The projects listed in the plan ranged in sophistication from those offering on-line information about services, to those allowing full on-line processing of transactions by individuals and businesses. Others were inter-agency projects designed to improve efficiency by transforming the way in which public service agencies interact.

New Connections also referred to a key eGovernment infrastructure project — the Public Services Broker — that was already underway. This envisaged developing a single point for access to all on-line public services. Responsibility for development of the Broker was assigned to a special unit called Reach, set up within the Department of Social and Family Affairs.

This examination was undertaken to establish the extent to which the eGovernment projects and initiatives outlined in the two action plans were implemented. The main issues addressed in the examination were

- Is the eGovernment initiative meeting its objectives in terms of
 - providing better public access to the latest information about the services offered by government departments and agencies
 - enabling the public to conduct and conclude transactions with departments and agencies
 - transforming the internal efficiency of departments and agencies, and their interaction?
- How is Ireland performing in each of these respects, relative to other comparable jurisdictions?
- How has Reach performed, and in particular, has it put in place the necessary eGovernment infrastructure in a timely and cost-effective manner?
- Are there adequate arrangements for appraisal, financial control and monitoring of eGovernment projects?
- Have the risks, constraints and opportunities in the areas of technology, data security, business transformation and consumer demand been properly managed?

Outturn on eGovernment Projects

In response to a questionnaire-based survey, central government departments and agencies reported that the estimated cost of eGovernment activity undertaken or commenced in the period 2000 to 2005 would be almost €20 million. This includes the estimated cost to completion of projects that were still in development. The projects reported by departments and agencies are listed in Appendix B.

There was considerable impetus behind the Government's first action plan for the information society but, despite the stated objective in *New Connections* of having all services capable of on-line delivery available by 2005, progress slowed in later years. Many of the projects included in *New Connections* proceeded more slowly than planned. A substantial number did not proceed, or started but were later abandoned. The high level of ambition that characterised *New Connections* may explain some of the shortfall in the overall achievement.

Some of the projects included in the action plans focused on delivering on-line information about public services. Most of these were delivered successfully. They included two websites providing information about public services, presented from the point of view of users (individuals or businesses) rather than along the traditional lines of organisation of public service agencies. Some information-focused websites have features that allow users to customise the information they receive, or to receive email alerts when new material is posted on-line.

Many eGovernment projects planned to allow users to carry out on-line transactions with public service providers. Some were very successful, such as those allowing on-line payment of motor tax, filing tax returns and paying taxes, applications for Area Aid, and property registration searches. However, a number of planned on-line transaction projects have not been implemented. These include on-line services for applications for housing grants, passports, haulage licences, and driving licences. The requirement for more stringent identity authentication contributed to the lack of progress in some cases. In general, there was more success in delivering the planned on-line services for businesses, than for individual users.

While Ireland has some on-line transaction services that compare favourably with what has been achieved elsewhere, an EU-wide benchmark survey indicates that it has achieved the highest level of on-line service in only ten of 22 key public services for individual and business users. Overall, Ireland's position is around the average for EU member states and some states are delivering a significantly higher level of on-line service. Greater emphasis should be placed on looking at the experiences of other countries and learning from them for application to Irish public services.

Many departments and agencies report having achieved efficiencies as a result of implementing eGovernment projects. In some organisations – including the Department of Social and Family Affairs, the Department of Agriculture and Food and the Revenue Commissioners — these claims are quantified and substantial. However, in most cases, the claims of benefits achieved are relatively non-specific.

The management process for the administration of eGovernment projects needs to be improved. All projects should have clear, measurable business objectives, and time and cost targets. A much stronger project cost and performance measurement and reporting system is required, integrated with departmental and agency reporting systems.

Developing the Public Services Broker

Reach was established in 1999 as a unit within the Department of Social and Family Affairs, with a mandate to develop an integrated social services system (ISSS). The objective of the system was to bring greater coherence to the provision of social services by making them better co-ordinated, easier to understand, more accessible and user friendly, and more efficient and easier to manage.

Against the background of the Government's first action plan, the Department of the Taoiseach and the Department of Finance developed the concept of a Public Services Broker. This envisaged that a single website (the Broker) would integrate public services, sharing data and establishing links between all the services associated with or affected by significant events for website users e.g. on the death of a relative; setting up a business, etc. Because the Broker concept was considered to be compatible with the ISSS project, responsibility for developing the Broker was assigned to Reach.

Government approval for the development of the Broker was given in May 2000, but neither a budget nor a timetable for the project was set at that time. Reach began to organise and staff up for the revised mandate, and to plan how the Broker might be delivered. It moved through software development stages designed to test the Broker concept (completed by August 2001) and then to develop a prototype of the proposed system (completed by April 2002). At the same time, work was underway to find a partner to build, deploy and operate the Broker. The invitation to tender for provision of those services was issued in July 2002.

The Broker project was reviewed in late 2002, in the light of the responses received from bidders. This led to a scaling back of the proposal. A revised and less ambitious first phase (Broker Version 1) was approved by the Cabinet Committee on the Information Society in May 2003. At that stage, the cost of development of the proposed Broker Version 1 was estimated at around €14 million.

A contract to develop and service the Broker Version 1 was signed in February 2004, with a target to have the system operating by August 2004. Delays in completing the project occurred for a variety of reasons, and the project was finally completed in December 2005. The final expenditure was of the order of €37 million, when all the costs associated with development of the system are included. Ongoing costs are expected to be in the region of €14-15 million a year.

Reach has delivered a complex ICT system in the form of the Broker. While it does not operate in the way originally envisaged, it nevertheless has potential, if used. However, only a small number of services to the public are currently using the Broker. Successful aspects of the system include

- the Inter Agency Messaging Service, which offers a standards-based, simple means for departments and agencies to exchange documents and data with each other
- identity authentication, which allows taxpayers to access their PAYE income tax accounts on the Revenue Online Service (ROS) website — while this process is somewhat cumbersome, it is functioning successfully, and is capable of being extended to other public services
- an interoperability framework, in the form of a comprehensive set of standards and guidelines that are available to all public service agencies to use in constructing their own internal and external-facing systems.

Reach has not delivered the ISSS. Responsibility for this has been transferred to other parts of the Department of Social and Family Affairs.

The original idea for the Broker was innovative. However, the feasibility of the project was not examined early on and planning was weak. As a result, expectations for the project were unrealistic, and implementation has been far slower and more costly than was anticipated. While managers in Reach and in the Departments of the Taoiseach, Finance, and Social and Family Affairs demonstrated strong commitment to the project, the governance structures were inadequate, but improved over time. A clear and practical vision and strategic plan for the future direction of Reach and the Broker, and an appropriate organisation and governance arrangement, are now urgently required. A wide-ranging review of Reach and the Broker is currently underway.

Relationships between Reach and its (potential) client departments and agencies have been uneven, and there is some dissatisfaction with past levels of service. If the Broker is to deliver value for the investment made, other departments and agencies will have to use it. The memorandums of understanding currently in place between Reach and client departments and agencies should be replaced by more specific service level agreements.

Consideration should be given, in conjunction with the relevant departments and agencies, to deepening, expanding and improving the Broker-enabled identity authentication service and to identifying the related costs and benefits, and resource and governance issues.

Managing the Development of eGovernment

The Departments of the Taoiseach and of Finance played a key role in developing a vision for eGovernment, and in identifying opportunities for improving significantly the quality of public services. Departments and agencies proposed individual projects for inclusion in the Government actions plans, and were responsible for their delivery and the achievement of planned business objectives.

While broad strategic objectives were identified for eGovernment, measurable targets were not set in relation to those objectives. There was scope for more evaluation and prioritisation of the plans that were presented in the light of overall Government aims. More active central oversight of the overall strategy through a more quantified and robust review of progress against service-wide targets, and greater engagement with relevant departments to identify and resolve barriers to progress and to engagement on cross-cutting initiatives, would have improved the chances of achieving the strategic objectives for eGovernment.

The momentum towards developing eGovernment that was evident in the early years of the decade appears to have faded somewhat. This is evident in the absence of a formal eGovernment strategy since the beginning of 2006. However, the Department of the Taoiseach is currently working with other departments and agencies on the development of a new strategy.

In some areas of the public service — for instance Revenue, the Department of Social and Family Affairs, and the Department of Agriculture and Food, as well as in smaller agencies such as the Property Registration Authority and Ordnance Survey Ireland — the opportunities of new technology for business transformation and for meeting consumer demand were well recognised and addressed. In some other public service providers, it was not clear that the opportunities were as well recognised. Departments and agencies in this situation may need more encouragement, support and incentives if opportunities to improve the quality of the services they provide through application of ICT are to be properly evaluated and exploited, where it is cost effective to do so.

The Information Society Fund was established as a centrally managed fund, to be used to provide financial incentives for the achievement of information society initiatives. Over the six years 2000 to 2005, in excess of €57 million was paid out of the Fund, in support of 176 information society projects and initiatives. An estimated €3.3 million, or 94% of the total, was allocated to

eGovernment projects. This accelerated the pace of eGovernment, and resulted in some projects being undertaken that would not otherwise have proceeded. The funding was directed mainly towards large well-resourced departments and agencies that already had established strategic eGovernment plans and which therefore had a higher likelihood of success.

Non-availability of funding was not identified as a barrier to progress in many cases. Senior management commitment and the resolution of organisational, process, human and technological issues appeared to be more important in encouraging eGovernment than additional funding. In a future eGovernment strategy, these barriers and capacity issues would need to be addressed if the potential improvements in the delivery of public services are to be realised.

Measurable targets should be set for each of the strategic goals of eGovernment, and responsibility for the achievement of the goals should be formally assigned. Annual eGovernment progress reports should be published, focusing on the achievement both of strategic goals and of planned project impacts. The effectiveness of the eGovernment strategy should be formally and independently evaluated from time to time.

For each major process transformation project, whether within an individual department/agency or across a number of departments/agencies, a current performance baseline should be established against which results can be measured. The necessary supporting arrangements should be put in place.

eGovernment projects that cross organisational boundaries present opportunities for more efficient and effective delivery of government services. However, by channelling funding through traditional departmental 'silos', existing budgetary arrangements may have militated against effective cross-cutting eGovernment developments. Consequently, cross-cutting projects should have unitary management. Directors for such projects should be appointed from the bodies involved in the projects, and have clear responsibility and accountability for delivery.

While some departments and agencies have plans and the capability to move forward, others are at earlier stages of development and appear uncertain how to move forward, or are unwilling to do so because of the risks and investment involved. It is recommended that central or external guidance and support be provided to enable them to assess objectively the current status and opportunities, to plan their development and to implement those plans.

eGovernment

1 Introduction

1.1 The concept of the ‘information society’ emerged in the 1990s with the convergence of information and communications technologies (ICT), particularly through the development of the internet. It was recognised that it would be very challenging for society and governments to keep abreast of these fast-moving developments, but it was also seen that they presented many opportunities to advance efficiency and social inclusiveness, and that they could provide a springboard for new enterprises and for the expansion of existing business.

Developing the Information Society in Ireland

1.2 In the light of the views and recommendations contained in a number of reports on the implications of the information society¹, the Government concluded that a comprehensive action framework was required in order to develop an information society in Ireland and to take full advantage of the opportunities. It identified a number of broad areas where action was needed, including the development of eGovernment. This refers to the use of ICT in public administration to improve public services, together with related organisational change, supporting infrastructure and new skills.

Action Plan 1999-2001

1.3 In January 1999, the Government launched a plan for implementing the information society in Ireland.² This set out a series of actions and initiatives for the period 1999-2001, including: development of telecommunications infrastructure (including national availability of broadband); new legislation and other measures to enable both public and private businesses to operate on-line; and a range of eGovernment initiatives and projects. The main objectives of the action plan were to ensure that

- the benefits of the information society could be availed of by Irish citizens and Irish businesses, thus contributing to the ongoing improvement of Irish society and economy
- Ireland continues to be an attractive investment location for international businesses
- all of society could participate in the information society.

1.4 Under the heading of eGovernment, the action plan proposed three strands of activity

- *information services* — ensuring that all public service information is available on-line through the websites of departments and agencies, and at the same time as it is delivered through traditional channels
- *interactive services* — enabling members of the public to conduct transactions with public service providers on-line
- *integrated services* — rearrangement of information and service delivery around user needs and available in an integrated manner through a single point of contact.

1 These included: the First Report of the Inter-Departmental Implementation Group on the Information Society; views and recommendations of the Information Society Commission; the Report of the Advisory Committee on Telecommunications; the National Competitiveness Council's Statement on Telecommunications: a Key Factor in Electronic Commerce and Competitiveness; and IBEC's report on Telecommunications after Liberalisation - Policies for Ireland.

2 **Implementing the Information Society in Ireland: An Action Plan**, Department of the Taoiseach, January 1999

New Connections

1.5 *New Connections*, the Government's second action plan for implementing the information society³, was launched in March 2002. In this plan for the period 2002 to 2005, the themes of the first plan were repeated, but the range of eGovernment initiatives was wider and more specific and the scope of action envisaged was deeper.

1.6 The Government committed itself in *New Connections* to the objective of having all public services that are capable of electronic delivery available on-line, through a single point of contact, by 2005. The expected benefits from implementation of the eGovernment initiatives were

- a reshaping of the delivery of Government services around user needs, rather than on the basis of departmental/agency structures
- international competitive advantage through reduced costs, higher efficiencies, better service and opportunities to allow Irish industry to develop
- accessing of eGovernment activity serving as a stimulus to wider engagement with ICT, by the business community and the general public.

1.7 The eGovernment projects and initiatives outlined in *New Connections* included

- 'flagship' services to citizens e.g. on-line facilities to pay motor tax and court fines; to apply for driving licences, road haulage licences and passports; and to apply for registration on the electoral register
- 'flagship' services to businesses e.g. on-line facilities to make tax returns and payments to the Revenue Commissioners; register changes in vehicle ownership; submit statistical returns to the Central Statistics Office and annual returns to the Companies Registration Office
- priority on-line services to support the achievement of the National Health Strategy, including pilot projects to provide on-line health information, make appointments for hospital services on-line, allow medical personnel to access laboratory results on-line and reimburse medical costs on-line
- initiatives with an inter-agency focus, aiming for improvements in the efficiency of public sector agencies e.g. the application of new technologies in the provision of papers and information to the Cabinet; linking departments and agencies engaged in the preparation of legislation; and on-line links between the agencies involved in the planning process
- a broad range of other projects being undertaken by departments and agencies to meet the needs of their own client groups.

The Public Services Broker

1.8 The concept of a Public Services Broker was central to the eGovernment plans. This was envisaged as a web-based system to integrate all services of central and local government and make them accessible on a one-stop basis through a range of channels that members of the public could choose from — on-line, by telephone or correspondence and, for personal callers, networks of 'one-stop' offices. The Broker would also provide a secure facility to store personal or business information that was routinely needed to facilitate access to a range of public services.

3 *New Connections – A strategy to realise the potential of the Information Society*, March 2002

1.9 The initial proposals to establish the Public Service Broker were approved by the Government in May 2000. It was to be implemented by Reach, a unit established under the aegis of the Department of Social and Family Affairs.

EU Action Plan

1.10 At EU level, the European Council held in Lisbon on 23/24 March 2000 set the ambitious objective that the EU would become the most competitive and dynamic economy in the world. It recognised an urgent need for EU member states to exploit the opportunities of the new technology and, in particular, the internet. An eEurope action plan was launched in June 2000.

1.11 A process to benchmark each year the implementation of national eGovernment strategies in EU member states was introduced in 2000. This focused on measuring the extent to which a specific set of services for citizens and for businesses was available on-line in each member state. The Irish Government recognised that this benchmarking process could become an important yardstick of performance and international competitiveness. Achieving a high score in the benchmarking process was therefore seen as an important goal.

Implementing eGovernment Actions

1.12 A number of cross-cutting structures were established to co-ordinate the implementation of the eGovernment plans. These included

- a Cabinet Committee on the Information Society
- an eStrategy Group of Secretaries General
- an eGovernment Implementation Group of Assistant Secretaries, with a remit to co-ordinate activities relating to implementing the Information Society and to contribute to policy development in this area.

1.13 The Department of the Taoiseach saw its role as providing a sense of direction and prioritisation for eGovernment, including

- establishing broad goals
- providing a framework of policy and reporting
- providing a means of encouraging certain strategic development areas.

Within the Department, the Information Society Policy Unit (ISPU) assisted the Implementation Group of Assistant Secretaries in their work.

1.14 The Centre for Management Organisation and Development (CMOD) in the Department of Finance has a general strategic role for ICT in the public sector in relation to strategic direction, common services and common infrastructure. (In addition, it has an internal operational role in relation to ICT development and support for the Department of Finance.)

1.15 A central Information Society Fund (ISF) was established in 1999. Evaluation, prioritisation and approval of projects applying for funding from the central IS Fund was carried out by an evaluation team comprising representatives of the Department of the Taoiseach/ISPU and the Department of Finance/CMOD. The latter implemented the necessary administrative arrangements.

1.16 Individual government departments and agencies were responsible for implementing eGovernment projects under the normal delegated sanction arrangements for ICT-related expenditure.⁴ These procedures provide for the delegation of financial authority to the maximum extent possible and required that appropriate controls be operated. In addition, departments and agencies were required by a Government decision of May 2000 to develop specific eGovernment strategies in relation to their own areas of operation.

1.17 The Office of the Houses of the Oireachtas was not included within the scope of the Government's action plans, but has developed and is implementing on-line services based on similar principles under an eParliament/eDemocracy strategy.

Scope of the Examination

1.18 This examination was undertaken to establish the extent to which the eGovernment projects and initiatives outlined in the two action plans were implemented in the period 2000 to 2005. The main issues addressed in the examination were

- Is the eGovernment initiative meeting its objectives in terms of
 - providing better public access to the latest information about the services offered by government departments and agencies
 - enabling the public to conduct and conclude transactions with departments and agencies
 - transforming the internal efficiency of departments and agencies, and their interaction?
- How is Ireland performing in each of these respects, relative to other comparable jurisdictions?
- How has Reach performed, and in particular, has it put in place the necessary eGovernment infrastructure in a timely and cost-effective manner?
- Are there adequate arrangements for appraisal, financial control and monitoring of eGovernment projects?
- Have the risks, constraints and opportunities in the areas of technology, data security, business transformation and consumer demand been properly managed?

1.19 The examination focused primarily on the roles of

- the Department of the Taoiseach
- the Department of Finance
- the Department of Social and Family Affairs, including Reach.

Other departments and central government agencies subject to audit by the Comptroller and Auditor General were included in the scope of the examination in a more limited way, with the focus on establishing the extent to which eGovernment projects had been implemented.

4 Department of Finance Circular 16/97: New Delegation Arrangements for IT-related Expenditure (including Office Machinery)

1.20 Although not subject to audit by the Comptroller and Auditor General, the Local Government Computer Services Board was invited to participate in the examination because it was included within the scope of the eGovernment initiative in a significant way. The Board agreed to participate in the examination.

Examination Methodology

1.21 A joint consultancy team from Ernst & Young and Talbot Associates was appointed, following a competitive tendering procedure, to carry out the VFM examination. They worked in consultation with officials of the Office of the Comptroller and Auditor General, who provided some additional material for inclusion in the examination report.

1.22 The consultancy team carried out a programme of structured interviews with relevant personnel in the Departments of the Taoiseach, Finance and Social and Family Affairs (including Reach). The interview structure was based on a model designed to assess key risks that may arise in ICT-related business transformation (see Appendix A). Relevant documents and files held in each of the organisations were also reviewed.

1.23 A total of 36 departments and agencies were asked to complete questionnaires about the eGovernment projects they planned or carried out in the period 2000 to 2005. Where considered appropriate, there were follow-up interviews with officials of the departments and agencies and written enquiries to clarify issues arising from the responses to the questionnaire.

1.24 The consultancy team also undertook a survey of published international benchmarks of eGovernment performance to assess the progress of eGovernment in Ireland in comparison with other countries.

Structure of Report

1.25 Chapter 2 of this report looks at how the e-Government projects undertaken by individual departments and agencies turned out. Chapter 3 examines the work undertaken by Reach to develop the Public Services Broker and to provide the infrastructure to facilitate the integration of government services. Chapter 4 looks at the strategic direction and oversight of eGovernment developments by the Departments of the Taoiseach and Finance over the life of the action plans.

2 Outturn on eGovernment Projects

2.1 This chapter looks at how the projects undertaken by individual departments and agencies since the commencement of the eGovernment initiative turned out. It focuses in particular on what has been achieved in relation to delivery of the on-line public services and projects that were highlighted in the two Government action plans. A number of case studies are included to illustrate the kinds of opportunities that are available for delivery of services on-line, and some of the challenges involved in developing such services.

2.2 The projects planned or undertaken by departments and agencies are listed in Appendix B. In each case, a summary description of the planned project is given, together with an indication of its current status, the project budget and estimated cost outturn, and an indication of the reported benefits the project has delivered. Information presented in this chapter is largely based on the questionnaire responses completed by departments and agencies, and on follow-up queries.

Expenditure on eGovernment Activity

2.3 Departments and agencies reported that the estimated final cost of eGovernment activity undertaken or commenced in the period 2000 to 2005 would be almost €420 million. (This includes the estimated cost to completion of projects that were still in development.) There was enormous variation between departments and agencies in the estimated amount spent (see Figure 2.1). There was similar variation in the reported cost of individual projects.

2.4 In practice, the expenditure by departments and agencies on the reported eGovernment activity and projects will be significantly more than €420 million. Most departments and agencies were able to provide estimates of the direct costs associated with their projects e.g. purchases of hardware and software, and the costs of consultancy or contract services. However, many were unable to estimate the costs associated with internal staff engaged on their projects.

2.5 The number of projects reported does not reflect the scale of eGovernment activity undertaken, because departments and agencies took differing views on what constitutes an eGovernment 'project'. For example, the Revenue Commissioners reported only one project — the Revenue On-Line Service (ROS) — which provides for on-line filing of many different kinds of taxes. In contrast, some departments and agencies reported on different phases of the same project (including associated consultancy work) as separate projects. In addition, some departments and agencies reported only on the large projects they undertook, while others included small projects, such as a redesign of the departmental/ agency website.

Budgeted Cost of Projects

2.6 The questionnaire replies indicate that formal budgets were adopted for three out of every four eGovernment projects. Budgeted project cost was not available in some cases because the projects were financed year-to-year from annual funding available for ICT projects.

2.7 Where budgets or approved costs of projects were available, they were compared with their respective estimated cost outturns. For those projects, the aggregate budget/approved cost was €26 million, while the estimated outturn was €271 million — a net overrun across all projects of around 20%.

Figure 2.1 Estimated expenditure on eGovernment projects, by department/agency^a

Department/agency	Number of projects reported	Estimated cost ^b €million
Social and Family Affairs (including Reach/Public Services Broker)	9	92.1
Transport	4	49.6
Property Registration Authority	1	45.7
Revenue Commissioners	1	43.0
Agriculture and Food	13	35.0
Communications, Marine and Natural Resources	12	20.8
Justice, Equality and Law Reform	3	18.5
Finance	6	16.2
Health and Children/Health Service Executive	13	15.7
Central Statistics Office	10	15.5
Local Government Computer Services Board	10	11.9
Enterprise, Trade and Employment	16	9.2
Environment, Heritage and Local Government	15	8.3
Education and Science	7	7.5
FÁS	2	6.2
Taoiseach	1	5.4
Public Appointments Service	3	4.3
Office of the Houses of the Oireachtas	5	3.7
Arts, Sports and Tourism	4	3.6
Ordnance Survey Ireland	1	3.4
Courts Service	2	1.4
Community, Rural and Gaeltacht Affairs	5	1.3
Foreign Affairs	5	1.0
Office of the Ombudsman	1	0.1
Defence	1	0.1
Office of Public Works	6	0.1
Office of the Attorney General	1	0.1
Office of the President	1	0.1
Valuation Office	2	*
An Bord Pleanála	1	*
Director of Public Prosecutions	—	—
Chief State Solicitor's Office	—	—
State Laboratory	—	—
All departments and agencies	161	419.8

Source: Questionnaire responses from departments and agencies. See Appendix B for details of individual projects.

Notes: a Changes in the responsibilities of certain departments were announced at the time of the formation of Government in June 2007. Data presented here is based on the previous distribution of responsibilities.

b Includes expenditure in the years 2000 to 2005, and estimated expenditure required to complete current projects.

* Indicates expenditure was under €50,000.

2.8 The cost overruns emerged for a variety of reasons but the level of detail provided in the questionnaire responses was insufficient to determine the exact causes in individual cases. Budget under-provision for the full costs of ICT projects was a significant factor. Departments and agencies pointed out in some cases that they had based project budgets on direct expenditure items only (e.g. software development, licences, consulting, etc.), and did not provide for internal project costs, especially IT staff costs. Overruns can also arise due to extension of scope of projects, inadequate planning; cost control failures; or a combination of these factors.

Summary Status of eGovernment Projects

2.9 A high level objective of the *New Connections* action plan was to have all public services that were capable of electronic delivery available on-line by end 2005.

2.10 Figure 2.2 presents an analysis of the status of eGovernment projects as reported by departments and agencies in mid 2006.

Figure 2.2 Status of eGovernment projects, mid 2006

Project status	Number of projects	As % of projects
Completed and fully live as planned	74	53
In progress/partly implemented	44	31
Not progressed/abandoned	23	16
Projects of known status	141	100
Status not known/small projects ^a	20	
All projects	161	

Source: Analysis of questionnaire responses

Note: a Includes some consultancy-only projects.

2.11 The analysis shows that half of the planned eGovernment projects were fully delivered by mid 2006. Almost one third of the projects were still in development, or had been partly implemented. One in six of the planned projects had been abandoned or had not been progressed at all.

Timeliness of Project Completion

2.12 Departments and agencies were able to provide planned and actual completion dates for 111 projects. The planned duration of projects averaged 16 months, compared with a reported duration estimated at an average of 20 months — a 25% time overrun. Within this variance, there is a range of positive and negative variances.

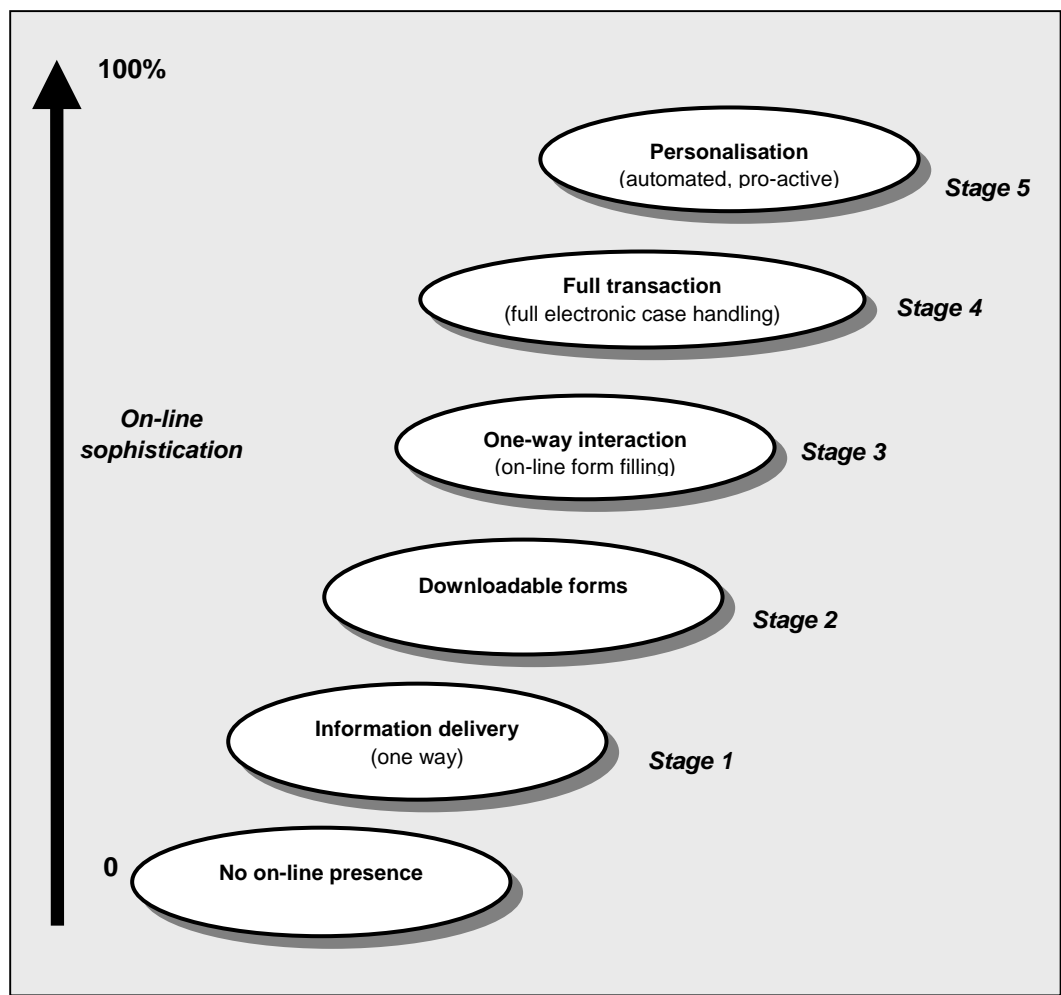
2.13 Reasons for delay were quoted in 66 cases. Most frequently, the reasons given for delay were unanticipated complexity in the business process, or in the technical solution. Staffing shortages or industrial relations issues were reported causes of delay in 14 cases. Unavailability of funding was a reported cause of delay in only four cases.

Delivery of On-line Services

2.14 Almost all public service agencies have now established an on-line presence, but the level of sophistication of the services provided on-line varies. Services can be categorised based on the type of on-line activity they allow. Figure 2.3 outlines a model used for assessing the level of sophistication of on-line public services, ranging from no on-line presence to full electronic case handling with personalisation of services for individual users (e.g. automatic notification of an entitlement, of a permit about to expire, or legislative changes affecting the user).

2.15 The outcomes of the projects given prominence in the Government action plans are reported in the following sections. A distinction is made between those that aimed primarily to deliver on-line information and forms (i.e. stages 1 and 2); and those that aimed for on-line interaction/transactions (stages 3, 4 or 5). The latter group includes projects that aimed to allow on-line interaction or transactions between citizens/private businesses and government and those that involved on-line interactions or transactions between government agencies.

Figure 2.3 Levels of sophistication of on-line service delivery



Source: CapGemini/EU Commission report, *Benchmarking the Supply of On-line Public Services*, September 2007

Provision of On-line Information

2.16 The development of on-line information available to the public was an objective for many eGovernment projects. The outturn for the high priority projects included in the action plans that aimed principally at information provision is summarised in Figure 2.4.

2.17 Many departments and agencies already had an on-line presence by 1999. The first action plan included as specific priorities the development of websites for the remaining agencies without a web-site presence, and the establishment of common website standards. Both of these objectives have been achieved. The practice standard now is that all information or other material generally being made available publicly should be provided on-line at the same time as it is made available publicly by traditional means.

Figure 2.4 Delivery of priority eGovernment projects to enhance information delivery

Planned service/on-line facilities	Current Status	Estimated cost €million	Notes
Department and agency websites — to provide up-to-date information; downloadable forms, leaflets, etc; and useful links to other sites; Target delivery: 1999	●	Not available	Sites listed at www.gov.ie
Citizens' information — publish public service information relevant to citizens electronically in a client-centred manner; target delivery: end 1999	●	4.84	www.citizensinformation.ie Launched: April 2001 (as the Oasis website); relaunched as Citizens' Information in 2006 All information is presented in English and Irish; relevant material is provided in Polish, Romanian and French
Business information — publish public service information relevant to businesses electronically in a client-centred manner; target delivery: end 1999	●	4.18	www.basis.ie Launched: May 2001 Information is presented in English and partly in Irish
Statistical information — on-line access to Central Statistics Office databases	●	0.54	www.cso.ie On-line access to CSO statistics commenced in 2001; Census of Population statistics made available on-line in 2003
Public procurement — on-line access to all public sector procurement opportunities (target delivery: early 2002); evolving towards supporting all stages of the procurement process on-line	●	4.28	www.etenders.gov.ie Launched: 2001; further phases implemented later On-line tendering not yet achieved
Adult education guidance — on-line information service of learning opportunities for second and third level students, adult learners and guidance counsellors, complemented by a national telephone help-line service; target delivery: end 2003	○	1.39	www.qualifax.ie Launched: 2005 Telephone helpline not implemented
Integrated access to health information and services — a single point of access to all relevant health information and services; target delivery: end 2003	✘	2.00	Project abandoned in February 2005

Source: eGovernment action plans; questionnaire responses from relevant departments and agencies

Note: Current project status ● = fully implemented; ○ = in progress/part implemented; ✘ = not progressed/ abandoned

2.18 In addition to information provided on an agency basis and organised on agency lines, the first action plan also proposed the development of websites aimed at providing information about public services in an integrated and user-centred way. The intention was to design sites taking more account of how users of public services are likely to view their information needs, than of how agencies traditionally organise the information they provide. Two websites fell into this category

- A citizens' information website, which presents information about public services organised around life events and activities e.g. 'birth, family and relationships', 'employment', 'health', 'moving country', 'death and bereavement', etc. This was developed by the Citizens' Information Board, which operates under the aegis of the Department of Social and Family Affairs, and was launched in April 2001. In 2005, the website was accessed by 2.5 million users (over 200,000 per month), who viewed over 14 million pages of information.
- A business information website which presents information about public services organised around business events and activities e.g. 'starting a business', 'taxation', 'premises and environment', 'employment issues', etc. The site was developed by the Department of Enterprise, Trade and Employment and launched in May 2001. A total of 172,000 users accessed the site in 2005 (14,300 per month).

2.19 On-line provision of information also offers possibilities to advance beyond passive receipt of information by users. For example, on-line users can be provided with options to tailor their information requests to their own specific requirements. Where users have a particular interest in specific kinds of information, they may also register to receive alerts (e.g. by email) about recently published information. These kinds of features were included in some eGovernment projects. For example

- The Central Statistics Office's extensive on-line databases allow users to specify the format and content of tables/graphs for presentation of required statistics.
- The eTenders website developed by the Department of Finance provides free public access to all open tenders valued at over €50,000, and to published procurement rules. It also allows suppliers of goods and services and procuring agencies to register, and to receive messages and alerts. Currently, almost 30,000 suppliers and 1,500 contracting agencies are registered. Visitor activity on the site is currently averaging about 100,000 per month. In 16 EU member states, there is an option for tenders to be submitted and processed fully on-line, without any paper-based transactions. That level of service is not yet available in Ireland.

2.20 One of the projects specifically described in *New Connections* was an integrated health services website. The Department of the Taoiseach has stated that the project was given prominence with a view to promoting a wider sense of eGovernment, because that perspective was not greatly developed at the time. The aim of the project was to develop, by end 2003, a 'portal' that would integrate the on-line services provided by health service providers nationally. Most of the services being offered on-line were expected to be developed separately from the portal, but with direct access links. These should allow users of the portal to transact a range of kinds of business on-line with health services providers, without being aware of moving from one system to another. Portals are generally expected to allow more interaction and more customisation of information and services to individual users' needs, than would usually be the case with a standard website.

2.21 A preliminary version of the health portal was demonstrated at an EU Health Conference held in Cork in May 2004, but despite expenditure of €2 million on the project, the planned on-line functions were never achieved. The project was abandoned in February 2005, following the establishment of the Health Service Executive. Case study 1 outlines how the project unfolded.

Case Study 1: The National Health Portal

Cost: €2 million

The projects in the area of health services listed in *New Connections* (April 2002) included the development of a single on-line point of access for health information and health service transactions. The target date set for completion of the project was the end of 2003.

The web address chosen for the health portal was *www.HealthIreland.ie* (no longer functioning)

Scope of the Project

The Health Boards Executive (HeBE) undertook the project on behalf of the (then) health boards and the Eastern Regional Health Authority. In July 2003, the HeBE commissioned consultants to carry out a short study to provide direction for the project. The consultants concluded that a phased development of the portal would be necessary, with progressive widening of the range of services made available on line. The phases identified (and their indicative delivery dates) were: portal launch (late 2003 or early 2004); phase 1 (from May 2004); phase 2 (from March 2005); and phase 3 (from March 2007).

The services which it was planned would be available when the first phase of the portal went live included: a health and personal social services directory; a comprehensive and easily understood database of information on how the health services operate in Ireland; comprehensive, easily navigable information about health topics and illness; anonymous on-line advice from health professionals in response to specific health-related queries; a facility to order and pay for birth, marriage and death certificates; accurate and up-to-date information about hospital waiting lists; on-line learning and reference facilities for health professionals; and European Health Insurance Card (E111) applications.

In the longer term, the portal was expected to provide for on-line delivery of laboratory and test results to GPs; processing of on-line applications for medical cards and home modification grants; allow GPs to make consultant appointments on-line for patients; and for both patients and medical staff to be able to consult the patients' on-line medical records.

Delivery of the Portal

A tender competition for development of the portal was advertised in December 2003. In seeking tenders, the HeBE limited the work to development of the system structure and the infrastructure hardware for the portal. Any aspect of 'back-office' work on delivery of the planned on-line services was excluded.

In February 2004, IBM was selected as the most economically advantageous of the tenders received. Contracts for development of the portal and for the necessary software were signed on 31 March 2004. The contract timetable envisaged the launch of the portal by 4 May 2004 and availability of the phase 1 services by 30 June 2004.

The health portal was officially 'launched' at the 2nd European Health Conference, held in Cork on 5/6 May 2004. This involved a member of the project team giving a demonstration of the aspects of the portal that were fully working. The portal was not available on-line or functional for web users.

The services planned for the launch did not subsequently become available on-line. Phase 1 of the portal was also not delivered.

Suspension of the Project

The HeBE submitted a funding proposal for the portal project to the Department of Health and Children in September 2004. This indicated that the capital cost of the project, up to and including 2008, would be €10.2 million, and that annual running costs were expected to be about €1.5 million. The full project would not be rolled out until 2011

However, the Project Steering Group had begun expressing concerns about the hardware and infrastructure that had been put in place for the portal. A December 2004 status report on the project also noted the following constraints on setting a revised date for the launch of the portal

- uncertainty over the ongoing ownership and commitment to the project (this was in the context of the impending establishment of the Health Service Executive (HSE))
- the absence of a dedicated operational support and management team
- insufficient meaningful content for the portal.

The Project Steering Group commissioned a 'fit for purpose' evaluation of the portal as currently conceived. This concluded that decisions made early on in the project regarding the use of software components and the physical system architecture appeared to have been based on achieving short-term goals, rather than focusing on developing a robust and scaleable system. The report recommended a freeze on any further development or investment in the portal in its current configuration.

The HSE was established on 1 January 2005, taking over the functions of the former health boards and the HeBE (and certain other agencies). The HSE dissolved the project team for the portal project in February 2005, and the project was suspended.

Expenditure on the Project

The budget for Phase 1 of the portal project was €2.79 million, with €2.6 million of this to be provided from the Information Society Fund. In the event, the total expenditure on the portal project in the period 2003 to 2005 is estimated at around €2 million, inclusive of VAT (see table).

The total value of the contract with IBM for development services was €1.125 million (including VAT). IBM was paid only half of that amount because the project was suspended before all the payment milestones were reached.

The largest element of the expenditure on the portal was in respect of software, which cost a total of €827,000. This included initial licences and software maintenance and upgrading for three years (i.e. to March 2007); and a content

management system costing €100,000. None of the software was used following the suspension of the portal project. The HSE awarded a contract in April 2006 for a new web content management system, with a contract value of €227,000 (including VAT).

Development of a new, comprehensive HSE website is underway on a phased basis. The HSE expects phase I of the site to be launched publicly before March 2008.

	€000
Project scoping report	80
Software licences (IBM)	827
Development services (IBM)	587
Hardware	5
Implementation team salaries	333
Portal content and branding	81
External implementation services	58
Fit-for-purpose evaluation	17
Estimated total expenditure	1,989

On-line Transactions for the Public

2.22 The Government action plans, and especially *New Connections*, highlighted many proposed projects that envisaged making available facilities to allow members of the public, professional practices and private businesses to carry out transactions with government agencies on-line.

Citizen-Focused On-line Transactions

2.23 Of the eight priority projects designed to allow individual members of the public to carry out on-line transactions (see Figure 2.5), only one — providing for payment of motor vehicle taxation — has been fully implemented as planned.

2.24 The on-line motor tax facility is popular with members of the public: in 2005, the website was accessed by 1.7 million users (over 140,000 per month) and over 812,000 payments, with an aggregate value of €168 million were completed on-line. As a result of the uptake of the site, growth in the motor tax offices' expenditure was arrested.

Figure 2.5 Delivery of priority eGovernment projects to facilitate citizen-focused on-line transactions

Planned service — on-line facilities	Current Status	Estimated cost €million	Notes
Motor tax — pay tax on-line; target delivery: end 2002	●	2.55	www.motortax.ie Launched: 2004
Driving licences — apply for and pay for a provisional or full driving licence on-line; target delivery: end 2003	×	—	
Passports — make complete passport application on-line; target delivery: end 2003	×	—	Not available. However, on-line facility to check status of passport application is available
Birth, marriage and death certificates — apply on-line for certificates; target delivery: early 2003	×	—	
Local authority housing — on-line self-assessment of eligibility for housing; apply on-line for local authority housing; target delivery: end 2002	○	0.34	Launched: 2002 for Westmeath County Council area only www.westmeathcoco.ie
Planning applications — access the planning application and development control process, including citizen interaction with the draft development plan; register objections, commencement notices and unauthorised development; target delivery: mid 2003	○	1.69	Local authority websites Launch: 2003 On-line planning application search is available; on-line registering of objections, etc. is not.
Court fines — pay court fines on-line; target delivery: mid 2003	○	0.03	Launch expected October 2007
Electoral register — apply on-line for registration on the electoral register; target delivery: target delivery: mid 2003	×	—	

Source: eGovernment action plans; questionnaire responses from relevant departments and agencies

Note: Indications of current project status ● = fully implemented; ○ = in progress/part implemented; × = not progressed/abandoned

2.25 Two projects aimed at providing services to individuals have been partly implemented, relative to what was intended.

- A facility to allow on-line application for local authority housing has been available since 2002 on a pilot basis, but only in the Westmeath County Council area.
- A facility has also been created that allows members of the public to search for planning application details on-line. This is available on all county and borough council websites and in the majority of town council websites. The original concept for the project envisaged a facility for on-line registration of planning objections, submission of comments on draft development plans, reporting of unauthorised developments, etc., but these kinds of on-line transactions are not yet available.

2.26 The Courts Service is in the process of developing a facility to allow for on-line payment of court fines. The original aim was to have the facility available by mid 2003, but this was not achieved. The Courts Service has pointed out that when it was established in 1999, there were virtually no IT systems in use in the courts and IT infrastructure for court business was nonexistent. Before they could embark on the provision of any eGovernment services, it was necessary to have the underlying infrastructure and systems in place. Development of an on-line fines payment facility by mid 2003, as indicated in *New Connections*, would therefore have been impossible. The current aim is to launch the facility, on a limited basis, by October 2007. This system will also enable electronic transmission of family law payments.

2.27 Planned projects to provide for on-line applications for driving licences and passports did not proceed. In both cases, development of the on-line service was impeded by concerns about how to establish the identity of applicants and how to ensure appropriate security, previously achieved through inclusion of photographs and signatures. In the wake of the September 2001 attack on the World Trade Center, there were demands for biometric-based identity authentication and other security features which created additional challenges. Case study 2 outlines the circumstances in which the development of the driving licence application facility was not progressed.

Case Study 2: On-Line Driving Licence Applications

The objective of the driving licence application project proposed in *New Connections* was to allow members of the public to apply on-line for new provisional or full driving licences or to renew existing licences. At the time, the Department of the Environment and Local Government was responsible for driver licensing. Responsibility for that function was transferred to the Department of Transport in June 2002.

The Department of Transport carried out a feasibility assessment of the project and identified essential elements that were outside its control. These related to the use of digital photos, secure digital signatures, eye-sight test certificates and medical reports. The Department decided not to progress the project at that time, but that the possibility of proceeding should be reassessed when the Public Services Broker was operational, in the expectation that it would provide the necessary electronic identity authentication services.

Subsequently, the Department of Transport delayed revisiting the project pending the outcome of the initiative to develop an electronic public services card system; and in the light of publication of an EU directive on a common approach to introducing (by 2013) a credit-card sized driver's licence, with an embedded chip containing identity and authentication information.

The Department of Transport plans to re-examine the possibility of introducing an on-line application for a driver's licence in the context of introducing the new style driving licence. The timescale for introduction of the licence has not yet been fixed.

Responsibility for the project was transferred to the Roads Safety Authority in September 2006.

2.28 The option of applying on-line for a passport or a driving licence is available in a number of EU member states. In Austria and Slovenia, the service providers automatically prompt passport and licence holders about an imminent expiry date (e.g. by e-mail, text message or by post).⁵

2.29 One of the priority projects for citizen transactions was a facility to apply on-line for birth, marriage and death certificates, but this has not been achieved. Application forms can be downloaded, but they must then be posted or brought to the relevant offices. By comparison, nine other EU states have an option for such certificates to be issued as legally-binding electronic documents.

Business-Focused On-line Transactions

2.30 Fifteen projects were proposed for priority on-line transactions for businesses, professionals and farming (see Figure 2.6). Of these, six have been substantially implemented as planned; seven have been partly implemented or are at various stages of implementation and two have not been progressed.

2.31 The business-focused project with the highest profile is the Revenue On-Line Service (ROS), which was one of the key services proposed in the first eGovernment action plan. The Service was launched in 2001, and has been progressively expanded since then. It allows on-line submission of tax returns and payment of taxes. In 2005, 1.6 million returns were processed on-line, and 290,000 payments to the Revenue Commissioners, valued at €12.1 billion, were made on-line. Case study 3 outlines the ROS service.

Figure 2.6 Delivery of priority eGovernment projects to facilitate on-line transactions by businesses, professionals and farmers

Planned service — on-line facilities	Current Status	Estimated cost €million	Notes
Revenue — make all business returns and payments to the Revenue Commissioners on-line; target delivery: phased, from early 2002 to early 2004	●	42.99	www.ros.ie Launched: 2001; subsequent enhancements
Statistical returns — on-line collection of statistical data from businesses and agriculture; target delivery: mid 2003	●	0.07	On-line data collection for Services Inquiry and Agricultural Inquiry
Commercial rates — on-line payment of commercial rates; target delivery: end 2003	✕	Not available	Launched: 2004 as pilot system for Dublin city area, but subsequently abandoned because credit card commission rates were considered prohibitive and users deemed the process inefficient. However epayment options are available from most local authority websites.
Land registration — on-line access to a range of folios and file plans; target delivery: phased, from mid-2002	●	45.7	www.landdirect.ie Launched: 2004 Map scanning to continue to 2010

⁵ International comparisons of on-line availability of services are based on CapGemini/EU Commission report, *Benchmarking the Supply of On-line Public Services*, September 2007

Planned service — on-line facilities	Current Status	Estimated cost €million	Notes
Work permits — apply on-line for work permits; target delivery: early 2003	○	1.00	Delayed due to new employment permit legislation; launch by end of 2008
Company annual returns — file company annual returns with the Companies Registration Office; target delivery: end 2002	○	0.22	Delayed due to shortage of human resources
Insurance company annual returns — on-line filing of annual returns to Financial Regulator	○	0.07	On-line filing of annual returns is available only for life assurance companies
Patents — search the patent, trademark and industrial design databases on-line; renew patents, trademarks and designs on-line; target delivery: on a phased basis from 2002	●	0.33	www.patentsoffice.ie Launch: 2002
Mining licences — apply on-line for a prospecting licence or a state mining facility licence; target delivery: mid 2002	●	6.91	www.minex.ie state mining licence application facility deleted from project in 2002
Area aid — on-line access to area aid applications; target delivery: end 2002	●	10.47	www.agfood.ie Launched: 2003
Animal disease eradication — on-line access to animal health data for veterinary practitioners (target delivery: end 2002) and for farmers (target delivery: end 2004)	○	9.44	www.agriculture.gov.ie/sso On-line service to veterinary practitioners commenced in 2003 and was fully rolled out by February 2005 Planned service to farmers was dropped, but on-line herd information is provided to farmers through other services
Forestry — apply on-line for forestry grants; target delivery: end 2002	○	2.97	www.agfood.ie Facility to submit planting maps on-line is available; grant applications cannot be made on-line, but facility is planned for 2009
Fishing — apply on-line for vessel registration certificates and fishing licences; target delivery: end 2002	○	4.39	www.fishingnet.ie Launch: 2005 (phase 1)
Road haulage licences — apply for road haulage licences on-line; target delivery: end 2002	✘	—	
Vehicle ownership — register changes of ownership of a vehicle on-line, initially for major motor traders (target date: end 2002), then accommodating smaller traders and person-to-person transactions	○	2.50	Due to launch by end 2007. Will be available to Revenue authorised motor dealers; registration by private motorists not now part of plan

Source: eGovernment action plans; questionnaire responses from relevant departments and agencies

Note: Indications of current project status ● = fully implemented; ○ = in progress/part implemented; ✘ = not progressed/abandoned

Case study 3: Revenue On-Line Service (www.ros.ie)

Cost: €43 million

In 1999, the Revenue Commissioners committed to a project designed to encourage on-line filing of tax returns and on-line exchange of information with taxpayers and their agents. They expected this to generate internal efficiencies, through reduced demand for staff to handle queries and process returns, and lower administration costs. The system was also expected to generate significant benefits for taxpayers and tax agents through quicker and easier access to information and lower administrative and compliance costs.

The Revenue On-Line Service (ROS) project was initially launched publicly in September 2000 on a proof-of-concept basis i.e. to establish that the system design concept was workable.

In developing the ROS, Revenue concentrated on tax-related transactions with businesses, including the self-employed and tax agents. By 2006, on-line filing of returns and declarations and payment of taxes and duties (as required) were enabled in relation to 20 taxes and duties. On-line services for workers paying income tax on a pay-as-you-earn (PAYE) basis became available only in May 2006.

Use of the ROS

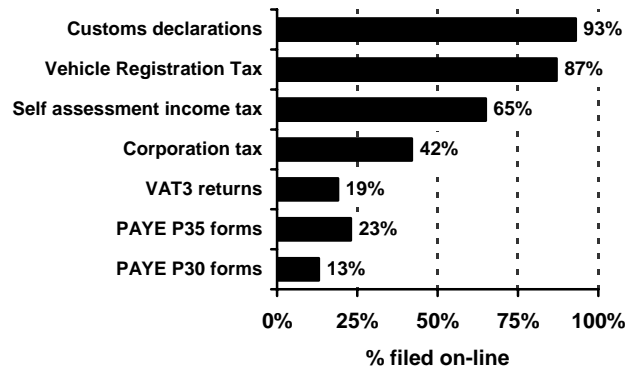
In 2005, over 2.1 million tax returns and declarations were made on-line through the ROS. This included almost 860,000 customs declarations; almost 250,000 income tax self assessment forms; 234,000 Value Added Tax VAT3 forms; 212,000 employers' monthly PAYE (P30) returns and 194,000 Vehicle Registration Tax (VRT) returns.

A majority of taxpayers and/or their agents chose to file customs declarations, registrations for VRT and income tax self assessment returns on-line (see figure). There is considerable further scope for on-line filing by businesses of routine VAT and PAYE returns.

Almost 300,000 payments to Revenue were made on-line in 2005, amounting to an estimated €12.1 billion — around 22% of gross revenue receipts in the year.

By mid 2006, the ROS customer information service was being accessed over 500,000 times each month.

On-line filing on ROS, 2005



2.32 Most EU member states have in place on-line facilities for filing of returns and payment of VAT, corporation tax, employee taxes and social security contributions and for making of customs declarations. All these functions are available in Ireland via the ROS.

2.33 The Department of Agriculture and Food has implemented a number of major eGovernment projects, including

- a facility for processing the 130,000 area aid applications received each year, which allows farmers to access information on-line about their own applications
- a system to support animal disease eradication schemes, which gives veterinary practitioners and farmers on-line access to the health status and test results of individual animals, and allows processing of the related fees and compensation payments (see Case Study 4)
- a facility for on-line application for forestry grants.

Case Study 4: Animal Health Computer System

Cost: €9.4 million

The Department of Agriculture and Food developed and implemented the Animal Health Computer System (AHCS) to support the bovine tuberculosis (TB) and brucellosis eradication schemes, and ultimately all the Department's animal health and welfare programmes.

Testing of cattle for TB and brucellosis is carried out by private veterinary practitioners. All 123,000 registered cattle herds are tested at least once a year, resulting in around 14 million animal tests. The results of TB tests are established on the farm; blood samples are taken from animals and sent to laboratories to test for brucellosis. Where disease is detected (through a positive test), animals are removed and movement of the herds is restricted. Farmers are paid compensation (based on market prices) for any animals removed. The Department pays the veterinary practitioners, who operate from their own premises, for carrying out the tests.

Prior to development of the AHCS, records relating to results of animal testing were kept on separate mini-computers in each District Veterinary Office. Only results that were positive were recorded. The computers weren't linked to each other or to the Department's other computer systems, such as the animal registration and movement systems. The computer software and hardware in use was old and prone to breakdown.

The internet-based AHCS links the Department's disease eradication administration staff, veterinary practitioners (who are registered and given a password that allows them to access the system) and the laboratories that analyse the blood samples. Rollout of the system was completed in February 2005. It is now available to over 4,000 departmental staff and 900 veterinary practitioners.

Tests in respect of 95% of herds nationally are already being handled on-line. This has speeded up the testing process for the Department, the veterinary practitioners and the farmers. Tests assigned to veterinary practitioners are notified to them on-line. Test results for all animals are now recorded (and not just the positive results, as in the past). The use of handheld computers allows veterinary practitioners to capture TB test results at source, reducing delays, the time needed for data entry and transcription errors. Because the AHCS is integrated with the Department's Cattle Movement Monitoring System, anomalies in herd profiles can be identified and animal health status can be verified more quickly than in the past, freeing the animals for sale more quickly.

Payments to farmers and to veterinary practitioners are triggered by the AHCS, which is also linked to the Department's financial systems.

2.34 The Property Registration Authority (formerly the Land Registry) has developed the Electronic Access Service (EAS), which allows professionals involved in property conveyancing to carry out on-line searches of registered information about land holdings. To date, over 6.4 million registration records have been made available on-line. In 2005, one million transactions (over 83,000 per month) were completed on-line with low staff intervention, generating €4 million in fees. The estimated cost of development of the system up to end 2005 was around €23 million, and the Authority expects to spend a further €24 million to complete digitisation of land parcel maps by 2010.

2.35 The Department of Enterprise, Trade and Employment had responsibility for development of four of the priority on-line transaction projects for business. Improvements in the Patents Office website have been implemented, as planned. On-line filing of annual returns by general insurance firms (but not returns for life assurance firms) has also been implemented.⁶ Planned projects in two areas are still at the development stage i.e. on-line application for work permits and on-line filing of company annual returns.

2.36 The 2007 EU survey of progress on eGovernment found that businesses seeking to register a new company in Ireland could make an on-line application to start the registration process. This was similar to the situation in five other EU member states, but company registration could be carried out fully on-line in 15 states, without recourse to any 'paperwork'.

Health Service On-line Transactions

2.37 Four of the priority projects highlighted in *New Connections* were targeted at health professionals (see Figure 2.7). Two of the projects have been delivered — an eLearning facility for medical staff and on-line delivery of laboratory results to GPs. Two other projects — providing for on-line access to patients' medical records and a facility for GPs to make appointments for hospital services on-line — have not been delivered. In contrast, facilities to make hospital appointments on-line are available in Malta, Portugal, Slovenia and the UK.

Figure 2.7 Delivery of priority eHealth projects to facilitate on-line transactions

Planned service — on-line facilities	Current Status	Estimated cost €million	Notes
Health records — patient records accessible to medical professionals on-line; target delivery: end 2002	✘	—	
eLearning — on-line training for health professionals; target delivery: end 2002	●	0.80	Over 6,000 registered users among HSE staff 35 courses provided on-line
Hospital appointments — on-line booking of appointments for hospital services by GPs; target delivery: end 2002	✘	—	
Laboratory results — on-line access to results of tests; target delivery: end 2002	●	2.08	Over 800 registered GPs c. 500,000 results sent annually

Source: Government action plans; questionnaire responses from HSE

Note: Indications of current project status ● = fully implemented; ○ = in progress/part implemented; ✘ = not progressed/abandoned

6 Responsibility for regulation of insurance companies transferred from the Department of Enterprise, Trade and Employment to the Financial Regulator in May 2003.

2.38 A number of the on-line services that it was envisaged would be developed in conjunction with and accessible through the health portal have been developed as stand-alone projects, rather than in the integrated way envisaged for the portal. These include

- a site allowing on-line application for the European Health Information Card (*www.ehic.ie*)
- an on-line system for transmission of messages between general practitioners and certain major hospitals e.g. laboratory results, discharge notifications and summaries, Accident and Emergency attendance notifications and elective waiting list and out patient appointment updates (*www.Healthlink.ie*).

Internal Efficiency Projects

2.39 The Government action plans included a number of projects that focused on using new technology, including the internet, to increase the level of efficiency involved in interactions between government departments and agencies. Figure 2.8 summarises the outturn of the projects with this kind of focus that were listed in the action plans as being high priority.

Figure 2.8 Priority eGovernment projects to enhance interagency efficiency

Planned service — on-line facilities	Current Status	Estimated cost €million
Virtual private telephone network (VPN)	●	3.49
Electronic payments	○	Not available
Child benefit — on-line application for benefit; improved integration with the birth registration process; updating of child dependant payments on social welfare system	●	20.19
Sectoral intranets — to allow departments to conduct business on-line with bodies under their aegis in a secure way		
Department of the Environment, Heritage and Local Government/local authorities (including housing information); target delivery: 2005	✘	—
Department of Health and Children/health boards/HSE	✘	—
Department of Education and Science/ schools	✘	—
eCabinet — use of technology to support Cabinet meeting processes, including management and dissemination of Cabinet papers; target delivery: 2004	●	5.36
eLegislation — use of technology to support the legislative process, including preparation of legislation	●	1.19
eEstimates — on-line processing of annual departmental estimates	●	1.33
ePlanning — provide for electronic dissemination of planning files from local authorities to third party organisations and partners who contribute to the planning process (including Duchas on heritage aspects of planning; and Bord Pleanála)	✘	—
National Spatial Data Infrastructure — to integrate spatial data (i.e. geographically-referenced information) with all wider information management processes across Government	○	Not available

Source: eGovernment action plans; questionnaire responses from relevant departments and agencies

Note: Indications of current project status ● = fully implemented; ○ = in progress/part implemented; ✘ = not progressed/abandoned

2.40 The biggest project in this category, costing a total of €20 million, involved the modernisation of the process for civil registration of births and its integration with the initiation of claims for payment of Child Benefit (see Case Study 5). This has eliminated the need in most cases for the parents of a new-born child to apply to the Department of Social and Family Affairs for Child Benefit payments — once the birth has been registered with the General Register Office, the relevant details are transmitted electronically to the Department, and the claim for Child Benefit is automatically initiated. Where parents are already in receipt of Child Benefit payments for other children, the payment in respect of the newly registered child commences automatically.

2.41 A number of processes that involve consultation between Government departments and the exchange of large numbers of documents have also been successfully implemented, using internet-based technology. These include the process for handling and distributing Cabinet papers, the development and publication of draft legislation and the annual departmental estimates process.

2.42 One of priority projects not delivered involved a system for electronic dissemination of planning files from local authorities to other agencies involved in the planning process, such as An Bord Pleanála, and Dúchas (in relation to heritage aspects of planning).

Benefits of eGovernment Projects

2.43 Many eGovernment projects had the potential to generate benefits, both for users of the services (e.g. improved choice about when to access services, time savings, lower costs and speed of response) and for taxpayers (e.g. through improved efficiency, and reduced resource requirements).

2.44 In the majority of cases, quantified benefits of implemented eGovernment projects were not reported. Some departments and agencies were able to provide quantitative information about the usage of eGovernment systems, and estimates of savings and efficiencies achieved. Examples of the benefits reported include the following.

- Revenue reports that the ROS has resulted in substantial savings in administrative expenditure (estimated at €6.4 million in 2004 and €10.6 million in 2005), through a reduced need for staff to service phone, mail and personal contacts, reduced printing, stationery and postage costs and less manual processing. The savings are expected to grow in line with increased adoption of on-line filing and payment. The freeing up of staff from manual processing has allowed Revenue to handle increasing volumes of returns without staff increases.
- The Department of Agriculture and Food reported savings of 115 whole time equivalent staff as a result of the introduction of the Animal Health Computer System and a significant fall in disease levels. The system also generates much improved disease control information.
- The Department of Social and Family Affairs has reported that the automated linking of the General Register Office and the Child Benefit scheme has, to-date, generated administrative cost savings of €7.6 million.
- The Property Registration Authority has reported that a 125% increase in its output between 1999 and 2006, associated with increased property market transactions, was accommodated without an increase in the Authority's staff levels.

Case Study 5: Integration of Civil Registration and Social Welfare Schemes**Cost: €20 million**

The General Register Office (GRO), which operates under the aegis of the Department of Health and Children, is responsible for the administration of the Civil Registration Service, which registers all significant 'life events', such as births, deaths and marriages, that occur within the State. More than 110,000 such events are registered each year. The register represents a basic, continuous source of information about the population, providing evidence that has a bearing on individual citizens' rights, entitlement to services, status, nationality, etc., and vital statistics used for service planning.

Previously, the parents of a new-born child registered the birth with the GRO or one of its local agents. In order to claim Child Benefit payments from the Department of Social and Family Affairs, they were required to produce to the Department a copy of the child's birth certificate, issued by the GRO, in support of the claim.

The civil registration modernisation programme was undertaken jointly by the Department of Health and Children and the Department of Social and Family Affairs, under the general direction and management of the Department of Social and Family Affairs. The programme involved reform of the relevant legislation, organisational and business process changes, introduction of new technology (such as electronic pads to capture actual signatures) to record new registrations electronically, and the capture in electronic form of the paper-based historical registration records kept from 1845 on.

Registrars of Births are now located in a number of maternity hospitals, with electronic links to the GRO. Notifications of births are sent electronically from the hospitals to the national database on a daily basis. Electronic search and printing capabilities have reduced the average time required for staff of the GRO to find and produce a certificate from 20 minutes to 5 minutes, with consequential reductions in queuing time for customers in the GRO.

In parallel with the modernisation programme in the GRO, the Department of Social and Family Affairs undertook a programme of change in the delivery of Child Benefit payment. Under the new system, the parents of a newly registered child no longer need to initiate a Child Benefit claim. Using the Inter Agency Messaging Service developed by Reach, the information contained in new birth registrations (including the parents' names and addresses) is communicated automatically to the Department. The information triggers the issuing of a Personal Public Service Number for the child. Then, in the case of a first-born child, a claim for payment of Child Benefit is automatically set up in the Department's system, and a claim form containing the child's and parents' details is sent to the mother. She is asked to provide necessary additional information (e.g. instructions about how to pay the Benefit), and to sign and return the form. For a second or subsequent child, the newly registered child is added to the existing Child Benefit claim, and the payment is made automatically.

The Department of Social and Family Affairs has reported that, as a result of the efficiencies generated in the administration of Child Benefit, 27 whole time staff were redeployed to other areas. The time required to initiate payments in respect of newly-born children has been reduced to a few days, and the volume of paper and the associated handling costs have been significantly reduced. Staff deciding on eligibility for payment use digital signatures, and on-line checks have allowed the amount of staff time spent on control checks to be cut by 50%.

The modernisation of the GRO has delivered other benefits also. New registration details are sent automatically to the Central Statistics Office, where they allow speedier production of vital statistics for demographic monitoring purposes. Deaths registered are also provided to a range of public sector agencies for use in the control and administration of pension schemes, medical cards, etc. In total, around 40 agencies currently have on-line access to the GRO data.

2.45 The Department of the Taoiseach has stated that efficiency improvements, while desirable where appropriate, are not the only possible outcomes of ICT projects, and that many projects have a political objective based on an interpretation of what is a public good. The Department pointed out that it is recognised internationally that many on-line services actually result in additional cost burdens because they are extra service channels that require additional resources and supports.

2.46 Departments and agencies were asked if they had set quantified objectives in the course of planning each of their eGovernment projects and, in general, they reported that they had. However, with a few exceptions, the project objectives that they reported were usually expressed in terms of project milestones or un-quantified system functionality, rather than in terms of target user benefits or business process efficiencies to be achieved by specific target dates. Lack of such targets and of 'baseline' business process statistics limits the extent to which the achievement of planned business impacts can be evaluated.

2.47 For about two-thirds of eGovernment projects, departments and agencies reported that they had carried out post implementation reviews of completed projects, or were planning to do so. Such reviews should include estimates of the benefits achieved as a result of the projects.

Conclusions

2.48 There was considerable impetus behind the Government's first action plan for the information society, but progress has slowed in more recent years. While most of the projects included in the *New Connections* action plan commenced, a substantial number did not proceed, or proceeded more slowly than planned.

2.49 The Department of the Taoiseach has pointed out that *New Connections* was drafted to support a central government strategy of encouraging public service agencies to deploy emerging technologies in support of their business objectives, and therefore that it was reasonable that the targets set would be ambitious, even to the extent of leaning towards the aspirational. The degree of ambition in the plan may explain some of the shortfall in the overall achievement in respect of the projects included in *New Connections*.

2.50 The on-line information delivery objectives highlighted in the action plans were largely achieved, through individual department/agency websites and the integrated websites providing information for citizens and businesses. The Health Services Portal project did not succeed.

2.51 There has been mixed progress in eGovernment projects that had a high transactional objective. There were a number of outstandingly successful projects including motor tax, ROS, On-line Area Aid, and animal disease eradication. However, a number of major projects proposed in *New Connections* have not been implemented. These include on-line housing grant applications, passport applications, haulage licence applications and driving licence applications. There were, in some cases, good reasons why projects did not proceed as expected, including security concerns which called for higher levels of identity authentication for persons applying on-line for documents such as passports and licences.

2.52 While Ireland has transaction services (e.g. ROS) that compare favourably with best international practice, the e-Europe benchmark survey for 2007 found that it had achieved the highest level of on-line service in only ten of 22 relevant services. Overall, this is around the average for the 27 EU member states, but some states are delivering a significantly higher level of service on-line.

2.53 More of the planned on-line services for businesses have been achieved than is the case with the planned on-line services for individuals.

2.54 Many departments and agencies report having achieved efficiencies as a result of implementing eGovernment projects. In some organisations – particularly the Department of Social and Family Affairs, the Department of Agriculture and Food, the Revenue Commissioners — these claims are quantified and substantial. However, in most cases, the claims are relatively non-specific. Some departments have strategic programmes in place to reshape their systems and processes around user needs, but a number of key departments and agencies do not have such programmes in place. Few targets have been set for business transformation and, outside those mentioned above, there is limited reported achievement.

2.55 The provision of integrated access to all public services was a major goal of both the first and second action plans. Reach was seen as the key vehicle for achieving this, but integrated access (especially high level identity authentication necessary for a number of priority projects) has not yet been provided. The role of Reach is discussed in the next Chapter.

2.56 Systematic planning, measurement and control systems appear to be operating in some departments and agencies, but there is evidence that in general, these systems need to be improved. For example

- Few projects had quantified measurable business objectives and formal targets for expected benefits. There were also difficulties in many cases in producing data on achieved benefits.
- Programme and project budgets were unavailable for 25% of projects. Accurate budgeting is difficult and cost and time variances are inevitable in major complex programmes. However, without programme and project budgets, budgetary control is impossible and financial commitments are open-ended. An absence of a long-term budget often has a stop-go effect on projects while additional tranches of funding are being negotiated.
- In the case of projects where a budget was in place, there was an aggregate overrun on measured elements of 20%. However, the true extent of cost overruns could not be computed due to a failure in many cases to include internal staff costs in project budgets and outturns.
- Several departments and agencies had difficulties in assembling basic financial data and in reconciling department/agency financial information with financial information provided by the Department of Finance.
- The average time overrun for the reported projects was four months.
- In one third of cases, there were no plans for post-implementation review.

Recommendations

Because eGovernment initiatives have demonstrated the prospect of providing better information to citizens and businesses and of lowering transaction costs, it would be opportune to reinvigorate the eGovernment drive by

- formulating revised programmes of measures that embrace all aspects of a user-centred transformation, including organisation, process and technology
- setting out clear, measurable time and cost targets for each project based on its specified business objectives
- building in provision for appropriate structures to manage the programmes and projects
- ensuring that progress with projects and programmes is tracked and reported in terms of time, cost and performance
- making provision for the assessment of benefits targeted and achieved, and monitoring of service by reference to user satisfaction levels and by way of international comparison.

3 Developing the Public Services Broker

3.1 Many of the social services available to support individuals and families, temporarily or on an on-going basis, have developed independently of each other, for a variety of reasons. This has resulted in persons in need of support potentially having to apply to a range of service providers, including multiple units of the same public service organisation for the assistance they need. They may be asked repeatedly to provide the same information in support of their applications, be subject to variations of the same kind of tests of eligibility (e.g. means tests), and wait for variable periods to get the services to which they are entitled. In many instances, the person concerned may not be aware of the full range of supports to which they may be entitled.

3.2 In addition to the poor service delivery and frustration caused to the individuals concerned, the lack of co-ordination of services leads to inefficient management and use of resources, a lack of programme control and increased risk of fraud. As a result, greater integration of social services has been an ongoing administrative objective.

3.3 In July 1999, the Government approved the establishment of a special unit within the Department of Social and Family Affairs, with a cross-departmental role and mandate, to develop an Integrated Social Services System (ISSS) for income support. The basic objective of the ISSS was to bring greater coherence to the provision of social services by making them more co-ordinated, simpler to understand, more efficient, easier to manage and more accessible and user friendly.

3.4 The unit within the Department of Social and Family Affairs charged with developing the system was called Reach. It was allocated an initial budget of €14.3 million for the three-year period 2000-2002. The scope of work to be completed by Reach by 2002 was

- establishment and use of Personal Public Service Numbers (PPSNs)
- development and submission of proposals for national public services cards and public e-commerce strategies
- development and acceptance of the public services card as the citizen's key to public services
- the issuing of the public services cards
- the establishment and implementation of a common database of citizens' income and means
- the development and provision of customer identity validation services by the Department of Social and Family affairs
- integration of the processes for registration of births and issue of the new PPSNs.

3.5 The Department of the Taoiseach and the Department of Finance subsequently developed the idea of a Public Services Broker (the Broker), to be implemented by Reach. The aim was to integrate and deliver high quality public services to businesses and individuals and provide a single access point to all Government services. In May 2000, the Taoiseach submitted proposals to the Government, which agreed that the Broker would be the framework within which integrated public services would be delivered.

3.6 This chapter examines the extent to which Reach has delivered the Broker, compared to what was planned. It also looks at the time taken to deliver the project, and the cost outturn. The extent to which the Broker is being used by departments and agencies as a medium for delivering on-line services, and the up-take of those services by citizens are also examined. Finally, the governance, monitoring and review arrangements put in place to manage what was a complex inter-agency project are also reviewed.

Functions of the Broker

The Concept of the Broker

3.7 The Public Services Broker was originally described in the report of the Implementation Group for the Information Society Action Plan (upon which the Government decision of 2000 was based). This envisaged that the Broker would bring together the government services associated with, or affected by, significant events for the user — an individual or a business — such as a change of address, the birth of a child, the loss of a job, the death of a relative, start up of a business, etc. For government departments and agencies, the Broker would provide a single ‘front-end’ to users, managing their interaction with government services. The Broker would authenticate the client’s identity and all transactions would be secure. Figure 3.1 sets out an example of how the Broker was expected to operate.

Figure 3.1 Example of how the Public Services Broker was expected to operate

Consider the scenario of a person who informs any government department or agency of a change of address. The change is duly entered on that office’s computer system. If there are dealings with other services, the person is obliged to make contact with each one to ensure they have the correct address.

Using the Public Services Broker, the person would need to register the change of address only once. The Broker would establish that the person notifying the address change is in fact that person (i.e. authenticating identity) by matching the details provided — such as Personal Public Services Number, name, address, etc.— against the details already stored in the Department of Social and Family Affairs database. Once identity has been confirmed, the Broker would automatically send a message to all relevant Government departments and agencies of the new address.

The change-of-address message would need to be understood by very different computer systems in a wide range of Government departments and the various computer systems would have to be able to connect securely and operate technically together. The Broker would provide open computer architecture and a set of common operating rules to enable this to happen in a secure manner.

Government departments and agencies would make their systems compatible with the Broker so the result is that the person’s address would be changed wherever relevant records are held. Because of the identity authentication, department and agencies can rely on the information being transmitted by the Broker.

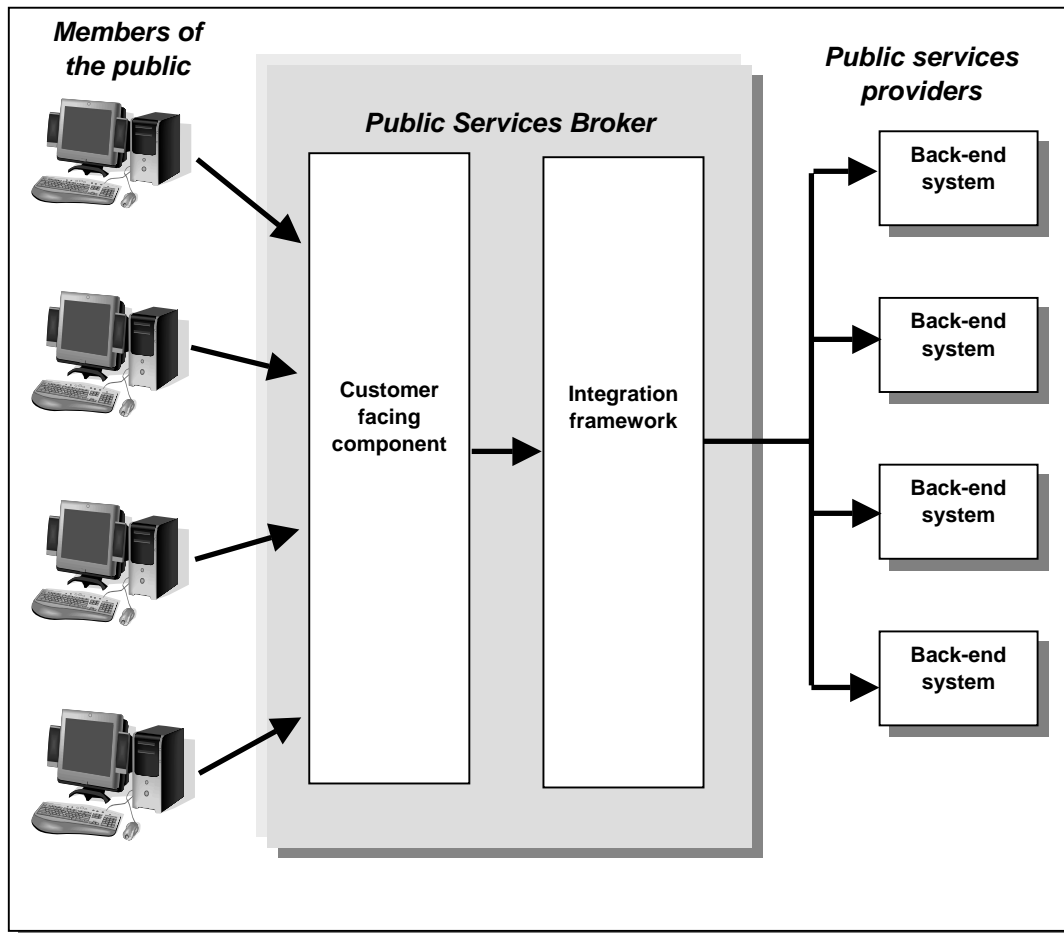
3.8 The Broker concept envisaged also that users would be able to access the service through a variety of access points, including direct personal computer connection, Government supplied kiosks, digital television, one-stop-shops, mobile or fixed line telephones. Agencies providing services through the Broker were expected to include the Department of Social and Family Affairs, Revenue Commissioners, local authorities, and health service providers. While the basic idea was simple, the technical and business change requirements it involved were complex. The risks to security and confidentiality of data inherent in an internet-based service were also considerable.

3.9 The Department of the Taoiseach has stated that, when presented to Government in May 2000, the Broker was an innovative concept that would clearly need a considerable degree of further analysis and planning before it could see the light of day. This is the nature of a groundbreaking innovation. As a concept, it was compatible with the objectives of Reach.

The Broker System (Version 1)

3.10 The operation of the Broker system put in place by end 2005 (Broker Version 1) is represented in Figure 3.2. A summary description of the system is presented in Appendix C.

Figure 3.2 Outline of operation of the Public Services Broker (Version 1)



3.11 The Broker (Version 1) system consists of a customer-facing component and an integration framework.

- The 'customer' in this case is a member of the public who requires access to public services. The *www.Reachservices.ie* portal is the main website through which the Broker is accessed. It provides information and links to the websites of over 1,400 public services. Also included in the customer-facing component are: an email facility; an on-line forms creation facility; and a facility to make payments to government, all delivered with security and auditing features. These facilities are all available for public services providers to actually deliver the service to the client. In themselves, they do not deliver directly to the client.
- The integration framework enables messages to pass securely to and from the customer to the back-end Government department and agency computer systems. It also provides a facility for systems in departments and agencies to correspond with each other, using the Inter Agency Messaging Service.

3.12 The Broker currently provides a facility for identification of an individual user by matching name, address, mother's maiden name, PPS number etc. This is done using the Public Service Identity system, which was developed by the Department of Social and Family Affairs in conjunction with Reach. Some departments and agencies require more sophisticated levels of identity checking at the time of registration for services, involving tests ranging from a face-to-face interview through to biometrics, but facilities to enable this through the Broker have not been delivered yet. The SAFE programme (jointly sponsored by the Departments of Social and Family Affairs and of Finance) is in the process of defining higher levels of authentication which the Broker may support in due course.

How the System compares with the Concept

3.13 The original concept for the Broker was not detailed in terms of what exactly was required for each function, and the requirements evolved over time. Following reviews of the project in 2002 and early 2003, in order to reduce risks, the scope of the initial phase was narrowed to elements that could be more readily specified. At this stage, Reach did not operate formal change control, which would have involved mapping what was being descoped and what the new objectives and scope were.

3.14 The version of the Broker in place at the end of 2005 was compared to the set of high level components or functions initially outlined. The results of the comparison are presented in Figure 3.3. This shows the components that were

- ***delivered***, and functioning as expected
- ***partially delivered***, with only some of the planned functionality
- ***enabled***, where the function is not delivered as part of the Broker (as originally planned), but where the design allows departments and agencies to deliver the function through the Broker
- ***not delivered***.

3.15 The bulk of the planned functions for the Broker have either been delivered as part of the Broker, or the design allows departments and agencies to deliver them through the Broker as and when required. Two significant planned functions have not been delivered.

- **The Data Vault:** One of the original ideas for the Broker was that it would support the ISSS by providing a data vault which could be a key component in integrating customer data. In the event, that idea proved to be too complex and costly to develop, and some departments had concerns at the centralisation of sensitive data. It was decided not to proceed with it at the time and other technology and design options emerged. The basic user account now provided through the Broker may be used by registered account holders to store a limited set of personal details. When there is a need to see or use other personal data, the Broker can also potentially gather it by requesting the information from the relevant public service databases (if they are linked to the Broker).
- **The Episode Knowledge Directory** (more commonly known as the Life Event Directory) was to be a storage point for managing information about a client's life 'episodes', such as changes of address, change of name on marriage, death, etc. This was excluded from the scope of the Version 1 project.

Figure 3.3 Delivery of planned components of the Public Services Broker

Broker component	Not delivered	Enabled	Partially delivered	Delivered as expected
Client authentication			✓	
Identity management		✓		
Certificates		✓		
Access manager				✓
Search engine				✓
Forms			✓	
Agency services directory				✓
Transaction manager				✓
Episode knowledge directory	✓			
Data vault	✓			
Means data		✓		
Personal data				✓
Entitlements		✓		
Relationships		✓		
Secure email			✓	

Source: Ernst & Young/Talbot Associates

3.16 Reach also participated in the Donegal Integration Project. This was designed as a pilot exercise to establish how services provided by different agencies could be integrated, and which services might be suitable for delivery through the Broker. The project also sought to test how best to deliver integrated services by a range of delivery methods e.g. for personal callers to one-stop-shops, by phone, post, and web-based delivery. The project confirmed the difficulties there are in integrating data systems in different organisations and reducing duplication in data collection. (See Case Study 6.) Access to the Broker is only available on-line. The planned delivery of integrated services based on the Broker through kiosks, one-stop shops, by phone, post etc. has not been achieved.

3.17 The Inter Agency Messaging Service was not included in the original concept for the Broker, but it was a logical development. The system was built in conjunction with the General Register Office and the Department of Social and Family Affairs. A facility to allow on-line payments to government has also been delivered, although it was not listed explicitly in the original framework.

3.18 The Broker, as delivered to date, is a piece of enabling technology which handles message passing, identity authentication and security. It is a piece of infrastructure built to an industry leading design, which should prove to be sufficiently open and robust to allow future technologies to connect to it. The security arrangements are in line with good practice.

Case Study 6: The Donegal Integration Project

Cost: €925,000

Donegal County Council has had a long-term plan to open one-stop Public Service Centres throughout the county. To date, centres have been established in Carndonagh, Donegal Town, Dungloe, Letterkenny and Milford. The primary objective of the centres is to bring the range of services provided by the Council closer to its customers through a dispersed network of offices. Each of the centres also houses a Citizen's Information Centre, providing information and advice on entitlements to any public service.

Integrated services delivery was identified in *New Connections* (April 2002) as a key aspect of the Public Services Broker. The Donegal Integration Project was run as a pilot exercise, and was expected to implement, monitor and evaluate a system whereby staff based in Carndonagh Public Services Centre would act as registered agents of the Public Services Broker in delivering selected services to members of the public. The focus of the pilot was on providing unemployment, medical card and housing services.

A staff member was seconded to the Carndonagh Centre from the Department of Social, Community and Family Affairs. The Department and Reach provided funding for the pilot, totalling €925,000 in the period 2002-2005.

The Department of Social, Community and Family Affairs has stated that it monitors the pilot project through the participation of its Regional Manager for Donegal on the pilot project board.

While there has been no formal review of the Donegal Integration Project to date, the Donegal County Manager has publicly reported that the computerised systems for means tested payments and services were not capable of interacting with each other, and that there was significant duplication in the data collected from the same beneficiaries. He also stated that a transformation of data collection and analysis will be required if more discretion is to be given to local agencies to tailor services to individual needs.

3.19 The scenario outlined earlier described the Broker managing the end-to-end transaction for the client of his change of address and pulling together all the back-end systems in government to make it happen. However, the Broker (Version 1) does not deliver an integrated service for that kind of situation, or any other life event. It also does not provide services to business. It does not host and integrate the range of front-end services required by citizens and business, or provide the linkages to the full range of back-end services provided by departments and agencies.

3.20 As a result of changes in its remit, Reach became focussed on delivering a piece of strategic ICT infrastructure as its primary objective, rather than delivering the strategic social services integration project that was originally envisaged when it was established. Over the period 2002 to 2007, responsibility for implementing the other elements of the ISSS, such as the development and issuing of Public Service Cards, was transferred from Reach to other units of the Department of Social and Family Affairs.

Project Outturn

3.21 When it was proposed to Government in May 2000 that the Broker would be the framework within which integrated electronic public services should be delivered, the issue of cost or funding for the Broker was not addressed. No budget or timetable for the project was set at the time. There was no business, financial, staffing, or risk management plan in place for the delivery of the Broker and the complex data, process, technology or organisational issues were not analysed. This was contrary to the principles underlying the Department of Finance's guidelines for the appraisal and management of capital expenditure, which stated that, before capital expenditure projects were committed to, detailed appraisal should be undertaken in respect of proposals that

- were estimated to have a capital cost in excess of €12.7 million, or
- involved complex or specialised issues or untried technology, or
- involved issues that had not been previously investigated in-depth, or
- are regarded as pilot projects on which larger programmes may be modelled, or
- which could generate substantial operating costs.⁷

3.22 The Department of Finance has pointed out that, when the Broker project commenced, no examples of similar infrastructure were then available to inform estimates of the likely effort or cost involved, and no such solution is yet available on the market. Given the innovative nature of the Broker project, significant research and development effort was required.

Timeliness

3.23 The revised scope of work and mandate for Reach took time to implement. Reach produced a Statement of Intent in July 2000 and launched a website in September 2000. The approval of the Department of Finance was received for the appointment of 13 staff to the Unit. By March 2001, seconded staff had been appointed and initial consultancy appointments were made.

3.24 In April 2001, Reach proposed testing of elements of the Broker system in the form of a ‘proof of concept’ — a partial system designed to test the viability and overall direction of the Broker system and to identify technical issues. A proof of concept system also potentially provides feedback for budgeting, business planning and project control. Following a competitive tendering exercise, the proof of concept software was developed and delivered in August 2001.

3.25 In December 2001, Reach commenced work with the Local Government Computer Services Board to integrate the proof of concept software with the Local Government Computer Services Board’s forms repository to meet short-term goals associated with EU Spring 2002 Benchmarking. The resulting ‘prototype’ system⁸, referred to as Reachservices Version 0.1, went live in April 2002. This was hosted by the Local Government Computer Services Board and featured on-line forms and proof of identity by means of a linkage to the Department of Social and Family Affairs’ systems.

3.26 In parallel with the deployment of the prototype services, work continued on the design and specification of the Broker. Reach was given approval in April 2001 to initiate a procurement process to secure the services of a partner to build, deploy and operate the Broker. This procurement process was conducted as a negotiated procedures process under EU rules. Expressions of interest were invited in January 2002. The request for tenders for the Broker was signed off by the Department of Social and Family Affairs in March 2002 and by CMOD in July 2002, and issued to vendors, based on a set of developed high-level requirements.

3.27 An interdepartmental Board, representing ten departments and agencies, was appointed in May 2002 to oversee Reach’s work. The Board undertook a wide-ranging review of the Broker project in the latter months of 2002 on the basis of the responses received from the bidders. The

7 Department of Finance, *Guidelines for the Appraisal and Management of Capital Expenditure Proposals in the Public Sector*, July 1994, page 8

8 A prototype system is software in a development stage, usually focusing on just part of the total system requirement. It may evolve into the final software, or may be used to test concepts or technical issues and then be discarded.

Board decided to recommend proceeding with a revised and less ambitious first phase of the Broker. In May 2003, the eCabinet Committee agreed that a more limited scope Broker (i.e. Version 1) should be built and that Reach should proceed with the procurement process.

3.28 In December 2003, Bearing Point was selected to build and service the Broker (Version 1). The contract was signed in February 2004. The plan was to have the Broker operational by August 2004. However, this target was not achieved.

3.29 In March 2005, the Reach Board was told that the new target date for completion of the Broker (Version 1) was July 2005. Serious difficulties had arisen in agreeing the detailed design specification and discussions were ongoing with the service providers. The Board was involved in the resolution of these difficulties and in ensuring that appropriate quality assurance processes were in place. In July 2005, the target date was moved to end August 2005. The completed system was finally delivered in December 2005 — 16 months behind schedule.

Cost

3.30 Early estimates of the potential cost of the Broker varied. The first recorded estimates of the cost emerged around the time the request for tenders was drafted. In June 2002, Reach estimated the cost of the software, consultancy and hardware needed to build the Broker (Version 1) would be in the range €12.35 million to €18.40 million. In May 2003, around the time the eCabinet Committee approved the project, Reach estimated the cost of design and build at €14 million.

3.31 Total expenditure by Reach up to the end of 2005 was €36.995 million (see Figure 3.4). Almost all of the expenditure was related, directly or indirectly, to the development of the Broker

Figure 3.4 Total Expenditure by Reach 2000 to 2005

	€000
Direct project costs	
Broker Version 1 design/build	20,908
Procurement costs	3,287
Broker 'proof of concept'	285
Reachservices.ie website	490
Donegal Integration Project	484
Branding of the Broker	230
Advertising, communications for the Broker	67
Total direct project costs	25,742
Project overheads	
Salaries	3,344
IT maintenance	2,432
Office machinery	1,444
Telecommunications	663
Other (accommodation, premises expenses, etc)	3,370
Total project overheads	11,253
Total expenditure	36,995

Source: Reach/Department of Social and Family Affairs

3.32 The operating costs for the Broker are also substantial. Expenditure by Reach in 2006 was €4.7 million. This is the expected level of costs of maintaining and running the Broker each year.

Use of the Broker

3.33 Apart from the *www.Reachservices.ie* portal, the Broker itself delivers few direct services to members of the public. Instead, as a piece of infrastructure, it potentially allows Government departments and agencies to use the functions it has created to deliver services. The impact of the Broker therefore depends on the extent to which it is used by public services providers to offer their services on-line, and the extent to which members of the public access those services.

Use by Public Services Providers

3.34 The range of public services currently offered through the Broker is quite limited. The main services available to the public are

- on-line submission to the Equality Tribunal of completed forms about discrimination complaints
- on-line application for Arts Council grants
- identity authentication for PAYE workers who wish to access the ROS in connection with their income tax affairs (available since May 2006)
- In addition, the General Register Office has developed a system to allow members of the public to apply on-line via the Broker for life event certificates (called ALEC — Application for Life Event Certificates), but this has not yet been deployed.

3.35 The Health and Safety Authority has set up a website, *www.reachright.ie*, which contains information on how industry should implement the requirements of EU Regulation 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), which came into force on 1 June 2007. This development potentially weakens the public perception of the Reachservices brand.

3.36 A number of departments and agencies are using the Broker to transfer information and messages between their computer systems. These include

- the automatic provision by the General Register Office of birth registration data to the Department of Social and Family Affairs (for Child Benefit payment purposes) and to the Central Statistics Office
- the death notification service linking the General Register Office with almost 40 other department and agencies
- the exchange of export refund information between the Revenue and the Department of Agriculture and Food.

3.37 The Broker's on-line citizen-to-government payment system is currently not being used by any department or agency for payment collection.

3.38 Ten of the departments and agencies that responded to the survey questionnaire issued in the course of this examination stated that they were users of the Broker. Five said that the services and functions provided by Reach/Broker were important to them and four rated the service as being of critical importance.

3.39 Departments/agencies that were not currently using the services offered by Reach/Broker gave a variety of reasons for not using them (see Figure 3.5). The most frequently quoted service which they claimed was required but which was not available, was a higher level of identity authentication than currently provided. Other issues raised were: unreliability of service; lack of interfaces with chosen technology of the department/agency; and failure to deliver services to promised schedules.

Figure 3.5 Reasons for not using the Broker/Reach services, as reported by departments and agencies

Reason for not using Reach/Broker	Number
Not appropriate to needs of department/agency at present	17
Broker not available on time	5
System which would use Broker still at planning stage	1
Service required could not be provided by Reach	1
Lack of resources to evaluate applicability of Broker	1
Not aware of Broker facilities	1

Source: Survey of departments/agencies

3.40 Departments and agencies had mixed views as to the potential future value of the Broker (see Figure 3.6). In a number of cases, due to delays in the delivery of the Broker, departments and agencies went their own way and developed independent on-line services. A number said that they will use the Broker in the future.

Figure 3.6 Assessment of the future potential importance of Reach/Broker, as reported by departments and agencies

Potential importance of Reach and the Broker	Number
Not applicable	7
Not important	4
Important	13
Critical	5

Source: Survey of departments and agencies

3.41 The limited data authentication currently provided by the Broker is considered a major impediment for a number of departments and agencies, although Reach claims that the case for higher levels of identity authentication was not articulated.⁹

3.42 Some departments and agencies have already bypassed the Broker and developed their own on-line provision of services. Others may also choose to bypass the Broker as they come under pressure in the future to make available services that are capable of being delivered on-line but are not currently provided. Reach has not created a value proposition to demonstrate the worth, to public services providers and to the Exchequer, of using the Broker.

⁹ Levels of identity authentication are defined in specific circumstances, based on authentication factors e.g. password, digital certificate and/or biometric measures. Authentication systems that incorporate all three factors are stronger than systems that incorporate only one or two factors.

3.43 There are currently no arrangements in place to charge out costs to public services providers that use the facilities provided by the Broker. Departments and agencies may therefore be unaware of the full economic cost or benefit to taxpayers of providing services via the Broker.

Use by the Public

3.44 Reach has not set any quantified targets in relation to usage of the Broker by members of the public.

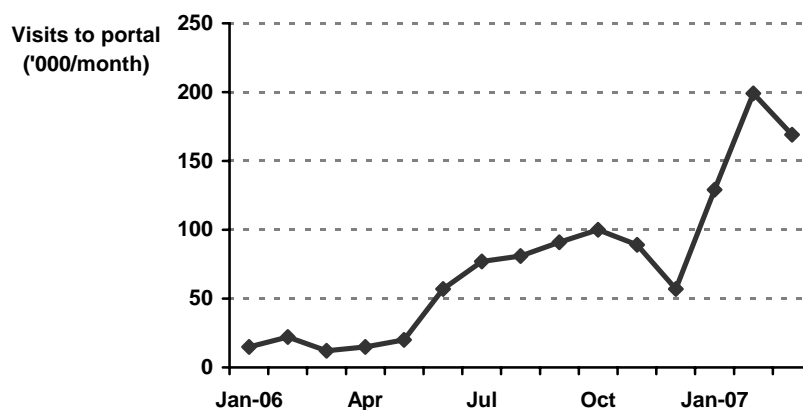
Visits to Reachservices

3.45 The *www.Reachservices.ie* portal, through which members of the public access the Broker, was made available on-line in July 2004. In April 2005, the Director of Reach expressed disappointment at the extent to which it was being used by members of the public – at that stage, less than 1,500 visitors a month. Use of the portal continued at this level throughout 2005, resulting in a total of around 18,000 visitors over the year. This rate of usage compares with the 2.5 million visitors in 2005 to the Citizens' Information website, which was providing similar public services information.

3.46 The service provided by the Reachservices portal, which was developed at a cost of €490,000, overlaps in many respects with the service provided by the Citizens' Information website operated by the Citizens Information Board. In the 2007 EU benchmarking survey, it was the Citizens' Information website, rather than the Reachservices site that was assessed as the national portal.

3.47 As Figure 3.7 indicates, use of the Reachservices portal increased significantly in 2006, particularly from June onwards. This followed the commencement through the Broker in May 2006 of identity authentication for persons who wish to access their PAYE income tax accounts on the ROS. A further significant increase is evident in the early months of the 2007 tax year.

Figure 3.7 Number of visits to *www.Reachservices.ie* portal, January 2006 to March 2007



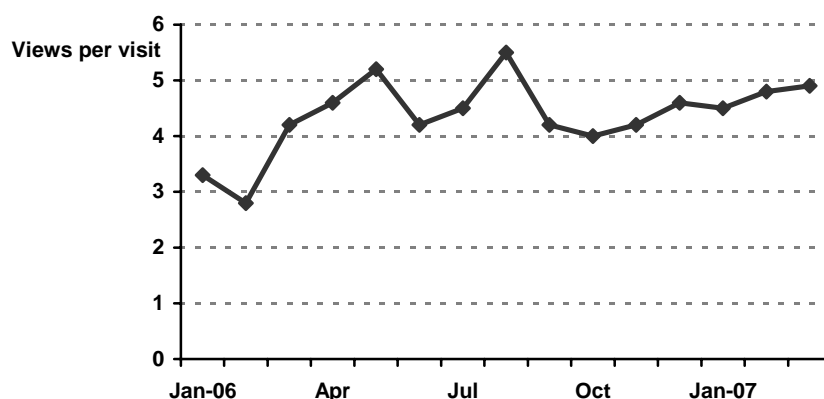
Source: Reach

Relevance of the Site to Users

3.48 The number of pages viewed during a visit to a website or portal is a standard measure of how relevant the users felt the site was to them during that visit. This records how many times someone clicked to find more information or to exit to another website.

3.49 The number of views by visitors recorded for the Reachservices website increased from around 49,000 in January 2006 to over 800,000 in March 2007. The increase was broadly in line with the increase in the number of visits. The average number of views per visitor has remained relatively fixed, in the region of 4 to 5 per visit (see Figure 3.8). This is slightly below the average of 5.6 views for visitors to the Citizens' Information website in 2005.

Figure 3.8 Average number of views per visit to the *www.Reachservices.ie* portal, January 2006 to March 2007



Source: Analysis by Office of the Comptroller and Auditor General

Registration for Personal Broker Accounts

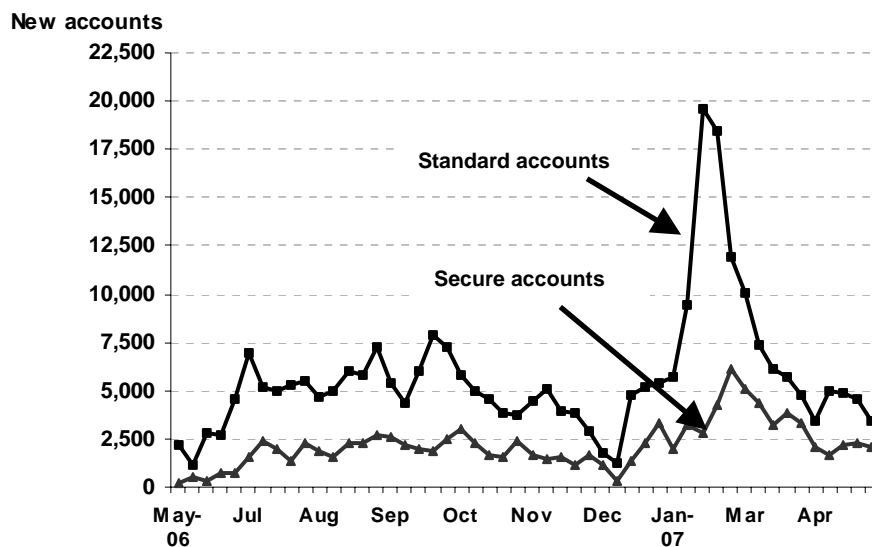
3.50 The Reachservices portal allows individuals to open a personal account with the Broker. This is done simply by registering a username and a password (and the answer to a security question, for use in the event that the password is forgotten). Individuals may create more than one such account. Account holders have the option of entering personal details, such as name, address, PPS number, date of birth, marital status, mother's maiden name, etc. The information stored in the account can potentially be used to populate on-line forms. Only one such form — the Employment Equality complaint form — is currently available.

3.51 Each account holder also has the option to make their account secure by having the personal details stored in the account verified against the corresponding information stored by the Department of Social and Family Affairs. This is considered to establish the identity of the account holder. Reach sends a unique account activation code to the account holder at their home address. It is technically possible for an individual user to have more than one secure account with the Broker. Reach is working on technical measures to limit such accounts to one per person.

3.52 In order to access the PAYE facilities on ROS, individual taxpayers must first register for a secure Broker account. The account username and password is then used, together with a Personal Identification Number (PIN) issued separately by the Revenue Commissioners, to access the taxpayer's PAYE account on-line.

3.53 Figure 3.9 shows the total number of personal Broker accounts opened each week between May 2006 and May 2007. The sharp peak in registrations in January/March 2007 was related to PAYE taxpayers applying for Broker accounts at the start of the new tax year. By 6 May 2007, almost 300,000 standard accounts had been opened. Of these, almost 109,000 accounts (i.e. more than one in three) had been made secure.

Figure 3.9 Personal Broker accounts opened each week, May 2006 to May 2007



Source: Reach

3.54 The Revenue Commissioners have reported that, in the first six months of 2007, a total of 49,200 individuals used their Broker identification details and their Revenue PINs to access their PAYE files on-line and carry out on-line transactions.

3.55 While PAYE taxpayers using ROS are required to use the Broker for registration/identity authentication, self-employed taxpayers register directly with ROS. Revenue could have implemented its own independent authentication process for PAYE taxpayers but the use of the Broker for this process may build up its public credibility. The Broker's authentication facility can also potentially be used for other on-line services.

Governance, Monitoring and Review

Organisation

3.56 Reach is a unit of the Department of Social and Family Affairs. The Secretary General of the Department is the Accounting Officer for Reach.

3.57 The Agency is managed by a Director at Assistant Secretary level and by a Deputy Director at Principal Officer level. The Director reports directly to the Secretary General of DSFA and takes overall management responsibility for the administration of Reach, the management of projects/programme and for the business development and financial aspects of management. The Deputy Director takes management responsibility for security, quality assurance, operations and ongoing service delivery of Reach.

3.58 When Reach was being established, the possibility of establishing it as a cross-departmental unit under Section 12 of the Public Services Management Act, 1997, reporting to the Minister for Social and Family Affairs, was investigated but it was determined that such a development would not be appropriate at the time.

Oversight and Direction

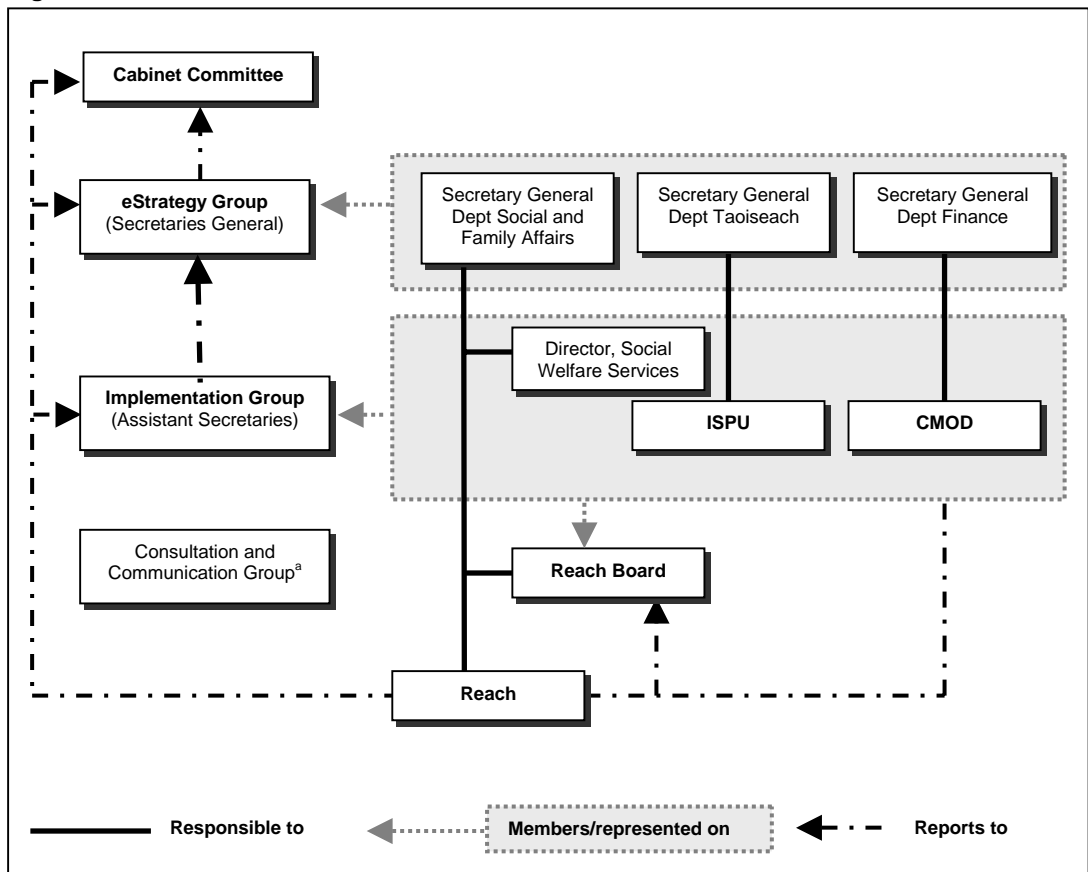
3.59 In concept and design, the Broker was a complex cross-departmental initiative, requiring consultation and co-ordination between Reach and other public service agencies if the projected benefits of the Broker were to be achieved. Active management of the required changes across departments was necessary to ensure the required technical co-ordination and systems integration happened, and that there was take-up of the system by departments and agencies.

3.60 Figure 3.10 illustrates the complex reporting and governance structure that has evolved for the oversight of Reach and the Broker project.

3.61 Formal oversight and direction of the strategic issues in connection with the Broker project was undertaken at a variety of levels.

- The Cabinet Committee on the Information Society received regular briefings on the status of Reach and the Broker and agreed overall policy.

Figure 3.10 Governance structures for Reach



Source: Ernst &Young/Talbot Associates

Note: a The Consultation and Communication Group did not meet formally

- The eStrategy Group of Secretaries General is a conduit to and from Government departments and agencies regarding eGovernment strategies and initiatives. This Group also received reports on the progress of Reach and the Broker at each of their meetings.
- The Implementation Group of Assistant Secretaries was asked to assist Reach in advancing issues of strategic importance for the Broker project and to report on these to the eStrategy Group of Secretaries General.

3.62 Under the Government decision of July 1999 to establish Reach as a unit to develop integrated social services, an interdepartmental/local government consultative group was also established to assist it in co-ordinating actions across agencies. However, the group structure proved unwieldy and a requirement for more effective direction was identified.

3.63 In May 2002, a Reach Board was established, under an independent chairman, with representation from ten departments and agencies. Amid some disagreement in relation to direction and the approach to procurement, the Board disbanded in January 2003. This group was later re-constituted as a consultative and communications vehicle for Reach and departments and agencies using its services, but did not meet formally.

3.64 In early 2003, a new, smaller Board for Reach was established. This was made up of a representative from each of the Department of Social and Family Affairs, the Department of the Taoiseach (ISPU), and the Department of Finance (CMOD) with an external, independent non-executive Chairman. The roles adopted by the new Board at its first meeting were

- to act as co-ordinator, to ensure that the interests of stakeholders in the Broker were being looked after
- to ensure that progress is on track and that issues are elevated to the appropriate authority
- to resolve or escalate policy issues that might arise and
- to sign off on Reach deliverables.

3.65 The Director of Reach reported progress on activities formally to the Board, which met frequently — at least quarterly and often monthly. The format of this reporting covered activities ongoing at Reach, and occasional risk and financial reporting but was predominantly a commentary on progress to date and issues outstanding. The Board was active in attempting to address critical issues for Reach and the Broker as they arose, including procurement and budgetary issues, and responding to requirements of the Revenue Commissioners.

3.66 In May 2003, it was agreed by the eCabinet Committee that ‘corporate’ policy issues around the development of eGovernment would be facilitated by a central group drawn from ISPU and CMOD which would consult with other departments and agencies, and initially focus on the manner in which they interoperate electronically. This group reviewed the design and implementation aspects of the delivery of the Broker.

Resources for Reach

3.67 Reach was also subject to central controls over resources, spending and projects. It had to obtain the approval of CMOD before issuing the request for tenders for the Broker. At the level of overall expenditure, the Reach budget is technically subject to the standard budget review and appraisal process within the Department of Social and Family Affairs. However, in practice, the proposed programme of work and related expenditure largely arose from discussions at Reach Board level and direct contacts between Reach and CMOD.

3.68 In 2001, it was agreed between Reach and CMOD that “Reach is to submit delegation material to CMOD in respect of its own projects ... independently of the Department (of Social and Family Affairs)”. Reach then submits its estimates for inclusion in the overall Department estimates. The Department’s Estimates Section occasionally questions the Reach estimates, but generally only in terms of the level or timing of expenditure proposed in the context of past experience. The Department’s estimates go to the relevant Vote Control section in the Department of Finance who, if necessary, will deal directly with CMOD in relation to any questions arising about Reach/Broker.

3.69 Both CMOD and ISPU were involved in assessment of Reach proposals for funding from the ISF.

3.70 An initial staff complement of 13 for Reach was approved by the Department of Finance in 2000. A formal submission to the Department for approval of a complement of 29 was made in 2002, but this was declined because there was disagreement about the type and number of staff needed. Reach reiterated the need for staff, but it became evident to management that additional posts would not be approved.

3.71 In 2002/2003 Reach began to bring in individuals under consultancy contracts, acting as full time members of staff. Cap Gemini was employed as expertise partner from October 2001 to August 2005. Other consulting firms were employed at different times for specific purposes. A high level of dependence on contracted external skills and expertise, particularly in key roles, such as System Architect, is a serious risk in a technology-intensive organisation such as Reach.

3.72 Reach has also outsourced the development and maintenance of the Broker to a third party systems integrator, Bearing Point. Reach could not specify the requirements for the Broker to a sufficient level of detail to be in a position to sign a firm contract with Bearing Point for delivery. Reach wanted a partner with specialised skills to help specify the complex infrastructure that is the Broker. However, the contract was structured more along the traditional lines of a fixed deliverable for a fixed fee rather than a flexible partnering contract. Not unexpectedly, the project has been hampered since with change requests as the requirements became clearer. This has led to tension between Reach and the systems integrator caused by ‘scope creep’ and cost overruns.

Project Monitoring

3.73 Within Reach, a Project Management Office (PMO) was established in 2005 to formally review progress of projects against expected outcomes and to enforce standard reporting and controls. Before the PMO was established, less formal standards had operated. Consistent, regular, clear and measurable reporting on progress against plans was not available, change management and control processes were in place but were applied inconsistently, risk management was first raised at Board level in 2003 and was not in line with leading practice, and processes for quality management, knowledge management and benefits management were not evidenced. Since January 2006, additional project control structures have been put in place.

Review of Reach and the Broker

3.74 In March 2007, the Government directed Reach to continue the development of services, decided that the Reach Board should be reconstituted, and that the Board, together with the Departments of the Taoiseach and Finance should review Reach and the Broker, and report to the Minister for Social and Family Affairs. The issues that the proposed review is intended to address include

- the continued validity of the Broker model
- the appropriateness of the current technology platform
- organisational and governance structures
- arrangements for ongoing operation
- management structures, staffing levels, and skill sets required
- consultation mechanisms
- arrangements for meeting costs
- opportunities or targets for the delivery of integrated services.

In due course, the Minister for Social and Family Affairs will bring proposals to the Government in relation to the future of the Broker.

Conclusions

3.75 In overall terms, the Broker concept envisaged radical re-engineering of Government services to generate significant benefits for citizens and business. However, the feasibility of the project was not examined early on, planning was weak and implementation has been far slower and more costly than was anticipated. While managers in Reach and in the Departments of the Taoiseach, Finance, and Social and Family Affairs demonstrated strong commitment to the project, the governance structures were inadequate, and expectations were unrealistic in the absence of feasibility assessment and proper planning. In the event, the full technical, management, governance, organisational, process and data complexities were not addressed for a number of years after commencement

3.76 Around the time the Cabinet Committee approved the development of the Broker (Version 1), the estimated cost for designing and building the system was around €14 million. The final expenditure was of the order of €37 million, when all the costs associated with development of the system that is in place are included. Ongoing costs are expected to be in the region of €4-15 million per annum.

3.77 Some of the delay in developing the Broker is attributable to resource issues, including slow ramp up of Reach staffing, reliance on a range of external contractors and diversion of resources to meet short term requirements. Other factors which slowed progress, and which in part may reflect the innovative nature of the project, were

- delays in clarifying and agreeing long term requirements
- the need to resolve conflicting responsibilities
- difficulty in defining requirements for contractual purposes
- the need to resolve the strategic approach to procurement.

3.78 It is likely that Reach could have delivered the Broker system in a more timely or cost-effective manner had the governance, staffing and risks been managed more rigorously.

3.79 The governance arrangements for Reach were complex and changed a number of times over the years since its establishment. The objectives set for management changed frequently. Formal and actual lines of authority were not congruent. Financial management structures and decision-making were inconsistent with the formal lines of authority and accountability. The establishment in 2003 of a small Board, under an independent chairman, improved governance.

3.80 Management processes within Reach evolved and improved over time. However, for a long period, goals were inconsistent, development plans were short-term and expected deliverables poorly defined. Risk management was weak. Prior to the introduction of the Project Management Office, internal management systems were ad hoc. Financial control systems at project level were not integrated with Reach budgetary control. There continues to be a high level of dependence on external contracted personnel in key roles. This represents an exposure in relation to the systems maintenance and development programme and a significant cost.

3.81 In terms of output, Reach has not delivered strategic change within Government or an integrated social services system, as was originally envisaged. It has delivered a complex ICT system in the form of the Broker, which has potential, if used.

3.82 It was envisaged that the Broker would provide a single mechanism for members of the public, both private citizens and business, to access all public services on an integrated basis. The system would improve service delivery through traditional means (in person and on the phone) and through new self-service electronic channels. The self-service mechanism has not been delivered. Nevertheless, Reach has had successes. These include

- the Inter Agency Messaging Service, which offers a standards-based, simple means for departments and agencies to exchange documents and data with each other
- identity authentication for PAYE taxpayers which, while somewhat cumbersome to use, is functioning successfully, and is available to be extended to other public service agencies
- an interoperability framework, in the form of a comprehensive set of standards and guidelines that are available to all public service agencies to use in constructing their own internal and external-facing systems.

3.83 Relationships between Reach and its (potential) client departments and agencies have been uneven, and there is some dissatisfaction with past levels of service. Only a small number of services to the public are currently using the Broker.

Recommendations

A clear and practical vision and strategic plan for the future direction of Reach and the Broker, and an appropriate organisation and governance arrangement, are now urgently required if greater value is to be realised from the investment in the technology infrastructure which has been put in place.

The feasibility of the originally proposed role of the Broker as a front office integrating all public services for business and personal customers needs to be reconsidered, not just in terms of technological challenges but also in the light of potential benefits and the organisational, process and data access challenges to implementing the vision across the public service.

There is a need to rationalise the channels for the delivery of information for citizens. Currently, the Reachservices and the Citizens' Information websites provide very similar services.

Reach and the Broker may need to focus on meeting the demands of public service providers in the areas of identity authentication, including development of higher levels of authentication, and on information transfer services between departments and agencies. Consideration should be given, in conjunction with the relevant departments and agencies, to deepening, expanding and improving those services and to identifying the related costs and benefits, and resource and governance issues.

Longer term, departments and agencies would have to develop processes and systems that use the Broker if a return on the investment made is to be generated through services for the public, or through efficiencies in government business. The value proposition for the Broker would need to be developed to provide a business case for public services to use the Broker and possibly to pay usage fees.

Once role clarity has been achieved and decisions taken on the matters outlined above,

- reporting arrangements and the statutory basis for Reach should be reviewed to remove any ambiguity about authority and responsibility
- future investment proposals should be subject to public service capital expenditure guidelines
- full risk management procedures should be put in place
- the current memorandums of understanding with client departments and agencies should be replaced by more specific service level agreements.

Operational issues, such as management, staffing, customer relations and finance can be addressed in this context.

4 Managing the Development of eGovernment

4.1 The Government action plans for implementing the information society recognised the potential for eGovernment to facilitate the provision of integrated public services, organised around the needs of individuals and businesses rather than along the formal lines of responsibility and organisation of individual agencies. However, there are risks associated with those opportunities that have to be managed if the best value for money is to be achieved. In the nature of ICT initiatives, substantial resources may be required to develop new systems, with accompanying uncertainty that the value of benefits delivered will exceed the costs incurred. Where diverse agencies are involved in delivering projects in their respective sectors, there are risks of uneven or patchy development. Where projects cross agency boundaries, there are risks of lack of coordination, and of variable degrees of commitment and/or capacity on the part of different agencies to deliver the elements required to ensure successful, least-cost outcomes.

4.2 These characteristics of eGovernment create conditions where clear strategic direction and supporting management systems potentially provide a framework within which individual departments and agencies may successfully develop good value projects that support their business objectives, and the challenges of developing common infrastructure and cross-agency projects can be resolved efficiently and effectively. Prioritisation of competing projects based on a clear strategy also has the potential to ensure that resources are allocated to the most socially-beneficial projects.

4.3 This chapter looks at the strategic context in which eGovernment has developed, the role played by the Information Society Fund in encouraging eGovernment initiatives and the systems in place to measure and monitor progress in delivering on planned developments.

Vision and Strategy Development

4.4 The principal statements of vision and strategic direction for the development of eGovernment in Ireland in the period 1999 to 2005 were contained in the two action plans for implementing the information society. The action plans emerged from a cross-agency consultative process chaired by the Department of the Taoiseach, drawing on the work of the advisory Information Society Commission.¹⁰ The concept of the Broker, developed jointly by the Departments of the Taoiseach and of Finance during the life of the first plan, was also a key element of the strategy.

Strategic Objectives of eGovernment

4.5 The objectives of eGovernment articulated in the first action plan focused mainly on the delivery of specific projects by departments and agencies. In *New Connections*, four strategic objectives for eGovernment were articulated. These were that

- all services capable of on-line delivery should be available on-line by 2005, through a single point of contact
- the delivery of Government services should be reshaped around user needs (including continuous on-line availability and delivery of integrated services).

¹⁰ The Information Society Commission was established in 1998 to act as an independent committee to advise the Government on the development of the information society in Ireland. It continued in existence until 2005.

- Ireland's international competitiveness should be improved (through reduced business costs, higher efficiencies, better services and opportunities for businesses to develop new services and content)
- the business community and the general public should be stimulated to wider engagement with ICT (through contact with quality on-line public services).

4.6 The strategic objectives stated in *New Connections* represented criteria against which the overall performance of the public sector in developing eGovernment may potentially be assessed. However, there was no formal assignment of responsibility for the achievement of progress in relation to the strategic objectives, or for monitoring and accounting for progress in respect of those objectives. Furthermore, the strategic objectives were not translated into quantifiable targets for what was to be achieved. Even the target about delivery of on-line services by 2005 was imprecise, because it related to an undefined set of 'services capable of on-line delivery'.

Benchmarking of eGovernment

4.7 While not expressed as an explicit objective, there was an evident focus by the Department of the Taoiseach and the Department of Finance during the lifetime of the action plans on ensuring that Ireland would perform well in the annual EU eGovernment benchmarking process, on the basis that the visibility of the ranking process was likely to be viewed as a measure of international competitive advantage.

4.8 International benchmarking of eGovernment achievements is carried out each year by a number of organisations. Each benchmarking organisation uses a different methodology, and there may also be changes or refinements from year to year in the methodology used by a single organisation (e.g. as the concept of what represents good eGovernment achievement evolves). As a result, small differences in the scores awarded by the different agencies, and small changes in ranking from year to year may not be significant. The general placing of countries in the overall ranking, and trends in a country's ranking over a number of years are likely to be more instructive about how well eGovernment development is being managed.

4.9 The key findings in relation to Ireland in the main international benchmarking reports include

- In the EU Commission's benchmarking exercise, Ireland's overall ranking regarding on-line sophistication of eGovernment fell from 1st place in 2001 and 2002 to 17th place in 2007. Ireland's 2007 scores for overall sophistication and range of on-line services (78% and 50% respectively) compare poorly with those of the top ranked country, Austria, which scored 98% for overall sophistication and 100% for on-line service availability. Slovenia, Malta and Portugal achieved 90% or above on both measures ¹¹
- In the annual Accenture reports, Ireland started in 16th place in 2000 and fluctuated thereafter between 10th and 14th place. The 2007 report places Ireland in 11th position. ¹²
- A UN series of surveys of around 190 countries show Ireland dropping from 17th position in 2003 to 20th position in 2005. ¹³

11 CapGemini/EU Commission *Benchmarking the Supply of On-line Public Services*, September 2007

12 Accenture, *Leadership in customer Service: Delivering on the Promise*, June 2007

13 UN *Global eGovernment Readiness Report*, 2005

4.10 Taken together, the various survey results indicate that Ireland is consistently ranked among the top twenty or so countries in relation to development of on-line public services, which is to be expected given relative levels of economic development. However, among developed countries, Ireland is not a leader on eGovernment, and its relative position has been slipping. Many other countries are now significantly more advanced across a range of areas in terms of the availability of highly developed on-line public services.

Evaluation of eGovernment Proposals

4.11 Appraisal of the two Government action plans in terms of their ability to achieve the stated strategic objectives for eGovernment at a reasonable cost was weak. The plans were developed by combining the strategic central vision for eGovernment with the various project proposals received from departments and agencies, but were not costed. While the Broker project was central to *New Connections*, it was not subjected to rigorous analysis or evaluation before being proposed for Government approval.

4.12 Despite a recommendation of the Information Society Commission in 2003 that the eGovernment projects likely to deliver best value should be prioritised, there is no evidence that a prioritisation exercise of that kind was undertaken, either at central or department level. However, the Department of the Taoiseach has pointed out that the Commission's recommendation led to the cancellation of at least one project because it was deemed too costly for the potential return.

4.13 In general terms, constraints on the development of eGovernment services were recognised but there was no evidence that the action plans or their objectives were subjected to overall strategic risk assessment. However, risk assessment was formalised within the public service during the period of the plans.

4.14 The Department of Finance has stated that various initiatives have been implemented in recent years that should result in departments and agencies undertaking more intensive evaluation and review of the return on investment and value for money to be achieved from their ICT projects. These include the implementation of the Management Information Framework, work on developing key business performance indicators, the peer review system for ICT projects, improved project management procedures, revised consultancy guidelines on the engagement of external service providers, the Government value for money initiatives, risk management procedures and revised capital appraisal guidelines.

Assessment of User Needs

4.15 Arrangements for the assessment of consumer needs or priorities were weak. Although reshaping of Government services around user needs was a major aim of *New Connections*, user demand was not formally assessed in the preparation of the action plans. In the event, the response of users to eGovernment projects has been mixed — some systems that were implemented have had a very positive response from users, while others had a limited response.

4.16 The Department of the Taoiseach has pointed out in relation to the assessment of user needs that

- in many countries, eGovernment has tended to be supplier-led, with the construction of new delivery channels for existing services
- individual departments and agencies may have engaged in user consultation depending on their individual approach
- the plans for eGovernment benefited from reports of and consultation with the Information Society Commission, which comprised individuals from many sectors.

Strategy at Department and Agency Level

4.17 The first action plan for implementing the information society called on all departments and agencies to develop and publish their own specific eGovernment strategies, and 20 departments did so. That requirement was not repeated in *New Connections*. The Department of the Taoiseach accepted that separate strategies focusing just on eGovernment were ineffective, and that it was more appropriate that eGovernment initiatives should be an integral element of each department's overall business strategy. Since then, the ISPU in the Department of the Taoiseach reviews all departmental statements of strategy to ensure that technology development is being incorporated as a key element of departments' business strategies.

4.18 Based on the responses of public services providers to the examination questionnaire, there were considerable differences in the extent to which departments and agencies focused on the reshaping of public services around user needs, and in their capacity to deliver that kind of change.

- A number of public services providers are actively engaged in major integrated programmes to re-engineer their structures and processes around widespread user needs — these include services across whole sectors, such as welfare payments, taxation and agriculture.
- Individual sections and units in some other departments and agencies are pursuing radical reengineering of the services they provide to make them more user-focused, and have achieved considerable success. These include specific services to business, agents involved in property conveyance, users of maps, services for immigrants, and applicants for public sector jobs.
- Some departments and agencies have not pursued programmes to re-engineer their service delivery systems and processes around user needs, although some individual systems have been delivered. This was due to a variety of reasons ranging from absence of an organisation-wide scope of vision to the lack of organisational capacity and/or capability to develop and implement such a vision. Lack of infrastructure for identity authentication was a further impediment in some cases. As a result, eGovernment has not yet had a radical impact on delivery of public services in areas such as education, health, public transport, and the criminal justice system.

Future Strategy for eGovernment

4.19 While many individual departments and agencies, especially those that were early adopters of new technology opportunities, are continuing to make progress with their own programmes of eGovernment projects and initiatives, there is no current formal overall strategy articulated for the future development of eGovernment. The Information Society Commission was not reappointed or replaced when its term ended in May 2005. Likewise, The *New Connections* action plan for the information society extended up to the end of 2005, and has not been succeeded by a further plan or specific strategy.

4.20 The Department of the Taoiseach has stated that the ISPU, in consultation with other departments, is currently preparing a new information society action plan which addresses the future direction of developments in relation to the use of technology in government. The potential for eGovernment to contribute to better delivery of public services and to increased efficiency in government agencies is also part of a major review of the Irish public service currently being undertaken by the Organisation for Economic Cooperation and Development, at the request of the Irish Government. The strategy development process will also benefit from the review of Reach and the Broker currently underway.

4.21 In commenting on a draft of this report, the Department of the Taoiseach has stated that eGovernment was primarily about automating the point of interaction between callers and service providers and, in that context, was very much in tandem with the modernisation agenda around quality service delivery. There are many agencies delivering services to a variety of callers and there are therefore many interpretations of what a 'quality service' looks like. The agenda for the use of technology in government has now shifted somewhat and is being pursued as a response to the need for process improvement. It is therefore moving from a supply-led approach to a demand-led approach, as public service leaders look to technology to meet their needs for improved impacts and outcomes through processes that they own in an emerging situation that requires greater levels of integration of data and processes and a better utilisation of technology resources. In developing a future eGovernment strategy, which will not be technology led, the factors to be taken into account include

- the structures within the public service
- the degree to which the public service can adopt new and emerging technologies
- the capacity to change legacy processes
- the statutory and constitutional responsibilities of ministers and departments
- the level of resources available to drive (or constrain) the transformational changes that are possible
- the impact of changes in society on relationships being brought about by technology
- the need to streamline regulatory and compliance processes in the context of an increasing regulatory burden arising from membership of the EU.

All of these factors have a bearing on the rate of progress achievable and the possibilities for developing and managing a comprehensive strategy. The main challenge is how the public service can exploit the opportunities of technology in a process of improvement while managing and balancing the tensions created by legacy structures and investments which can often act as inhibitors to initiating new and innovative transformational projects.

Allocation of the Information Society Fund

4.22 The Information Society Fund (ISF) was established in 1999 as a centrally managed fund, to be used to provide financial incentives for the achievement of information society implementation initiatives.

4.23 Over the six years 2000 to 2005, in excess of €57 million was paid out of the ISF, in support of 176 approved proposals. An estimated €3.3 million, or 94% of the total, was allocated to eGovernment projects reported in response to the examination questionnaire. Some proposals in respect of other elements of the action plans also received funding from the ISF e.g. in the area of eCommerce — encouraging on-line business-to-business or business-to-customer services.

4.24 More than two thirds of the total amount spent through the ISF was allocated to nine public services providers in support of their eGovernment projects (see Figure 4.1). In some cases, the funding received represented a significant part of the total expenditure on the departmental programmes.

Figure 4.1 Information Society Fund (ISF) allocations for eGovernment, by department/ agency

Department/agency	Total project expenditure €m	ISF contribution ^a €m	ISF contribution as % of total expenditure
Environment, Heritage Local Government (including Local Government Computer Services Board)	20.2	12.2	61%
Finance	16.2	7.4	46%
Revenue Commissioners	43.0	7.4	17%
Social & Family Affairs (excluding Reach)	55.1	3.4	6%
Communications, Marine and Natural Resources	20.8	2.7	13%
Reach	37.0	2.5	7%
Central Statistics Office	15.5	2.0	13%
Agriculture and Food (including Teagasc)	35.0	0.8	2%
Property Registration Authority	45.7	0.7	2%
Total	288.5	39.1	14%

Source: Analysis by Ernst & Young/Talbot Associates

Note: a Excludes ISF funding allocated to Departments for non-eGovernment initiatives e.g. measures to support business in developing eCommerce.

4.25 Most of the bodies that received substantial ISF funding appear to have had comprehensive, integrated customer-orientated business strategies which include transforming their business processes, and embracing technology, process and organisation change. Many of the initiatives they undertook involved major multi-annual multi-staged programmes of work. There was no evidence of a lack of capacity on the part of these organisations to plan and budget for these projects and to manage these work programmes, or to realise value for money.

Evaluation of Funding Applications

4.26 Evaluation, prioritisation and approval of projects submitted for funding from the ISF was carried out by an Evaluation Team comprising two representatives each of the Department of the Taoiseach and the Department of Finance. The Team was chaired by a CMOD official. Co-ordination of applications and quantification of estimates was undertaken by CMOD to which all applications, information and submissions were to be sent.

4.27 An expedited administrative process to deal with ISF funding applications was put in place i.e. departments did not have to await normal annual Estimates deliberations. Initially, departments/agencies proposing projects for funding were required to submit letters of application supported by business case analysis. A standardised application form was introduced in late 2003. The form required a brief project overview and more detailed project information in relation to the deliverables, beneficiaries and timeframe for the project, together with a breakdown of all costs associated with the project.

4.28 The criteria used to evaluate proposals for funding evolved over time. Guidelines issued in late 2003 with the standardised application form indicated that applications for funding would be evaluated based on

- the completeness of the information provided in the application form
- the case made for the proposal's contribution to the progression of objectives set out in *New Connections* — applicants were asked to outline clearly, specifically and tangibly how this was the case
- the proposal's fit with the Broker model and the user identification frameworks being developed by Reach
- the impact the project deliverables were expected to have on end-users
- value for money
- compliance, where appropriate, with standards for electronic signatures and electronic certificates.

4.29 An examination of the evaluation files held by the Department of Finance found that

- There was a good deal of interaction between the Evaluation Team and applicants while proposals were being considered.
- Prior to the introduction of the standardised application form, most of the communication about funding applications was through formal letters, supplemented by emails and telephone calls.
- Expected benefits of the proposals were generally described in broad terms, which were inadequate to demonstrate value for money, but there were also proposals where quantified costs and benefits were provided. There was also, in some specific cases, evidence of considerable effort by the Evaluation Team to ensure that the applicant department or agency defined the proposed benefits of the project.
- The documentation indicates that the Evaluation Team was cognisant of the evaluation criteria and sought to ensure that projects being proposed were in keeping with the parameters suggested by *New Connections* and were not seeking to fund ICT expenditure associated with normal operations. However, there is little or no formal documentation on file setting out the precise basis for approval of funding in individual cases.
- The timescales for some of the approvals appear to have been short, necessitating considerable involvement from the Evaluation Team.
- In a number of cases, sanction was given retrospectively for expenditure in a given year and, in one case, the sanction was for the previous year.

Impact of Funding on Projects

4.30 Departments and agencies responding to the examination questionnaire reported on the impact of the availability of ISF funding on 60 projects. The results are shown in Figure 4.2.

4.31 The sponsoring departments and agencies reported that more than one-third of the projects funded would not have proceeded had ISF funding not been made available. More than half of the projects were reported to have been speeded up or to have had a wider scope, as a result of the availability of ISF funding. One project in ten was reportedly unaffected by the availability of ISF funding, and would have proceeded on the basis of normal ICT funding sources. Of course, ISF funding was not essential for projects to proceed, and public service providers initiated and implemented many eGovernment projects that received no support from the ISF.

Figure 4.2 Impact of the absence of ISF funding

View of department/agency on impact of ISF funding	Number of projects	Percentage of projects
Without ISF funding, the project would:		
have been undertaken in any case	6	10%
have been undertaken over a longer time period	28	47%
have been undertaken, but with reduced scope	4	7%
not have been undertaken	22	37%
Total number of responses	60	100%

Source: Analysis of questionnaire responses

Measurement and Monitoring of Progress

4.32 Monitoring and reporting on progress with eGovernment was somewhat ad hoc. The achievement of the strategic objectives of the action plans were not formally monitored or evaluated.

4.33 The Department of the Taoiseach set up an extranet¹⁴ listing the projects set out in *New Connections*. This allowed departments and agencies to post progress updates on their projects. The information was published in ‘annual’ progress reports, but these were issued only in 2003 and 2004.

4.34 The 2003 ISF guidelines stated that all recipients of ISF funding should submit written progress reports to the ISF Evaluation Team twice yearly, in May and November. However, this requirement was not strictly implemented and the twice-yearly written reports were subsumed by the more general reporting arrangements under *New Connections*.

4.35 The ISF was intended to operate as a source of seed funding to enable eGovernment projects to be initiated. After the initial period, the substantive funding of the projects was delegated to the individual departments/agencies under normal delegated sanction arrangements, as set out in Department of Finance Circular 16/97.¹⁵ Under the delegated arrangements, departments are required to have in place formal and appropriate arrangements for the control of business projects and for achieving expected impacts, and for monitoring compliance with the established procedures. They are also required to send the Department of Finance an annual statement of ICT-related expenditure and the associated impacts, and a statement of strategies for the management of information, computer applications and technical infrastructures.

4.36 Progress on delivery of the initiatives included in the Government action plans was reviewed by the Cabinet (Sub) Committee on the Information Society, the eStrategy Group of Secretaries General and the Implementation Group of Assistant Secretaries.

14 An extranet is a private network that uses internet technology and public telecommunications systems as a means of securely sharing information.

15 The Circular 16/97 procedure was put in place in the context of the Strategic Management Initiative, which recommended the delegation of financial authority to the maximum extent possible for existing programmes of expenditure and required that appropriate controls be in place in departments.

4.37 There is no evidence that there were any particular initiatives taken to encourage departments or agencies that gave insufficient priority to eGovernment or to support those that were having difficulties in implementing eGovernment plans. There was no central evaluation of the extent to which business objectives were realised. Other than for Reach, there were no particular structures in place to ensure that inter-department/agency initiatives were successfully undertaken.

4.38 The Department of Finance has stated that progress in some areas of eGovernment is very satisfactory while progress on other aspects is uneven. Consequently, the Department considers that it is important to ensure that eGovernment is afforded ongoing priority by departments and offices who are ultimately responsible for progressing their individual projects, and that at a central level, the overarching structures are kept under review in order to ensure that they offer the appropriate level of support to departments and offices, especially with regard to cross-cutting projects.

Conclusions

4.39 The Departments of the Taoiseach and of Finance played a key role in developing a vision for eGovernment, and in identifying opportunities for improving significantly the quality of public services. Departments and agencies proposed individual projects for inclusion in the Government actions plans, and were responsible for their delivery and the achievement of planned business objectives. However, measurable targets were not set in relation to the strategic objectives and service-wide benefits that eGovernment was expected to deliver, and there was scope for more evaluation and prioritisation of the plans that were presented in the light of overall Government aims. A more quantified and robust review of progress against service-wide targets, and greater engagement with relevant departments to identify and resolve barriers to progress and, in particular, to engagement on cross-cutting initiatives, would have improved the chances of achieving the strategic objectives for eGovernment.

4.40 The momentum towards developing eGovernment that was evident in the early years of the decade appears to have faded somewhat. This is evident in the absence of a formal eGovernment strategy since the beginning of 2006. However, the Department of the Taoiseach is currently working with other departments and agencies on the development of a new strategy.

4.41 In some areas of the public service — for instance Revenue, the Department of Social and Family Affairs, the Department of Agriculture and Food, as well as in smaller agencies such as the Property Registration Authority and Ordnance Survey Ireland — the opportunities of new technology for business transformation and for meeting consumer demand were well recognised and addressed. In some other public service providers, it was not clear that the opportunities were as well recognised. Agencies in this situation may need more encouragement, support and incentives if opportunities to improve the quality of the services they provide through application of ICT are to be properly evaluated and exploited, where it is cost effective to do so.

4.42 The processes that were put in place for evaluation of proposals for central ISF funding, though limited in scope, were exercised diligently. Transparency and accountability would have been improved if procedures and documentation in relation to evaluation and approval had been formalised and standardised earlier and if the process had been better resourced. Normal financial control was operated under delegated sanction rules of 16/97.

4.43 The main impact of ISF funding was to accelerate the pace of eGovernment, and the secondary impact was to launch projects that would not otherwise proceed. ISF expenditure has been mainly directed towards large well-resourced departments and agencies that already had established strategic plans and which therefore have a higher likelihood of success.

4.44 Non-availability of funding was not identified as a barrier to progress in many cases. Senior management commitment and the resolution of organisational, process, human and technological issues appeared to be more important in encouraging eGovernment than additional funding. In a future eGovernment strategy, these other barriers and capacity issues would need to be addressed if the potential improvements in the delivery of public services are to be realised.

Recommendations

The eGovernment drive would benefit from better targeting, greater rigour and active central oversight and support. Rather than being technology-led, the focus now needs to shift to achieving defined but challenging customer and business outcomes with a greater emphasis on the transformation of major processes, particularly inter-agency processes. These processes should be selected on the basis of their potential to provide public value.

In the area of central oversight and support, measurable targets should be set for each of the strategic goals of eGovernment, and responsibility for the achievement of the goals should be formally assigned. This oversight should extend to the review of the plans of departments and agencies, to ensure that they are consistent with the strategic goals, and progress on delivery of departmental objectives should be formally monitored. Where plans are under-developed or where they are not being progressed, they should be reviewed with senior departmental management to identify barriers and to assist in overcoming them.

Annual eGovernment progress reports should be published, focusing on the achievement both of strategic goals and of planned project impacts. The effectiveness of the eGovernment strategy should be formally and independently evaluated from time to time.

A relatively small number of cross-cutting projects have been implemented, although this is an area where eGovernment holds the prospect of achieving better value. One reason for this may lie in the channelling of funding through traditional departmental 'silos', resulting in existing budgetary arrangements militating against efficient eGovernment development. (This difficulty was recognised in recommendation no. 5 of the Information Society Commission report on eGovernment in October 2003, which proposed that appropriate incentives be developed to support such projects.) To counter such difficulties, cross-cutting projects should have unitary management. Directors for the projects should be appointed from the bodies involved, with clear responsibility and accountability for delivery. The Public Service Management Act, 1997 provides for such arrangements to be put in place.

Government departments and agencies should be required to develop, as an integral part of their strategic planning process, comprehensive eGovernment plans covering the customer service, human, process, technology, data and financial aspects of their transformation programmes. It is recognised, however, that implementing such transformation projects depends on building capacity so as to effectively absorb and manage the investment and to mitigate the risks.

Any future central ICT funding initiative might best be targeted at addressing capacity deficiencies in organisations that are identified as having a key role in the further development of eGovernment. Moreover, central or external guidance and support should be provided to such departments and agencies to enable them to assess objectively the current status of delivery of information and services and the opportunities for improvement, to plan their development and to implement those plans.

Specific recommendations for the management, monitoring and evaluation of eGovernment projects are set out in Appendix E

Appendices

Appendix A Risk Assessment Model for Information and Communications Technology Transformation

Category	Element	Potential risk area
Vision and direction	Business case development	Poor strategic alignment and business case
	Sponsorship	Inadequate or ineffective sponsorship
	Business transformation	Failure to envisage the potential of the technology Focus on automating current way of doing business
Planning and execution	Governance	Programme organisation, development process and governance framework is unclear
	Resource management	Inadequate resources to deliver the programme (number, skills, commitment)
	Risk management	Risk management is not embedded into key project activities
	Dependency management	Interdependencies between projects / work streams, other change programmes or business-as-usual activities are not understood or owned
	Programme planning	Inaccurate planning
	Issue management	Programme issues are not identified and managed effectively
	Knowledge management	Key programme knowledge is lost or not utilised
	Technology management and execution	Inappropriate choice of technology solution or ineffective implementation
	Change control	Project changes are not controlled or tracked
	Financial management	Ineffective financial management and control
	Supplier management	Failure to manage 3 rd parties effectively
	Consumer response	Poor adoption by consumer
	Quality management	Poor or ineffective quality management
Programme systems	Lack of adequate IT infrastructure to minimise risk and increase efficiency of programme management operations	
Measurement and monitoring	Benefits management	Programme fails to measure and realise benefits
	Programme reporting	Inaccurate reporting
Business and user acceptance	Change management	Organisation rejects proposed changes before, during or after implementation
	User acceptance	Low levels of take-up due to design, functionality or marketing weaknesses
	Communications	Key stakeholders disengage from process

Appendix B eGovernment Projects Reported by Departments and Agencies

This Appendix presents summary information about all eGovernment projects

- undertaken or commenced in the period 2000 to 2005, as reported by departments and agencies surveyed for this examination, and/or
- specifically identified in one or both of the eGovernment action plans.

Department/Agency	Page
1. Agriculture and Food	74
Teagasc	74
2. Arts, Sport and Tourism	75
3. An Bord Pleanála	75
4. Central Statistics Office	75
5. Chief State Solicitor's Office	76
6. Communications, Marine & Natural Resources	76
Geological Survey of Ireland	77
7. Community, Rural and Gaeltacht Affairs	77
8. Courts Service	78
9. Defence	78
10. Education and Science	78
11. Enterprise, Trade and Employment	78
Companies Registration Office	79
Patents Office	79
Forfás	79
12. Environment, Heritage and Local Government	80
Environmental Protection Agency	80
13. FÁS	81
14. Finance	81

Projects are listed under the names of their sponsoring department or agency, as listed below. Changes in the responsibilities of certain departments were announced at the time of the formation of Government in June 2007. Data presented here is based on the previous distribution of responsibilities

Department/Agency	Page
15. Foreign Affairs	81
16. Health and Children / Health Service Executive	82
17. Justice, Equality and Law Reform	83
18. Local Government Computer Services Board	83
19. Office of the Attorney General	84
20. Office of the Director of Public Prosecutions	84
21. Office of the Houses of the Oireachtas	85
22. Office of the Ombudsman	85
23. Office of the President	85
24. Office of Public Works	85
25. Ordnance Survey Ireland	86
26. Property Registration Authority	86
27. Public Appointments Service	87
28. Revenue Commissioners	87
29. Social and Family Affairs	88
30. State Laboratory	88
31. Taoiseach	89
32. Transport	89
33. Valuation Office	89

Key to the tables

Col 2: eGovernment action plan

- 1 = included in first action plan 1999-2001
 2 = included in second action plan 2002-2005
 1,2 = included in both plans

Col 3: Status of project (at mid 2006)

- = project fully implemented, with planned scope and coverage
 ○ = project still being implemented, or partially rolled out
 × = project not progressed or abandoned

Cols 4, 5: Project expenditure

Budget = approved budget for project, if adopted. (Some agencies based project budgets on direct expenditure items only, and did not provide for internal project costs. In some cases funding was approved for projects on an annual basis, rather than as an initial single full project sum.)

Estimated outturn = the estimated expenditure outturn, including expenditure required to complete the project

Cols 6, 7, 8: General nature of the project

- ① = the project aims to provide on-line information to target users of citizens, businesses, community groups, etc (including services where the users can specify or tailor the information delivered)
 ⇄ = the project aims to allow users to carry out on-line transactions e.g. purchasing; make payments for services; make applications
 ⚙️ = the project is aimed at transforming the agency's internal systems in ways that give rise to efficiencies or better service

Col 9: Quantified benefits

The quantified benefits that the relevant agency reports have been achieved as a result of the project
 Claimed benefits that are un-quantified are not included

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project			Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000	ⓘ = provide information	↔ = allow on-line transactions	⚙ = transform internal systems	
1. Agriculture and Food								
Forestry Information System (IFORIS) and Forestry Industry Mapping System — on-line applications for forestry grant payments	2	○	1,819	2,971		↔	⚙	
Animal Health Computer System (AHCS)— on-line access to animal health data for veterinary practitioners and farmers	2	○	5,825	9,445	ⓘ	↔	⚙	205 direct staff savings identified due to introduction of AHCS and reduced incidence of disease
Land Parcel and Area Aid (IMAP) — on-line area aid applications integrated with land parcel identification information	2	●	5,242	10,471	ⓘ			Used to process 130,000 Area Aid applications each year
Single Payment System (SPS) — an on-line scheme to facilitate single payments for farmers following decoupling of payment and production for over 13 arable aid and livestock premia schemes	—	●	3,976	4,007	ⓘ	↔		
Animal Identification and Movement System (AIMS) — on-line registration of livestock animals and recording of animal movement	—	○	7,000	7,000	ⓘ	↔	⚙	
eSAD — electronic submission of export declaration (joint system with Revenue Commissioners, using Reach)	—	●	250	164		↔	⚙	
Sheep Tagging Request System (STAR) — allows approved tag vendors to obtain ear tag numbers for the national sheep identification scheme	1	●	—	40		↔	⚙	
REDS — Registration for Electronically Delivered Services	—	●	—	385	ⓘ	↔		65,000 farmers potentially have access
Teagasc								
eProfit Monitor — to assist farmers in identifying improved returns achievable from their enterprises	2	●	64	119	ⓘ	↔	⚙	Staff time savings of 4/5 hours per month per group of 10
Dairy Herd Monitor — allows dairy farmers to record management data on-line	2	●	59	73	ⓘ	↔		
Soil Analysis On-line Results — on-line access to information on soil samples submitted for analysis	2	○	56	125	ⓘ		⚙	Savings of 1-2 hours per year per farmer (15,000) and 12-15 hours per year per adviser

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project ⓘ = provide information ↔ = allow on-line transactions ⚙ = transform internal systems	Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000		
Farm ICT training on-line supports	—	●	70	70	ⓘ ↔ ⚙	
Food Assurance On-line — on-line information and training for farmers in food assurance	—	●	100	101	ⓘ	Savings of 4/5 hours per month per user (3,000 users)
2. Arts, Sport and Tourism						
National Archives — on-line facility to allow reservation of catalogue items and integration with proposed GIS browser	2	x	—	50		
National Archives — on-line access to 1901 and 1911 census returns	—	○	3,590	3,200	ⓘ	
On-line catalogue management system for the National Library	2	○	—	330		
On-line catalogue management system for the National Museum collection	2	x	—	—		
3.. An Bord Pleanála						
Planning application search facility on Bord Pleanála website	—	●	11	11	ⓘ	37% reduction in public requests for information about appeal decisions in 2006 relative to 2005
4. Central Statistics Office						
Census of Population 2002 — dissemination of statistics	2	●	—	332	ⓘ	
On-line collection of data from businesses and agriculture (eForms)	2	●	—	70	↔ ⚙	
Survey data management system redesign and implementation (two phases)	—	○	13,000	14,462	ⓘ ⚙	
Small projects (7)	—	●	—	589	ⓘ ↔ ⚙	

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project			Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000	① = provide information	↔ = allow on-line transactions	🏢 = transform internal systems	
5. Chief State Solicitor's Office								
—	—	—	—	—				
6. Communications, Marine and Natural Resources								
Minerals Administration and Programme Support (MAPS) — on-line applications for prospecting licences and access to geographical information	2	●	5,620	6,914	①	↔	🏢	
Knowledge Management System (KMS) — better information to public and transformed business processes	—	●	1,297	1,351	①		🏢	
Integrated Petroleum Affairs System (IPAS) (Stage 1) — management of activities in Petroleum exploration	—	○	291	291	①	↔	🏢	
Coastal Zone Administration (CoZAS) — on-line applications for foreshore, aquaculture and dumping at sea licences	—	○	550	1,135	①	↔	🏢	
Corporate Vessel Register (CVR) / Safe Seas Ireland— to allow Irish port authorities anticipate and coordinate activities taking place in Irish coastal waters, including exchanging of messages between EU Member States	2	○	550	943		↔	🏢	
Ocean explorer — to provide rapid availability of scientific information	—	●	3,353	2,612	①	↔	🏢	3/4 staff have been redeployed, Queries handled by 20 now handled by one staff member.
Earth Resources Information Warehouse — phased on-line provision of and purchase of Geological Data	2	○	1,500	1,437	①	↔	🏢	Over 10,000 on-line map users per quarter. Over 100 digital licences issued per annum
Fishingnet/Integrated Fisheries Information System (IFIS) — to provide information on administration and enforcement of sea fisheries to fishermen and to allow on-line application for sea fishing licences	2	○	2,200	4,388	①	↔	🏢	

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project ① = provide information ↔ = allow on-line transactions ⚙ = transform internal systems	Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000		
Geological Survey of Ireland						
Document Management System (DMS) — an electronic document record management system	—	●	—	890	①	
Oracle database re-engineering — development of an integrated database structure in Oracle to underpin an agreement for co-operation with the British Geological Survey in the area of information management	—	○	—	543		
B2C pilot website — on-line sales catalogue of printed reports, maps and digital datasets	—	○	4.5	n.a.	↔	
Irish Spatial Data Exchange (ISDE) — shared site for searching the Marine Irish Digital Atlas Coastal and Marine Resources Centre	—	●	315	315	①	⚙ Time taken to identify data set reduced from 1 – 4 days to minutes
7. Community, Rural and Gaeltacht Affairs (incl. Údarás na Gaeltachta)						
Gaeltacht grants — on-line application system for Gaeltacht grants	2	x	80	80	↔	
e-Phobal — web-site and portal for training, recruitment and grant applications	—	●	770	359	① ↔ ⚙	
IT in the community projects	—					
Digital Community Project			}	—		
Grangegorman Community Network Project						
Dublin Employment						
eGovernment Strategy — Department	—		42	42		
eGovernment Strategy — Údarás na Gaeltachta	—		47	47		

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project ⓘ = provide information ↔ = allow on-line transactions ⚙ = transform internal systems	Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000		
8. Courts Service						
Small Claims Court — on-line procedure for lodgement of small claims	2	○	367	1,417	↔	40% of small claim applications in 16 pilot areas received on-line
On-line payment of court fines	2	○	35	27	↔ ⚙	
9. Defence						
Website development	—	●	20	60	ⓘ	
10. Education and Science						
On-line claims system – to enable schools to submit on-line claims in respect of time worked by part-time employees	—	○	2,600	5,982	↔ ⚙	Savings of 10 departmental staff. Postage and time saved in schools
Examination results on-line	1	●	16	16	ⓘ	
School information database/department website re-design	2	●	60	100	ⓘ	
School inspection reports	—	●	8	8	ⓘ	
Adult education guidance project	2	○	—	1,392	ⓘ	
Further Education Management Information System — on-line management information system for use by further education centres	2	x	—	—	ⓘ	
Student grants — fully transactional on-line facility including payment of student grants for education	2	x	—	—	↔	
11. Enterprise, Trade and Employment						
BASIS — integrated on-line resource of public service information based around business-centred needs	1,2	●	5,500	4,179	ⓘ	Visits in 2005: 172,000

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project			Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000	ⓘ = provide information	↔ = allow on-line transactions	🏢 = transform internal systems	
Redundancy Improvement Project — on-line service to calculate redundancy payments for employers and employees	1,2	●	1,000	938	ⓘ	↔	🏢	Claims processed doubled from 12,000 to 24,000 without any increase in staff
Work Permit Management System — on-line application system for work permits	2	○	500	996		↔	🏢	
On-line submission of annual returns by insurance companies (currently, life insurance companies only) (<i>Note: responsibility for regulation of insurance companies transferred to the Financial Regulator in May 2003</i>)	2	○	—	68		↔		
Consumer Protection Portal	2	●	123	63	ⓘ			
OELAS – on-line export licensing application system	2	○	114	61		↔	🏢	
Smaller projects (6), including redesign of websites				226				
Companies Registration Office								
On-line filing of annual returns	1,2	○	200	216		↔		
Electronic filing of changes to company details	1,2	●	—	1,880		↔		
Patents Office								
On-line searching of patents and trademarks registers and industrial designs databases; on-line renewal of patents and trademarks; and on-line searching, browsing and downloading of Patents Office journal	2	●	697	334	ⓘ	↔		65% of renewal payments on-line
Forfás								
On-line spatial database — providing up-to-date on-line data on physical and social infrastructure, as a user-friendly marketing tool to promote investment in the regions	—	●	303	272	ⓘ			

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project			Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000	① = provide information ↔ = allow on-line transactions ⚙ = transform internal systems			
12. Environment, Heritage and Local Government								
Motor Tax – on-line Motor Tax payment	2	●	—	2,550	①	↔	⚙	
Department website	—	●	50	81	①			
Development Applications Tracking (DATS) — statutory consultation requests on planning and other applications	2	●	652	1,274			⚙	
GIS Heritage Information — on-line provision of geographic information systems relating to built and natural heritage	2	○	—	672	①		⚙	
Automated process for generating small areas for data output	—		37	37				
Proof of concept re small areas	—		25	24				
Irish Spatial Data Infrastructure – technical aspect research	2		115	84				
Heritage aspects of planning	2	x	—	—			⚙	
Change of vehicle ownership — on-line notification of changes of vehicle ownership by motor traders	2	○	1,400	2,500		↔	⚙	
On-line heritage licences — on-line licence processing for archaeological licences, excavation reports and hunting licences	2	x	—	—		↔		
Environmental Protection Agency								
Electronic Document Management System (eDMS) — implementation project in Licensing Unit	—	●	350	818	①		⚙	
On-line purchasing of publications	—	●	4	8	①	↔	⚙	
EPA website	—	●	80	90	①			

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project			Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000	ⓘ = provide information	↔ = allow on-line transactions	⚙ = transform internal systems	
On-line air quality data — automated email on air quality; monitoring level of air quality coverage and breakdowns	—	●	—	190	ⓘ		⚙	1 enquiry per week
Extranet for Environmental Enforcement Network	—	●	6	6			⚙	
13. FÁS								
Jobs Ireland	—	●	237	495	ⓘ	↔	⚙	Vacancies posted 2005: 132,000; 1.5 million job vacancy printouts from kiosks.
eCollege	—	●	—	5,743	ⓘ	↔	⚙	11,900 on-line learners enrolled in 2005
14. Finance								
eTenders website — on-line information about public procurement contracts	2	●	—	2,227	ⓘ		⚙	29,500 suppliers and 2,700 buyers registered
eProcurement Strategy — to enable electronic procurement in the Irish public sector	2	●	2,032	2,056				
Signpost portal to procurement websites — single point of access to all relevant websites	2	●	10	12	ⓘ			
Human Resource Management System upgrade	—	○	6,500	7,114			⚙	
Government Virtual Private Network — to enhance existing infrastructure for electronic communications between departments and agencies.	2	●	—	3,494			⚙	Tariff reductions of between 20% and 50% in costs
Estimates — on-line processing of spending estimates	2	●	544	1,330			⚙	
15. Foreign Affairs								
EU Presidency website	—	●	1,000	958	ⓘ			

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project ⓘ = provide information ↔ = allow on-line transactions ⚙ = transform internal systems	Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000		
Passport application tracking system	—	○	—	n/a	ⓘ	
On-line passport application	2	x	—	—	↔	
PPSN validation — a facility to check passport applicant information against General Register Office death records	—	x	—	—	↔	
On-line Citizen Registration — allows Irish citizens living or travelling abroad to register on-line with the Department of Foreign Affairs	—	○	—	n.a.	↔	
16. Health and Children/Health Service Executive						
Departmental website	—	●	8	18	ⓘ	
Áit Eile – on-line portal for children in hospital		●				
Department of Health	—		—	576	ⓘ	
Health Service Executive	—		—	989	ⓘ	
Diabetes Shared Care – ICT to allow communication between consultant and GP	—	●	—	863	ⓘ	⚙
eLearning — resource centre for training and development	2	●	—	800	ⓘ	Over 6,000 registered users and 35 courses
European Health Insurance Card (EHIC)	2	●	—	1,763	↔	⚙ 85,000 on-line applications in first two months of operations
Health Portal initiative	2	x				
Health Ireland Portal			2,790	1,989	ⓘ ↔	⚙
Interoperability of Reach and Health Portal			—	100		

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project ① = provide information ↔ = allow on-line transactions ⚙ = transform internal systems	Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000		
Hermod — secure electronic communications for GPs and public health nurses	2	●	—	138	↔ ⚙	
Primary care messaging — on-line access for GPs to lab results	2	●	—	2,081	① ⚙	Over 800 registered GPs. 500,000 laboratory results transmitted each year
Exploratory use of digital TV to deliver appropriate services	2	x	—	—	①	
eCHIP —Health information tutorial	—	x	—	75	①	
On-line client identification for the GMS Payments Board (Phase I) – to manage and maintain eligibility	2	●	—	3,800	⚙	Over 3.2 million clients on index
eReimbursement - on-line submission by pharmacists of claims for payments	2	●	—	2,500		1,300 pharmacists submit illness claims per month
Web accessibility review of former health board websites	—		—	15		
17. Justice, Equality and Law Reform						
Criminal Justice Integration Pilot Project — strategic examination of modern integration technologies for the Garda, Courts Service (criminal), Probation and Welfare Service and Prison Authority to facilitate the development of e-government in this area	2	○	2,900	2,900	⚙	
Asylum and Immigration Strategic Integration Programme — delivery of integrated services in the immigration/asylum area	2	○	8,500	9,893	⚙	
Automated Visa Application and Tracking — electronic visa application and management information system	—	○	3,131	5,679	① ↔ ⚙	
18. Local Government Computer Services Board						
e-Forms — on-line forms engine capable of generating forms for completion in real time and forms processing	1,2	●	1,500	1,500	① ↔	

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project ① = provide information ↔ = allow on-line transactions ⚙ = transform internal systems	Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000		
Hosting Centre — provision of infrastructure to enable delivery of eGovernment and hosting facilities	—	●	750	5,200		
ePlanning— on-line interactions between citizens and planning and development process	2	○	1,098	1,695	① ↔ ⚙	
Mobhaile – Community websites	2	○	3,223	3,162	①	
Housing entitlements — on-line system for housing eligibility assessment	2	○	350	342	① ↔	
eLibraries — complete on-line guide to local authority library catalogues available through a single website	2	x	—	—	①	
Security and LA infrastructure	—	x	—	—		
e-Register — on-line application for registration onto the electoral register	2	x	—	—	↔	
GIS strategy — national framework for sectoral geographical information systems	2	x	—	—		
Commercial rates — on-line system in Dublin City	2	x	—	—	↔	
— on-line system nationwide	2	x	—	—	↔	
19. Office of the Attorney General						
eLegislation — to support e-enablement and management of the process for the preparation of legislation (see also Office of the Houses of the Oireachtas)	2	○	100	79		⚙
20. Office of the Director of Public Prosecutions						
—	—	—	—	—		

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project ① = provide information ↔ = allow on-line transactions ⚙ = transform internal systems	Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000		
21. Office of the Houses of the Oireachtas and the European Parliament						
eLegislation — electronic legislation processing system, to manage text of bills and generate amendments, to facilitate publication, data exchange and reuse (see also Office of the Attorney General)	—	●	723	1,108	①	⚙ Work flow efficiencies of between 25% and 60% for activities measured. Savings on printing costs: 17% at bill stage and 23% at each stage thereafter
Bilingual Acts and Translation Aid — system to allow Irish language versions to be produced simultaneously with English versions	—	●	591	743	①	⚙ Translated versions of Acts now published at same time as original language versions, savings of €670,000 p.a. achieved through reduction in associated staff costs
Debates of parliamentary committees 1922-1997 – on-line publication	—	○	513	1,297	①	
House Business System — to capture decisions and consequent automation of order papers and Journal production, and notification of new business to members, staff and others on a subscription basis	—	○	465	539	①	⚙
On-line editing of parliamentary debates (Dáil, Seanad and Committees)	—	●	58	58	①	⚙
22. Office of the Ombudsman						
On-line submission of complaints	—	○	100	100	①	↔
23. Office of the President						
Website redesign	—	●	—	52	①	

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project			Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000	① = provide information ↔ = allow on-line transactions ⚙ = transform internal systems			
24. Office of Public Works								
Iris Oifigiúil available on-line	2	●	19	16	①			
On-line information about river water levels	2	●	26	32	①			
National Art On-line — on-line viewing of State art collection	2	○	6	6	①			
Botanic Gardens Catalogue	2	●	—	—	①			
Heritage on-line system — on-line sale of heritage cards and publications; on-line heritage education and promotions material	2	x	—	—	①	↔		
Planning consultations — on-line viewing of submissions concerning proposed OPW developments	2	x	5	5	①			
25. Ordnance Survey Ireland								
Ordnance Survey eCommerce System — on-line access to digital data and maps for corporate clients and the general public.	2	●	3,300	3,430	①	↔	⚙	
26. Property Registration Authority								
Electronic Access Service — on-line access to folios and maps	2					↔	⚙	
Document imaging consultancy		●	—	152				
Document imaging project — on-line access to land registration folio documents for registered agents (including consultancy)		●	14,629	14,889		↔	⚙	
Document imaging — newly registered documents (in 2004/2005)		●	—	291				
Software maintenance and support		●	—	587				

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project			Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000	① = provide information ↔ = allow on-line transactions ⚙ = transform internal systems			
eStrategy for register of deeds		●	100	95				
Digital mapping of map archive (including consultancy) — 2005 to 2010 project		○	34,765	29,638		↔	⚙	
27. Public Appointments Service								
STAR- Selection, Testing, Assessment and Recruitment	—	○	2,060	2,060	①	↔	⚙	
On-line registration and application facility	—	●	1,190	1,074	①	↔	⚙	
Development of portal interface for candidates, clients, interview board members and staff	—	●	1,720	1,190	①	↔	⚙	
28. Revenue Commissioners								
Revenue On-line Service — allows filing and payment of 20 taxes and duties and other on-line services	1,2				①	↔	⚙	
On-line filing and payment of sundry taxes	2	●						
Gift & Inheritance Tax Returns	2	●						
On-line banking and enhanced management services for customers	2	●						
On-line Vehicle Registration Tax for motor vehicle dealers	2	●						
Filing and payment options for the construction industry in relation to Relevant Contract Tax	2	●						
On-line provision of Tax Clearance Certificates	2	●						
Inter-community acquisitions and disposals, i.e. Intrastat and VIES returns. On-line Import/Export declarations (SADs) and payments	2	●						
			—	42,986				

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project			Quantified benefits of project reported by agency
			Budget €000	Estimated outturn €000	ⓘ = provide information	↔ = allow on-line transactions	⚙ = transform internal systems	
29. Social and Family Affairs (incl. Reach)								
The Public Services Broker	2	●	—	36,995 (to end 2006)	ⓘ	↔	⚙	
Modernisation of civil registration in the General Register Office, linked to the automatic initiation of Child Benefit claims (joint project with Department of Health and Children)	1,2	●	9,300	10,567		↔	⚙	Birth certificate production reduced from 20 to 5 minutes
Service Delivery Modernisation (SDM): Phase 1 — Child Benefit	2	●	9,500	9,433			⚙	27 staff redeployed; productivity gains of up to 30%
SDM: Phase 2 — extension to old age and retirement pension	2	○	—	25,000			⚙	7-8 staff redeployed
SAFE – Standard Authentication Framework Environment	2	○	1,000	1,420			⚙	
Public Service Identity (PSI) — to support use of PPS number by other public service agencies	2	○	2,675	3,718			⚙	
Citizens Information Centres	—	●	162	162	ⓘ		⚙	
Citizens' Information — providing on-line public service information based around citizen-centred life events (formerly the Oasis website)	1,2	●	—	4,839	ⓘ			2005: 2.48 million viewers accessed 14.2 million pages of information
On-line Social Welfare schemes (e.g. Disability Benefits, Unemployment Benefits, Pensions)	2	x	—	—		↔	⚙	
30. State Laboratory								
—	—	—	—	—				

Department/agency Project title/description	Government action plan 1 = 1999/2001 2 = 2002/2005	Project status ● = fully live ○ = in progress x = not progressed or abandoned	Project expenditure		General nature of project ① = provide information ↔ = allow on-line transactions ⚙ = transform internal systems	Quantified benefits of project reported by agency
			Budget	Estimated outturn		
			€000	€000		
31. Taoiseach						
eCabinet – electronic management system to support Cabinet meetings and associated functions	2	●	6,500	5,359	⚙	1 staff member saving plus dispatch rider services; 1,200 memoranda circulated each year; delays eliminated
32. Transport						
Driving Licence Application — application and payment for provisional or full licences	2	x	—	—	↔	
Public Transport Smartcard — initiative to enable integrated ticketing, 'park and ride' schemes and concessionary travel across all public transport services in greater Dublin area	2	○	29,600	49,600	↔ ⚙	
Public Transport Realtime Information — pilot provision of up-to-the minute information for waiting/intending bus and train passengers	2	x	—	—	①	
Road Haulage Licence — on-line applications for road haulage licences	2	x	—	—	↔	
33. Valuation Office						
On-line search of Valuation List	—	●	—	5	①	
On-line case tracking	—	○	10	11	①	

Appendix C Summary Description of the Public Services Broker

The Customer Facing Components

The Broker contains a set of user-facing components, which allow members of the public to access the services. The components include

- a 'portal' (website) which lists and describes about 1,400 government services in a consistent manner with links through to the department's or agency's own website
- a customer-to-government secure inbox for registered users
- a case management component, which provides a secure e-mail 'inbox' or repository for each registered user
- an e-Forms engine, which can be used to develop and host on-line forms to be presented to the user
- security, auditing and logging services for all activity to/from the user
- e-Payments – the Broker has a secure payments facility (RealX) which allows customers to make payments to government departments or agencies, using a credit or debit card. Similar such facilities would exist on commercial websites such as Amazon.com. (Payments back to the customer from Government (e.g. refunds) are not possible through the Broker — this was never a stated requirement for the Broker.)

The Integration Framework

The Integration Framework provides the 'middleware' to enable messages and request for services to and from the customer to be processed and transmitted securely to and from the back end computer systems of government departments and agencies. The framework includes

- Broker Core Services which
 - manage the access being made for services through the Broker
 - provides administration services for the Broker
- Reach Interoperability, Security and Integration Standards (known as RIGS) – a series of guidelines and standards for message passing, published for government and private sector service providers detailing the format that messages need to take to be able to communicate with the Broker
- Services and Data Exchange Catalogue – a repository or storage area for the RIGS which are implemented in the Broker

Some planned elements of the Integration Framework are not yet in place, but the Broker is capable of supporting them if required. These include

- Business Services Identifier (BSI) – a service which would make a request to a government department or agency to validate that a business user is who they claim to be. This is not currently available in the Broker, because an 'owning' department or agency for this service has not yet been identified.
- Sectoral e-Services Hub – the ability to combine and wrap services based on an industry sector.

- Agency e-Services Hub – the ability to combine and wrap services based on a particular agency view.

Common Identifier System and Interoperability Standards

There is a comprehensive set of Reach interoperability guidelines and common system identifiers which Departments and agencies must use if they wish to interact with the Broker. These are maintained in a registry known as the Services and Data Exchange Catalogue (SDEC). This includes guidelines that outline a common set of policies and standards for the use of the Broker. By adhering to these guidelines, agencies can share and re-use services without placing restrictions on their own internal technologies and standards.

Inter Agency Messaging Services

All communication within the Broker is achieved via the exchange of electronic business-meaningful messages created in the eXtensible Markup Language, XML (an industry standard data transfer and definition protocol). In order to achieve interoperability the Broker defined a standard structure and meaning for these messages. These definitions are expressed using XML via Message Model Definitions (MMDs). Furthermore, certain types of information are common to many services offered via the Broker, for example name and address details. MMDs that define this information are re-used as building blocks or ‘fragments’ within a business message. This re-use creates a common language between services within the Broker.

Services Oriented Architecture

The Broker is based on a Services Oriented Architecture (SOA) that can request a ‘service’ from another source — in this case a government department or agency ‘back-end’ IT system. The service could be a request for information, such as a request for means data. With an SOA, the gathering of data relating to an individual stored on a back-end system can happen instantly, as required. The Broker can then integrate the data received in an on-line form and present this to the user as necessary. Registered users can access and amend data held in their account profile on the Broker and view their data.

Authentication Services

The Broker currently provides Level 1 identity authentication through a component named IDMACS. The Broker sends a set of identity information to the Department of Social and Family Affairs’ Public Service Identity (PSI) system, which validates that the person is who they claim to be, based on name, PPSN, mother’s maiden name, date of birth etc. The Department is currently working on further services, which would provide extended PSI facilities to other authorised agencies.

Once a member of the public has passed Level 1 authentication, they are registered with the Broker and have a customer account. An activation code number is sent to their registered address by regular post. Entering the correct username and password enables registered users to access Broker services or services linked to the Broker. It does not provide further authentication such as matching the person to their approved photograph or signature.

Level 2 and 3 authentication requires a greater level of data checking, at time of registration, ranging from a face-to-face interview through to biometrics if necessary. Reach is co-operating with the SAFE program, which is a cross-department initiative jointly chaired by the Department of Social and Family Affairs and the Department of Finance, to develop Level 2 authentication and to agree what exactly will be included in it. When this level of authentication is developed, Reach will support it in the Broker.

Security Framework and Protocols

The Broker is implementing a comprehensive security framework based on industry standards, in particular ISO 17799. Moreover, security was a key consideration during the design process and led to a set of security requirements for the Broker architecture. The current technical architecture includes appropriate security elements.

Infrastructure

A hardware infrastructure has been established in a hosted environment, and operations and managed services put in place.

eForms Facility

Within the forms generated by the eForms facility, application logic can be developed which would enable data collected from multiple back-end systems in back-end Government departments and agencies to be integrated and presented seamlessly to the user.

The eForms system does not provide a 'Park and Ponder' facility within it. 'Park and Ponder' allows a form to be partially filled and saved for subsequent completion at a later time.

The forms facility is available for use but it does not appear to have much take-up by departments and agencies. To date, one form — for the Office of the Ombudsman — has been developed and made live.

Reach reported that they had 'reviewed the business requirements and technical architecture for interacting on-line with customers and revised its opinion on the use of forms. Reach developed the outline of a new architecture that emphasises services to support and manage the on-line interaction with customers, rather than forms per se.'

eMail

Outgoing email and some personal data for authentication are directly supported in the Broker. It was intended to have secure email to and from the Broker to the customer. Reach has developed and is using an initial email service for notifying customers of status changes during the registration process. A production level version of this service is being tested for deployment in 2007. There are plans to develop user and agency front-ends for this service in 2007.

Appendix D Glossary of Technical Terms

Authenticate	A process or method to prove that something is real, true, or what it claims to be.
Broker (also known as eBroker, the Public Services Broker) –	The core piece of infrastructure, technology and software provided by Reach. The Broker is intended to deliver a range of common services and frameworks to departments, agencies and the public to enable the transmission of electronic messaging and transactions. A simplified analogy would be to consider the Broker as analogous to a telephone exchange which centrally provides a framework to allow telephone calls to be transmitted to and from end users to each other and to businesses.
Data vault	A repository of data which would be held by the Broker with personal or business information about a member of the public or a business. This information would be made available to departments or agencies as a central resource by the Broker.
Database	A large amount of information stored in a computer system in such a way that it can be easily looked at or changed
Downloadable forms	Electronic form templates that can be accessed by end users by requesting that the form is transmitted to their computer.
eBroker	see “Broker”
eForms	Electronic on-line forms
eGovernment	The concept that Government services, information and transactions can be provided electronically in support of the public and businesses.
eLearning	An electronic method of providing knowledge for learning purposes
Electronic filing	Storing documents within a computer system
Environment	The conditions and setup in the proximity or physical area
epayments	Payments made via an electronic system
eServices	Electronic delivery of services
eservices hub	Central part or component to support electronic services
Governance	Authority and control processes around management
Identity Management Module (IDMACS)	A module within the Broker which provides identity management and identity validation, i.e. that a person who is accessing on-line government services is who they claim to be.
Information and Communication Technology (ICT)	Technology associated with information management and communications. ICT is a term that, recently, is often favoured over the term IT (Information Technology)

Interagency Messaging	Allows messages to be passed from one to another through Reach
Interoperability	This refers to the ability of a system or a product to work with other systems or products without special effort on the part of the customer. For example, interoperability would be required for a digital television set to be plugged into a VCR that is plugged into cable with all the components working together
Kiosk	Equipment or item to provide access to an on-line service to members of the public generally. Kiosks are typically located in public spaces such as train stations, shopping malls etc.
Laser Cards	Electronic card to provide electronic information and services within a secure process. Often used for banking in ATM machines (automated teller machines, to be found outside on the walls of banks or shops which provide banking services and cash distribution)
Level 1 authentication	Simple validation of identity information against the Department of Social and Family Affairs databases which validates that the person is who they claim to be, based on name, PPS number, mother's maiden name, date of birth etc.
Level 2 or 3 authentication	Expanded levels of identity authentication based on more complex criteria such as face to face or biometrics.
Message Model Definitions (MMDs)	A standard definition for message format and makeup
Methodology	A set or system of methods, frameworks or principles and rules for regulating a given discipline or activity
Middleware	A technical computer term which refers to computer software that connects software components or applications. It is used most often to support complex, distributed computer applications. It includes web servers, application servers, content management systems, and similar tools that support application development and delivery
Park and Ponder	Allows a user to temporarily save a partially filled form prior to final completion. The user can return to the partially filled form and complete it after.
Personal identification number (PIN)	Unique number used for security purposes
Personal Public Service Number (PPSN)	Unique number allocated to individuals in the Republic of Ireland to identify each person.
Portal	A website 'gateway' that provides multiple services, which could include web searching capability, news, free-email, discussion groups, on-line shopping, references and other services. A more recent trend is to use the same term for sites that offer services to customers of particular industries, such as a web-based bank 'portal', on which customers can access their checking, savings and investment accounts.

Programme	A large number of planned, coordinated group of activities, procedures or projects, that are managed for a specific purpose or outcome
Proof of concept	An incomplete realization of a certain method, idea or system to demonstrate its feasibility, or a demonstration in principle, whose purpose is to verify that some concept or theory is probably capable of exploitation in a useful manner. The proof of concept is usually considered a milestone on the way of a fully functioning prototype.
Project	A piece of planned work or an activity which is completed over a period of time and intended to achieve a particular aim
Prototype	Commonly, a functional, although experimental, version of a machine or system, built to test the function of the new design before building the final operational machine or system
Public Services Card	A card which would be issued to all citizens to make easy and secure their access to government services.
Reach Interoperability Guidelines (RIGs)	A series of guidelines and standards for message passing, published for government and private sector service providers detailing the format that messages need to take to be able to communicate with the Broker
Reachservices portal	A website 'gateway' to provide access to on-line government services
RealX	A secure electronic payments facility which allows customers to make payments to government departments
Service Orientated Architecture (SOA)	<p>In computing, the term service-oriented architecture (SOA) expresses a software architectural concept that defines the use of services to support the requirements of software users. In an SOA environment, nodes on a network make resources available to other participants in the network as independent services that the participants access in a standardized way.</p> <p>A simplified analogy to explain this term uses the children's toy Lego as an example. Assume there are 20 companies manufacturing Lego bricks and accessories. They can produce whatever type of Lego pieces they want but for their pieces to work with other manufacturer's Lego, it has to conform to the rules of how the pieces fit together (i.e. bubbles on one piece hook into gaps on another piece). The companies here are equivalent to the 'nodes on the network'; the 'service' they are providing is the Lego piece and it works because they are conforming to the rules of how Lego fits together, the 'architecture'.</p>
Smartcard	A plastic card (of identical dimensions to a credit card) that has electronic logic embedded in it in the case of a stored data card, or a microprocessor in the case of cards with processing ability. Smartcards are commonly used to perform digital signatures, authenticate users for access control purposes, and encrypt or decrypt messages

Appendix E Requirements for management, monitoring and evaluation of eGovernment projects

For each major eGovernment project, whether within an individual department/agency or across a number of departments/agencies, the following elements are required to support the achievement of effective process transformation

- a current performance baseline against which results can be measured
- target business benefits defined in measurable terms i.e. measurable change in service, efficiency, or effectiveness
- formal assessment of the project risks
- an organisation appropriate to, and capable of, executing the process, drawn from the managers of the process itself, supported as required by expertise from other departments or from external sources
- an adequate budget for the full scope of the strategy
- supporting methods, training, staffing and systems
- an appropriate change management programme
- an appropriate programme management control structure
- management and governance structures that are effective and empowered
- development methodologies which are appropriate to the project — for instance, modular, incremental, agile development approaches may be more appropriate for complex innovative projects than the traditional, sequential software development model (the ‘waterfall’ approach)
- regular specific reporting on progress against measurable targets and budgets
- regular review of business case targets
- post-implementation review for all projects or programmes with benefits realised assessed against projected benefits and the costs incurred.