Thought Leaders

Essays from innovators

Edited by Willi Kaczorowski

Connected Government

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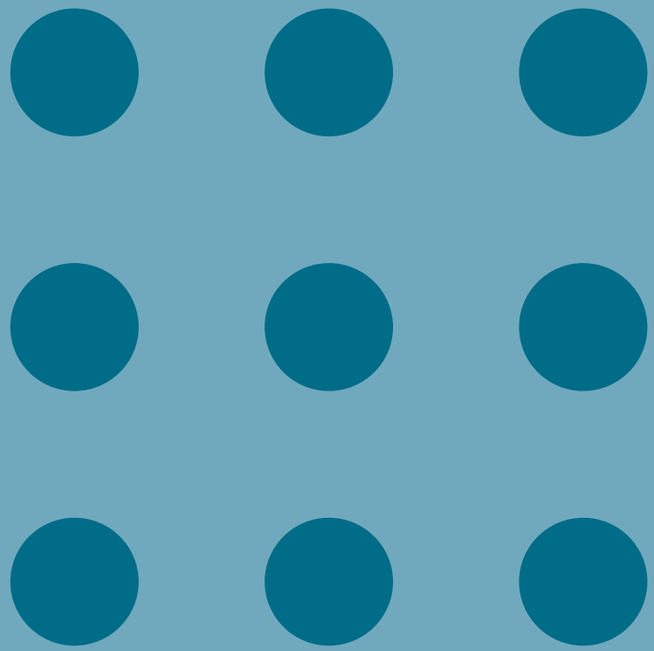
Introduction



Connected government: compelling vision and six essential pillars

Willi Kaczorowski | Executive Adviser in the IBSG EMEA group, Cisco Systems, Germany

Profound change in the world order is upon us. The cold war between the Western market economy and the socialist-organised economy is over. The European Union (EU) is flourishing and expanding; China and India, which comprise 30 per cent of the world's population, are gaining in global significance; and the role of the traditional nation state is once more under scrutiny. Finally, and most poignantly, the global community has been threatened by new challenges arising from terrorism and war.

These changes have come at a time when instant media coverage can place politicians under closer scrutiny than ever before. While the new global economy demands that governments be increasingly competitive, issues of trust and accountability have also never been more pertinent.

All this would be enough to keep the politicians busy, to say the least. But there has been yet another profound change: the rise of the digital society. The Internet and affordable computing have brought about a massive shift from the traditional city hall or government offices with paper-based processes and templates towards the open Web, the shared resource, the intranet. This new technology has affected not only citizens and businesses, but also whole countries and their public administrations.

You might, therefore, expect this book to claim that the answer lies in technology but you would be wrong. The ongoing debate about e-government is not, at the end of the day, about systems and specifications: it is about how our society will develop. It is this challenge that drives the contributors to this book. Governments have looked to Internet technology to raise the bar in public services, to reduce costs and to improve their relationship with the electorate. They have also been able to exploit their considerable investments in information and communications technology to strengthen their international competitive advantage.

This book is about the concept of connected government and explores the issues involved in developing compelling national e-government strategies and implementing them on a country-wide basis. But it is not about benchmarking or passing judgement on any one nation's e-government strategy. Every case has to be considered within its own constitutional, administrative and cultural context. Rather, Cisco's goal is to promote the understanding of e-government insofar as it is relevant to each individual nation, to support the debate of the issues involved, and to provide a platform for the sharing of best practice and relevant experience.

E-government presents enormous challenges: to inherit the best principles and ideals of the past; to steer the enthusiasm of the present in the right direction; and to seize the solutions from the future.

Structure of the book

The book consists of 14 essays from national governments, which are divided into three sections. The first section sets out the e-government strategies of those countries such as Australia, New Zealand, the USA and South Korea that most observers agree are at the forefront of the e-government initiative. We label them 'pioneers'.

The second section deals with significant issues relating to e-government strategy in those countries which, for the purposes of most international-ranking criteria, take up the middle ground. Countries such as Germany, France, Spain, the United Kingdom, The Netherlands or Portugal have made significant progress in conducting national e-government strategies. For the purpose of this book we call them 'modernisers'.

Finally, we look at countries which economists regard as being industrial developing countries and which have achieved – or whose objective it is to achieve – a considerable improvement in their international competitive position. This group, consisting of countries such as Bahrain, Estonia, Mexico and Brazil, we label 'rising stars'.

The countries presented in this book differ in terms of political, administrative or cultural context, but despite these differences some common themes emerge. One is the fundamental importance of developing a shared, compelling vision to drive forward a country's e-government strategy. This point is well illustrated in the essay by John Grant from Australia and Laurence Millar from New Zealand. The Australian government started to develop an integrated national e-government strategy way back in 1997 when it took the first actions towards a better use of the new opportunities of the Internet. The next step was a new Government Online strategy in 2000. According to this strategy all appropriate services had to be online by 2001 and a minimum of standards in important areas such as privacy and security was ensured. The successor of this online strategy was the 'Better Services, Better Government strategy' in 2002 which shifted the emphasis from mere online information and services to a more comprehensive and integrated use of information and communications technology (ICT) to

provide a better response to citizens' demands, improve service delivery and make administration more efficient. With the vision of 'connected government' which was released in April 2004 the Australian government took the next crucial step towards working as a single 'integrated enterprise' for customers and citizens. Similar to the New Zealand approach e-government is no longer seen as an ICT tool but instead as an enabler for transforming the whole public sector.

The New Zealand vision sets a clear, understandable, measurable and ambitious goal for transforming the public sector. The Internet is becoming the dominant means of enabling ready access to government. By June 2007, networks and Internet technology will be integral to the delivery of government information, services and processes. New Zealand public sector strategy will have been transformed by 2010 when the whole government will be using the Internet.

The debate about the next level of e-government does not stand still. Cisco's Internet Business Solutions Group has developed the concept of 'The Connected Republic',[1] which reflects the original Greek concept of a republic where the citizens set their own agenda and manage their own affairs, and sets out a framework within which national e-government strategies can be developed and enhanced.

1. To obtain a copy, please contact

Six pillars of connected government strategy

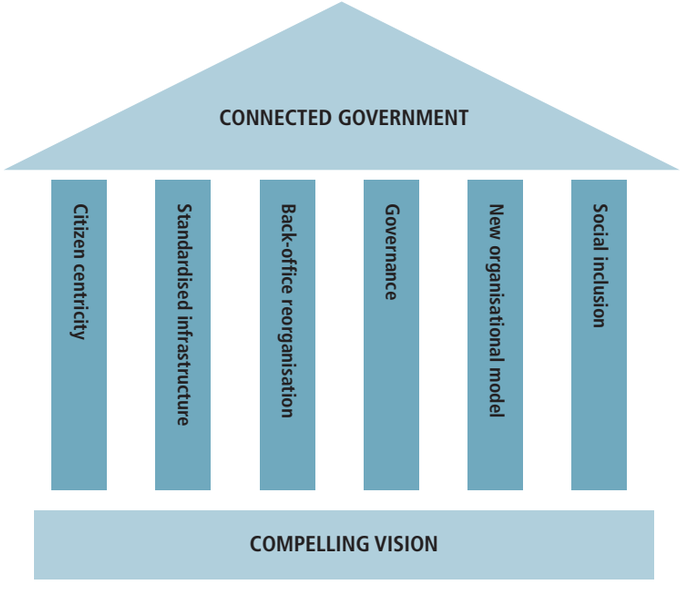


Figure 1.

Six pillars of connected government

Built on this compelling vision are the six pillars of connected government strategies. As Figure 1 shows they contain the following elements:

- Citizen centricity;
- Standardised common infrastructure;
- Back-office reorganisation;
- Governance;
- New organisational model;
- Social inclusion.

Pillar 1. Citizen centricity

The core pillar is the need for 'citizen centricity'. A citizen-centric model of government is about making the trends and expectations of citizens the pre-eminent design principle in all government programmes, solutions and initiatives. The demand for putting the citizen at the centre is not only fulfilled when all government services are online. To reach the citizen-centric approach government should focus on three things. First, it needs to develop the capacity to act as a single enterprise so that citizens feel they are being served by one organisation rather than a number of different public authorities; secondly, government must organise themselves around citizens' demands and expectations; and finally, it needs to develop structures for being more agile and flexible than it is at present.

Addressing these elementary necessities the Brazilian Government has launched their agenda for citizen-centric solutions. Rogério Santanna dos Santos expresses in his essay some key elements of this strategy. One of the core tasks is to develop services that are interoperable across the layers of public administration in Brazil. Looking at sectors such as health, education, social services etc., Brazil is analysing the relationship between society and the government in order to ensure that supply and demand of government services are properly met. For this purpose they are developing a tool called 'the National e-Government Diagnostic'.

Next, to determine what services citizens are looking for, comes the channel of delivery. Many national e-government strategies are now using a multi-channel approach. Take the example of South Korea. As Dr Kuk-Hwan Jeong points out, it was very critical to the success of South Koreans' e-government strategy to develop a unified portal to citizens and businesses. Their G4C portal is just one example of unified portals. Besides unified portals nearly every national e-government strategy recognises that government should deliver their services through various channels: portals, kiosks, PDAs and of course physically reachable government offices. France even takes advantage of interactive TV as a new channel of government services.

Citizen centricity is also an important consideration in Domingo Laborda Carrión's essay on Spain, which looks at the concept of that country's Safe Telematic Notifications Service. Any citizen wishing to be notified electronically in any process has been given an e-mail address for this purpose, whereas the address will be the same for all possible notifications to be made by the General State Administration and its public bodies. With the French Copernic programme, citizens in France will be able to track all their interactions and transactions with the French tax authorities. Renaud Dutreil, Minister for the Civil Service and Administrative Reform, explains that for every French taxpayer a single unified account will be set up. In 2006 taxpayers will be provided with 24/7 online access to their fiscal account and will be able to track and trace their transactions as well as executing all transactions and declarations online.

Putting all these strategic elements together, Matt Poelmans from the Dutch e-citizen programme has proposed to set up an e-citizens' charter which he introduces in his essay. It is an idea which refers to the UK citizens' charter discussion to ensure that the now privatised services maintain the same quality as government-owned services. In contrast to the traditional citizens' charter idea an e-citizens' charter should be developed with the citizens' view in mind.

Pillar 2. Standardised common infrastructure

Reaching the full integration of horizontal and vertical service delivery through the creation of networks requires a tremendous effort in robust standardisation. Given the fact that the complexity of government structures and processes has evolved over decades with different uncoordinated legacy systems, just a few national governments could afford to take the steps towards a consistent standardisation of ICT which is known in the private sector. For that reason most national e-government strategies concentrate on reaching interoperability between different systems, processes, software and networking technologies. Therefore it is a crucial element of every e-government strategy to define a common set of architectural and software standards for e-government. One of the examples presented in this book is the German SAGA document for which Martin Schallbruch has described the process of setting up. Similar concepts are being developed in countries such as New Zealand with e-GIF (eGovernment Interoperable Framework) or the e-PING in Brasil.

Among the main concerns governments have to cope with are issues such as identification, authentication, privacy and security. In this book these issues are addressed in various chapters. In most cases the answer was found in concepts for smart cards (Bahrain), ID cards (Estonia) or projects such as the Single User Accreditation Registry in Mexico. With respect to secure infrastructure, readers will find several sophisticated elements in the Australian or the New Zealand essays as well.

Pillar 3. Back-office reorganisation

Defining new ways to serve citizens' needs for better and improved services does not only affect the use of technology in the front office. It is now common wisdom that 'e-government' is not about the 'e' – it is about government. For this reason most of the essays address some aspect of the issue of 'back-office reorganisation'. Closely connected to the pillar of standardised common infrastructure the reorganisation of the back office with respect to horizontal and vertical integration of government service delivery is central to connected government national strategies. But back-office reorganisation or business process redesign does not only serve the goal of delivering more effective citizen-centred services. When put in place appropriately it is also able to deliver more efficient government services. One of the results of Cisco Systems' European study 'Net Impact 2004'[2] is that governments can achieve significant cost reduction only when they reorganise their back-office processes before they bring services online. Among the various examples of how governments are tackling the issue of back-office reorganisation (France, New Zealand, Australia, Estonia) the UK Efficiency Review Process, which was carried out recently and is now becoming an essential part of the UK public sector strategy, is worth mentioning.

2. http://www.netimpactstudy.com/pdf/Net_Impact_2004_Overview_pdf

Connected government approaches, which want to establish seamless government even in the back office, require common infrastructure for government employees. New Zealand benefits from its shared workspaces concept. This concept consists of two elements: using common infrastructure and using shared information. It is important for the rising number of mobile public sector workers that these workspaces can be approached from wherever employees can connect to the Internet.

Pillar 4. Governance

Governance is another key pillar of a comprehensive national e-government strategy. In the past power and responsibility to steer a national e-government strategy were distributed among certain ministries or agencies. This has provoked a lack of coordination and consistency, duplication of solutions and not interoperable systems and software. Nowadays there is hope on the horizon. To an increased extent national governments have now discovered that they need appropriate governance on a national level. Often this also includes the lower levels of the public sector (states, municipalities). In this book the reader will find a lot of suggestions on the issue of governance, but s/he has to remember that no size fits all. Depending on laws, culture and different tasks, every national government has to find its own way towards efficient and effective governance for all government approaches.

A country such as Germany with a much decentralised distribution of power has chosen an approach which they call 'a centrally coordinated initiative with decentralised implementation' for their BundOnline programme. Explaining in detail how Germany is managing the difficult task of

coordinating various ministries and agencies on a federal level without having the legal power to interfere in their daily business because these agencies have organisational autonomy, Martin Schallbruch presents the concept of using catalysts to support the implementation of BundOnline initiatives in the ministries and agencies involved.

One of the success factors for an appropriate management of e-government programmes has been the appointment of Chief Information Officers (CIO) similar to their role in business. The UK was one of the first countries to have appointed an e-envoy with the task of coordinating all government initiatives which aim to bring government services online. Nowadays the UK government has created a completely new role for Ian Watmore as the Government CIO and Head of e-Government. In his new role which he describes in his essay, he is focusing on government as a service provider which includes the IT dimension of all services.

Karen Evans from the USA discusses how a national e-government strategy based on a broader public sector reform can be closely monitored and assessed by the public. The President Management's Agenda Scorecard is one of the best practices for ensuring transparency and accountability. Using a simple stoplight system, the Scorecard provides a tool to measure the progress of all relevant e-government initiatives which are carried out by the agencies. For the aspect of governance it is important that these results are disclosed frequently to the public and employees can be sure that their results are closely watched by the most senior officials of the Federal US administration. According to Karen Evans, even the US President looks at these scores.

Pillar 5. New organisational model

When governments try to bring better and more innovative services to their citizens they rely more and more on new organisational models. Creating networked virtual organisations (NVOs) that are able to deliver more innovative and citizen-centred services is the fifth pillar of connected government strategies. Australia is one of the countries which are regarded as frontrunners in creating and using NVOs in the public sector. Australia's Centrelink agency is the Federal Government's 'one-stop' social security and support agency, responsible for paying a wide range of social benefits and pensions on behalf of over 20 client agencies to over six million Australians. It provides a network of resources and programmes to help individuals and strengthen companies. Recently Centrelink has joined forces with ATO (the Australian Offices Individual Auto Registration project) to apply for tax file numbers online. In doing this they are forming clusters to support aggregation of data and re-use of information government agencies separately. New organisational models also require new models for managing and rewarding teams who are working across government agencies, as is expressed in the Australian essay.

Pillar 6. Social inclusion

E-government is not only about bringing services online or integrating services on a vertical and horizontal perspective across the whole of government. A more comprehensive concept of e-government is also about bridging the widening gap between government and citizens and of building trust and accountability. Therefore no citizen can be left behind. In contrast to the private sector government cannot select customers. It has to serve all its citizens.

For this purpose most of the national e-government strategies address the issue of digital divide and try to establish social inclusion. This demand is even greater in the emerging countries. One very interesting example in this area comes from South Korea. The INVIL (Information Network Village) project was set up in 2000 to help people in remote areas who might benefit from access to rich media content on topics including education, medical treatment, agricultural skills etc. Selected households were then offered free PCs and broadband access. Special content has been developed and people have been trained on a large scale on Internet usage. Besides other countries which are presented in this book Brazil has lead the way with the Brazilian Digital Inclusion Programme which aims to unify and integrate all digital inclusion initiatives within the federal government. Examples of initiatives are connected PCs, community digital inclusion centres or the deployment of broadband access on a large magnitude.

Sooner or later all national e-government strategies admit that there is a connection between education and social inclusion. For this reason in several chapters (for instance Brazil, Portugal, Bahrain) an explanation is given on how the deployment of broadband access is able to shrink the gap between the digital haves and the digital have-nots.

The authors in this book have clearly indicated that all these challenges can be overcome by ambitious, visionary and committed politicians and senior public sector officials. This book demonstrates that the concept of connected government as an important part of the transformation of the public sector can be put into reality worldwide as the next step of e-government. The writers in this book have important things to tell us about the field to which they have devoted their working lives. They are re-engineering society's infrastructures to create new ways for citizens to connect to government, and for governments to connect to citizens. Together we scour the world for best practice and hope to learn from each others' endeavours. Eventually, connected citizens will undoubtedly show us what works best for them.

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Pioneers

SECTION 1: PIONEERS

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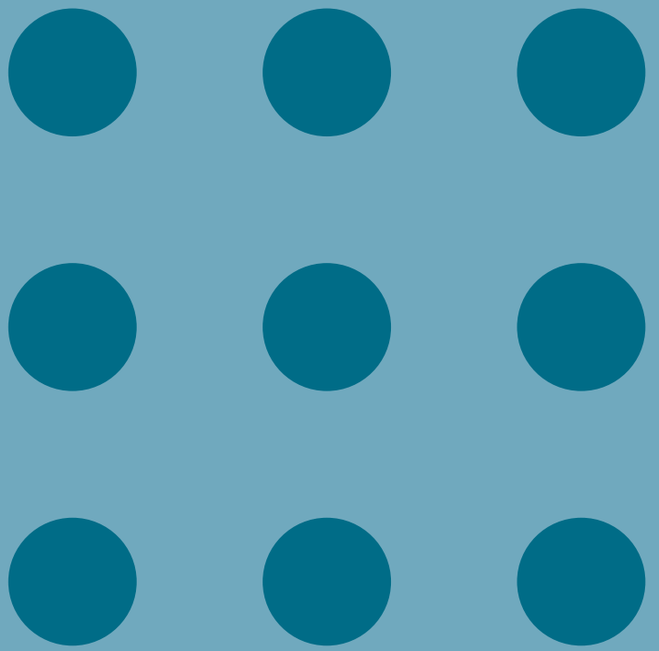


1

The Australian experience: priorities and possibilities for connected government

John Grant | Acting CIO, Australian Government Information Management Office (AGIMO)

AUSTRALIA
POPULATION: **20,275,700**
GDP in $'s purchasing power parity: **$570.3 billion** (2003 est.)
INTERNET USAGE: **13,359,821**
PERCENTAGE OF POPULATION: **65.9%**

The Policy and Strategy Branch of the Australian Government Information Management Office (AGIMO), led by Phil Malone, reviews the history of e-government in Australia: the most recent analysis of e-government, *Connecting Government*, and strategies to advance connected government in the context of service innovation, governance, protocols and security, a secure infrastructure, the promotion of best practice, and cross-agency portal development.

Introduction: why connected government?

What is connected government?

The most recent Australian government publication on this subject is *Connecting Government* (April 2004), which was released by the Management Advisory Committee (MAC)[1] of the Australian Public Service (APS). *Connecting Government* reinforced the need to continue to build a public sector that supports, models, understands and aspires to whole of government[2] solutions.

Best practice whole of government (MAC Report, April 2004) – an effective whole of government approach

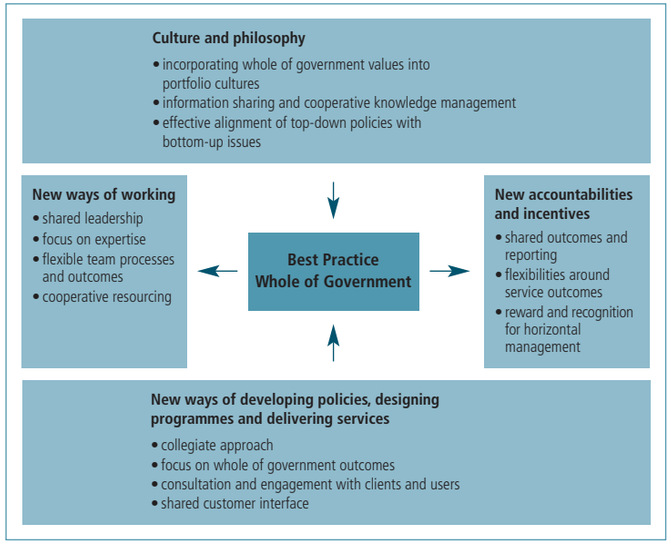


Figure 1.

1. The MAC is a forum of Secretaries and Agency Heads established under the Public Service Act 1999 to advise Government on matters relating to the management of the APS. In addressing its broad advisory function the Committee considers a number of management issues where analysis, discussion, and the identification of better practice approaches informs and promotes improvements in public administration.

2. The terms 'whole of government' and 'connected government' will be used synonymously throughout this essay.

1.1

Figure 1 illustrates how, in a whole of government framework, public service agencies have to work across portfolio boundaries (and with other jurisdictions and private/not for profit sectors) to achieve a shared goal and an integrated government response to particular issues. Approaches can be formal and informal. They can focus on policy development, programme management and service delivery.

More than simply coordination on a project-by-project basis, connected government encompasses new public sector management involving changes in culture in public administration that supports, models, understands and aspires to whole of government solutions. This has implications for officers at all levels of the Australian public service. Agency heads are expected to drive new public sector management by actively championing whole of government projects and model collegiality. Staff roles on inter-departmental committees are to seek solutions in the national interest, rather than pursuing agency-based agendas.

Reflection on drivers

Reflecting experience that would be familiar around the world, challenges currently facing Australian public administration include ensuring security, building a strong economy, coping with demographic and intergenerational change and responding to challenging social issues. This requires the active participation of a range of central and line agencies. These drivers also contain consequences (economic, social and environmental) which extend across future generations.

Reflecting these challenges, nine overarching priorities were identified by the Prime Minister[3] as: national security and defence, balancing work and family life, demographic change (including intergenerational issues), science and innovation, education, sustainable environment, energy, rural/regional affairs and transport.

The complex challenges of developing policy responses to these priorities require innovative solutions and coordinated action by both public and private sectors. Government operates in an increasingly networked world where there is benefit from working together to achieve mutually beneficial outcomes. This has renewed a focus on the capacity for government to act as a single entity, creating what is in effect an extended, integrated 'enterprise' especially as experienced by customers and citizens.

3. The Hon John Howard MP, Prime Minister (2002), Strategic Leadership for Australia: Policy Directions in a Complex World, Committee for Economic Development Australia, 20 November, Sydney.

E-government

Connected government is intricately linked with the e-government agenda. e-government is not merely an automation of existing government services; it is a convergence of government and technology that has the potential to transform public administration and the citizen's experience of it. This convergence requires major administrative reform and sharing of common processes and information – a key part of the connected government strategy.

Process reform promotes a more horizontal form of organisation than the traditional vertical approach where each agency acted autonomously. In this way, new connections are forged between agencies in the public sector and also between government and citizen. Australia's e-government agenda places citizens at the centre of the service delivery process. Information and communications technologies (ICTs) have the potential to increase the availability and quality of government services to citizens, who should not need to know about the structure of government – either within a jurisdiction or across different jurisdictions – in order to be able to deal effectively with it.

E-government, therefore, provides the tools for connected government to be effective. It facilitates increased flexibility and cooperation with ongoing change and promotes more robust performance and sharing of common management systems.

'More than simply coordination on a project-by-project basis, connected government encompasses new public sector management involving changes in culture in public administration that supports, models, understands and aspires to whole of government solutions.'

A changing environment

History of e-government in Australia

ICTs have played a critical role in underpinning Australian government operations for nearly 50 years. The Australian government has been a leader in understanding the importance of harnessing ICT and the Internet to deliver better government outcomes. The Australian government has had an active policy to apply new technologies to government administration, information and service provision to contribute to productivity improvement and deliver better government. It has and will continue to pursue the benefits of innovation in its operations and services to deliver better and more efficient policy outcomes.

The Australian government recognised early the potential value of the Internet. The *Investing for Growth* Statement (December 1997) restated the high policy priority for the information economy and encouraged Australians

to 'embrace the information age and lead by example'.[4] As a leading-edge user of ICT, the Prime Minister committed the government, among other things, to 'delivering all appropriate Commonwealth services on the Internet by 2001'.[5]

Following up on this commitment, the *Government Online Strategy* was released in April 2000, to provide a framework to assist agencies to meet the key online commitments. In particular it aimed to:

- ensure delivery of all appropriate services online by December 2001;
- ensure core minimum standards in important areas such as privacy, security and accessibility were met; and
- encourage government business operations to go online.

The December 2001 target of delivering all appropriate services online was achieved. Departments and agencies had significantly progressed meeting minimum standards and guidelines. There were in excess of 1,600 government services and information sources available online at the end of 2001.

The *Better Services, Better Government* Strategy (November 2002) mapped out the next phase of the government's drive. It shifted the emphasis from merely placing government information and services online and invoked a more comprehensive and integrated application of new technologies to government information, service delivery and administration. The six key objectives of this strategy are to:

- achieve greater efficiency and return on investment;
- ensure convenient access to government services and information;
- deliver services responsive to the needs of Australians;
- integrate related services;
- build user trust and confidence; and
- enhance closer citizen engagement.

Connecting Government report (April 2004)

Connecting Government is the most recent analysis of the issues and implications of connected government in Australia. It highlighted the need to respond to the growing demand for the APS to work together on issues that cross traditional agency boundaries. *Connecting Government* also noted that whole of government approaches are becoming increasingly important due, at least in part, to growing community expectation around ease of access to government through better service delivery. It also accepts the growing complexity of public policy dilemmas and opportunities, whose dimensions are themselves becoming increasingly 'connected'. Addressing issues in security and education, to name just two areas, requires policy and programme responses that engage a more complex mix of agencies, resources, expertise and skills, within and outside of government, than might have been the case twenty years ago.

4. Investing for Growth – The Howard Government's Plan for Australian Industry (December 1997).

5. Ibid.

1.1

Connecting Government addressed issues such as:

- use of different structures and processes to assess and manage whole of government activities;
- creating a successful whole of government culture;
- managing critical information and infrastructure issues;
- working across agency boundaries with current budget and accounting frameworks;
- managing increasingly sophisticated demands for engagement with people outside the APS; and
- responding effectively to crises.

'The complex challenges of developing policy responses to these priorities require innovative solutions and coordinated action by both public and private sectors. Government operates in an increasingly networked world where there is benefit from working together to achieve mutually beneficial outcomes. This has renewed a focus on the capacity for government to act as a single entity, creating what is in effect an extended, integrated 'enterprise' especially as experienced by customers and citizens.'

A dynamic environment

ICT can transform government processes and service delivery. But, like every other tool, in isolation – that is, without the corresponding operational and organisational changes – it generally will not deliver optimal outcomes.

Both the public and private sectors in Australia have taken time to evolve a realistic view of – and expectations for – the use of ICT. The Australian government has recognised that, although ICT enables pursuit of government policy objectives, adjustments to business practices and processes – and organisational cultures – are critical to achieve the desired policy outcomes and to realise the potential benefits.

The environment in which government operates is constantly changing. Expectations about how government will operate – from the transparency of its decisions and operations to the hours it is open for business – have been raised. Technology has been embedded into government operations and agencies are comfortable that the technological solutions to their needs are available or will be developed as they are required.

Measures of success

The measures of success of strategic e-government initiatives as they lead to better connected government in Australia include:

- customer satisfaction, measured in terms of convenience, access/equity, cost savings and the overall quality of the experience;
- level of preparedness of e-government infrastructure to enable efficient government responses to issues;
- savings to agencies' operating budgets;
- opportunities created for Australian businesses;
- positive contributions to national productivity and gross domestic product; and
- continued recognition of the Australian Government as an exemplary user of information tools and systems.

1.1

Strategies to advance connected government using e-government

The Australian government is taking up the challenge of connected government through strategic initiatives that promote service innovation and improved governance models.

Service innovation

Technology no longer plays merely a supporting role in the work environment. In a connected government environment, ICT has become the actual basis for the delivery of government services, processes, information and transactions. With these changes in delivery, there is an opportunity to improve the services themselves.

Improving both services and the way they are delivered so that they are more accessible, easier to use, quicker and more efficient is referred to as *service innovation*. Reviewing government business processes has been an essential step in service innovation to ensure effective service delivery and efficient management and administration.

Case study – Cooperation between Centrelink and ATO to streamline issuing of TFNs

The Australian Taxation Office's Individual Auto Registration project aims to extend to Centrelink[6] and other clients the facility to apply for tax file numbers (TFNs) online. This will provide a faster, more efficient service to those applying for a TFN through a Centrelink web interface. This project demonstrates service innovation in e-government through forming clusters to support aggregation of data and reuse of information.

6. Centrelink is the Federal Government's 'one stop' social security and support agency, responsible for paying a wide range of social benefits and pensions on behalf of over twenty client agencies to over 6 million Australians and providing a network of resources and programmes to help individuals and strengthen communities.

The Centrelink/ATO case study demonstrates that ICT can enable greater service innovation by supporting integration of services by agencies and the transformation of business process to more effectively and efficiently deliver government services. Service innovation requires extensive supportive systems and structures, including process renewal and cultural change in government. The way the public sector manages and works together is being continually reconfigured. The use of clusters (as in the case study above) is only one example. Government is continuing to push the boundaries, challenge assumptions and drive innovation.

Figure 2 depicts improvement through the different stages of service delivery, which takes time. Australian government agencies are at different points on this spectrum.

Service innovation – building capability and improving service

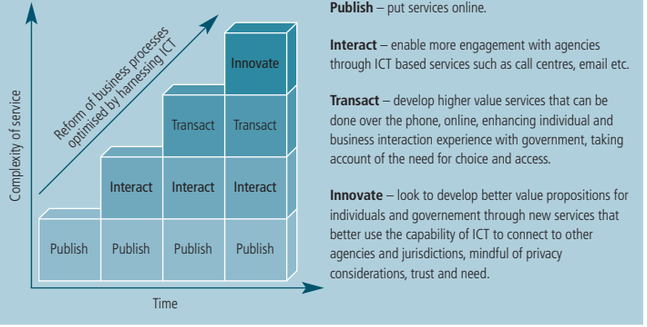


Figure 2.

Case study – Australian Government Natural Resource Management Team approach

This approach demonstrates the benefits of joint delivery arrangements where there is a logical synergy in objectives despite the logistical complexities that may be present. The Natural Resource Management Team comprises more than 100 officers from two Australian government departments (Department of Environment and Heritage and Department of Agriculture, Fisheries and Forestry) working together to deliver two programmes. Employees are fully integrated across the two departments to deliver Natural Resource Management programmes and working directly to two Australian government ministers. Recipients of the programmes receive services that are provided across agencies in a seamless way. This represents a good example of joint delivery arrangements using internal standardised protocols to establish seamless systems.

Governance

Individual portfolios and agencies in Australia are responsible for the management and administration of services and their delivery. They are best placed, because of their experience, responsibilities and knowledge, to involve stakeholders and work towards developing new service propositions.

There are four key initiatives that contribute to improved governance arrangements:

- Information Management Strategy Committee;
- Chief Information Officers Committee;
- Australian Government Information Management Office;
- The Online Council (overseeing the Integrated Transactions Reference Group).

Where service innovation occurs across multiple agencies or jurisdictions, shared management arrangements (or connected government) have been introduced to support the operation of the service and desired outcomes. To address this aspect of the service environment the government established the Information Management Strategy Committee (IMSC) in November 2002. The IMSC provides collective leadership on ICT matters that affect the whole of government and on information management issues pertinent to service innovation. The Chief Information Officer Committee (CIOC) addresses priorities identified by the IMSC and develops options for adoption and implementation of ICT at agency or whole of government level.

The establishment of the Australian Government Information Management Office (AGIMO) in April 2004 further supports the government and agencies by advising on whole of government aspects on information management and its supporting infrastructure.

The Online Council, formed in 1997, is the peak ministerial forum across all three government jurisdictions for consultation and coordination on the information economy. Under its auspices, the Integrated Transactions Reference Group (ITRG) was established in 2002 to relieve the customer of the need to understand the jurisdictional arrangements behind the delivery of services and to improve the effectiveness and efficiency of government through the integration of services. To meet these objectives the ITRG is conducting the National Service Improvement Project. The key deliverable to date from this project is the National Service Improvement Framework, which is a strategy, toolkit and suite of re-usable agreements to facilitate cross-jurisdictional collaboration and the delivery of integrated services.

Governance issues also arise with the increasing incidence of public/private sector partnership arrangements in connected government. Partnering of this type is playing a major role across all levels of government to improve performance and responsiveness in service delivery and coordinated policy responses. The major challenge is maintaining accountability for the

expenditure of public funds, where there may be many parties (from both the public and private sector) with different responsibilities. *Connecting Government* found that the current budget framework provides flexibility which can accommodate the appropriation of funds for whole of government outcomes.[7] However, it was also highlighted that agencies should consult the Department of Finance and Administration for early advice on appropriate accountability arrangements.[8]

7. Connecting Government (Management Advisory Committee, April 2004) p.76.

8. Ibid.

Frameworks – including architecture, standards, security and privacy

Information sharing is an important prerequisite for strategic e-government initiatives that lead to connected government. Consistent standards and protocols are needed to maximise benefits from information sharing and to provide more seamless services.

But it brings significant technological challenges (eg compatibility of systems, security and privacy). The Australian government has recognised, however, a strong business case to be 'integration-ready' through common standards and shared investment in high-priority data collections and definitions.

Case study – Response to Bali bombings

The Bali crisis case study highlighted the importance attached to frameworks by government agencies, and demonstrated that these cannot be bypassed in times of crisis. The Privacy Act was an important consideration in the response to the Bali crisis. The Act prescribes rules for the collection, use, transfer and reuse of personal information. It also addresses circumstances that may allow exemptions from those rules. In the case of the Bali bombing, interpretation of the provisions of the Privacy Act differed between the agencies responding to the crisis. The case study demonstrated the importance of sound and consistent understanding and interpretation among agencies of the rules governing information sharing. This is particularly important where the parties – government, individuals, businesses or community groups – expect rapid and well-founded responses.

Developing the vision and framework for connected government is one thing. Making sure it happens is another. The key link is a series of business process and technical frameworks, developed under the leadership of the IMSC, which help to translate vision into practice:

- The Technical Interoperability Framework (www.agimo.gov.au/practice/framework) underpins the provision of integrated services. This framework articulates a set of agreed principles and standards to allow electronic information and transactions to operate seamlessly across agencies (national level) and jurisdictions (within Australia). These principles and standards will improve ease of data exchange and enhance service delivery.
- The proposed Australian Government Authentication Framework (www.agimo.gov.au/infrastructure/authentication) provides a means for aligning business processes with authentication techniques. It guides the authentication of electronic transactions among Australian government agencies and business, with the principal outcome of reducing risk associated with electronic transactions. An exposure draft is currently out for consultation.
- The Australian Government Access and Distribution Strategy will support a networked environment based on standardised, as opposed to centralised, processes, where agencies work closely with customers, partners and each other to support service delivery excellence. This environment will enable agencies to integrate processes, adopt interoperable infrastructure, share valuable information and collaborate from policy/programme design to delivery. It will support a consistent customer experience across all government agencies by improving collaboration.
- A Working Group on Information Interoperability is assisting in the development of appropriate standards for using information across traditional agency boundaries while having due regard to all privacy and security requirements.

'Technology no longer plays merely a supporting role in the work environment. In a connected government environment, ICT has become the actual basis for the delivery of government services, processes, information and transactions. With these changes in delivery, there is an opportunity to improve the services themselves.'

Secure infrastructure

Ensuring secure infrastructure is an important component of connected government. There are a number of initiatives across government aimed at providing secure infrastructure including Gatekeeper, FedLink and the E-Security National Agenda.

Gatekeeper promotes public key infrastructure (PKI) in government, which provides for authentication of external clients. Operationally, Gatekeeper is a standards-based, technology neutral accreditation program for PKI service providers.

FedLink (www.fedlink.gov.au) is a Virtual Private Network that provides secure and trusted communications between government agencies across the Internet. FedLink also provides an evolutionary path to secure e-business

transactions and full multimedia applications. It promotes a new era of secure information management and exchange for all Government agencies.

The E-Security National Agenda is coordinated across government by the Electronic Security Coordination Group, comprising key law enforcement and security agencies. This group has the task of creating a trusted and secure online environment for the public and private sectors focusing specifically on e-security policy, R&D and skills issues. In addition to the E-Security National Agenda there is also a range of work across government in critical infrastructure protection.

Promoting best practice

Connecting Government identified several best practice approaches to information management, which are promoting a connected government in Australia. These include:

- identifying information, technology and infrastructure needs at the beginning of projects;
- incorporating the role of information and technology into business, policy, programme and project planning;
- planning to share information, manage it consistently, and enable it to be accessed by others (ie create once use many times), with appropriate authorisation at a later date; and
- using shared workspaces to improve interactions and share information within and across agencies.

Case Study – Connected government and information management

National Information Agreements in the health, community services and housing assistance sectors have been in operation for many years. They are formal, multilateral agreements between Australian, state and territory government authorities and national statistical agencies, and provide the framework for a cooperative approach to national information development. The agreements facilitate more reliable, timely and consistent national information and contribute to the efficient provision of more appropriate and improved services and outcomes for the Australian community.

Cross-agency portal development

Australian government agencies have developed portals to provide single points of access to government information in specific subject areas. These include taxation, education, indigenous Australians, science, arts and culture, seniors, women and youth.

Case Study – Window on Women portal (www.windowonwomen.gov.au)

This portal is a single reference point designed to provide free access to integrated statistical data about women's needs and circumstances through a women's data warehouse facility. The website is operated by the Department of the Prime Minister and Cabinet and is an example of an agency recognising the public value in government statistical collections and making them available to the public to improve its capacity to respond to the needs of Australian women.

The final portals of Australian government's online customer-focused portals framework went online in December 2003. This framework is designed to make it easier to find government information online and build platforms for integrated service delivery. A review of the framework (January 2004) found it provided a new, convenient delivery channel for a large amount of government information and that the information was more readily accessible. However, it noted an important challenge for connected government to address, that is, users still need some understanding of the structure of government to use the framework.

AGIMO and the IMSC play a critical role in supporting Australian government agencies in meeting the challenges of connected government. The challenges for agency-based systems to interact with each other are as much organisational and cultural as they are technical. The Australian government is confident that the strategies presented here will deliver against the measures of success for e-government initiatives and will result in better connected government.

Connected government: the New Zealand story.

Making progress across all government without constraining individual agency innovation

Laurence Millar | Director, e-Government Unit, New Zealand

NEW ZEALAND
POPULATION: **4,059,900**
GDP in $'s purchasing power parity: **$85.26 billion** (2003 est.)
INTERNET USAGE: **2,110,000**
PERCENTAGE OF POPULATION: **52.0%**

Laurence Millar took up the position of Director e-Government Unit in March 2004, and in this essay he explains how New Zealand's e-government programme is supporting strategic shifts in the Public Management system through the use of new technologies and processes to help agencies work together to meet the needs of New Zealanders. Central to its strategy is the e-Government Interoperability Framework (e-GIF), a collection of policies and standards endorsed for New Zealand government information technology (IT) systems.

Introduction

The New Zealand Public Management System is facing a wide range of new issues and challenges, to accommodate new and different sets of relationships and manage changing societal expectations. A number of well-documented trends – the online revolution, globalisation, changing demographics – will require improvements in public sector performance. Transformational change will be required to achieve agile, responsive and collaborative organisations that can meet the challenges of a more demanding environment.

The Office of State Services Commissioner is central to New Zealand's politically neutral, professional and permanent public service. As the holder of a statutory office the Commissioner acts independently in a range of matters to do with the operation of the public service and state sector; and as Chief Executive of the State Services Commission, the department that supports the Commissioner in the performance of this role, the Commissioner is responsible to the Minister of State Services for the Commission's capability and performance.

The State Services Commission's 2004 Statement of Intent[1] states that the Commission's role is to ensure that the government and New Zealanders see a trusted and high performing state sector:

- delivering the right things;
- at a fair price; and
- in a spirit of service.

For this outcome to be achieved:

- New Zealand's public management system must perform well;
- the individual organisations within the system must perform well; and
- state servants must share sound values.

1. http://www.ssc.govt.nz/soi2004.

In 2001, the Review of the Centre,[2] coordinated by the State Services Commission, found that 'the public management system as it stands today provides a reasonable platform to work from, but some significant shifts in emphasis are needed to better respond to the needs of the future'. The review suggested a direction for change, and identified three priority areas for attention:

1. *Achieving better integrated, citizen focused service delivery*, particularly where complex social problems are dealt with by multiple agencies, making sure the system is focused on the results that citizens and governments want in terms of outcomes and services.

2. *Addressing fragmentation and improving alignment*, particularly through: a stronger emphasis on outcomes; developing more effective, higher trust means of working together; harnessing technology; re-examining the large number of agencies and votes; and the tendency to emphasise vertical accountabilities rather than whole of government interests.

2. http://www.ssc.govt.nz/review-of-the-centre.

1.2

Three priorities for attention (Review of the Centre, 2001)

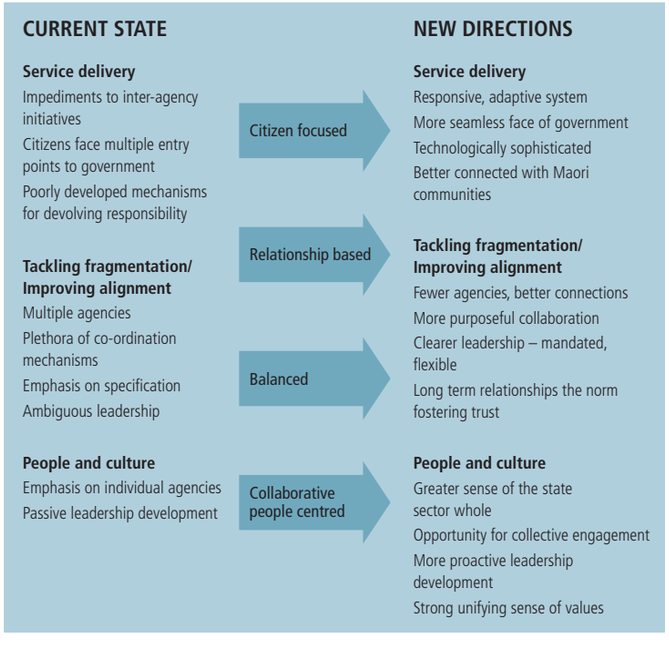


Figure 1.

3. *Enhancing the people and culture* of the state sector, particularly building a strong and unifying sense of values, staff and management development, and meaningful opportunities for collective engagement in organisational decisions.

This broader context is reflected by the e-Government Unit being situated in the State Services Commission so New Zealand's e-government programme sits within this larger strategic context. The e-government programme supports these strategic shifts in the Public Management system through the use of new technologies and processes to help agencies work together to meet the needs of New Zealanders.

The e-government mission is that:

- by June 2004, the Internet will be the dominant means of enabling ready *access* to government;
- by June 2007, networks and Internet technologies will be integral to the *delivery* of government information, services and processes;
- by June 2010, the operation of government will have been *transformed* through its use of the Internet.

This transformation of government will be characterised by agencies taking an all-of-government approach when designing and implementing services, and by the customisation of services to meet the needs of individuals and businesses.

The e-government programme has particularly focused on two areas of public management:

- Providing tools (processes, infrastructure and standards) to support cross-agency initiatives;
- Providing governance models and structures to sustain cross-agency initiatives.

How has this worked in practice?

Five examples from the e-government programme illustrate how e-government links in with, and gives practical effect to, broader public management issues.

Three of these examples focus on the provision of processes, standards and infrastructure:

- Authentication;
- The e-Government Interoperability Framework;
- Portals.

The last two examples focus on governance for shared initiatives:

- Shared workspaces;
- SecureMail.

Authentication

To achieve the e-government goals, and provide government services via the Internet, agencies and people[3] need to be confident in the trustworthiness of online services. The basis for public confidence in dealing with government online is consistent authentication policies and technologies that enable both individuals and agencies to have confidence in the identity of each other when transacting over the Internet.

3. The New Zealand e-government programme does not generally use the term citizen to identify the other party in an interaction between government and a person as many people who legitimately interact with government are not citizens. Therefore in New Zealand we tend to use the term G2P (government to person) rather than G2C (government to citizen).

People can use most existing online services without any kind of authentication, including getting access to a vast amount of information that is freely available online, such as education review reports on schools, health and safety information or the opening hours of the local public library. However, to deliver some kinds of government services online, agencies need a way of ensuring that these services – delivered over the Internet – are going to the right person. This will be achieved by electronically verifying that people are who they say they are and that their privacy is protected. Online authentication also means that you can check and be confident that the Internet site you are using is a genuine New Zealand government agency website.

The design for the New Zealand all-of-government solution has been developed and the solution is being built on an incremental basis. A conceptual model provides a high-level picture of how a system and process would work. The model illustrates a consistent way for people to identify themselves online when they want to access government services. It is important to remember that online authentication is about verifying who is applying for a service rather than whether or not the person is actually entitled to receive the service.

Figure 2 below shows the four processes that make up the online authentication conceptual model.

Online authentication

Figure 2.

As an example, the design of the first-time service registration process is shown in Figure 3 below. The main points for this process are:

- The release of the ID data (or a subset of that data) from the Authentication Agency can only be authorised by the client, who must take a conscious action before identity data is passed from the Authentication Agency to the Service Agency;
- The Service Agency cannot obtain the ID credential directly from the Authentication Agency;

- The steps above do not have to be completed in a single session; for example, the Service Agency may not require the Client to authorise the release of the ID credential immediately;
- In some cases the Service Agency may require additional information from the Client after the identity data has been provided by the Authentication Agency before the Service Agency can create a new Client record; and
- If the Service Agency needs to, it will associate rights (privileges) with the key linked to the customer record;
- Depending on the Service Agency's rules, the Client could link more than one key to their customer record.

First-time service registration process relationships

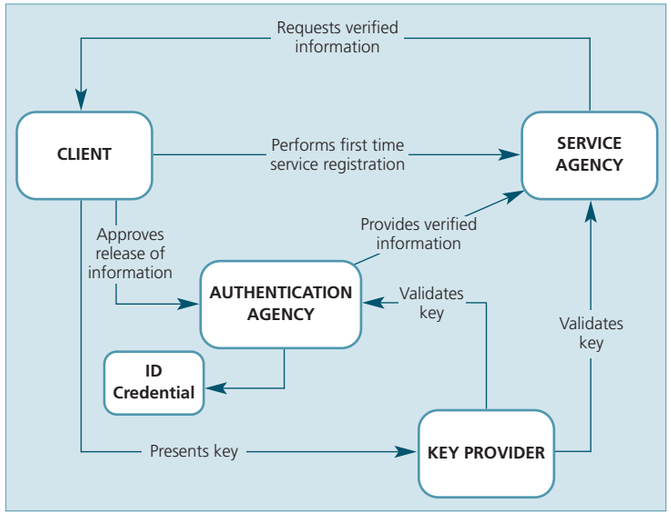


Figure 3.

The Authentication Best Practice Framework[4] has been developed to summarise the lessons and learnings to date. While work continues on an all-of-government solution, the framework will allow those individual agencies that have an immediate need for online authentication to proceed with confidence in the steps they take now.

4. www.e.govt.nz/docs/authentication-bpf/index.html.

The framework provides guidance through three main questions related to authentication, which are the same whether performing transactions online, or when receiving service in-person from a government agency:

- What does a person need to do to establish their identity?
- Once identity has been established, how can another party trust that identity without requiring the person to re-verify themselves fully?
- If a person transacts with government, how can the fact that the transaction occurred be proved if the person later denies it?

Addressing these issues in an online environment requires the same underlying concepts as it would in an offline situation.

The approach of building towards an all-of-government solution and providing best practice guidelines to agencies enables progress towards achieving the public management systems goals across a broad front.

E-Government Interoperability Framework

The e-Government Interoperability Framework (e-GIF) is a collection of policies and standards endorsed for New Zealand government information technology (IT) systems.

Use of the e-GIF:

- helps government agencies more easily work together electronically;
- makes systems, knowledge and experience reusable from one agency to another;
- reduces the effort required to deal with government online by encouraging consistency of approach.

The e-GIF Management Committee members are senior executives from major government agencies. Standards are recommended for inclusion in the e-GIF by working groups, which comprise technical staff from agencies and sometimes people from information technology vendors.

All Public Service departments are required to adopt the e-GIF and observe its standards when selecting and implementing new IT systems, particularly those which involve interfaces outside the agency. Organisations of the wider State sector and local government organisations are encouraged to adopt it.

> 'Where appropriate the New Zealand e-government programme adopts these roles to ensure that there is progress on all of government 'e' initiatives without constraining individual agency innovation and that in part and in total the 'e' initiatives contribute to the ongoing development of the Public Management system.'

At the international level standards are often driven within sectors by standards bodies, companies and foreign governments. This affects New Zealand suppliers and New Zealand users. The New Zealand government can be seen as a subset of New Zealand users.

In this model the e-GIF is horizontal – it serves to unify standards and practices within the New Zealand government across the various sectors

within which it operates. While it observes international developments e-GIF has little or no input into them. Local private sector developments will be influenced to some extent by e-GIF.

Figure 4 below shows the e-GIF in the contexts of international versus local issues (horizontal) and various sectors (vertical).[5]

5. HISO is the Health Information Standards Organisation. OCGI is the Official Committee on Geospatial Information. IDCS is the Inter-departmental Committee on Security. XML: eXtensible Markup Language. NZGLS: New Zealand Government Locator Service. RSS: Rich Site Search. ISO: International Organisation for Standardisation. W3C: World Wide Web Consortium. RFC: Request for Comment. APIs: Application Programming Interface.

e-Gif across sectors

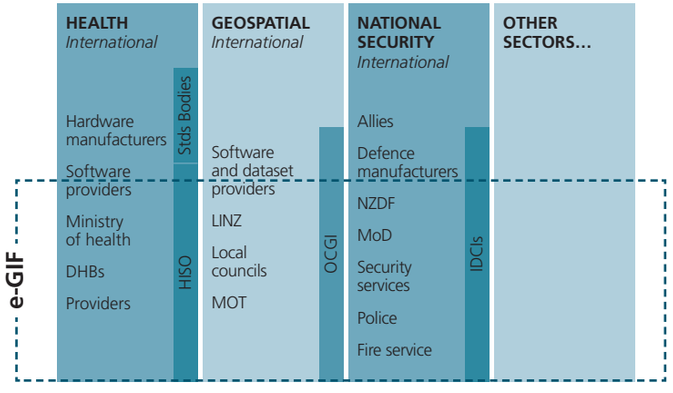


Figure 4.

Some sectors have New Zealand standards bodies or similar. Their role is generally to take international sectoral standards and fit them for New Zealand use – rather as the e-GIF does.

The e-GIF needs to maintain a relationship to these bodies, to be accomplished preferably through overlapping membership with the Management Committee, and through contact with the custodian. The sectors shown are examples – obviously there are more, and the boundaries between them are not as clean as Figure 4 suggests.

e-Gif Management Committe Members

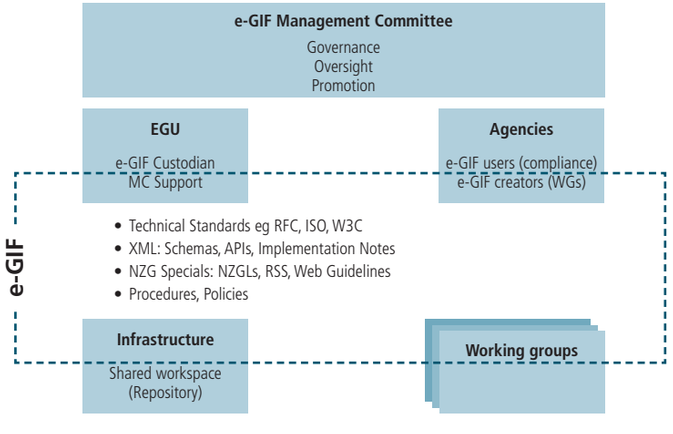


Figure 5.

Agencies are an integral part of e-GIF support arrangements, as well as being its consumers. Agencies supply members and leaders for the working groups which select and make e-GIF standards. They provide advice to the e-GIF custodian. E-GIF Management Committee members are all drawn from government agencies. See Figure 5.

These operational and governance arrangements ensure that there is individual agency alignment with all-of-government interoperability standards.

Portals

The New Zealand government portal is a website providing search capability for, and links into, the online and offline information and services of most government agencies.

Government agencies describe online and offline information and services using a consistent classification system. The result is an integrated catalogue of information that you can search via the Internet.

The Portal comprises a metadata-driven directory of over 300 agencies of New Zealand central and local government, and the services and media releases provided by those agencies. As at July 2004 it was receiving over 22,000 visitors per week, and its popularity is increasing, especially domestically.

The Portal infrastructure incorporates the following:

- *Metadata capture system (Metalogue)*. This system provides agencies with the ability to author agency and service metadata for inclusion on the Portal, as well as the agency delivery unit, resource and legislation metadata which provide context to services. The system, which currently contains over 10,000 records, supports export of data in New Zealand Government Locator Service Standard (NZGLS) format for repurposing elsewhere.
- *Search engine*. The Portal uses the Autonomy engine for retrieval of metadata and web pages. The New Zealand government has licensed Autonomy technology for use by other central agencies as a hosted service.
- *Portal front end*. The public-facing front end supports a variety of navigation strategies. A person can navigate to information about an agency, service or media release by either browsing ('drilling down' through successively narrower topics) or searching (entering text in a box).
  On locating a service, a person is presented with links to or information on how to get the key resources that support the service. If a user cannot find what they are looking for, they are offered the option of a full text search across indexed government web pages.
- *Metadata syndication to portlets*. The metadata and processes that underlie the Portal are re-used, providing a number of audience-specific portals with metadata required to meet their business objectives.[6]

6. www.worksite.govt.nz, www.ted.govt.nz, www.elearn.govt.nz, www.biz.org.nz.

- *RSS News feed*. Media releases provided on agency websites are harvested for display on the Portal.

Specific enhancements that are planned for the Portal include:

- *Find legislation tool*. People will be able to find specific pieces of (online) legislation quickly.
- *Metadata for additional entity types*. The Portal will reveal more and more of the machinery of government by representing not only the relationships between government agencies, their delivery units, media releases, services, resources and legislation, but also between these and other entity types, for example, ministers, members of parliament, statutory bodies.
- *Secure linking*. People will be able to trust the Portal more because of secure linkages to other government websites.
- *Linked services*. People will be able to navigate and understand the relationships between services more easily because of (potentially visual) cross-linking between related services.
- *Regionalisation*. People will be able to identify agency delivery units close to them and what services they can obtain there.
- *Flagging of online services*. People will have increased awareness of what services/resources are available online, and whether or not they require authentication.
- *Non-government infomediaries*. Some service information will reach people more effectively when it is delivered by infomediaries rather than by the Portal, for example, the Waitakere portal,[7] which traverses the public and private sectors.
- *Linkage to 2007 goals*. What are the possibilities, for example, for a single-sign-on model at the Portal with interfaces through to agency service provision? What other personalisation models should be considered?

7. www.waitakereonline.co.nz.

The three subject portals ('portlets') TEd (the tertiary education portal), eLearn (the tertiary e-learning portal) and www.biz.org.nz (the business portal) have reused the work done to develop a metadata-driven portal of labour market information – WorkSite.

As with WorkSite, these subject-focused portals have been delivered at a fraction of the price and in a fraction of the time of a standalone website. They have done this in part by tapping into the Metalogue repository of service and resource metadata and reusing the website code that makes this possible. So now rather than visit the government portal to get an overview of the government service in these areas, people are able to find what they need more easily through the specialist portals.

The e-government unit will provide linkages between the different portals to create a collaborative information and service delivery environment

Shared workspace

A shared workspace is a secure, interactive website where members can add, update and manage their own content. Members can be from a mix of agencies, non-government people and private sector organisations.

Shared workspace provides a suite of tools and processes for sharing and working online. It uses tools that people are familiar with and can be used from wherever you can connect to the Internet.

The prototyping phase of the shared workspace project ended in June 2004. As of July 2004 over 600 public servants working on a range of inter-agency projects were enrolled in eleven workspaces, with a further nine workspaces being set up. Workspaces are being used by a range of projects spanning central and local government with projects in social policy, community development, justice, education, natural resource management, public management, information strategy and architecture.

The largest shared workspace supports a professional network inside government of 200 people. The largest project-based workspace has 130 users.

The main quantifiable benefit from the shared workspace is additional cost agencies can avoid by:

- using common infrastructure;
- using shared information.

Using common infrastructure

In the absence of a central shared workspace agencies will develop their own workspace infrastructures. In the business case supporting the development of a centrally managed shared workspace it was estimated three new agencies will do this in the first year, and one more in each year following. This estimate was based on the number of agency-run workspaces set up in the last two years in the public service and feedback from a recent survey of e-government uptake across government. With a common shared workspace infrastructure these additional costs can be avoided.

Using shared information

The quantifiable benefit to each individual user of a shared workspace is time saved because it will become easier to find relevant expertise, information and practices in other agencies and share valuable information resources across agencies.

Identified intangible benefits arise from it being easier to join and contribute to discussion of cross-agency issues, easier coordination of cross-agency projects, easier information management in cross-agency projects, improved security (to In Confidence level) and hopefully more robust policy advice and outcomes from cross-agency projects.

A common, secure platform to support these tools has been built and operated on behalf of agencies. The platform operates under a number of governance principles which explain who governs shared workspace and how they expect to do that, and who has decision rights.

Shared workspace is an optional 'shared input' to normal agency processes. It is essential that it always focuses on meeting agency and user needs, partly because its use is optional rather than mandated.

To guarantee that focus, the best governance arrangement is a club of agencies, with a range of day-to-day governance functions performed by a dedicated group of people (the programme managers) in the agency that holds the budget allocation to shared workspace. Figure 6 below illustrates the shared workspace governance structure.

Shared workspace governance structure

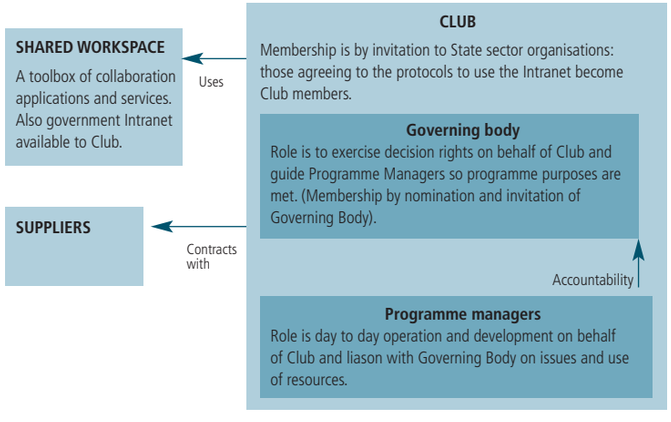


Figure 6.

The Shared Workspace Steering Committee has to pilot and advise the programme managers through the establishment phase and design the ongoing governance. Its role concludes when the Club is established and the Governing Body recruited, at which point there is a formal handover to the Governing Body.

The Shared Workspace Governing Body has to:

- give effect to agency control;
- operate on the basis of trust, collaboration and partnership;
- maximise resources for achievement of club outcomes;
- reconcile collective interests with interests of individual organisations;
- recognise agency autonomy and complexity of their business systems;
- designate responsibilities and accountabilities to be met by all parties;

- agree on control and reporting mechanisms;
- agree the contribution agencies make to running costs;
- tolerate risk when it facilitates innovation and cross-agency collaboration;
- advise the programme managers when they request it;
- direct priorities for adding and upgrading shared workspace tools.

Each year the Governing Body replaces a portion of its members. It aims to renew itself in shifts for continuity. People are asked to join for two-year terms.

The Body proactively recruits from designated Club contact persons. Potential members of the Governing Body would have some or all of these attributes:

- Interest in whole of government working;
- Business orientation;
- Understanding of the business use of technology;
- Appreciation of the value of information sharing;
- Wider, cross-business unit/agency view; and
- Access to influencers and decision-makers.

Governing Body members gain the following benefits:

- Networking with and learning from people they would not normally work with;
- Learning more about whole of government issues, technology and culture;
- Recognition for their contribution.

Governing Body members contribute as individuals, and represent the collective interest. The Governing Body elects its Chair. The Role of the Governing Body Chair is to:

- engender a whole of government view from the Governing Body members;
- manage information sharing with central agencies to ensure 'no surprises';
- represent the Governing Body publicly when required;
- decide how votes will work if a vote on a recommendation is required; however 'Unanimous in practice' is preferred.

The Governing Body has decision rights to replace its members if they leave the State sector. If a member only changes agency then they can choose to stay in the Governing Body.

Club members are State sector agencies that have been invited by the Governing Body to join the Club. The process of becoming a member is the agency signing up to the Intranet protocols and naming who will be the agency's Club contract. Membership is successful when the Governing body approves the agency's application.

SecureMail

SecureMail is an e-mail security standard which, used appropriately, will provide a high level of assurance that:

- the FROM: address has not been faked (spoofed);
- no unauthorised person has read or altered the message.

An analogy is that SecureMail provides the option to send a message on letterhead paper in a sealed envelope, where previously all messages were typically sent as a postcard.

Figure 7 below is a high-level model of the SecureMail infrastructure roles and functions.

High-level model of SecureMail infrastructure roles and functions

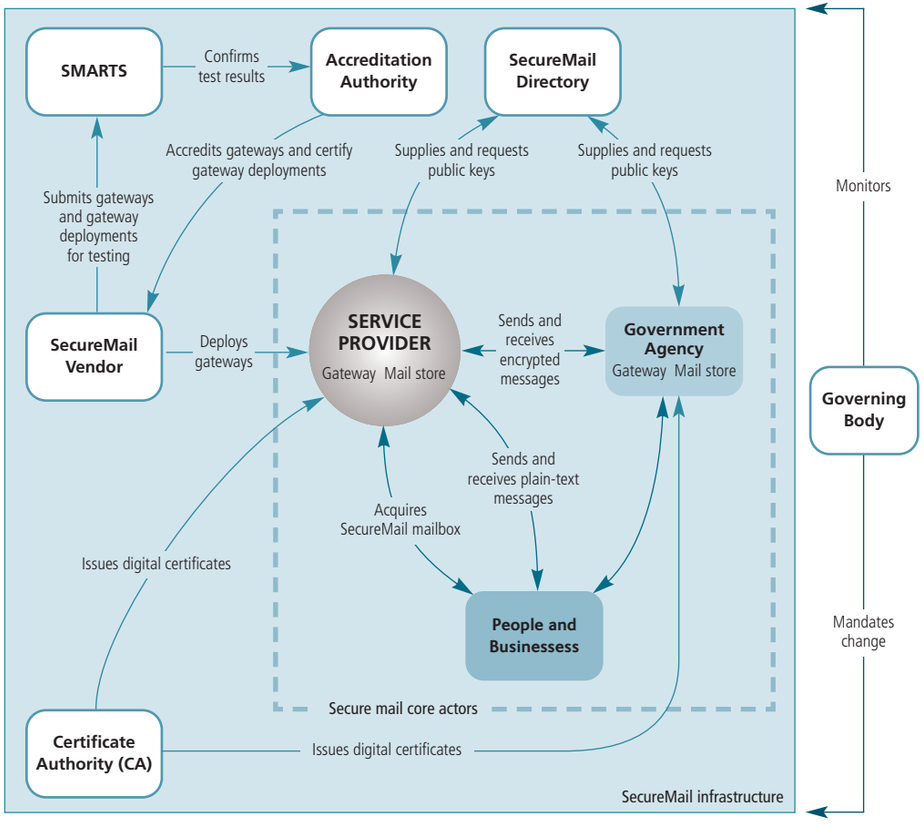


Figure 7.

The roles in the high-level model are outlined in more detail in Table 1 below:

Roles in the high-level model

ROLE	PURPOSE
Accreditation Authority	Accredits SecureMail Vendors, products and Gateways for compliance with the SecureMail requirements.
Administrator	Administers the SecureMail Directory and acts as the Accreditation Authority and the Certificate Authority.
Gateway	A system that secures and processes messages to the SecureMail standard.
Government Agency	Departments, Crown entities, and any organisation within the State sector.
People	A natural person.
Plain-text message	A message that is not encrypted.
Role	Different legal personas that a person can take on (eg individual, trustee, etc).
SecureMail Service Provider	Provides Gateways and/or SecureMail mailboxes.
SecureMail standards	The standards to which an Organisation with a Gateway must comply.
Service Provider	A Business that provides a Gateway and/or Mail Service.

Table 1.

1.2

SecureMail governance model

The Policy Framework for Government Held Information, a set of principles developed in 1996 and 1997, defined the concepts of stewardship and custodianship as they applied to government information. The concept has been extended over time to incorporate stewardship and custodianship roles for operational infrastructures in addition to information.

Stewardship can be defined as setting the standards and specifications for managing the information, standard or infrastructure. Stewardship is a means of protecting the Crown's interest as the owner of the information or infrastructure. Effective stewardship requires close relationships with key stakeholders such as local government, other departments and the private sector.

The custodian provides day-to-day management services as specified by the steward. They carry out processes and provide technical support. A custodian could be in a contestable position in another department, local government or the private sector. In this case, the relationship between a steward and a custodian is likely to be contractual or carried out through a service level agreement which makes it clear what is expected of both the steward and the custodian. This 'contract' is a means of putting the standards and specifications of stewardship into practice with appropriate safeguards. The role of custodian could be outsourced and is likely to be cost recovery or profit based.

The SecureMail governance model consists of a single government steward and a committee that represents the interests of all SecureMail stakeholders. The steward directs the custodian on what services the custodian will provide to ensure the continuous usability of the SecureMail infrastructure.

The SecureMail steward has accountability and decision-making authority for the ongoing management and future development of SecureMail. The Steward carries out this role by:

- convening a Management Committee to provide input on the ongoing management and future development of the SecureMail infrastructure;
- defining how the Management Committee will select members and run its business;
- at his or her discretion, outsourcing the day-to-day operations of the SecureMail infrastructure to any suitable public or private sector organisation(s);
- determining the standards for SecureMail infrastructure;
- owning all existing and new SecureMail infrastructure processes;
- establishing appropriate processes and practices, in consultation with the custodian, so as to ensure the quality of all services delivered and the maintenance of the steward's assets, including quality and change management;
- determining the terms and conditions under which the custodian will operate;
- directing the custodian on actions to take in relation to SecureMail and monitoring delivery and auditing compliance with those directions;
- jointly monitoring, measuring and reviewing the outcomes of the custodian's actions with the custodian;
- acting in a quality assurance role for material produced by the custodian, when requested;
- funding the costs of stewardship and, if appropriate, custodianship; and
- ensuring the custodian has access to all relevant information held by the steward.

Responsibility for the provision of value-added services and any associated standards is out of scope.

The steward also selects the membership of the Management Committee. The Management Committee provides advice to the steward on the ongoing management and future development of SecureMail infrastructure.

At the present time the Director of the e-Government Unit is the Steward and Chair of the management committee, which also includes:

- two representatives for government agencies;
- three representatives for service providers;
- one representative for business;
- two representatives from non-government bodies:
- one representative from InternetNZ;
- one representative from New Zealand Computer Society.

The Management Committee provides input to the Steward on the ongoing management and future development of the SecureMail infrastructure by establishing mechanisms to allow for appropriate input into the development of SecureMail and maintenance of any SecureMail standards, including processes for appealing decisions.

Figure 8 below depicts the recommended SecureMail governance model.

1.2

Recommended SecureMail governance model

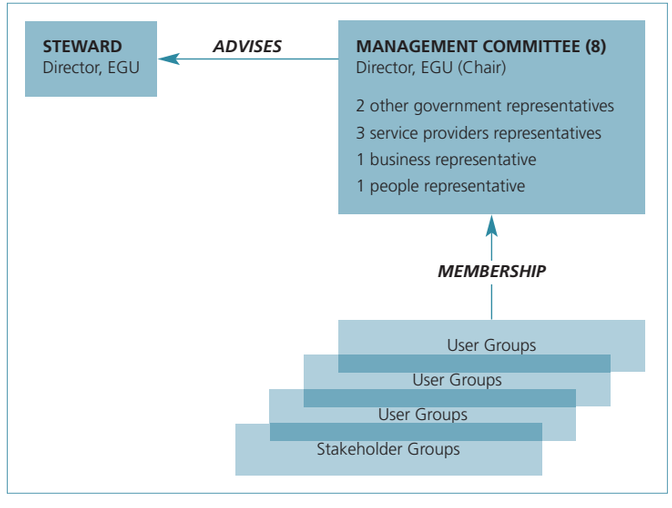


Figure 8.

The composition of the Management Committee will change as SecureMail matures.

Custodian

The custodian provides services that ensure the continuous usability of the SecureMail infrastructure by:

- administering appropriate SecureMail processes and practices, in consultation with the Steward, to ensure the quality of all services delivered and the maintenance of the Steward's assets, including quality and change management, and accreditation/certification;
- jointly monitoring, measuring and reviewing the outcomes of the custodian's practices with the Steward, and undertaking any corrective action required;
- providing for business continuity at a time of an outage or disruption to the SecureMail environment;
- providing a single point of contact and technical support for faults or enquiries relating to SecureMail standards;
- administering the SecureMail communications and publications process, including Official Information Act requests, Parliamentary Questions and requests from ministers;
- providing secretarial services for the Management Committee;
- developing and publishing supporting guidance, training and tools; and
- proactively informing the Steward, at the earliest opportunity, of any issues that require attention.

'The New Zealand Public Management System is facing a wide range of new issues and challenges, to accommodate new and different sets of relationships and manage changing societal expectations. A number of well-documented trends – the online revolution, globalisation, changing demographics – will require improvements in public sector performance. Transformational change will be required to achieve agile, responsive and collaborative organisations that can meet the challenges of a more demanding environment.'

Conclusions

The role of e-government leaders, summarised by the OECD,[8] includes:

- awareness and commitment – leaders are in a strong position to set a broad e-government vision;
- integration – leaders align the e-government strategy with broader policy and service delivery goals; and
- encouraging collaboration – leaders create conditions that encourage co-ordination and collaboration within and among agencies.

Where appropriate the New Zealand e-government programme adopts these roles to ensure that there is progress on all of government 'e' initiatives without constraining individual agency innovation and that in part and in total the 'e' initiatives contribute to the ongoing development of the Public Management system.

8. Organisation for Economic Cooperation and Development. http://www.oecd.org/dataoecd/62/58/11923037.pdf.

Korea's trailblazing e-government strategy: challenging the US and EU in scope, success and ambition

Dr Kuk-Hwan Jeong | Director General of the e-Gov Bureau, Ministry of Government Administration and Home Affairs, Government of Korea

KOREA
POPULATION: **49,131,700**
GDP in $'s purchasing power parity: **$857.8 billion** (2003 est.)
INTERNET USAGE: **30,670,000**
PERCENTAGE OF POPULATION: **62.4%**

With over 31 million Internet users, most of whom have broadband access, The Republic of Korea has developed an e-government service which challenges any of the developed nations, including the US and EU, in terms of scope, success and ambition. Dr Kuk-Hwan Jeong reviews Korea's e-government strategy, looking in detail at two out of 30 such initiatives: the G4C (Government for Citizens) project, providing the best example of digital interaction between government and citizens; and INVIL (Information Network Village), helping people in remote areas who might benefit from access to media content on topics including education, medical treatment and agricultural skills.

Introduction

1. Hereafter Korea.

The Republic of Korea[1] has had a chequered social and economic history. Our industrial revolution did not kick in until the 1960s, nearly 200 years after the West. We suffered badly during the Second World War (although gaining independence from Japan in 1945) and again during the Korean War (1950/53). We then enjoyed spectacular growth, achieving by the late 1980s a GDP per capita on a par with countries in the EU. This was mainly due to hard work (a six-day week, reduced to five days only in 2003), a great deal of government support for industry, and a policy of encouraging the import of raw materials and technology rather than finished product.

Just when we thought it was safe to dip our toes into the global economy, we were knocked back again by the Asian financial crisis of 1997–99 (economic growth contracted by almost seven per cent in 1998 alone). The value of the Korean won lost more than half its value over the Christmas period of 1997/98, our banks were close to insolvency, interest rates doubled to 25 per cent and credit was very hard to obtain. But again we bounced back, thanks to government and IMF intervention. Our recovery was as dramatic as our downfall, reaching a peak of 6.6 per cent growth in 2002.

That recovery, at least from a technology point of view, was at least partly due to our love of entrepreneurial risk. Many people were laid off during the Asian crisis and they looked for ways to invest their redundancy payments. One popular option was to set up broadband Internet cafes and these rapidly became a conspicuous feature of Korean society. Called 'PCbang', there are now 32,000 of these in the country, charging around $1 per hour for access. People use them for playing games, playing the stockmarket and gambling.

At the same time, our national telco monopoly was swiftly unbundled, leading to some of the lowest communications (including Internet) costs in the world. Broadband Internet services were further encouraged by the government's support for the development of English language skills (reducing our cultural isolation and leveraging the benefit of the Net). We also made a sustained effort to reduce the digital divide still further through subsidised adult education schemes and Web-focused primary school curricula.

By the turn of the millennium, we were therefore in a unique position of having not only a very well-developed infrastructure – when many nations were still digging holes in the ground – but also an infrastructure that had broad popular support. For this reason, we were able to focus more on training people and improving the quality of online services. It is against this background, and in a country that now has over 31 million Internet users (almost all of whom have broadband access), that we have been able to develop an e-government service which challenges any of the developed nations, including the US and EU, in terms of scope, success and ambition.

1.3

Government and technology

E-Government is not just about policies, but about daily working practice. To this end, back in 2000, the Ministry of Information and Communications put in place a number of initiatives for IT training. The Ministry of Education focused, naturally enough, on the network requirements of teachers and students; the Ministry of Defence did the same for military personnel; and the Ministry of Government Administration and Home Affairs focused on civil servants. These initiatives involved both face-to-face and online training in new technologies.

We had a clear vision of where we wanted to go. Spurred on by the burgeoning use of the Internet, we saw that IT could give Korea a major competitive edge in the global economy. We also saw how e-government could increase national productivity. We articulated three particular objectives.

First, to improve the effectiveness of individuals by reducing their administrative overload. This involves setting up a single window to distributed government resources so that, for example, a member of the

public can renew their passport with a single trip to a government office, rather than having to visit several offices to collate several documents – certificate of citizenship, proof of address etc – and then take these to an office for manual processing.

> 'We want an administration with improved productivity, transparency and democracy. We want to facilitate paperless administration, enhance productivity and efficiency in public services and re-engineer the workflow to take advantage of technology and, in doing so, improve transparency.'

The key here is that, once all the government databases have been linked, you find surprising possibilities emerging that are not simply to do with administrative services. A 'life-event' portal can be linked with other data to enable government to appear online as one entity. So it is important to make clear from the start that although e-government is primarily about digital bureaucracy, it has the power to extend much deeper into people's everyday lives – and in ways quite unrelated to civic administration structure – than you might imagine.

Life-event portals can also be designed to humanise bureaucratic processes. By offering direct access to forms, application criteria, citizens' advice and relevant contacts, they can reduce the complexity of government services and transform the function of government websites from the simple presentation of information to the offering of complete services in their own right.

The second objective is to provide the support for business. This means supporting start-ups and R&D, fostering human resources and carrying out statutory reform. It also involves fine-tuning standards for e-business, expanding and upgrading electronic transactions and creating a safe online marketplace.

Finally, e-government should of course help with the process of government itself. We want an administration with improved productivity, transparency and democracy. We want to facilitate paperless administration, enhance productivity and efficiency in public services and re-engineer the workflow to take advantage of technology and, in doing so, improve transparency.

Government, not technology

This leads to my most important point: we must not lose sight of the fact that the emphasis in e-government should be on the 'government' and not on the 'e'. In Korea, we reorganised our administration to reflect this ideal. At the end of 2003, there were two ministries, each competing with each other to set the pace in e-government reform. The first was my own: the Ministry of Government Administration and Home Affairs (MOGAHA) and the other was the Ministry of Information and Communications. These two ministries have several things in common but the President decided to place all e-government initiatives under the MOGAHA banner, because at the end of the day, e-government is not about technical innovation: it is about government reform.

Within MOGAHA, we created the E-Government Bureau (previously the Government Informatisation Plan Office), increased staffing levels from 50 to 70 people and launched two new departments: one to manage the development of information resources and the other to focus on support for e-government initiatives. Within this, my role has been to manage this change of focus, from building information infrastructure and supporting IT to changing the way we do business in government, the way we serve the citizens, the way we manage our information resources and so on.

1.3

I feel strongly that this is the right approach. Our perspective has changed. We have gone beyond the technical agenda and focused on the nitty-gritty of putting citizens at the centre of the administrative process, realising at the same time that it is not just about how we govern, but about how well we govern.

Internet access to government services

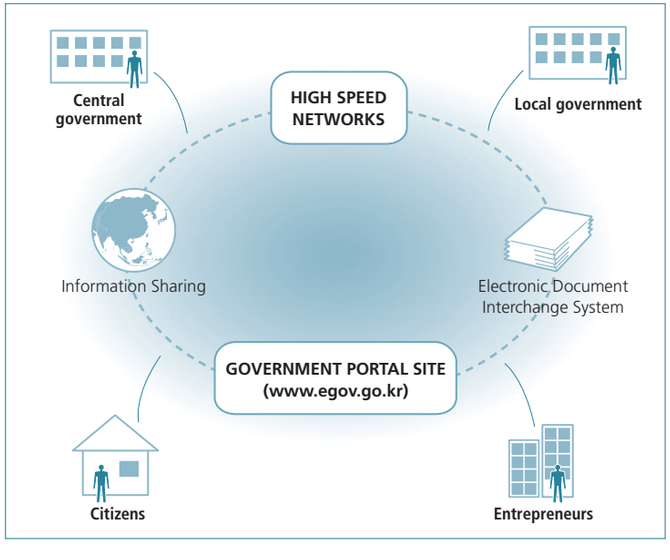


Figure 1.

The e-government programme

We currently have over 30 initiatives running, which we collectively refer to as the 'e-government Roadmap'. These can be broken down into four categories: innovation of working practices, upgrading citizen services, innovation of information resource management, and statutory initiatives to ensure that the process is not held back by outdated legislation. However, it probably helps to focus on just eleven initiatives, all of which date back to 2001–02 and which are now advanced enough to provide better concrete examples of how we're getting on.

These eleven initiatives are listed in Table 1. Broadly speaking, they fall into three categories: upgrading government services, improving efficiency and improving infrastructure.

Predictably, many of these initiatives did not proceed as planned. For example, the National Education Information System got into hot water in 2003 due to privacy issues and their possible infringement on civil liberties. As a result of lessons like that, my mission has become focused on ensuring that both government and the electorate are sold on the benefits of the new services.

Apart from the varying reactions of government and the governed, the other issue has been with interpreting results in the early stages when take-up has been low. There have been barriers to take-up: for example, when people use the services, they have to identify themselves on the Internet. We use an electronic signature system: I have one, for example, on my PC and whenever I am asked to identify myself, I boot it up. It is a very simple single-click transaction, but it is still something new and people are nervous about it.

There are also cost issues. At the time of writing, we are providing these signatures to people for free, but the government has plans to charge for it Obviously we are opposing this – if you charge for it, fewer people are going to use it and the service becomes less inclusive. But we are also opposed to it simply on the grounds of practicality. Payment means more clicks, whether through a debit or credit card system, and that is also a barrier to usage, both for reasons of time and lack of familiarity.

My challenge, therefore, is to get people used to these new processes, to persuade them that it really is easy, and to defuse possible emotive issues such as privacy and the threat of online fraud. We can enlist the help of newspapers, TV and other media outlets. We also encourage the civil servants at the sharp end – manning the service desks of the various departments – to make people use the Internet instead of the previous offline system. You could compare it with the way the banks re-engineered their business, by cutting down on tellers and replacing them with concierges who directed people to new services and solutions.

E-Government Roadmap: eleven initiatives

Upgrade government services
• **Government for Citizens (G4C)** Establishing a government portal for Internet services plus information sharing between five major government service areas – resident registration, real estate, vehicle records etc.
• **Social Insurance Information Sharing System** For health insurance, pension, unemployment, and industrial accident compensation
• **Home Tax Service** Enabling online filing of tax returns, electronic billing and payment
• **Government Electronic Procurement System** To achieve transparent procurement processes
Improve administrative efficiency
• **National Finance Information System** For budget planning and allocation, accounting, settlement of accounts and finance-related information available via an interagency network
• **National Education Information System** For the electronic distribution and management of information on students' school activities
• **Local Government Information Network System** For the 21 administrative areas common to all local governments
• **Personnel Policy Support System** To manage the recruitment, promotion and pay of civil servants
Establish e-government infrastructure
• **Electronic Document System for Administration** Incorporating functions such as electronic approvals and electronic document distribution across agencies
• **Electronic Authentication System** Improving reliability and accountability
• **Business Process Re-engineering** Aimed at the management of government-wide information resources

1.3

Table 1.

The G4C portal and INVIL

Let us now look in a little more detail at two of the initiatives: G4C and INVIL. Among the eleven initiatives we carried out during 2001–02, the G4C (Government for Citizens) project provides the best example of digital interaction between government and citizens.

G4C was launched in November 2001 and concluded a year later. To start with, we had more than 50 ministries and agencies in central government, each of which had its own website with the usual incomprehensible URL. Once you had passed that barrier, you then had to work out which official you needed to deal with regarding your particular issue. To cap it all, a number of agencies could be involved, each requiring the completion of different forms.

G4C aimed to solve these problems by presenting a unified portal to users. The back-end complexity of government would be hidden from view and instead the user could easily apply for various public services and obtain related information, with fewer trips to government offices and without having to submit endless supporting documentation.

The main objectives at start-up were to define the model and to encourage departments to digitise the relevant resources. At a more basic level, the project fell into four parts: first, establishing a portal site with a map of resources and departmental responsibility. We had to design and provide electronic forms and a progress tracking system, so that users could tell how their applications were proceeding. The portal ended up by offering around 400 services to users.

The next task involved setting up the back-end framework for sharing data between the various sectors, including data protection features. After that, we needed to create an infrastructure for payment and authentication. This included the establishment of a public key infrastructure to prevent the forgery and falsification of documents. We also had to build firewalls and other security measures to protect the security of the data against tampering, hacking and other unauthorised access.

Finally, we needed to revise the statutory framework to meet the demands of the new system. Of particular note here was the requirement to define the legal status of electronic documents and online transactions.

'If you are a commercial organisation, the digital divide simply constrains your market. When it comes to government, it is a threat to universal suffrage and effectively disenfranchises the minority, so it is a matter of paramount importance.'

G4C in practice

G4C was a major challenge. Just providing a map of the various services involved dealing with over 4,000 government services. These were gathered into hierarchical categories: for example, if I want to get some information about my family tree, I just get the first group, click on that and move down through the hierarchy until I reach the appropriate area. It is very easy to get the right information about the service I want.

We ended up with about 400 services on offer, for example, ordering the verification document for residency or citizenship. At the administrative end, people in one agency can now take a look at the information about me held by another by accessing the third party database. Before, I would have been asked to provide proof of status or other relevant supporting documents, but now the departments can communicate directly with each other's data resources and carry out the verification themselves.

It has to be said that the initial take-up on G4C was quite low. One problem is the unease people feel when they know that government agencies are sharing information. You may, for example, be giving one story to the taxman and another to the employment agency. But just as important as the feelings among those who are not using the system are the feelings among those who are. On that basis we have had very positive feedback. People see the system as convenient and empowering. I am confident that this good reception will slowly generate the more broad-based support we are looking for.

INVIL (Information Network Village)

Finally, I would like to mention our INVIL project. We started this in 2001 when one of our main concerns was the digital divide. This takes on special significance when it comes to e-government. If you are a commercial organisation, the digital divide simply constrains your market. When it comes to government, it is a threat to universal suffrage and effectively disenfranchises the minority, so it is a matter of paramount importance.

The INVIL project was set up by MOGAHA to help people in remote areas, who might benefit from access to rich media content on topics including education, medical treatment, agricultural skills, and so on. We also foresaw that it could create a channel for retailing local products directly to urban consumers, similar to the 'farmers' markets' that have become popular in the UK and elsewhere. In this way, the project would play an important role in boosting the local economy as well as balancing regional development nationwide.

INVIL kicked off in August 2001 and during the first year 25 villages were involved. These were mainly located in agricultural and fishing regions. The project entered a second phase which lasted until June 2003, adding a further 78 villages across the country. At the same time, we introduced monitoring and research programmes to assess the success of the project.

INVIL involved, at the government end, the Ministry of Agriculture and Forestry, the Ministry of Information and Communication, the Ministry of Education and Human Resources Development, the Agricultural Cooperatives, and the Fisheries Cooperatives. The active involvement of local residents was emphasised from the start and an 'INVIL Operation Committee' (IOC) was appointed in each village with fifteen or so resident representatives. The committee determined critical issues relating to feature sets and business models for e-commerce. It was therefore encouraged to become a management board in its own right, so that the operation would be able to stand on its own two feet after government support for the project was over.

The project involved six main operations. First, ADSL lines were laid to each household and an Internet network was set up in the Village Information Centre. The latter was erected using grant finance in each participating village and was equipped with PCs, LAN, data projection and other facilities.

Selected households were then offered free PCs, according to qualifying criteria laid down by the IOC. This had the effect of raising PC penetration rate in the villages to 70 per cent. A training programme was implemented to develop skills and over 40,000 people had attended these programmes by the end of 2003. Additionally, more than 200 people were selected as 'village leaders' and these individuals received special training to develop their vision and expertise.

The biggest task, of course, was building the content itself and ensuring that the villagers were the main beneficiaries. Finally, the entire project required a public awareness programme to ensure that people knew what was on offer. The project as a whole cost in the region of 10 billion won (US$7.7 million) for the first phase and 28 billion won (US$21.5 million) for the second. Central government underwrote 100 per cent of the first phase costs; local government was required to contribute 25 per cent of the budget for the second phase.

The key benefits of INVIL were a reduction in the digital divide, including a rise in PC and Internet penetration, an increase in the community skill base, and the establishment of a service framework for the introduction of e-government initiatives. The range of content offered by the service ranged from information on agricultural techniques to commodity pricing, weather forecasting and educational resources for children. Local customised content was also developed to sit alongside global data.

The third phase of the project came to an end in September 2004, reaching out to 88 more villages and introducing e-commerce functionality to support local traders. For example, suppliers of fish, fruit and other agricultural products are now able to sell direct to city dwellers.

INVIL and G4C are just two initiatives in Korea. Our mission is to make government both more efficient and more transparent. Our entrepreneurial national character has combined with an early lead in infrastructure development and together these have given the country a unique opportunity to trailblaze e-government practice.

We want to place our citizens at the centre of the administrative process. The key to this has been our integration of e-government implementation into the reform of government itself. And finally, of course, prudent management has been essential to ensure that the projects remain cost effective.

Partnering for a results-oriented government

Karen Evans | Administrator, Office of Electronic Government and Information Technology, The United States of America

USA
POPULATION: **293,027,571** (July 2004 est.)
GDP in $'s purchasing power parity: **$10.98 trillion** (2003 est.)
INTERNET USAGE: **159 million** (2002)
PERCENTAGE OF POPULATION: **68.8%**

The federal government is results-oriented with the help of new disciplines and habits that agencies and departments are adopting though the President's Management Agenda. Here is how we drove change and manage our results in preparation for the next wave of transformation.

The federal structure

The United States of America is a constitution-based federal republic founded in 1789 with a strong democratic tradition. Its 293 million people are located in 50 states, one district and numerous territories. The federal government is split between three co-equal branches: executive, legislative and judiciary.

The Executive branch is led by the President who is the head of state. The President appoints numerous officials including agency leaders who are responsible for executing various responsibilities entrusted to the branch. The Legislative branch is a bicameral Congress consisting of the Senate (100 seats, one-third are renewed every two years; two members are elected from each state by popular vote to serve six-year terms) and the House of Representatives (435 seats; members are directly elected by popular vote to serve two-year terms). Finally, the judiciary is led by the Supreme Court whose nine justices are appointed for life by the President with confirmation by the Senate. Each state, district, territory and the localities within them are governed by similar apportionment of power among legislative, executive and judicial branches.

The federalised structure of our government provides a unique challenge with regard to developing and executing a government transformation strategy. And, since the federal government currently spends over US$60 billion annually on IT, it took a combination of executive leadership, interagency collaboration and constant monitoring to move forward quickly and show results.

The catalyst: the President's Management Agenda

In early 2001, President George W. Bush presented to Congress a bold strategy for improving the management and performance of the federal government. This strategy, referred to as the President's Management Agenda (PMA), contained three main principles. Government should be:

- citizen-centered, not bureaucracy-centered;
- results-oriented;
- market-based, actively promoting rather than stifling innovation through competition.

> 'To reform government, we must rethink government.'
> – GEORGE W. BUSH, THE PRESIDENT'S MANAGEMENT AGENDA

The PMA also contained five government-wide goals to improve federal management and deliver results that mattered to the American people. One of the core goals, Expanding e-Government, had as its secondary tier of goals to:

1.4

- make it easy for citizens to obtain service and interact with the federal government;
- improve government efficiency and effectiveness;
- improve government's responsiveness to citizens.

To accomplish these goals would require new focus and management of information technology strategies and resources across government. So on 14 June 2001, the Office of Management and Budget (OMB) within the Executive branch established the position of Associate Director of Information Technology and e-Government. This position would be responsible for fulfilling the President's vision of using the Internet to create a citizen-centric government.

However, we learned the position required greater support and authority in order to carry out its duties and deliver the anticipated results. So on 16 April 2003, OMB officially launched the Office of Electronic Government and Information Technology reporting to the Deputy Director of Management in OMB. My predecessor, Mark Forman, served in both positions and was appointed the office's first Administrator. On 6 October 2003, I was appointed the office's second Administrator where I continue to implement the President's vision and deliver results.

Personally, the philosophy and execution of the PMA is the key reason why I accepted this post. As a long-time career federal employee, I find the PMA unique and different from past government reform efforts because it includes all employees, it focuses on outcomes and measurable results, it places the citizen at the centre and the PMA holds managers accountable for their results.

'Personally, the philosophy and execution of President's Management Agenda (PMA) is the key reason why I accepted this post. I find the PMA unique and different from past government reform efforts because it includes all employees, it focuses on outcomes and measurable results, it places the citizen at the centre, and the PMA holds managers accountable for their results.'

Early wins

Early in the process to expand e-government, OMB established a large interagency task force with responsibility for identifying and selecting high-impact initiatives that would support the secondary goals mentioned above. Through a balance scorecard process, the task force selected 24 initiatives from hundreds of submissions and created the 24 e-Government Initiatives portfolio.

The results to date have been dramatic in all portfolio quadrants. For example, over 3.4 million taxpayers out of 78 million eligible Americans filed their tax returns over the Internet using Free File, a no-cost tax preparation and filing software application available for low and moderate-income taxpayers. Disasterhelp.gov provides federal, state, and local emergency managers better online access to disaster-management-related information, planning and response tools. To date over 15,000 users have registered for the service.

24 e-Government Initiatives highlights

GOVERNMENT TO CITIZEN

- 3.4 million taxpayers filed using Free-File
- Recreation One-Stop provides easy access to 3,000 federal park and other recreation sites

GOVERNMENT TO GOVERNMENT

- 15,000 users registered with Disasterhelp.gov
- Disaster Management services used in 43 actual emergencies
- 157 programmes available through Grants.gov with 825 applications received electronically since launch

GOVERNMENT TO BUSINESS

- 1.4 million on-line applications received for Employer Identification Numbers (EIN)
- 350,00 business tax forms filed electronically in first year of availability

INTERNAL EFFICIENCY & EFFECTIVENESS

- More than 65 million job-seekers used USAJOB to create online resumes
- E-Payroll consolidating payroll providers from 26 to 2 partnerships

CROSS-CUTTING

E-Authentication (GSA)

Figure 1.
Source: OMB, November 2004.

Most of the 24 initiatives will graduate in the forthcoming year, that is to say they will have achieved their stated goals and will be fully integrated into agency or department day-to-day operations. In addition, eight agencies have achieved 'green' for e-government as part of our scorecard process. This means they have achieved high metrics in the areas of enterprise architecture, security, business case development, support of e-government and ensuring major Information technology projects remain within 10 per cent of cost schedule and performance.

Of the 24 initiatives identified by the task force, there is one that, in my opinion, would be most beneficial as part of a global dialogue. I believe SAFECOM will provide innovative solutions to coordinating responses among first responders. There are 44,000 separate public safety agencies and organisations in the United States. Federal customers include over 100 agencies engaged in public safety disciplines such as law enforcement, firefighting, public health and disaster recovery. SAFECOM works to provide interoperable communications so safety agencies can respond most efficiently to disaster. When the SAFECOM solution is finalised, it will provide a model to other countries on methods to more closely align public safety agencies.

Transparency: the President's Management Agenda Scorecard

1.4

Transformational change is dependent upon strong executive leadership. And the challenge of any transformational initiative is to gain the support and buy-in from all levels of leadership. The President's Management Scorecard is one of the best practices we are most proud of. The Scorecard provides a succinct and measured tool to chart agency progress in achieving the five goals of the President's Management Agenda. The Scorecard employs a simple Stoplight grading system, common today in well-run businesses:

- Green for success;
- Yellow for mixed results, and
- Red for unsatisfactory.

For the last three years, the publication of the Scorecard provides transparency on agencies' progress and holds the government not only accountable to the President but also to the taxpayer for our results. The Scorecard is published every six months and is available on www.results.gov, the official web site of the PMA.

From personal experience, I do know the President really does look at these scores. In one review session, the seating location of each agency head in relation to the President indicated who was in the 'Green' and who was in the 'Red'. Those seated closest to the President had very good scores, and the ones seated directly opposite to him had direct eye contact with him during the review. It makes for a very powerful discussion.

Executive Branch Management Scorecard

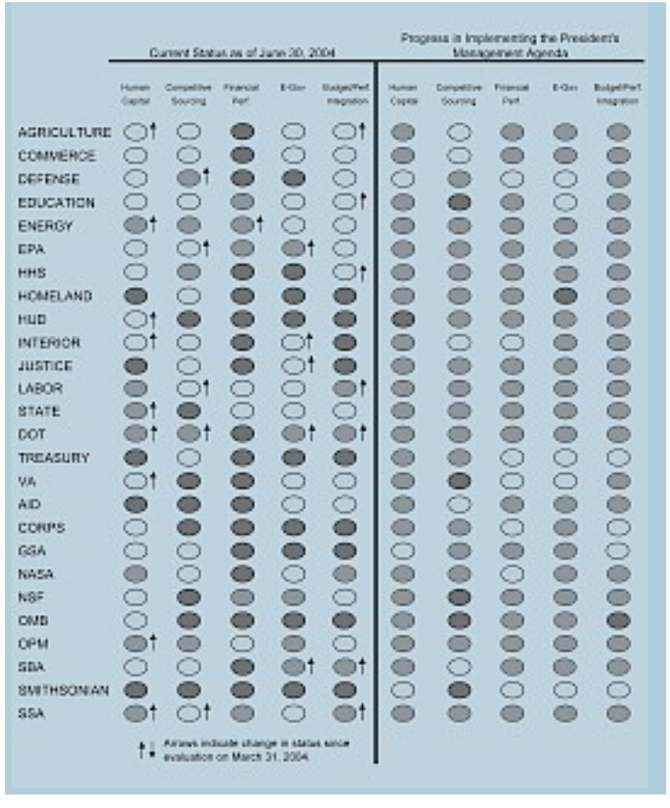


Figure 2.
Source: www.results.gov website.

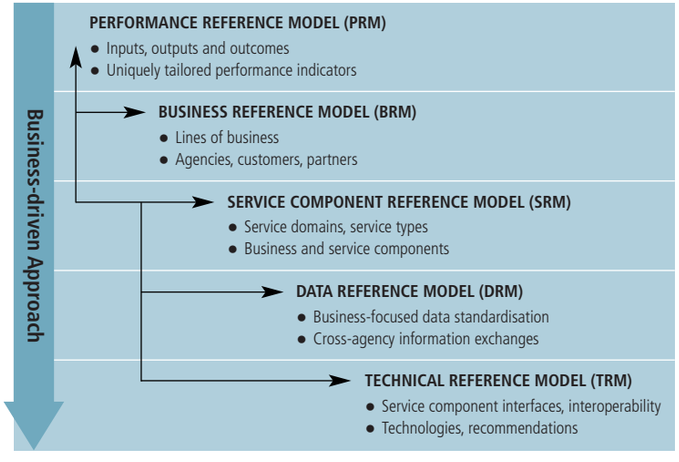
Standardisation: the Federal Enterprise Architecture

Another early win for us was the development and implementation of a federal information technology policy or what we now refer to as the Federal Enterprise Architecture (FEA). The FEA is a business-based framework for government-wide improvement. It is constructed as a collection of interrelated 'reference models' designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps, and opportunities for collaboration within and across federal agencies. The five models are defined as:

- Performance Reference Model (PRM);
- Business Reference Model (BRM);
- Service Component Reference Model (SRM);
- Data Reference Model (DRM);
- Technical Reference Model (TRM).

Another integral part of the FEA programme is the Federal Enterprise Architecture Management System (FEAMS), a web-based management system designed to provide agencies with access to initiatives aligned to the Federal Enterprise Architecture (FEA) and associated reference models. FEAMS includes multiple features to provide users with an intuitive approach to discover and potentially leverage components, business services and capabilities across the federal government.

FEA component-based architecture



1.4

Figure 3.
Source: Federal Enterprise Architecture Program Management Office.

How do we measure the impact of our efforts? We are going to continue to improve the Performance Reference Model of the FEA. Also, we are linking our IT investments to another analytical tool used by this Administration which is the Programme Assessment Rating Tool (PART). The PART measures the overall programme's performance in achieving outcomes and efficiencies. There are currently 60 per cent of the overall federal dollars representing 600 programmes which have been assessed. These goals have already been established and verified to directly support the overall agency mission.

Furthermore, we are working to have specific performance measures developed to measure the intended outcome of the 24 initiatives. We also utilise internal and external measurement bodies to verify our statistics.

The next phase: common lines of business

Recently, we have taken advantage of our investment in the FEA effort and its expanded architecture data to drive greater opportunities to improve services and use of citizen tax dollars. The FEA model helped us analyse the primary lines of government business, extract key common solutions across multiple agencies, balance multiple needs, provide gradual and measured integration, and identify significant levels of cost savings and cost avoidance. We have developed solutions for five business lines which are presently being reviewed for inclusion in the FY2006 Presidential Budget. They include:

- financial management;
- grants management;
- human resources management;
- case management (criminal and justice case management);
- federal health architecture.

We recently added a sixth line of business, information sharing, as a result of growing needs across the many federal agencies, including state and local authorities. We are actively partnering with industry to leverage best practices and solution models for each of these lines, and we expect all lines will yield benefits because we will be providing services for the government as a whole in a common way. This innovative approach to driving e-government across such a vast enterprise as the United States federal government is a tremendous undertaking and will achieve significant results.

One of the most challenging, yet rewarding, aspects of my position is how to gain the buy-in of politics and politicians. Our office interacts closely with leaders in the executive and legislative branches to highlight how e-government provides a magnitude order of improvement in serving citizens and improving government operations. Our agency leaders support e-government because it provides direct and measurable results supporting their overall mission and goals. Legislative leaders are especially interested in how e-government assists their constituents due to improved service levels. We testify on a consistent basis before various legislative oversight bodies on matters relating to e-government and information technology. These venues provide an additional opportunity to ensure our proposed solutions will meet the high level of quality that citizens demand.

Lines of business initiatives

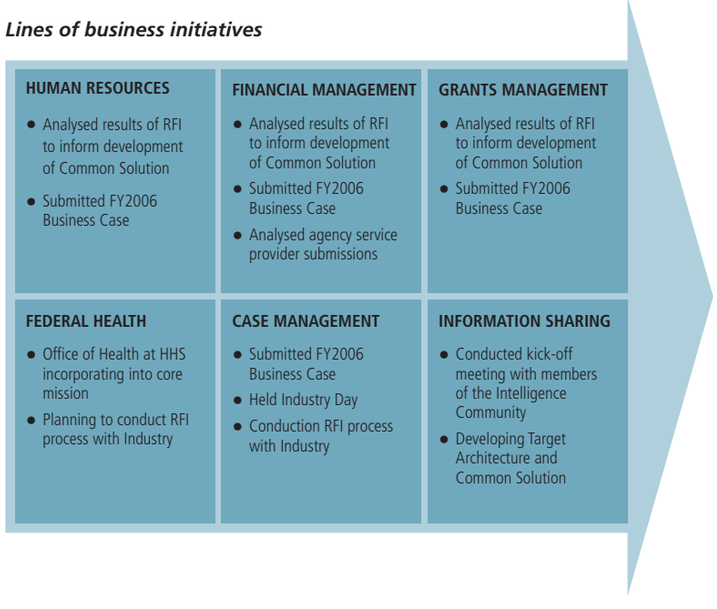


Figure 4.
Source: OMB, November 2004.

Of course security is a main concern of my Office as well. In the present age of constant cyber attacks and expanding threats, security is an essential element of our e-government strategy. Data which is not secured cannot enable agencies to serve citizens and other entities if it cannot be trusted. Agency security operations are closely monitored by our office through the Federal Information Security Reform Act (FISMA) reporting process, the quarterly Scorecard reviews and the justifications provided by agencies for information technology investments. We support the move to ensure security is fully integrated into the design and development of all technology projects. We continue to monitor federal security operations in close cooperation with other federal authorities.

The next steps

Presently, our use of Federal Enterprise Architecture data to drive line of business analysis will continue to be a central focus in our efforts to direct information technology investments to directly support service delivery to citizens and other entities. These analyses continue to show great opportunities for utilising taxpayer dollars more efficiently, driving greater data utilisation, and providing new and improved transactional services in the future. This model will be employed as we evaluate agency and Federal Enterprise Architecture information in the coming years.

1.4

We also have a defined set of goals we are driving toward. They include:

- 75 per cent of all agencies will have acceptable business cases justifying the investment and outcomes for IT investment;
- 50 per cent (or 13 agencies) will be managing projects to within 10 per cent of cost, schedule and performance;
- 90 per cent of IT systems will be properly secured;
- 50 per cent of the agencies will have clearly identified skill gaps and will have plans to close those gaps with a Human Capital Management strategy;
- institutionalisation of initiatives in the business lines.

We have laid down the foundation with the PMA, defined our initial 24 e-Government Initiatives, and our Federal Enterprise Architecture framework. We are now in the adoption phase where we are increasing agency adoption and customer utilisation of the initiatives. The next step is transformation. In my opinion, real transformational change is possible and we find our 24 initiatives are on the cusp of driving this level of transformational change. The 24 e-Government Initiatives will pale in comparison to the transformational opportunities provided by the emerging line of business activities. Here is where we can create the desired efficiencies, shut down ancillary and duplicative systems, and increase the number and quality of services we deliver to citizens and our global partners.

Conclusion

The measure of success is the results we achieve and the satisfaction of our customers. The ultimate success of an e-government programme is determined by measuring distinct, quantitative, citizen centred, performance results which are tied to overall agency mission goals and outcomes. Each initiative must have specific performance targets it must meet and, in doing so, will have a significant beneficial impact on our citizens. More importantly, enterprise architecture will be integrated into every aspect of business decision making to ensure we are getting the correct information to the right people, on time, on schedule, securely, and in so doing ensuring the privacy of our citizens.

> 'It is this very level of transparency and accountability at the President's level that has driven many of the results we needed to achieve.'

Throughout the past three years we have learned numerous lessons, but our top learnings are that:

- agencies' Enterprise Architecture efforts are essential for investment decision making in assuring the long-term vitality of e-government solutions;
- executive leadership is essential for transformation;
- integration of budget and performance is essential to ensure taxpayer monies are driven to the best solutions for producing outcomes.

Finally, the President's Management Agenda has driven results I had never expected. The Scorecard used to measure agency results provides a 'line of sight' for everyone involved. But, more importantly, the President holds his Cabinet members accountable for their performance. It is this very level of transparency and accountability at the President's level that has driven many of the results we needed to achieve.

For more information visit:
http://www.whitehouse.gov/omb/budintegration/pma_index.html
http://www.whitehouse.gov/omb/egov/2003egov_strat.pdf

Modernisers

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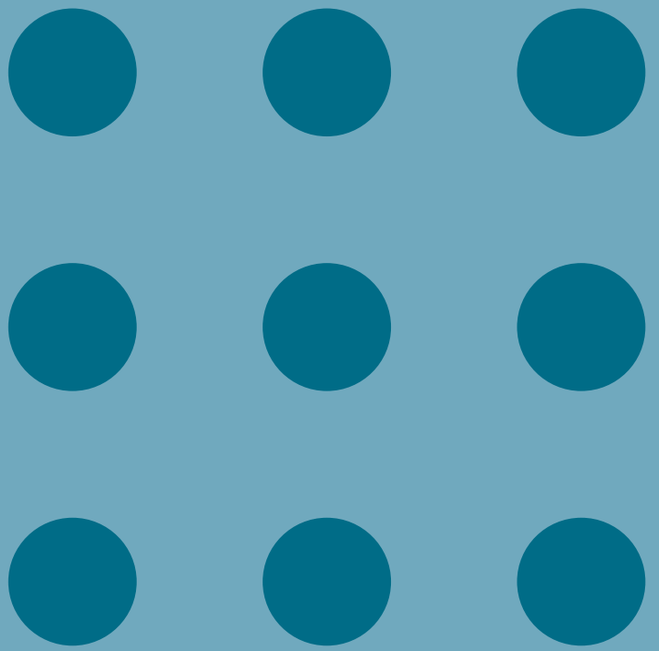

2

E-government in France: more efficient administration, higher quality of service for all citizens

Renaud Dutreil | Minister for the Civil Service and Administration Reform, France

FRANCE
POPULATION: **60,011,200**
GDP in $'s purchasing power parity: **$1.654 trillion** (2003 est.)
INTERNET USAGE: **23,352,522**
PERCENTAGE OF POPULATION: **40.6%**

Renaud Dutreil, Minister for the Civil Service and Administrative Reform, reviews France's e-government strategy, including the Copernic Programme to help taxpayers and the 'Electronic Government 2004/2007 – ADELE' project, a long-term initiative to establish a consistent and co-ordinated framework for e-government development, with a straightforward objective: to make life easier for all.

Introduction

France is committed to administrative reform and e-government is very high on the agenda. As a result, we have a unique opportunity to raise the bar when it comes to quality of service for citizens, while at the same time making the whole administrative process – frequently criticised for being excessively cumbersome and obscure – more transparent and accessible.

E-government is to the state what IT has been to successful private enterprise: a way of re-engineering complex processes to boost productivity and develop new services. It is a huge challenge: we are not only accountable to our shareholders – or rather to our citizens – but are also faced with critical issues of reliability, security and confidentiality, far more so than in the private sector. In the public domain, we cannot simply target the most profitable clients: we have to cater for everyone, regardless of social status, academic standing or even nationality.

E-government's pre-eminent position on the reform agenda is largely down to the initiative of the President, who has been personally responsible for sponsoring the e-government project. His objective has been to establish – at all levels of the administration – a service culture that combines transparency with demonstrable results.

Let us make it clear from the start that we are not talking about dragging your average French citizen kicking and screaming onto the Internet and forcing them to conduct all their government-related business online. This is not just about the citizen: it is as much an issue of internal restructuring within the administration itself. The process entails an in-depth overhaul of the way we govern a whole spectrum of new relationships and management structures to leverage the benefits of shared information. The final objective is more efficient services with a high degree of personalisation.

E-government in France has got off to a good start. We have nearly 10 million households equipped with a PC, 7 million of which are online. Twenty per cent of the adult population already use the Internet for government-related business and another 40 per cent have said that they would be willing to do so.

2.1

But what exactly are they – or would they be – doing?

The Copernic Programme

The Copernic Programme, which deals with fiscal reform and aims to present a simple, accessible service to the taxpayer, has been perhaps the most innovative e-government initiative to date in France. The programme is already well advanced and is seen as a major stepping stone to other, more advanced 'e-administrative services'. We had to fast-track our internal reorganisation, but we have been rewarded with a rapid take-up by the public.

The long-term goal of Copernic is the delivery of a simple 'one-stop-shop' (a single, unified user account) for every taxpayer – individual or corporate. A single-user account and gateway to services will work wonders for the flow of information both within the administration and between it and its clients. It will ease the burden on the administration, improve efficiency, simplify tax procedures and make relevant information more readily available.

Copernic kicked off in 2000 and has an eight-year project plan. It covers 70 individual IT projects, employs over 600 personnel and has a budget of almost €1 billion. Several milestones have already been passed including the launch of applications for paying VAT online (TeleTVA) and income tax, as well as a single web portal for all tax-related business. You can find this at http://www.impots.gouv.fr.

French taxpayers can now declare their taxes online quickly, easily and securely. They get an immediate electronic receipt which they can download and print if necessary. All taxpayers also get full access to their own tax records and associated information, plus the ability to declare tax online and check their accounts using an electronic signature. This is one of the first examples of electronic certification on a wide scale and is obviously key to the development of next-generation e-government services.

The national database created for the project allows tax officers, via their departmental intranet, to check the records for any taxpayer dealing with income tax, CSG (welfare contributions), residential tax and property tax. This same information is available to the taxpayer via the Internet. As a result, the programme enabled 600,000 tax-payers to fill in their tax returns online in 2003 and in 2004 that figure more than doubled to 1,252,319. The Government is offering a further incentive in 2005 of a €10 tax credit for those returning and paying online, so the service is bound to become even more popular. We are considering similar incentives in other areas to boost the take-up of other new e-administrative services.

> 'e-tax services will be delivered through a variety of other channels, including call centres and interactive TV as well as via traditional over-the-counter methods.'

The Copernic Programme remains on track. The single unified user account was, at the time of writing, due to be completed by the end of 2004. All tax-related applications will then progressively be connected to the new system, integrating a whole range of tax-related databases and other resources. As of 2006, taxpayers will be provided with 24/7 online access to their fiscal account and will be able to 'track and trace' their transactions and, ultimately, will be able to execute all transactions and declarations online, while the tax administration will be able to provide new services such as payment reminders and information alerts. By 2007, Copernic will also introduce a new income tax recovery system.

Finally, this is not just about the Internet: e-tax services will be delivered through a variety of other channels, including call centres and interactive TV as well as via traditional over-the-counter methods.

A framework for reform

The Copernic Programme is clear evidence that we are not just sitting back and talking about e-government, we are actually putting it into practice. This obviously means that government itself has to adapt and change, keep costs under control and improve services. E-government raises fresh expectations among the electorate, but it also gives us the tools to meet those expectations. Conversely, active participation by citizens in the administrative process can help to reduce costs and save time: the cost of processing documents remotely can be as low as one per cent of the cost for the equivalent paper-based transaction and just 10 per cent of the cost if the transaction involves a combination of manual and electronic file processing.

The President has set down an ambitious road map for e-government. The objective is that, by the end of 2006, it will be possible for all interactions between the electorate and the administration to be carried out remotely:

either over the telephone or via the Internet. So France is moving forward! A recent survey by Cap Gemini Ernst & Young on behalf of the European Commission concluded that France is now a leading player where e-government is concerned. Having made the 'finest efforts in 2003', we are now in eighth place in this annual survey and ahead of the UK, a country that had previously been setting the pace in this area. This sort of recognition drives us to make even greater efforts.

Enter the 'Electronic Government 2004/2007 – ADELE' project. This is a long-term initiative for the establishment of a consistent and co-ordinated framework for e-government development. It has a straightforward objective: just make life easier for all of us, whether we are individuals, civil servants or employees representing organisations in the private sector.

Making life easier

As our philosopher Henri Bergson commented, 'People should devote the effort they put into complicating life towards making it more simple.' We have firmly embraced this philosophy, so the first goal of e-government in France is to make things easier for everyone. With this in mind, we are as much concerned with enhancing the traditional services offered by government as with offering new ones. These services must be accessible to everyone: not just to all Internet users but also to people who are offline, either through choice, lack of resources or lack of relevant skills. Even people who fall into the latter categories can benefit from e-services, via helpdesks, public terminals or simply over the telephone.

> 'As our philosopher Henri Bergson commented, 'People should devote the effort they put into complicating life towards making it more simple.' We have firmly embraced this philosophy.'

E-government is going to embrace every area of the administration. It is time to call a halt to the inflexible rituals of over-the-counter officialdom, which condemn users to an endless obstacle course of helpdesks every time they want to fill in a form or gather information from different departments. ADELE sets out an agenda for this that breaks down into 140 measures relating to 300 new services, each of which is going to make a direct or indirect contribution to making life easier for everyone. This is going to be done not just by linking up internal ministerial departments, but also by incorporating local municipal government, social security organisations and private-sector organisations.

Here are four examples covering individuals, companies and local administrative bodies. In the first two categories, the basic principle is for the government to shoulder the burden of administrative complexity – a commitment made possible through the use of new technology.

Simpler for citizens

Our first example is just a phone call away. We have introduced a single contact number – 3939 – for all government services. It is simple, straightforward and useful for everyone, not just for those who own a computer. It is open from 8.00 a.m. to 7.00 p.m. five days a week and, on Saturdays, up to 2.00 p.m.

The 3939 service began trials in November 2003 in the Rhône Alpes region. Although a very simple concept, it actually requires a great degree of infrastructural support and involves call centre technologies that can deliver a very high level of service. The idea came about for the simple reason that people often need to talk to someone before they carry out a transaction. They may need to know what documents they should produce, what the opening hours of the public service bureau in question is, and so on. In some cases, a simple telephone call can sort it all out without the need for leaving home or taking the afternoon off work.

3939 has proved so useful that the President has expressed the wish for it to be deployed nationwide. This will be the case by the end of 2004, at which point France will be able to offer its citizens a service which, in terms of its comprehensive nature and national coverage, will be unique in Europe.

A second, more specific example is moving house, an administrative obstacle course of SAS-style proportions which 6 million French citizens have to face each year. In the future it will be a lot easier thanks to the single change-of-address notification service.

A single Web gateway will give the proud new homeowners a menu from which they can choose which government departments they want to send a change-of-address notice to, ranging from the electoral register to income tax administration. The service will also be available offline through traditional channels. Users receive a confirmation message from each department via mail, e-mail or text message. Although initially limited to a number of public sector organisations, the service will be progressively extended to include other bodies. It is due to get under way at the end of 2004 with about ten government departments included in the scheme at launch.

Finally, in order to enable everyone, regardless of their position on either side of the digital divide, to benefit from the new services, the government is planning a rollout of interactive terminals on the high street and in office service centres. Particular attention is being paid to local newsagents, where people already go to buy their lottery tickets, cigarettes and tax credit stamps.

Simpler for companies

The Prime Minister has put statutory weight behind an important new initiative for the private sector. The new service enables companies to use a single electronic document to comply with all the administrative requirements relating to employees' pay deductions and social security contributions. Use of the Internet is encouraged, but there is also a hard copy form so that the uninitiated can reap the benefits of e-government even before they are online. Simplifying these procedures is going to make a huge difference to the back-office workload.

Simpler for local authorities

In a move that is part of a general policy to establish a decentralised administration based on a policy of trust and independence, local government in France is being freed from the traditionally intrusive monitoring of legal and accounting procedures. Demonstrating trust and confidence leads to increased efficiency, because all of the parties involved will benefit from new electronic solutions. The objective is to ditch the rubber stamp and arrive at a more reliable and better targeted system that focuses on the essential and dispenses with bureaucracy that exists only for its own sake.

The ACOR and HELIOS projects will make it possible to move forward from the logic of 'rubber stamping' and bureaucracy in order to arrive at a means of control which is simultaneously more reliable and better-targeted since it is re-aligned on the things that really matter.

'French culture demands strict observance of individual freedom and this is monitored by an organisation which is independent of the State.'

Maintaining the trust of the people

Lack of confidence – or lack of confidentiality when it comes to their personal data – can deter any user. We have to guarantee the security and confidentiality of every service we introduce. E-government rests on the twin foundations of service and security. The French government is at great pains to develop its services in association with CNIL (Commission Nationale pour l'Informatique et les Libertés – National Commission on Information and Civil Liberties). French culture demands strict observance of individual freedom and this is monitored by an organisation which is independent of the State. CNIL will be closely involved with the entire development and launch cycle of the government's IT plans.

Our first concern is to enable users to identify themselves reliably on the Internet, to avoid any malpractice or fraud, and to provide them with an electronic signature system for electronic documents. Currently, there are several different applications, distributed free of charge, which enable users to identify themselves and sign documents electronically. The government has decided that each of these solutions should adopt a common standard in order to benefit from economies of scale. This will also make it easier and quicker for the private sector to develop their own applications that rely on electronic signatures.

To this end, with effect from 2006, a new generation of the Vitale card – enabling electronic identification – will be launched in France. We are also working on the specifications for the national electronic identity card (French abbreviation CNIE), which will progressively replace the current identity card as from 2006.

Citizens will retain complete control over their personal data during their dealings with government. In particular, they will be able to determine what information is sent to which department. As another guarantee of transparency, e-government will make it possible for each user to access the data held on him or her by the government.

A tremendous effort has also been made to upgrade the security of State databases so that everyone's personal data is protected against unauthorised/illegal access and abuse.

'Citizens will retain complete control over their personal data during their dealings with government. In particular, they will be able to determine what information is sent to which department. As another guarantee of transparency, e-government will make it possible for each user to access the data held on him or her by the government.'

Finally, the government is conducting a survey on electronic filing, the results of which are due to be published before the end of 2004.

The drive for increased efficiency

Information and communication technology opens up parallel opportunities for administrative reform and for securing major gains in productivity, while at the same time improving the service to users. We have the option of doing away with needless expenditure and repetitive tasks so that our government can concentrate its resources on services, not on procedures and building mountains of paperwork.

Take the digital version of the Official Gazette, a good example of the impact of electronic government. The Gazette provides a daily snapshot of new legislation, decrees, appointments and other government business. Numerous copies currently find their way into government departments, targeted at 5,000 key recipients. The pagination varies from edition to edition, but as a general rule those 5,000 people are consuming 6 tonnes of paper every day. French legislation now gives the electronic Official Gazette the same legal status as the hardcopy version, so we can simultaneously reduce waste and offer a more efficient and cheaper service.

This measure is part of a wider drive towards a paperless administration, in accordance with a national strategy for sustained development.

Public purchasing is also going digital and experience (particularly in Italy) has shown that electronic purchasing can cut costs by as much as 30 per cent. Accordingly, with effect from 1 January 2005, all government departments will be able to receive tenders in electronic format.

Thanks to these and other e-government initiatives, the State is targeting an ambitious goal of cutting costs by €5 billion in the year 2007. Of course, resources have to be made available for training civil servants so that they can both implement and monitor these changes, as well as lay a long-term foundation for e-government in our administrative environment. We are therefore embarking on a training programme that is consistent with the scale of the challenge: more than 20 per cent of training credits for public servants will be devoted to e-government with effect from 2004.

Conclusion

France's objectives for e-administration are simple and straightforward:

- An administration which is more productive, efficient and accessible and less expensive;
- A government which is at the cutting edge of the information society;
- Above all, a government which is service-driven and which puts its users at the heart of the administrative process.

The resources we make available will match our ambitions. We are investing €1.8 billion over the 2004–07 period for the development of 140 projects. This expenditure excludes training costs.

E-government in some measure holds out the promise of ideal government: personal, available 24/7, exceeding users' expectations, and yet still – thanks to new technologies – manageable despite its complexity. The result should be a government without mountains of paperwork; a government which releases the energy and creativity of its servants to provide a public service fit for the modern world.

BundOnline: a centrally coordinated initiative with decentralised implementation

Martin Schallbruch | IT Director, Federal Ministry of the Interior, Germany

GERMANY
POPULATION: **82,633,200**
GDP in $'s purchasing power parity: **$2.271 trillion** (2003 est.)
INTERNET USAGE: **47,182,628**
PERCENTAGE OF POPULATION: **57.1%**

Martin Schallbruch, IT Director of the German Federal Ministry of the Interior, discusses national e-government strategy in Germany, focusing on BundOnline – which determines federal administrative strategy – and Deutschland-Online, which is concerned with cooperation between the various levels of administration and integration of e-government strategies at an individual level.

Germany's federal structure

To understand the complexity of German administration for the setting up and implementation of e-government it is important to remember the rules of the Basic Law. According to the Basic Law the administration is divided into three parts: the federal government, the 16 federal states and the local authorities.

Each has their own independent administration, responsible for the majority of administrative issues such as policing and education. Federal government is responsible for national issues, welfare, the Armed Forces, labour administration etc, but administrative responsibility is also held at regional or even municipal level. Germany has municipal self-government, whereby under constitutional law the municipal authorities have responsibility for their own affairs and are independently organised for their own management. They can respond with individual structures of administration to citizens' needs as they arise locally. The civic situation of a town differs from that of the countryside; consequently administrative issues which relate mostly to citizens and generate intensive contact with citizens are typically centred in the municipal authorities.

Otherwise, though, the nature of German administration in action is relatively consistent. Administration, whether at federal, state or municipal level, has a long Prussian tradition which, however ancient, has remained virtually the same everywhere. The internal cycles of administration, the processes by which administration operates and how domestic resources are managed are similar, but the specialist administrative functions are distributed over various spheres of responsibility.

This means that for IT administration the head of each administrative authority and the heads of each level at which the administrative authorities operate will naturally tend to be autonomous in their own affairs. Central government is responsible for setting up its own administrative centres, for the way in which its authorities operate, and for how services are provided.

In practice, cooperation plays a key role. Regional authorities often act together and agree to structure matters in similar ways. This applies to areas other than IT: for example, in civic registration or personal identification federal government provides a framework and specifies certain principles for the administrative and commercial processes for authorities right down to municipal level. But this does not mean that federal government would have access to regional or municipal authorities to the extent of dictating how administrative processes are to be carried out for IT. There is great variety at regional level, even where administrative issues are similar.

BundOnline

We launched BundOnline because we wanted to make the most of the opportunities created by the Internet and to improve the quality of the services the State offers to citizens and businesses by exploiting the potential of online-based service processes. That also applied to government authorities. The strategy was not so very different from what was being planned or implemented by major companies at that time. For example, we held frequent discussions with Deutsche Bank about their global e-initiative. The core concern was the same: using the Internet to improve service by providing new access channels and new forms of internal processing. We began by looking at how we wanted federal government – BundOnline only relates to federal government administration, i.e. around 100 federal authorities – to provide services for the country over the next five years. Politically, the Federal Chancellor stipulated that we should make a clear move towards Internet facilities, to prompt government authorities to offer their service via the Internet as far as possible, but not to the extent of its becoming the only available channel. Certainly some authorities use it as the only channel if it is appropriate for their clientele, but there will also be authorities that need facilities for telephone or face-to-face consultation in addition to the Internet channel.

The most prominent characteristic of BundOnline is that it is a centrally coordinated initiative with decentralised implementation. Central coordination does not mean that government authorities only have to consider how they are fulfilling this obligation, but rather that they have

to exercise intensive project management while applying specific principles and that the implementation is controlled. Decentralised implementation means that the head of each authority has to determine what the profile of that authority will be by the end of 2005 and ask: 'What is the ideal way for my service to be brought to the clientele using the Internet?' No one can take that function away from that head of authority. In other words, the specialist application, however eloquently it is described, has to be defined on site. In addition, where the objective is to inject knowhow into projects through specified project management methods, software development and specified basic components, when the appropriate central mechanisms are available, there is also a degree of control over the result of implementation.

'The catalysts also have a control function, reporting on the degree of implementation. As with any controlling role, this is not everyone's favourite job.'

We have used and still use external consultancy for central coordination. The best way to explain the role of consultancy is to look at three aspects. First, we have created the 'catalyst' mechanism, which ensures that over 450 projects are interconnected by BundOnline – and are aware of each other – and that these projects are known to the central coordination function. Experienced project managers, each responsible for an average of seven projects, network with each other, implement knowledge management, exercise controls and assess synergy potentials. We thus have a framework of commercial processes, in a form not previously practised in federal administration, to ensure that decentralised projects are aware of central IT services and that the central IT services know what these projects need. This function is crucial and we could only achieve it with external support from experienced IT project managers. They provide the essential underpinning for these two components of BundOnline: central support and decentralised implementation.

The second area for which we use external support is the entire field of controlling including central controlling, central knowledge management, in-house publicity activity etc., whereby we manage and maintain information generated by 450 projects in the 100 authorities and by the central authorities and ensure that this information is available to the people who need it.

BundOnline offers a third externally supported central service for the authorities: 'centres of excellence'. The concept behind this is that we need a certain degree of methodological or technical knowhow for each e-government project, for example, in the fields of security, process optimisation or Internet presentation and content management. It is logical and cost-effective to pool consultation capacities in these areas so that every project is not obliged to buy in consultation capacities when it comes up against a special problem relating to security or process optimisation. This is where centres of excellence come in. They are operated with external support and represent a form of internal consultancy for individual projects.

Function of the catalysts

The catalysts provide access to centralised knowledge and the mechanisms and support facilities of BundOnline. That was the first function which occurred to the authorities, and that is how the catalysts were widely utilised and 'accessed' as a facility or as an opportunity. How they were used was also dependent on the degree of receptiveness within authorities and their readiness to make serious process changes. Some authorities needed continual handholding just to set everything up. The response of others was: 'No, we've got all that under our belts, we don't need our hands held, but of course we can see the need for some active incorporation of the catalysts.'

The catalysts also have a control function, reporting on the degree of implementation. As with any controlling role, this is not everyone's favourite job. However, we have set up a mechanism whereby we first discuss the results with the authorities and give them the chance to provide their own assessment, so that we can be confident that it will not end up with the catalyst being rejected.

At present we have a successful situation. It has continued for two years and we have really had no problems with the deployment of catalysts during the implementation period, although it was tricky at the outset. Administrations have a high capacity for resisting change.

'With BundOnline we are creating a mechanism to open up new synergy potentials from one year to the next. We have already created certain processes which apply to all services, and new ones are being added. Users are already employing the basic components and here, too, new ones are being added.'

Standardisation and SAGA

BundOnline is not only intended to ensure that all government authorities are on the Internet. Rather it has to ensure a degree of consistency in the implementation of all the projects. First, there are quality standards. Secondly, there is the way in which processes are reconfigured. This involves basic components and for this purpose there are centres of excellence which work towards consistency. With BundOnline we are creating a mechanism to open up new synergy potentials from one year to the next. We have already created certain processes which apply to all services, and new ones

are being added. Users are already employing the basic components and here, too, new ones are being added. By this means, we have achieved some standardisation, and that also applies to public authorities' long-term IT strategy. But this standardisation only works if the authorities, in their projects, are firmly guided down the same path.

Typically, public authorities have legacy systems which have originated from specialist procedures. These IT systems have to be replaced by no later than the date on which they cease to make financial sense. Furthermore, such a structure may come onto the agenda at any time and so public authorities must ensure that they adhere to common central administration standards and that they use basic components – 'one for all' services. This is how we can continually expand synergies, which is why at an early stage we put forward a document called SAGA (Standards and Architectures for e-Government Applications) to provide a framework and standards.

With the external consultants, we prepared an initial draft and then set up a SAGA expert group, in which we talked with companies working in the field of standardisation and system integration. In addition to the group of experts, we also have a SAGA Forum, in which we receive comments and suggestions for changes online. The catchment area of SAGA extends well beyond federal territory limits.

'According to the latest poll SAGA is now used by 67 per cent of federal authorities, 69 per cent of state authorities and 67 per cent of local authorities. SAGA is being redeveloped and the next release has yet to be established.'

Government aligned itself with SAGA to increase its own potential synergies. However, it is logical for the various levels of government administration also to align themselves with the same standards; since we are practising collaboration we are also able to take solutions on board. Consequently we have increasingly encouraged state and local authorities to include the activities of SAGA in their drive towards standardisation. We are very grateful that these authorities have approved a White Paper in the relevant collaboration committee for IT standardisation, in which they also commit themselves to main parts of SAGA. According to the latest poll SAGA is now used by 67 per cent of federal authorities, 69 per cent of state authorities and 67 per cent of local authorities. SAGA is being redeveloped and the next release has yet to be established.

Beyond BundOnline

BundOnline has a clear political objective. By the end of 2005, we intend to launch the online services established in the implementation plan; but on its own that is not enough. In BundOnline, we have introduced a method for federal administration, have processed IT projects and have also achieved an innovative form of collaboration on IT topics, namely the introduction of central infrastructures financed by levies and of in-house consultation capacities on certain issues, the identification and set-up of standard processes and the corresponding development of 'one for all' services.

Some areas of the supporting infrastructure will not be dismantled after the end of 2005. Currently we are constructing business models for the basic components and centres of excellence, and from 2005 we shall provide modules for all federal authorities. Using these modules, they will be able to cover their individual needs for modification in their processes and in their IT legacy systems, with a degree of central support even if they have to tackle a new challenging demand for new services. It is vital that we have a federal administration system which is capable of continuous adaptation, modification and amendment as requirements evolve.

The success of BundOnline

The procedure we used for BundOnline has proven its merits. At the outset we affirmed that we had a common goal but that its decentralised implementation and the responsibility for this had to rest within the individual authorities. For this reason we set up workshops where goals and network readiness could be critically discussed in relation to individual authorities. Because we all took part, we now have massive commitment from these authorities, so that, at the present stage, it has already been possible for 260 projects to be completed. We have 376 to implement by the end of next year.

The government is saving money with BundOnline. By now, we have a range of projects where we have achieved savings in public authorities' budgets because processes are predominantly running online. The transformation of administrative processes was made easier by the help given to public authorities provided within the framework of BundOnline. Some authorities considered the need for modernising their processes and providing the service promptly – and this goal received great support from BundOnline.

The third advantage arises with new processes and new services which federal government had to start processing electronically from the outset. Consequently, the present service portfolio of BundOnline has been expanded by a couple of dozen services which did not even exist in 2001. For these services, it was possible to make use of the new central basic components and the new centres of excellence.

Next generation e-gov project: Deutschland-Online

Deutschland-Online is different from BundOnline, which determines federal administrative strategy. The basic concept of Deutschland-Online is cooperation between the various levels of administration, through the various levels of competence, and integration of the various e-government strategies at the individual level. The idea is to exploit the possibilities for flexibility within the framework of existing legal structures, but nonetheless to fulfil specific responsibilities and achieve rapid results in implementation within the framework of the e-government strategy.

The strategy consists of five pillars. The first pillar contains the service portfolio, comprising certain important services for citizens and businesses which have been agreed by state authorities and local associations. The second relates to gateways for simplifying access to these individual services and to the individual administrative procedures, transcending the various levels. The third includes the establishment and utilisation of central e-government infrastructures. The fourth is the area of the negotiation of standards, and the fifth is the overall improvement of the transfer of e-government knowledge.

'The situation for Deutschland-Online is slightly different because it is not an initiative which implements specific projects under the responsibility of the federal government. Rather, it is a cooperative structure in which the various partners collaborate.'

These five pillars were agreed on between the Federal Chancellor and the state governors. At lower leadership levels, individual project groups from the state and local authorities and federal government are responsible for the implementation of individual projects and have to report to each other. At present, there are 23 projects in which project leaders, under their own initiative but in conjunction with other partners, have to begin the application of individual subsidiary processes, followed by expansion to other partners. By this means, it is possible to achieve rapid success in implementation in a federal state. In this context, project responsibility resides with the leading partner, without all of the other partners having to participate. Other partners may take the project on board but are not required to do so. This is an advantage for other harmonisation structures in a federated state.

The starting date was June 2003. The entire initiative was then promoted relatively rapidly during the consultation process. In December 2003, the governors had already agreed upon twenty projects. This national strategy has made great progress so far and common milestones have been designated. The objective is to have all processes online by 2008 within the framework of this strategy; by 2007 there should be readiness for comprehensive electronic communication between authorities; and, by 2006, all the 20 priority projects that were designated in 2003 are to be available online. A further interim goal has been set for 2005 to achieve online access to all the national authorities.

Financing of both e-government strategies

For BundOnline, all federal authorities had to contribute a portion of their IT resources for central functions and provided decentralised functions themselves. This means that each government authority has to decide for itself when it will invest in e-government and to what extent. This is logical because authorities know how familiar their clientele is with the Internet. They have to consider whether they will get through to many clients if they post a sophisticated application procedure online. We are currently looking at innovative information processes and electronic application forms, but the actual transactions are not yet complete, and they will have to be introduced in two or three years' time.

The authorities should hold on to this flexibility. This area has never been centrally financed because the public authorities have the option, on a decentralised basis, to decide whether they would rather invest in offices, IT or whatever. Central functions are financed centrally by an appropriate method of assessment.

The situation for Deutschland-Online is slightly different because it is not an initiative which implements specific projects under the responsibility of the federal government. Rather, it is a cooperative structure in which the various partners collaborate: federal government and states and local authorities collaborate on the 23 different projects and each party bears some responsibility. Each partner will have taken responsibility for promoting a particular project, for example reporting or statistics. For this purpose, the project owner also has to develop a financing model which may turn out very differently for individual projects. In some cases a system for statistics is already in place. For some basic components which are transferred from one partner to another, the system is still in development because the financing of collaboration in administration is always dependent on the interests and advantages which partners perceive for themselves from a given project. Consequently, with Deutschland-Online, it is not possible to make a broad statement about the general rules for financing of these projects.

This is the main difference between BundOnline and Deutschland-Online. Deutschland-Online does not replace the separate e-government programmes of the federal government and state and local authorities. Deutschland-Online prioritises e-government by ensuring that certain processes are not developed in duplicate but once only for everyone. Deutschland-Online then ensures that several partners have to collaborate to be convenient for the advantage of citizens and businesses. But this does not prevent decisions from an individual local authority's right to decide, for example, whether library tickets can be applied for online.

Making e-government work: the content and significance of an e-citizens' charter

Dr Matt Poelmans | Director, e-Citizens Programme, The Netherlands

THE NETHERLANDS
POPULATION: **16,254,900**
GDP in $'s purchasing power parity: **$461.4 billion** (2003 est.)
INTERNET USAGE: **10,806,328**
PERCENTAGE OF POPULATION: **66.5%**

Dr Matt Poelmans, Director, e-Citizens Programme in The Netherlands explores the possibilities of an e-citizens' charter, which would allow citizens to call their government to account for the quality of their online contacts. For governments, the e-citizens' charter could be used to examine and evaluate the external quality of e-government, thus promoting public accountability.The eCitizen's Charter was developed by Tilburg University for the ICTU-programme Burger@overheid.nl. This article is based on a paper written by Dr Marcel Thaens, Dr Macel Bogers and Dr Matt Poelmans.

Introduction

The e-government debate is led by high expectations and deep frustrations about the opportunities and pitfalls of new ICTs in public administration. To develop realistic criteria to assess the quality of e-government practices, we specified some general norms, demands and expectations in terms of clearly defined e-government standards. These e-government standards constitute an e-citizens' charter.

With this charter, citizens can call their government to account for the quality of their online contacts. For governments, the e-citizens' charter can be used to examine and evaluate the external quality of e-government, thus promoting public accountability. The focus on citizens' contacts with e-government is relevant because citizens can increasingly choose between real-life contact and online contact with government. This is called multi-channelling: the option of going to a box office or using Internet forms, e-mail or (mobile) phone for services, information and participation. Another reason to draw attention to contacts with citizens is the ongoing development of the internal quality of e-government. The far-reaching integration of business processes and service chains in e-government calls for a redesign of contacts with citizens, involving a shift in focus from internal quality of e-government to external quality.

The use of citizens' charters originated in the UK, where they were introduced in the 1980s to safeguard the quality of privatised services. Nowadays, some Dutch municipalities use citizens' charters or service standards. Most of these charters confine themselves to service delivery. They describe quality standards for information provision, waiting periods, accessibility or the service itself. Citizens' charters do not pay much attention to other aspects of government such as politics, regulation, law enforcement and the development of public services. Another limitation of the existing charters is that they ignore the development of e-government practices. General quality standards for service delivery are not always suitable for the particular opportunities and difficulties of online service delivery. Probably, this also applies to online political participation and other online contacts with government.

The development of an e-citizens' charter is rather new. Even in countries that lead e-government developments (according to benchmark-studies: Singapore, Canada and the Scandinavian countries) citizens' charters on the quality of e-government could not be found. Neither in the private sector are there any appealing examples of citizens' charters for online services. Insurance companies, banks, telecom providers, Internet service providers and other e-business corporations often have a code of conduct, but this never proclaims quality standards. Surprisingly, most rules and regulations concern the customer's behaviour and are hardly about the conduct of the business or organisation.

Finally, the e-citizens' charter differs from existing citizens' charters because it is not formulated from a government's point of view but instead puts citizens first. Reasoning from a citizens' perspective, the e-citizens' charter shows the expectations people may have formed regarding their (online) contact with government. The e-citizens' charter consists of eleven quality standards for e-government:

Developing an e-citizens' charter

Like other citizens' charters, the e-citizens' charter should be a two-sided contract on agreed quality standards. This means that it has to be formulated by all involved parties. To provide a starting point for this process, this first e-citizens' charter gives a theoretical underpinning for new e-citizens' charters. The development took place in four steps.

Step 1. Identifying criteria

We started with an in-depth study of academic literature and governmental reports that give distinct perspectives on quality standards for e-government. This literature concerns fundamental rights with respect to accessibility of information and data; and also used literature and policy documents on different aspects of e-government, such as e-democracy, service delivery and e-mail communication between government and citizen. From this literature, we identified five general criteria for online contacts. They are not mutually exclusive and sometimes even overlap, although it is also possible that some of the criteria conflict with each other. In that case, consideration for the weight of each criterion is needed.

The e-citizens' charter

1. Citizens can choose how to communicate with government (face-to-face, telephone, mail, e-mail, web forms).
2. Citizens know where to find e-government products or services and how to apply for them.
3. Citizens know the status of the products and services of e-government and are informed about the authority of the official with whom they have digital contact.
4. Citizens get information from their digital government that is correct, comprehensive, current and customised to their personal situation.
5. Citizens do not need to give personal data (e.g. social insurance number, address, date of birth, marital status) over and over again; they have the option to let government organisations share these data.
6. The electronic government works carefully and properly.
7. Citizens are informed on how an electronic government operates and on how a particular process they are engaged in is progressing.
8. Electronic input of citizens is used for improving the functioning of government (for example the amelioration of services and policies).
9. Citizens are informed about the price as well as the quality of services provided by government.
10. Citizens are offered electronic opportunities to think along with their government and to monitor it.
11. Citizens can trust that the government stores electronic documents and data in a good and reliable way.

Efficiency

Reducing costs is a main reason for investments in new ICT applications. With regard to online contacts, this criterion implies *minimising costs and efforts* for citizens and governments. Beside that, *increasing speed of communication* is another argument for ICT-developments.

Effectiveness

Online contacts need to achieve intended goals: the possibility to access government at any time and make government more transparent. Values linked to this criterion are *accessibility, equity, transparency* and *knowledge*.

Security

New ways in exchanging data and information call for new security measures. Values linked to this are *publicity* (citizens should know what processes or products the online contact is about and what data are used); *confidentiality* (citizens can trust that information exchanged is only accessible for authorised officials); *authentication* (government and citizens can rely on the correctness of information exchanged); *integrity* (data should be protected against unauthorised manipulation); *ratification* and *sustainability* (citizens and governments should get a receipt of each interaction or transaction and should know how long and in which format data will be saved).

Privacy

Because the use of ICTs changes the nature of relationships between citizens and government, new criteria must be developed to access the protection or intrusion of the personal sphere. Recent research on citizens' experiences of privacy in electronic society, shows that three different values are at stake: *insulation* (people want to be able to protect their personal sphere and personal identity); *individuality* (people want attention for their individual characteristics and circumstances); and *control* (people like to be responsible for the ways in which their data are processed and to make their own choices).

Legality

Online contacts should be sustained by laws and regulations. Two values are linked to this criterion: *legal authority* (people should know the legal status of the civil servant with whom they have online contact and trust that the right person is handling online requests or services); and *carefulness* (people are informed about the motivation of a government's decisions and that they know how to lodge an appeal).

Step 2. Characterisation of online contacts

After formulating these general criteria, we developed a typology of online contacts. The general criteria for e-government were specified for different types of online contacts to formulate clearly defined quality standards. The different types of online contacts reflect the various ways in which citizens and government are related to each other. Citizens can be customers of government services, commoners who vote or participate in political processes, subjects to rules and regulations or users of public services. In each quality citizens meet another face of government: a provider of services, a political body, a law enforcer or a developer of public services. Obviously, the walls between these roles are not impermeable. The typology was drawn upon four different relationships between citizens and government:

a) Customer–provider of individual services

In this relationship an economic point of view dominates. The government provides individual services like the delivery of information, social welfare, grants, licences and identity cards, and the citizen plays the role of customer of these services. Some characteristics of this relationship:

- It concerns individual public services;
- Tuning is necessary between general supply and a specific request;
- The options for a citizen to choose from are limited;
- To a certain extent the supply of services is monopolised.

b) Commoner–political body

The contacts within this relationship concern representation, deliberation/generation of ideas, decision-making and accountability. The contacts are stretched to a broad range of issues and the relationship must be placed against a background of potential societal impacts. Decisions made in a political arena can sometimes have far-reaching consequences for the everyday life of citizens. This relationship is aimed at handling conflicts of interests and at ideological contrasts. The debate is one of the central issues in the relationship between the government as political body and the citizen as commoner.

c) Subject–law enforcer

From a judicial point of view a citizen is also a subject to law enforcement by government. This role leads to different kinds of contacts such as surveillance, search, prosecution, imposing of penalties and execution of the right to appeal. Some characteristics of this relationship are the application of general rules to specific cases and the transfer of norms and values (an important ritual function) and warning citizens that their behaviour in some cases is not always tolerated by society.

'Like other citizens' charters, the e-citizens' charter should be a two-sided contract on agreed quality standards. This means that it has to be formulated by all involved parties. To provide a starting point for this process, this first e-citizens' charter gives a theoretical underpinning for new e-citizens' charters.'

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d) User–manager of collective public services

The government is accountable for the delivery of collective as well as individual public services. This management role of government leads to specific kinds of contacts with citizens as the users of these services. For example, these contacts aim to give information about accessibility of public services (e.g. information about road works) or handling reservations of registration forms for public services (e.g. registering a child for a elementary school). Other possible contacts may concern monitoring the quality of government agencies or private organisations with a public function (e.g. through the publication of results of benchmark studies) or collecting information about users of public services (e.g. handling complaints). In principle, no one can be excluded from the use of the services, which concern the tuning of a specific supply to a general request. Often the quality of collective public services is more important for citizens than the price charged for using them.

Step 3. Differentiating the criteria

All general criteria for the quality of online contacts were differentiated for the various (online) relationships between citizens and government. Although all criteria are relevant in each context, some criteria or values connected with specific criteria are more important than others, depending on the characteristics of a relationship. Based upon qualitative reasoning many kinds of expectations that citizens may have regarding online contacts with government were identified.

Step 4. Clustering and formulating statements

The result of step 3 was a very long list of expectations that citizens may have of their online contacts with government. This list formed the basis of the charter, but was too long to be understandable and practical for citizens, which would thus serve as an instrument for citizens to call their government to account for the quality of their online contacts.

We let the distinction between government–citizen relationships go and analysed the list of all expectations in an inductive way. Sometimes expectations were merely the same, although they related to different kinds of relationships. In other cases specific themes came up in looking at the expectations. The analysis resulted in clusters of expectations around:

- freedom of choice (between digital or non-digital contacts);
- accessibility;
- clarity about competences, status and current conditions;
- suitable information;
- keeping a grip on the supply of data;
- appropriateness and carefulness;
- transparency of government processes;
- sensible use of information;
- transparency of price and quality
- control of and thinking along with government;
- storing of digital information.

For each cluster of expectations one firm statement was formulated. The final result is a set of clearly defined statements that together constitute the e-citizens' charter (see page 80).

The charter as instrument

The charter is a quality instrument…

Like other charters, the e-citizens' charter is primarily a quality instrument, in this case of online contacts between citizens and their government. More particularly, the e-citizens' charter is intended to increase the transparency and accountability of the electronic government in different ways.

First, it offers direct criteria for the examination, evaluation and improvement of the quality of online contacts between citizens and their government. It shows what citizens demand of e-government in general and of online contacts with government in particular. By making the public aware of their rights, it stimulates governments to improve the quality of the design and practical completion of online contacts. The expectations spelt out in the charter can therefore be used as a target for improving the external quality of e-government. Furthermore, it provides a framework for new and existing quality improvement projects, offering clarity about the pursued levels of quality, not only for citizens but also for the government organisations involved.

'The charter can play a role in making the value of e-government more visible to citizens, because it shows citizens what e-government is all about, creating awareness of what e-government means for citizens and what they may expect of an electronic government.'

A third way in which it can contribute to the quality of online contacts is by reducing unrealistic expectations citizens may have about the latter. Citizens' experiences of e-business services can breed high expectations about the quality and reach of e-government services and other online contacts with government. To improve the credibility of e-government, expectations regarding online contacts should be clear and realistic. The charter presents the quality level of contacts that citizens may expect from their government and helps to make expectations about e-government more explicit.

Viewed in this way, the e-citizens' charter (like almost every other charter) is an instrument relating to the operational and tactical level of government organisations, because in general most online contacts are taking place at these levels and the charter is mainly used for raising the quality of operational processes within the organisation.

…but also a strategic instrument

The use of the e-citizens' charter is not only limited to the operational and tactical levels within an organisation. It has a more strategic use as a strategic instrument for further development of e-government. One key e-government trend states that measurable value is becoming a prerequisite for any future investment in e-government. The charter can play a role in making the value of e-government more visible to citizens, because it shows citizens what e-government is all about, creating awareness of what e-government means for citizens and what they may expect of an electronic government. The increased awareness is linked to another trend described earlier, namely

promoting the take-up of e-government. Awareness could lead to an increase in demand for e-government services from citizens and to a better use by citizens of already developed e-government services. For the latter, the charter can be seen as one of the innovative (marketing) methods to drive the take-up of current e-services. It is innovative because it starts at the demand site, which is the citizen. Until now most e-government services were more or less developed from a supply-oriented approach. Together, the increase in demand and the better use of the current e-services can function as triggers for governments to develop their electronic services further.

Some of the quality standards formulated in the charter require that one or more government organisations work together. Only then can 'the' government meet these standards and live up to the expectations of citizens. For example, this is the case for the first quality standard of the charter that states that citizens can choose by which means they communicate with their government. One could imagine that from the viewpoint of cost efficiency, this could lead to government organisations sharing all kind of front offices (call centres, websites, physical counters etc.). That government organisations work together is also required in the case of the standard that says that once citizens have supplied their data to one government organisation, other organisations cannot ask the citizen for it again. The implication of this standard is that government organisations will have to make arrangements to share data, while respecting privacy laws. These arrangements are necessary not just between organisations at the same level of government, but also across national, state/regional and local levels of government. Because it increases the sense of urgency for government organisations to work together, the charter can function as a stimulus to horizontal as well as vertical integration.

'By showing the value to citizens, putting the demand-approach above a supply-approach, stimulating horizontal as well as vertical integration and function as a basis for further personalisation of services, the charter can perhaps alter this negative trend and play a role in re-stimulating e-government development.'

Personalisation is emerging and governments are working on maximising the amount of services that can be matched to citizen's interests and needs. Because the charter is developed around individual citizens it can be seen as an expression of these interests and needs. The expectations of citizens of online contacts with their government formulated in the charter can therefore function as a basis for further personalisation of services over time.

The pace of progress of e-government development has slowed down. However, full electronic government has not been fully realised anywhere in the world. Further development is necessary to realise the potential benefits of e-government. By showing the value to citizens, putting the demand-approach above a supply-approach, stimulating horizontal as well as vertical integration and function as a basis for further personalisation of services, the charter can perhaps alter this negative trend and play a role in re-stimulating e-government development. Earlier studies showed that implementing e-government has been hindered by different kinds of barriers. In practice these barriers are hard to overcome for a government organisation and will also apply to new directions. The charter can help organisations overcome possible barriers by creating pressure to undertake action from outside the organisation. As it focuses on the demands of citizens it can be used as a form of demand steering. Pressure from outside, especially from citizens, is often a good reason to start changes within a (government) organisation. For example to start working on service transition as a next step in the development of e-government.

By making mutual expectations between government and citizens clear and creating more awareness for citizens, the charter can increase familiarity with e-government and therefore eliminate a potential barrier for not using e-government services. Furthermore, it can lead to an increase of trust in these kinds of services by citizens. It is the concept of trust that is crucial to make the step from informational services to transactional services.

Realising the potentials: implementation issues

Considerations

The e-citizens' charter is potentially a quality instrument to increase transparency and accountability of electronic government as well as a strategic instrument for the further development of e-government. Before any of these potentials can be realised, it is necessary that the charter is implemented in practice. Some considerations for such an implementation are addressed here.

Digital competence

The idea behind the charter is that citizens can discuss issues from the charter with their own government organisation(s). That way, citizens can get a clearer picture of how a government organisation works and how it affects them. In this respect, the charter can be seen as an instrument contributing to the empowerment of citizens. If the charter can play this role, it is subject to the skills citizens have in order to make use of digital opportunities. Besides bureaucratic competence, a certain level of 'digital competence' in citizens is needed for the charter to work properly. Government, especially for citizen groups for whom the Internet is not a daily pastime, should support the development of this kind of competences.

Rights and duties

The charter can be seen as a collection of 'rights' that citizens have in their digital contact with government. An appeal to these rights will only work if citizens understand that besides rights they also have duties. For example, let us look at the one-time only delivery of personal data of citizens to government. This can only work if citizens take responsibility for keeping the data correct: the 'right' to deliver personal data only once to the government is only possible if it goes together with the duty to keep the data actual.

Implementation sometimes means deliberation

In everyday practice, it will not be possible for government organisations to comply with all the demands resulting from using the charter. Sometimes tension can occur between some of the issues addressed by the charter. For example, the issue of raising efficiency can conflict with the issue of the warranty of legality. From the perspective of the latter extended procedures are desirable to warrant the legality of certain actions, while from a viewpoint of efficiency these are not desirable at all; careful deliberation is therefore needed.

The charter is only a guideline

The charter is meant to stimulate transparency within government and is therefore a guideline rather than a target in itself. Implementing the charter too strictly could have a counterproductive effect on this ultimate purpose, because of the risk that the bureaucracy will increase and the transparency will decrease proportionally. Many of the items in the charter can have a large impact on data handling in an organisation. Therefore, organisations must decide for each item if and how it is implemented within the organisations' structures and processes.

Updating the charter is necessary

As realistic expectations change with ongoing technological developments, the charter needs updating from time to time. What seems to be impossible today may be realised next year.

Meaning of the charter for government organisations

The charter is primarily aimed at allowing citizens to talk to their government organisations about the way they handle their electronic contacts. But electronic government is still under construction and electronic governments vary in the pace of their developments. This means that in the beginning not all government organisations can meet all the demands stated in the charter. To give government organisations guidance in implementing standards from the charter, we now shift our perspective from the citizen to the organisation. For each standard identify what kind of actions an organisation should take to meet the demand arising from it. We present some first steps, as well as a description of the ideal situation regarding the specific demand, using the first standard as an example.

1. Citizens can choose how to communicate with government (face-to-face, telephone, mail, e-mail, web forms)

Some first steps for an organisation to be able to meet this demand:

- Develop a multi-channel strategy so that citizens can choose in which way (letter, physical counter, Internet or (mobile) phone) they want to keep contact with the government organisation;
- Make sure that citizens can at least handle the first step of a process online;
- Offer full online service (payments inclusive) for the services that citizens most want to handle electronically. Research in the Netherlands showed that it concerns:
    - applying for a birth certificate;
    - applying for a passport (or renewal of it);
    - filing tax returns;
    - applying for a driving licence (or renewal of it);
    - reporting of a crime.
- Offer possibilities for digital debates;
- Make it possible for citizens to file their complaints or appeals online;
- When using digital application forms, give citizens the opportunity to use their own words in adding comments, explanations etc;
- Always mention an email address or telephone number on digital application forms, so that a citizen can get in touch with the organisation for further consultation;
- Make an inventory of the contacts that citizens have with the organisation and develop for each of the contact's digital versions;
- Organise facilities so that citizens can be informed about debates taking place;
- Synchronise the debates taking place simultaneously in the offline and online world.

The ideal situation, regarding the demand, is that a citizen can handle *all* services and contacts (if useful) electronically.

Summary

From a citizens' perspective, we have developed an e-citizens' charter that shows the expectations people may have from their (online) contact with government. This charter is a quality instrument to be used at the operational and tactical levels of government organisations, which can lead to an increase in the transparency and accountability of electronic government in different ways.

But the use of the e-citizens' charter is not only limited to these levels within an organisation. It can be used as a strategic instrument for the further development of e-government. By showing the value to citizens, putting the demand-approach above a supply-approach, stimulating horizontal as well as vertical integration and function as a basis to further personalisation of services, the charter can perhaps alter a negative trend, namely that the pace of progress of e-government development has slowed down. Further development is necessary to realise the potential benefits of e-government.

'The e-citizens' charter provides countries that top the rankings of the e-government benchmarks with an instrument to derive greater value from their efforts. For mid-ranking and low-ranking countries the charter can serve as a stimulus for further developments.'

The charter can play a role in re-stimulating e-government development, helping organisations to overcome possible barriers by introducing demand steering which can put pressure on government organisations to take a next step in the development of e-government, namely service transition. Furthermore, by making mutual expectations clear between government and citizens and by creating more awareness for citizens, the charter can raise familiarity with e-government. This eliminates a potential barrier for not using e-government services and lead to increased trust in these kinds of services by citizens. Trust, as a concept, is crucial to be able to make the step from informational services to transactional services.

Viewed in this way, the e-citizens' charter provides countries that top the rankings of the e-government benchmarks with an instrument to derive greater value from their efforts. For mid-ranking and low-ranking countries the charter can serve as a stimulus for further developments. In those cases, the charter provides a clear level of ambition. However, realising the strategic potentials of the charter can only take place if the charter is implemented in practice and in the long run, this is an affair for government organisations that are willing to work with the charter.

For further information about the e-citizens' charter:
www.burger@overheid.nl <http://www.burger@overheid.nl/>

For further information about all e-government projects in the Netherlands:
www.ictu.nl <http://www.ictu.nl/>

The transformation of public services in Portugal: connected government

Diogo Vasconcelos | President, Innovation and Knowledge Society Unit (UMIC), Office of President of Council of Ministers, Portugal

PORTUGAL
POPULATION: **10,389,800**
GDP in $'s purchasing power parity: **$181.8 billion** (2003 est.)
INTERNET USAGE: **3,600,000**
PERCENTAGE OF POPULATION: **34.6%**

Diogo Vasconcelos describes the role of the Innovation and Knowledge Society Unit (UMIC) in heading a collaborative approach to achieving Portugal's vision of an information society.

Administrative organisation

The Portuguese state is organised in Central Administration, Municipalities and two Autonomous regions (the archipelagos Azores and Madeira). All of the government organisations have autonomy to manage their respective interests.

Portugal´s current governance model for an information society was introduced two years ago by the 15th Government of Portugal. This model is based on a collaborative approach headed by a centralised body, Innovation and Knowledge Society Unit (UMIC), that is strategically located in the Council of Ministers office. Some of the major attributions of this central body are:

- definition of strategic and operational policy;
- enforcement of coordination in policy implementation;
- monitoring and evaluation;
- production of statistical indicators;
- regular public reporting;
- legislative reviews regarding information society;
- approval of ICT structural projects proposed by government agencies;
- management of the inter-ministerial commission for innovation and knowledge society.

We changed from a decentralised organisational approach where the responsibility was dispersed through several ministries operating without an explicit common vision of the information society strategy to a collaborative approach based on:

- an explicit vision common to all government ministries and bodies;
- centralised overall policy making, with coordination and monitoring headed by UMIC;
- subsidiary policy making by ministries with decentralised implementation;
- the implementation of the key projects carried out centrally and also by UMIC.

On the 10th of November 2004, in the Portuguese Silicon Valley (Taguspark) our Prime Minister (PM) Mr Pedro Santana Lopes and 10 Ministers and 25 Secretaries of State, of the XVI Government, announced the transformation of UMIC to became an Knowledge Society Agency. The first consequence of this announcement is the natural reinforcement of the Information Society priorities and consequently the empowerment of the new Agency created. It was also announced by the PM Mr. Santana Lopes the endorsement of the priorities defined by the Information Society Action Plans defined and implemented by the previous Portuguese Government of Mr Durão Barroso, President of the European Commission. On the following day of this announcement this decision was officially approved by the Council of Ministers.

2.4

The Information Society Action Plan

Governance for an information society is based on seven principles defined by the Action Plan for Information Society approved by the Portuguese Council of Ministers in June of 2003. This plan is very concrete, with milestones, priorities and entities responsible for the implementation of each action. It was developed by a central body with the participation of all ministries.

These principles are:

- strong political leadership and commitment;
- centralised strategic coordination and decentralised execution;
- strengthening of interministerial coordination and joint work;
- strengthening of coordination within ministries;
- increasing participation by civil society and the private sector;
- high levels of communication and reporting;
- strong focus on change management and integration with the public administration reform programme.

This plan aims to provide greater competitiveness, better quality of life and more cohesion among Portuguese citizens. It is based on specific initiatives with concrete projects being implemented between now and the end of 2006:

- **The Broadband Initiative** – connect everything to everyone with minimum cost, and high bandwidth; promoting digital cohesion and universal access;
- **Citizens with Specials Needs Initiative** – minimise the digital barriers and provide new contents, services and products for this group of citizens;

- **The e-Government Action Plan** – make the public sector among the best providers of services in our country;
- **The National e-Procurement Programme** – support public administration procurement transparency and savings.

The main projects

The main projects that we have launched are the following:

The Citizens Portal

This project aims to create a one-stop-shop for citizens and companies by the public administration and other entities or companies that provide public services. The first phase was launched in the first quarter of 2004, with the incorporation of 118 service providers that offer 734 services (13 of them are simulators): 50 per cent information, 30 per cent interactive and 20 per cent transactional. In the last six months this portal had 3 million monthly page views and more than 5,000 daily individual visitors.

We launched recently the second phase of this project with the objective of changing the back office of several services that are crucial for our country. We identified all processes to be modified and we will launch sectoral and cross functional public tenders for the process re-engineering. We are defining the authentication system and the interoperability framework to allow communication between different information systems. UMIC and the Secretary of Public Administration Reform are working together to support the implementation.

The citizens portal can be found at www.portaldocidadao.pt

The National e-Procurement Programme

This is a modernisation project managed by UMIC and the Minister of Finance, with a three-year time frame (September 2003 – December 2006) to improve the way in which all the departments of Public Administration purchase goods and services. We wanted to promote savings and transparency in purchasing process, facilitate the access of SMEs to the public market and stimulate the development of e-commerce. In the first phase of this new model of procurement, we launched 25 pilot projects to test the electronic purchase of goods. The results were above expectations in terms of participation, skill development, cost structure, knowledge and savings (savings from 27 per cent to 67 per cent). The return on Investment was very high, but the best result was the improvement of the efficiency of the purchasing method. These projects is in the second phase of implementation which aims to standardise acquisition in all the departments of each ministry, supported by a unique Ministry Procurement Unit. With this implementation we expect to reach savings of €129 million to €267 million in 2006. Simultaneously with the creation of the Agency it changed the way in which public procurement is made. The change of the laws of public procurement it will enable the on line public procurement of goods and services.

The website for the project is www.compras.gov.pt

Digital Cities and Regions Initiative

Another innovative project that we are running is the Digital Cities and Regions Initiative. This is the Information Society Action Plan for local level authorities, with the objective of setting a common development base level of knowledge and innovation for all Portuguese council regions. To achieve this, we first defined fourteen regional impact milestones, implemented by eleven concrete projects that were grouped in four development areas, which are articulated in the National Information Society Action Plan Building Blocks. We created a template for this initiative, implemented by regional consortiums, with a contract that makes it mandatory for every council region to reach the milestones that we defined by December 2006.

The first area covers regional stimulation, creating a regional portal with relevant information and services with five major goals: – promoting the region to visitors, organising the citizens' life at local level (with municipal service online), creating regional knowledge network clusters for companies, regional participation; and developing the people's skills.

> 'Connect everything to everyone with minimum cost and high bandwidth; promoting digital cohesion and universal access.'

Broadband local e-government development is also a priority, focusing on implementing online 'life events' local services such as applying for building permission, paying online council taxes and providing e-democracy. To implement these projects, councils must be able to provide change management support, and an intranet for e-mail access to all local public administration employees. The articulation of the Citizens Portal and the services provided by the local authorities is one of the pre-requisites to get funding for providing electronic local services.

One of the most successful projects in Portugal is the 'Espaços Internet' or Internet free access in public sites with broadband connection. We have already 200 of these sites with a total number of 1,600 computers. But our objective is one site for one council which means 306 Internet sites with more than 3,000 computers. So we want to raise this number. With these two accessibility projects we think that anyone will be able to use a public computer for access to the Internet for free in Portugal.

Finally in the infrastructure area we aim to implement one single regional public technology platform to run the portal and all the projects in this initiative. We want to provide Internet access for all public employees with the creation on one telecommunication network to integrate all the public services in one region. The Government have already approved 22 projects involving more than 250 municipalities. We believe this initiative will have a structural impact in our country.

Electronic University project

The Electronic University (e-U) project was launched in March 2003; a combination of university applications, services and content, based on a single roaming wireless network (WIFI), accessed through notebooks owned by teachers, researchers and students. The connectivity is provided by the biggest university network worldwide, e-U notebooks are 10 per cent to 20 per cent cheaper than the average price in the market, and banks guarantee low interest rates. The network is nearing completion. It will cover 100 per cent of private and public universities and technical institutes with nearly 5,000 access points distributed across 170 hot spots supporting 400,000 users. This network has one unique security system based on a radius server and it will also provide roaming with the Portuguese hotspot ISP market. With this policy we are creating a unique network automatically integrated with the private networks in Portugal. The next phase will be focused on process in the universities; putting in a virtual administration. This is a two year project and is linked to the two following projects.

Visit the website www.e-u.pt

b-on

The Online Knowledge Library project known as b-on which gives unlimited content access to more than 3,500 scientific journals in more than 50 universities and research centres. Everyone using the Internet on the campus can view, download and print current numbers and the archives of these scientific publications. For this we created a consortium and negotiated a global subscription for six publishers: Kluwer, Sage, Elsevier, Springer, Wiley and IEEE. In order to access this mass content it was fundamental that we created a search portal with metalink application. On March 2004, we launched this project in partnership with the Ministry of Science and Higher Education and in the first four months more than 1 million magazines were downloaded. We truly believe this project will radically change the model of access to knowledge, which is fundamental to innovation. In the next two years we are going to sign up more scientific journals and we intend to create the National Scientific Library of Portuguese theses and other content.

Visit the website www.b-on.pt

Broadband in the university

With the deployment of e-U and b-on projects we need more bandwidth, so we are reinforcing the Portuguese connection to the GEANT (Pan European Multi-Gigabit Network for Education and Research). For that we are increasing broadband redundancy through London and creating an optical fibre network by December 2004. This network will be one of the best broadband networks in Europe with coverage of 70 per cent of the university community (Lisboa, Coimbra, Aveiro, Porto, Braga). The broadband will increase dramatically (from 80mb/s to 10Gbit/S) and we think this will encourage new R&D projects.

Broadband in schools

We are working together with the Ministry of Education to change the way education is provided in public schools. All public schools will have broadband, allowing students to access online educational resources. For this we have signed with an operator for the connection of 9,000 schools (basic and high schools). In the high school sector we have equipped 1,000 classrooms with communication and technology facilities to support the new information technology class (9th and 10th grades). These classes are obligatory and the students will receive 1.5 hours (9th grade) and 3 hours (10th grade) per week of ICT education. In basic schools we have equipped all classrooms with a computer, printer, connection and educational software. In kindergartens we launched an initiative for funding the acquisition of equipment and educational software. In the next year we intend to create a learning portal for education with identification and content for supporting teachers.

> ‘We truly believe this project will radically change the model of access to knowledge, which is fundamental to innovation.’

Broadband community networks

One of the problems of Portugal is the deployment of broadband in rural or remote areas, so to resolve this problem we launched a project to guarantee the provision of broadband access in under-served municipalities. The Government will build seventeen networks leveraging existing public infrastructures. These networks will be open to all operators and service providers on an equal access and will be technologically neutral basis. Our goal is to achieve lower prices for end users as a result of increased competition in areas that would otherwise remain underserved.

Conclusions

The Portuguese Government believe ‘connected government’ gives us an opportunity to change the traditional way public administration provides services. This radical change is achieved through concrete projects with strong leadership, very high team motivation and very good project managers. We have learned that the involvement of civil servants is essential for project success.

The implementation of all these projects plays a critical role in contributing to the creation of knowledge and economic value, improving the quality of life of our citizens and promoting the competitiveness of our corporations and our sustained economic development. We believe that bringing these projects to reality is a crucial issue for the future of our country.

For more information see www.umic.pcm.gov.pt

A networked administration for a connected society: e-government in Spain

Domingo Laborda Carrión | General Director for Administrative Modernisation, Ministry of Public Administrations (MAP), Spain

SPAIN
POPULATION: **41,895,600**
GDP in $'s purchasing power parity: **$885.5 billion** (2003)
INTERNET USAGE: **14,332,763**
PERCENTAGE OF POPULATION: **34.2%**

After a brief survey of Spain's administrative organisation, Domingo Laborda Carrión examines the strategic objectives of electronic administration and gives examples of several successful initiatives in Spain, including the strategic plan for modernisation in Spain, CONECTA, which is divided into five 'metaprojects', whose aim is to make Spanish public administration more dynamic.

Administrative organisation

Spain is one of the most decentralised states in Europe. The 1978 Constitution laid down that 'the Public Administration serves the general interest in an objective manner and acts in accordance with the principles of efficacy, hierarchy, decentralisation, deconcentration and coordination, remaining fully subject to standing legislation and the law'.

From a territorial perspective, the Spanish state is organised according to a State Administration, Autonomous Communities (17 large regional administrations) and municipalities. All of these entities have been entrusted with autonomy to manage their respective interests.

There are some competencies that are exclusive to each administration, but there are also several cases of shared competencies that imply interaction between the various administrations. The principles that govern, or should govern, relations between these three levels of administration are coordination, cooperation and collaboration.

From a global perspective of modernisation, two fields of action emerge: (1) coordination between all the ministries in the State Administration; (2) cooperation between the State Administration and the Autonomous Administrations and between the latter themselves.

In the first field, the Ministry of Public Administrations, is the body in charge of carrying out and promoting technological coordination between all the ministries, not so much in the sense of dictating mandatory regulations, but rather creating, integrating and supporting projects and common tools in horizontal services provided by the Administration, such as telematic registers, data exchange, the development of IT systems and telematic notifications etc. Similarly, at state level, it also lays down general criteria for security, standardisation and safekeeping of the information that is used in the exercise of administrative powers (powers related to revenue, inspections, expropriation, sanctions etc). This work is not carried out on an individual basis, but rather is supported by the strategic function of high-level management provided by the Higher Council for Information Technologies in promoting electronic administration, a collegiate body on which all of the ministries are represented.

In the second field, the key issue is inter-administrative cooperation in order to achieve electronic interoperability. Many administrative procedures are 'multi-administration', implying the exchange of information under common standards that have been mutually approved, the use of common data formats, the compatibility of technological architecture, the acknowledgement of various electronic signature systems, the compatibility of security protocols and rules etc. We are aware of the fact that we do not have a National Interoperability Framework.

2.5

In order to achieve these goals, we have constituted a State Sectorial Conference with the Autonomous Communities in order to reach agreements on the basic aspects of our electronic relations.

Strategic objectives of electronic administration

We define 'electronic administration' as the use of information and communication technologies in the Administration in order that in combination with certain organisational changes and new skills for public employees, improvements may be made in efficiency, productivity, speed and comfort in the provision of services to the general public. Our main objectives are:

- to eliminate, or drastically reduce, the queues of citizens and businesses at administrative offices, both in terms of the average queue time and the number of people that have to queue up;
- to eliminate, or drastically reduce, the documentation issued from any administrative body that citizens must provide along with their applications or complaints;
- to develop and promote Government to Citizen ('G2C') electronic administration services at the various stages: static information, interactivity, transactions, inter-administrative integration;
- to develop and implement e-procurement on a regular basis for the Administration;

- to achieve substantial improvements in the indicators set by the e-Europe 2005 Initiative;
- to introduce on a massive scale electronic certification and digital signature;
- to reduce time spent in processing applications, by means of re-engineering them;
- to improve coordination and interoperability of the information systems in Spanish administrations;
- to increase the reusability of applications and solutions that may be developed on a one-time basis and serviced and updated in a unified manner, while being reused by several different administrations;
- to improve communications and their security between administrations;
- to provide ongoing training for public employees in the use of information technologies and management techniques.

As well as these basic objectives, we also have the following complementary objectives:

- to promote cultural change in public employees, as well as the attitude of the general public towards the Administration;
- to increase quality and transparency and bring the Administration closer to citizens and business people;
- to free up human, technical and economic resources to attend to the new tasks and services demanded by society;
- to reduce the functioning costs of the Public Administration and the economic impact of complying with administrative obligations;
- to promote democracy as a form of improving democratic quality of life, reinforcing participative democracy as a channel for citizen participation in the management of public affairs;
- to serve as a 'showcase' example to all Public Administrations and the private sector;
- to collaborate in the development of the information society in Spain, creating and offering a range of services in order to increase demand.

Successful initiatives: some examples

We have various examples of good practices such as the CIRCE project, the telematic tax return system of the Tax Agency (AEAT), or the Virtual Branch of the Social Security System.

Nowadays in Spain it is possible to create a company by telematic means. To be able to create new enterprises quickly and easily is something that entrepreneurs appreciate and this possibility is having a transcendental impact on the Spanish economy (an SME[1] country par excellence). As part of the CIRCE project in the Ministry of Finance and thanks to the introduction of the Sociedad Limitada Nueva Empresa (new enterprise limited company), it is now possible to create a company electronically, registering with the Tax Agency (AEAT), the General Treasury of the Social Security (TGSS) and to make a telematic appointment with the Notary. The 15 forms that used to be necessary in order to open a company have been brought together in a single document – the Single Electronic Document. Three thousand companies have already opted for this system. Nowadays, nearly 95 per cent of the companies founded in Spain are of this type. This information system allows someone to carry out all proceedings necessary to create a company over the Internet, but the interested party must be physically present as the procedure starts to attend an advisory session.

1. Small and medium sized enterprises.

'The secret of the success of this initiative is centralisation in a single database of all the information on taxes and the ability to reach out to the general public showing citizens the advantages of using telematic means.'

The Spanish Tax Agency, AEAT, has for several years been providing all kinds of telematic services to companies regarding corporation tax, value added tax (VAT) and customs payments. Similarly, the general public have also been able to prepare their income tax returns over the Internet for several years now and more than 2,200,000 people made use of this system last year. In Spain nowadays, the main state taxes may be reported and paid over the Internet. The great work of the Tax Agency has been acknowledged by international awards, such as for example, the e-Europe 2003 award or the WITSA (World Information Technology and Services Alliance) prize.

The secret of the success of this initiative is centralisation in a single database of all the information on taxes and the ability to reach out to the general public showing citizens the advantages of using telematic means.

On the other hand, the Social Security System, TGSS, has an advanced system for sending electronic documents, the RED system, which may be used in affiliation, registrations, cancellations and in paying instalments. The telematic transmission of instalments (which may be considered to be a best practice at international level) is applicable to all kinds of workers, except for the Self-Employed and the Special Regime for Domestic Workers. Thanks to the RED system, nowadays more than one million companies send their social security contributions over the Internet. The contribution documents that are sent by telematic means account for 82 per cent of workers (14.5 million workers) and more than 90 per cent of the affiliation transactions are carried out over the Internet (2.5 million electronic transactions per month).

Another pioneering project is the Safe Telematic Notifications Service, which is already in operation and at the expansion stage. Any person wishing to be notified by telematic means in any procedure shall be enabled to do so and given an e-mail address for this purpose, and the address will be the same for all possible notifications to be made by the General State Administration and its public bodies. This address shall be provided by the institution, body or entity in charge of providing the service, although the e-mail address used in building the unique user e-mail addresses belongs to the Ministry of Public Administration. As a prerequisite for registering the service and then making use of it, interested parties must have a valid digital certificate for the purposes of proving their identity to the notification service. Citizens may use this unique e-mail address to receive notifications on procedures that are of interest to them, by choosing the relevant procedures that are then enabled for this service.

Another great example of cooperation is the change of address communication system to be re-launched in the very near future. According to data provided by the National Statistics Institute, there were 3,255,168 changes of address in Spain in the year 2002. This system would allow the elimination of a total of up to 10 million census forms (certificates) issued per year, the only purpose of which is to provide other organisations using various different procedures with the citizen's address.

'Citizens may use this unique e-mail address to receive notifications on procedures that are of interest to them, by choosing the relevant procedures that are then enabled for this service.'

This service is useful for people who are moving house. The central idea in this project is that citizens should only have to notify one administrative body of their change of address; the latter body would then be in charge of informing other organisations indicated by the citizens as to the change. This would save citizens a considerable number of visits to organisations that are necessary today, with significant savings in terms of time and money.

There are other examples of good practices that are also pertinent – for example, the National Statistics Institute was one of the first of its kind to allow registration for housing and population censuses over the Internet, in a pioneering experience that was highly acclaimed at international level.

As regards regional powers, we should not forget to mention the EVISAND project (Integrated Telemedicine System in Andalucia) run by the Department of Health of the Regional Government, which was awarded the European Union e-Health prize in the year 2003.

Strategic plan for modernisation in Spain: CONECTA

Spain has launched a new strategic plan for promoting electronic administration in the period 2004–07 within the general framework of the information society. This plan is called CONECTA.

The purpose of this plan is to modernise the State Administration in terms of improving the quality, speed and performance of services to the general public, efficiency in the use of public resources, cost reductions, user satisfaction, interdepartmental integration and administrative simplification.

The plan is structured in five broad lines of action or 'metaprojects':

CERTIFICA

Developing an electronic data exchange system between public administrations and with the general public. The logical consequence is the progressive elimination of paper certificates so that from the year 2008 onwards, the administration need not ask citizens in the course of a procedure or process to provide details or certificates already in the administration's possession.

This metaproject will include unique projects such as the expansion of the Safe Telematic Notifications Service and the Change of Address Communication System.

eDNI (The Electronic National Identity Document)

Providing proof of identity to public and private bodies by electronic means is essential for telematic operations and this will be achieved by the electronic identity document, DNI. The Ministry of the Interior is developing this project, which is already at the prototype stage.

The intention of this metaproject is that when this document is available (year 2005), any service in the administration may be sure of its validity. Similarly, during the years in which this document is to be deployed (it will contain a chip on which the electronic certificate with the user's private code and biometric identification data shall be saved), a platform for recognising various different electronic signature systems shall be established.

CIUDADANO.ES

This is intended to bring the Administration closer to the general public, making it easier to interact with the administration when it is necessary to exercise a right or fulfil an obligation.

The objectives of this metaproject are as follows: (i) to integrate and standardise citizen support services, (ii) to provide various communication channels with the administration; (iii) to go from the concept of information to the concept of support, offering interactive services of significant added value; (iv) to improve the citizens' portal and the public web pages to make them interactive and provide a wide variety of telematic procedures.

Some of the most important projects included in this line will be as follows: integrated grants and aids management; payment gateway for public taxes and charges; and the Unified User Support Telephone service.

The final goal of this metaproject is to transform the concept of public administration, so that the citizen may regard it as being helpful and proactive in nature, as it anticipates his/her needs and is also efficient, by solving problems and not overwhelming users with procedures or paperwork.

SIMPLIFICA

Intended to configure a rational and efficient public management system that may enable full personal, economic and social development to citizens, eliminating barriers and burdens and promoting their participation in public decisions.

Its objectives are as follows: (i) to provide faster, more efficient administration; (ii) to revise and redesign the public management processes in order to remove obstacles to telematic management; (iii) to configure integrated multi-administration processes intended to meet the demands of the general public.

This metaproject will develop projects aimed at revising and simplifying the main procedures provided by the administration (the most used procedures), designing automated tools to help in this task. It will also strengthen the AGE Administrative Intranet as a safe electronic channel in inter-administrative communications.

More than 2,300 of the most used procedures are to be revised to remove any legal, technical and organisational obstacles in the way of full electronic automation.

Networked-MAP

Improving the technologies used by the Ministry of Public Administration, in terms of the communications network, Internet portals and services supported by this infrastructure.

Its objectives are as follows: (i) to transform internal management procedures into electronic procedures; (ii) to offer fast and efficient tools for internal communication.

Some of the leading projects to be carried out under this metaproject are automated dossier management and extending the use of electronic signatures for all types of internal procedures.

Conclusion

The plan aims to facilitate other projects and initiatives to be carried out, laying the foundations of electronic administration in Spain, on which all further projects will be built.

The plan is intended to make public administration more dynamic, as it requires the achievement of tangible, measurable results in timelines that are agreed upon in advance and are derived from our commitments at national and international levels.

In short, electronic administration will be the 'great administrative reform of the 21st century' and should make a decisive contribution to attaining the information society, by creating attractive content and services on the Internet.

It is highly likely that this will lead us to a 'networked administration', ubiquitous and intangible, yet close to citizens and companies, that will be able to respond better to the changing demands of society.

In the years to come, we shall have to manage limited resources. We shall be asked to give more with less. Therefore, we have before us a stimulating task with ambitious goals; performing this task will mean creating an authentic electronic public administration. This represents an exciting challenge that we will only be able to meet with everyone's help and collaboration.

Using IT to enable the business transformation of government

Ian Watmore | Government CIO and Head of e-Government Unit, UK

UNITED KINGDOM
POPULATION: **59,595,900**
GDP in $'s purchasing power parity: **$1.664 trillion** (2003 est.)
INTERNET USAGE: **34,874,469**
PERCENTAGE OF POPULATION: **58.5%**

Role of Government CIO

The UK Prime Minister Tony Blair has given Information Technology (IT) professionals in government the clear mission of 'ensuring that IT supports the business transformation of government itself so that we can provide better, more efficient, public services'. He has also said that 'it is only by truly transferring power to the public through choice, through personalising services, through enhanced accountability, that we can create the drivers for continuous improvement in our services. The aim is radical reform, re-designing public services around the individual, to give people the services that they today expect – services that are prompt, convenient, responsive and of the highest quality.'

Recognition that IT was absolutely fundamental to delivering this vision led to the creation of my job as the Government CIO and Head of e-Government. This is a completely new role, analogous to that of a group Chief Information Officer (CIO) that you might find in a large corporate. It is very different from the old e-envoy role. Andrew Pinder managed a social programme to get the UK as a whole online as well as getting government to make its services available to citizens online, a role he completed with great success. By contrast, my focus within what is now a thriving e-commerce economy is purely on government as a provider of services – not just those services provided online to citizens, but the IT-dimension of all service provision.

The key areas that I intend to focus on as Government CIO are:

- On-line services by which citizens transact business with government over the Internet. We are in a good position today since the great majority of government services are now available on-line.
- New technologies that are becoming ubiquitous in our every day work and home lives. Such technologies include mobile phones and other wireless devices, interactive digital TV, smart cards and digital pens, 3G networks, satellite and radio frequency (RF) technologies.
- Transaction processing systems which ensure the effective delivery of front line public services. These include the systems for collecting national and local taxes, paying pensions and welfare benefits, licensing vehicles, distributing passports and drivers' licenses, supporting border and homeland security, controlling defence logistics, and maintaining patient records.
- Corporate systems which support government bodies themselves. These include HR systems managing those who work within the public sector, financial systems which control and monitor government spending, and office systems enabling public sector workers to communicate in normal times and in crisis and emergency situations.

Clearly this is an extremely broad brief, but to ensure IT properly supports the Prime Minister's transformation agenda I have identified five priority areas:

- Joining up business-led IT strategies and policies across government;
- Supporting the transformation of public services;
- Enabling efficient public services;
- Achieving IT efficiencies;
- Sponsoring a cost-effective approach to IT security.

Stimulating joined-up, business-led IT strategies and policies

2.6

Each government agency has a responsibility to develop business-led IT strategies or roadmaps for their area of government business. My job in part is to help create these, but also to ensure that they are 'joined up' with other services – in effect to create an IT roadmap across government as a whole. In doing this we will inevitably surface omissions, overlaps and conflicts which need resolution. For example, individual programmes may be sensible on their own, but duplicate areas of work, or create capacity conflicts in critical skills. Also, the joined-up view of IT may highlight policy issues which affect the whole of government (for example, the legality of digital signatures, or the role of open source software). My responsibility is to identify and help resolve these issues.

In doing this work we will be mainly focusing upon the legislative, service reform and efficiency drives of government. But, like any big business, we also have the challenge of our legacy systems. Many of these systems were built in the 1980s and early 1990s – and continue to function well today. But the question always needs to be addressed – do we continue to build on these, or do we replace them? When we build upon them, integration architectures should be sharable across government agencies. But there will come a point at which legacy replacement becomes essential and strategies for their replacement in the most cost-effective and least disruptive manner will need to be developed.

Supporting the transformation of public services

Better public services demand that the citizen be put at the centre of affairs – and that the services they receive are citizen-centred, rather than provider-centred. [I am using the word 'citizen' here to encompass people as individuals, in families, in groups, or as representatives of their workplaces. And, of course, there are certain 'services' that the citizen might not prefer to receive, especially in the law enforcement area!]

Citizen-centred government is hard because the structure of government is not naturally organised by citizen. And changing that is impractical – imagine having to re-organise the streets of London to be like the grid system of some US cities just because it would be easier to find one's way around. It can't be done, so we have to seek other solutions.

I believe IT has a crucial role to play here in delivering services from multiple providers to groups of citizens, such as motorists or parents, in a joined-up way. The aim is to present one joined-up government service to a citizen regardless of which agencies are involved behind the scenes.

The government's flagship digital service Directgov, which is available on the Web and digital TV, makes a first step in this direction. To continue the analogy, Directgov presents an easily navigable landscape while the underlying reality is one of twisty and narrow streets. By continuing to work with other government agencies, it is our intention to extend and deepen this service over the coming months and years.

'But making services available online does not automatically mean that they are used in volume. So the focus of the next few years will be about take-up and quality, particularly of services that really touch people's lives.'

Identification and authentication

One consequence of citizen-centred government is the need to identify citizens to the various providers of service in a simple, repeatable and reliable way. The joining up of services requires a government-wide approach to the subject of identification and authentication. For example, to realise the benefits, should we replace the many identification numbers which exist across government with one (or at least a smaller set) which people can use whether seeing their doctor, paying their taxes, receiving their pension, driving their car, or visiting the public library?

This issue is complex from a practical point of view as the details are very important to how and when an identifier is used, and the natural timeframe for change is long – passports, for example, are only renewed every ten years and driving licences can be renewed even less frequently.

But the issue is also complex from a privacy point of view. As identifiers converge, citizens have simplified access to government services, but concerns over privacy get increased.

So finding a convergent approach to identifiers requires delicate judgements to be made, the boundary of acceptability is likely to move over time, and there are no easy answers. But we must not duck the issue just because it is tricky – the pace of reform requires strategic clarity in this pivotal area.

Self service

For many services it is better for citizens to serve themselves without intervention by public servants. Already the great proportion of such government services are available online. But making services available online does not automatically mean that they are used in volume. So the focus of the next few years will be about take-up and quality, particularly of services that really touch people's lives.

For example, online filing of tax returns has now reached a critical mass of one million returns each year. This is a significant milestone and shows what can be done as we push on so that the great majority of returns are filed this way. Elsewhere our challenge is to achieve critical mass and then drive take-up so that other channels can be significantly wound down and eventually closed altogether.

Use of intermediaries

Sometimes the transaction with government may best be conducted online by an 'intermediary' or an agent of the citizen. IT can greatly enhance the ability of the intermediary to act on a citizen's behalf.

Such intermediaries may be in the voluntary sector such as Citizen's Advice Bureau staff, or in the private sector – accountants acting on behalf of self-assessed tax-payers, or insurance companies on behalf of the motorist. They may be in the public sector – for example, using new online systems doctors can help patients in the surgery select a consultant and book an appointment there and then. Also friends, carers and family members may act on behalf of pensioners and other citizens unable to go online themselves.

Front-line services

Although the drive to put services online must continue, many services will continue to require a direct transaction between the citizen and a front-line public servant. Technology is not about replacing these, but rather enhancing their effectiveness by giving these public servants better tools to do their job.

One example here is the National Programme for IT (NPfIT) in the National Health Service (NHS). When implemented, this programme will greatly enhance the healthcare professionals' ability to meet patients' needs. They

will be able to make clinical decisions based upon an integrated and current patient medical record, and the automation of routine tasks will free clinicians up to treat more patients.

Enabling efficient public services

IT will be key to delivering the recent Efficiency Review conducted by Sir Peter Gershon. The public spending round just completed has baked major efficiencies into departmental spending plans. This brings the same cost pressures to the public sector that have driven the private sector to use technology to reduce costs.

As the Chancellor of the Exchequer said in his Budget speech, 'It is because the public sector has invested £6 billion in new technology, modernising our ability to provide back-office and transactional services, that I can announce a gross reduction in civil service posts of 84,150, in order to release resources from administration to invest in the front line.'

The experience of the private sector is that good customer-centric processes are not only effective, but efficient also. In government we would expect to drive out efficiencies as we help public servants do their jobs better, citizens to serve themselves and intermediaries and agents to transact on behalf of citizens. In other words, better public services are also more efficient.

Behind the scenes, however, there is also much scope for using IT to increase efficiency, for example in HR and finance. Here, the software platform choices are pivotal – both in terms of the commercial off-the-shelf (COTS) packages chosen and the way they are configured and implemented.

Best practice in these areas suggests that it is better to customise processes to fit those in the package, rather than the other way around. This approach will serve to inform the process owners about what is practical versus desirable, will help the whole of government to move in consistent directions and learn from each other, and potentially help move to shared or outsourced services in due course.

Achieving IT efficiencies

There is also scope to deliver efficiencies in IT itself, for example, through:

- benchmarks for desktop office systems to achieve consistent and cost effective infrastructure;
- further government-wide economies of scale which can be achieved through bulk purchasing;
- best practice, drawing lessons from the CIOs who are achieving greatest efficiency in their IT functions.
- presenting a government-wide view to suppliers in both collaborative and competitive settings.

And as the pace of change in government gathers, so it is more important to use the latest technology to help ministers and officials alike, to enable them to be more effective and efficient in their front-line roles. Examples include tools to improve government-wide knowledge management and secure mobile and remote working. My role is to be the IT change agent across government which unlocks these efficiencies.

Sponsoring a cost-effective approach to IT security

Technology greatly facilitates open and accessible government, but it also opens new avenues for breaches of security and invasions of privacy.

At the most sensitive end, the British government is already world-leading in its high-end security systems and this must continue.

However, the mass of information that is held and processed electronically by the IT estate of government needs to be both secure and easily accessible, a tricky balance to strike. Striking that balance is a government-wide issue since the system is only as secure as its weakest point, yet the tools and techniques for achieving security can often run counter to ease of use by citizens and public servants alike. My role is to find an appropriate balance between cost effective security and usability, to encourage usage in a climate of confidence.

E-Government Unit: Top level plan 2004/5

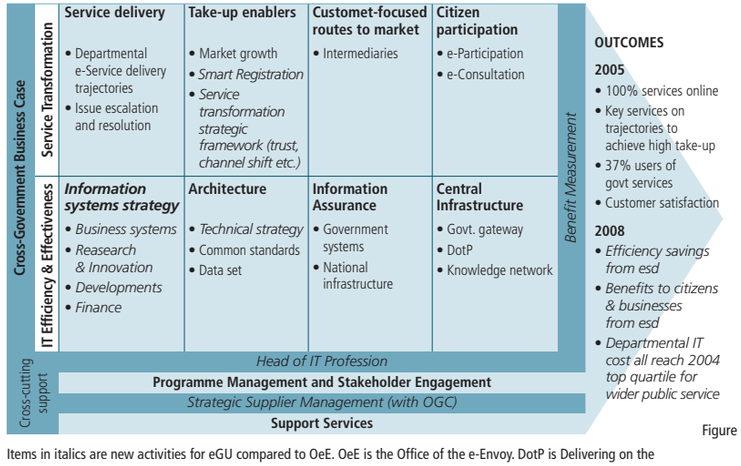

Figure 1.

Items in italics are new activities for eGU compared to OeE. OeE is the Office of the e-Envoy. DotP is Delivering on the Promise – a UK government piece of central infrastructure designed to host multiple government websites.
More information can be found at: http://www.cabinet-office.gov.uk/min-org/organisation/index3.asp

Building the capacity to succeed

This is the task ahead, but how do we get there? There are many successes in IT-enabled business change within government, often unsung and unnoticed. But there have also been notable problems which have received much scrutiny and public attention. The problems which occur are understandable because

of the scale of the systems, the complexity of the business, and the special challenges of the public sector. They may be understandable, but we must strive to make them avoidable as far as we can.

Government has worked successfully in recent years to implement the Gateway review process for mission critical projects. Gateway is universally highly regarded, and it improves each year as more lessons are learned. But a good review process is only one part of the answer.

Capability and capacity

The reform agenda is a huge challenge and to deliver it we need a team of IT professionals across government with the capability and capacity to deliver all the reforms based upon IT. In particular we need:

- a common career framework for IT professionals;
- an integrated approach to training and community;
- pro-active, cross-agency deployment to build work experience;
- knowledge sharing – via best practices and through personal networks;
- to involve politicians, business change leaders and suppliers in two-way exchanges with the IT professionals.

We also have to know who the most experienced professionals are in this field, deploy them to where the needs of government are greatest, regardless of organisational boundaries. In the short term, while we put in place the longer term programmes to grow capability organically, we will have to recruit experienced professionals to deploy on our biggest projects since the pace of reform is increasing rather than slowing down.

> 'Overall the challenge of delivering IT-enabled Government reform is so huge that boundaries will be pushed technologically and in terms of best practice.'

CIO Council

At the centre we will be creating small but senior central teams with real expertise in the key areas which matter. But to get real improvements in capability and capacity we must work in partnership right across government, first and foremost with the IT professionals of government, but also with the business officials and ministers who are leading the public service reforms which IT underpins.

To achieve this partnership we will be establishing a government-wide CIO Council – whose membership will come from the wider public sector, not just central government. The purpose of the CIO Council will be to create and deliver a government-wide agenda to support the transformation of government and to build capability and capacity in IT-enabled business change.

In chairing the CIO Council my approach will be to facilitate the council members to function as a self-empowered team, a team in which individual members:

- develop a common agenda which they personally believe in, and which they take back to their own agencies to execute;
- take a government-wide view while maintaining accountability for specific operations and programmes in their area;
- break down the silo barriers which can exist across government;
- facilitate and encourage learning from each other;
- feel comfortable in asking for help or giving advice.

I will also be appointing an experienced IT professional team to help the CIO Council create a career framework, training, best practices and sense of community for all IT professionals wherever they work in public sector.

Supplier partnerships

Much of government's IT-enabled change will be delivered by the IT marketplace, and so the IT supplier community represent an important part of our delivery capability. The formal relationships with suppliers will continue to be managed by the Office of Government Commerce and individual agencies. However, I will be meeting with suppliers to add another dimension to the relationship, in particular:

- presenting a single face to suppliers on government-wide plans;
- hosting and attending government-wide supplier IT Forum(s);
- encouraging the structured input of supplier ideas and innovations;
- promoting a 'balance sheet strength combined with innovation' marketplace;
- developing partnership arrangements to enhance capability and capacity;
- troubleshooting key problem areas.

Learning and sharing

Overall the challenge of delivering IT-enabled government reform is so huge that boundaries will be pushed technologically and in terms of best practice. As the Government CIO I want to encourage an environment of learning and sharing in the widest sense. We have much to learn from others and much best practice to share. So I will be encouraging regular and open dialogue with ministers, MPs, the media and industry watchers, private sector CIOs, international government CIOs and through all these channels, citizens themselves. This will not only help better results on the ground, it will increase confidence in our collective ability to deliver change, which can only be good for the reform agenda overall.

Conclusion

When I applied for the role, the job advertisement described it as the most influential role in UK IT, and there are no bigger business challenges than that of transforming the public services. I am very excited by the challenge and hope that when I leave the role I will be able to look back and say:

'My successor has a clear strategic roadmap and policy framework laid down for the next cycle of IT enabled reform'

'There has been real progress in the reform of public services underpinned by IT in the eyes of citizens and taxpayers'

'IT has greatly assisted the achievement of the Efficiency Review objectives of 2004'

'Public servants increasingly believe they have good IT tools to help them execute their roles'

'There is an appropriate balance between security and privacy and openness and ease of access for services supported by IT'

'The capability and capacity to handle the most complex mission critical projects now exists in government – so that there is external and internal confidence to press ahead with more reform'

'There is a strong team ethic within the extended IT community across government and a sense of career, competence and achievement within IT professionals'

'UK government has achieved a strong competitive and collaborative relationship with IT suppliers both large and small'

'The UK is among the leading countries for effective and efficient IT-enabled government and public services have kept pace with UK citizens' experience of commerce'

Apart from that the job is easy…

Rising stars

SECTION 3: RISING STARS

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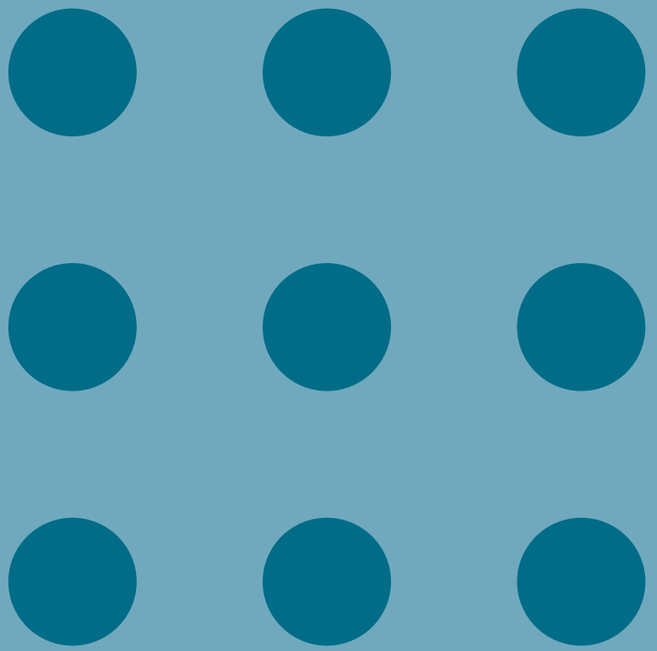

3

Bahrain's e-government strategy. The mission: to lead the Middle East in IT

Sheikh Ahmed Al-Khalifa | Acting President, Central Informatics Organisation of Bahrain

BAHRAIN
POPULATION: **699,400**
note: includes **235,108 non-nationals** (July 2004 est.)
GDP in $'s purchasing power parity: **$11.38 billion** (2003 est.)
INTERNET USAGE: **195,700**
PERCENTAGE OF POPULATION: **28.0%**

As the first country in the Middle East to introduce the public to the Internet, the Kingdom of Bahrain aims to lead the region in ICT-driven transformation. With a national broadband platform in place, a focus on citizens' needs, an incisive public education and communication strategy and a wise intra-governmental consensus-building approach, Bahrain is re-defining e-government in the region. E-voting, a single national database and the roll-out of its latest most ambitious project, the smart card, are just a few examples Sheikh Ahmed Al-Khalifa offers as evidence of Bahrain's success.

Bahrain's government is undoubtedly pro-IT. The first computer was used by the Kingdom back in 1979 and a government-wide data network was established in 1981. The Bahrain government was the first in the Middle East to adopt a Strategic Information Systems Plan in 1993, and it was the first to give government employees access to the internet from their offices via the government data network. Bahrain was also the first country in the region to introduce the public to the Internet and it used e-voting during the National Charter Referendum held in February 2001. It is also one of the few countries in the world and the first in the Middle East to have created a single national data bank.

The objective of Bahrain's e-government strategy is for all government ministries' computer networks to be interlinked to enable fast and efficient communication between ministries and with the general public. The benefits of this include improvements in the quality and delivery of government services; more accurate, correct and updated information for decision-makers; greater security; increased government revenues; greater efficiency and control; and reduced costs.

The strategy implemented to achieve this goal is a conventional IT strategy proposing technical solutions to a defined set of business and information needs. The business of government is too varied and complex and the range of its dealings and contacts too great for that to be easily and quickly achieved. Instead, the strategic direction is set for the way the Bahrain public sector will transform itself by implementing business models which exploit the possibilities of new technology. It is informed by the rapid development of new ways of doing business in the wider economy, in the public sector in other countries, and by leading edge practitioners in the Bahrain public sector. It identifies the respective roles of public sector bodies to deliver the benefits of a common approach.

The implementation of e-government within Bahrain is being driven forward by the Central Informatics Organisation (CIO), a government body established by prime ministerial decree back in 1981. CIO is responsible for all IT within government.

3.1

In the early years, the Central Informatics Organisation was responsible for the implementation of IT projects which became the foundation of Bahrain's e-government strategy. The National Data Bank was one of the first projects that helped the government to overcome the confusion caused by duplication and discrepancies in data held by different ministries.

This has delivered tangible benefits.

Initially, the CIO's strategy was to focus on projects that addressed the frustrations of the leadership – to help them solve their problems. The strategy was to listen carefully to government ministers in all government meetings on any subject to understand the pressures, conflicts and politics behind the issues and to identify ways CIO could help. Once IT solutions could be proposed in a tangible way, CIO would then bring them into the media arena – to TV talk shows, the radio and newspapers. This way its proposals quickly got noticed by government leaders while at the same time the first stage of public education – and public buy-in – was already under way. This was how confidence was won. Now things are much easier: the leadership has trust in the Central Informatics Organisation.

Today, Bahrain's government is the driving force behind a national effort to lead the Middle East in information technology. A significant part of this involves enabling all of the government's current and future computer systems to function over open networks such as the Internet and deploying them using new technology infrastructures, e-systems. The evolution towards e-government is supported by an e-government strategy mapping out a blueprint for the transformation process and providing a high level of direction to all state and municipal public authorities. This e-government strategy is intended to implement a series of related projects to improve the effectiveness of systems and technology within government.

CIO's task is to work with different parts of the government to implement this vision, managing connectivity, security and data transmission. Traditionally CIO's customers were government departments. Today CIO is shifting its

focus towards the end user – the citizen. It is less about serving the ministries and more about ensuring that all the e-government services that are being rolled out are easy for the citizen to understand and use.

Change always meets resistance, of course. And there have been some difficulties with implementing the e-government vision. Back in 2000, for example, the idea arose for a single smart card for use by all of the different ministries within government – immigration, health, employment, and so on. The challenge was achieving inter-governmental cooperation required to deliver this. It was too big a project for any single ministry to 'own', while at the departmental level government employees were unable to see clear benefits. It took years to get all interested parties to buy into the plan.

'CIO was happy to give them all the credit for the success of the initiative. Eventually, they all came over onto its side. Another incentive was introduced by government.'

It was important to realise that implementation success depended not only on the buy-in of the ministers, but on the dedication of the section heads and their teams. So CIO encouraged the section heads to take leadership of the initiative while it offered its services in providing the infrastructure, maintenance and upgrades to make sure that the process was not slowed down by the failure of a single department to upgrade. It was a small carrot, but an effective one. As soon as they understood what CIO was saying they bought into it. CIO was happy to give them all the credit for the success of the initiative. Eventually, they all came over onto its side. Another incentive was introduced by government.

Implementation teams in different ministries were encouraged to work together on the project as part of a single team and were given incentive by the offer of overtime payments.

Individual ministers were also positioned as project leaders within the project so they would fight for the project within their own ministry to make it a success.

Today, the Bahrain government's e-government strategy comprises five other projects in addition to the smart card. These are: upgrading of hardware and software; upgrading of the government data network; security; national data set; and application transformation. A quick win in the portfolio is e-gate. E-gate enables citizens with a smart card to pass in and out of the country at all entry and exit points with ease. Citizens of Gulf Cooperation Countries and Residence in Bahrain from other nationals could also conveniently use this e-gate.

Accessibility of government services is key. CIO is working to develop back-office support for customer services. The way all ministries are doing business is under review to ensure the best quality services are provided to the public. Service access via the Web, SMS, PDA and kiosks is also being developed.

Public education is critical to the success of Bahrain's e-government strategy. The reason is simple: once e-government is up and running, if people do not know about it or understand it they will resist it. A single communication is not enough. This should be an on-going effort. Regularly explaining the benefits of e-government in simple terms, building bridges for others to join you in the work is very important. And it is also important to time the public communications correctly.

CIO's role has evolved over time. It started out advising government on how to implement its e-strategy and rolling out IT projects. Eventually CIO became the government's service provider, building out an infrastructure to support its e-government vision and rolling out services. This in turn encouraged Batelco to accelerate their own infrastructure and services roll-out.

'There is a broadband platform in place to support many more projects, for example, connecting health organisations and connecting Bahrain's schools.'

As a result, today there is ample bandwidth available for connecting all of the different parts of Bahrain's public sector in line with the e-government vision. There is a broadband platform in place to support many more projects, for example, connecting health organisations and connecting Bahrain's schools.

In terms of governance, there is an e-government programme organisation structure with an executive sponsor, programme sponsor and business owners. The implementation team plans and executes work based on the overall strategy and approved programme plan. Regular executive, project management committee and project implementation team meetings review and address issues, arrive at key decisions and manage changes and risks associated with the programme. CIO's own executive committee, meanwhile, acts as steering committee for the implementation programme. CIO is also responsible for providing IT standards and policies.

All relevant CIO staff underwent intensive training to ensure they had the skills in-house to implement e-government. CIO has also issued tenders for hiring in consultants in security, project management and other areas where it lacks expertise in-house.

A huge programme such as e-government has many challenges. A key one is to co-ordinate efforts across different projects to achieve the programme goals and objectives and to still finish the programme within its agreed scope, time and budget. After completing each project CIO has a plan for measuring the impact of the implementation. For example, it has worked with the University of Bahrain to measure citizens' perception of security in e-government, awareness of e-services, and so on.

While e-government is not expected to change the political process in Bahrain, the change will affect the way government does business and the quality of services it provides to its citizens. Bahrain is a democratic country and it will use technology and Internet services in its next elections in 2006. We have already used touch screens for voting in a referendum staged in 2001. Back in 2001 we were not sure how to authenticate a person for e-voting, although a system to collect e-votes was already in place. Today, however, with biometrics and the smart card it is far easier.

Where e-government comes into its own, however, is in improving the efficiency and quality of government services. Better school services will help improve education. Better health services will save and prolong lives.

The smart card remains the flagship of Bahrain's e-government strategy, taking a great portion of the e-government budget. We are proud that recent benchmarking studies have shown that Bahrain is far more advanced than many countries in its e-government implementation, and this is the message that the government is communicating broadly today. Bahrain is now 26th in the world in terms of e-readiness, and 1st in the Middle East. We hope that this will attract more interest and more foreign investment to Bahrain.

Implementing Brazil's 'Connected State with its Citizens' strategy through a silent revolution

Rogério Santanna dos Santos | COO of National e-Gov/Digital Inclusion Programmes, Federal Government of Brazil

BRAZIL
POPULATION: **179,383,500**
GDP in $'s purchasing power parity: **$1.375 trillion** (2003 est.)
INTERNET USAGE: **19,311,854**
PERCENTAGE OF POPULATION: **10.8%**

Rogério Santanna dos Santos discusses Brazil's citizen-centric technology-enabled transformation. He explores the strategic building blocks that make up the strategy and outlines the executional challenges ahead.

Introduction

Typically the debate surrounding a better organised and more efficient Brazilian state is fragmented, focusing primarily on short-term, ineffective measures. Absent are any in-depth discussions as to how the actual structure of the state should be revised so as to be impactful.

Changing the bureaucratic reality of the state will require strong interaction with public managers. Often when we look for technology-enabled solutions we find situations where the workflow is mired in bureaucracy and we must analyse, redesign and replace processes that are simply irrational. The core idea in this case is that working processes within the state are so irrational that any process redesign initiative that does not include the employees in the process will simply not be efficient or effective.

The typical approach of an administrative reform of state bureaucracy will not lead to creative solutions and, in general, will tend to result in processes that are actually poorer in effectiveness and in efficiency. Only an integrating, holistic approach will result in a broad transformation that will rebuild processes and return the state to a situation of efficient and transparent compliance with its commitments to society. In this vision, which is so critical to any next generation e-government initiative, employees must be considered as part of the builders of the vision.

It is also the case that citizens have never been listened to, to find out what services they feel the state should offer, or even what they believe constitutes 'good government'. In general surveys are only pro-forma or are far removed from the actual problems that must be solved. Fortunately, this is starting to change. However in general the rationale is pernicious when it comes to citizens' interests. It is an almost universal fact that the traditional state is cruel in this sense. In general, priority processes and services are related to citizen and population obligations, not their rights. When the different states talk about areas of excellence, which areas are most often mentioned? Normally it will be those that can demonstrate economic return – tax and fee collections and inspections. These are the areas that get most of the funds and the better qualified and paid employees. Areas where the state provides a service to the population tend to be less organised and have fewer resources. They tend to be staffed with banned employees, have the worst administration and systems, and the poorest returns. We must turn this situation around.

Certainly citizen participation will reverse the major trend seen thus far in e-government initiatives. Let us analyse an example that brings together rights and obligations so that, together, we can see which part of the process normally receives priority. The process we have selected is electronic payment of vehicle licensing fees (IPVA). Most states enable online payment of IPVA and moving violation fines. However, if a citizen desires to appeal a fine, then he/she must get in line and wait. This is a real-world example of 'betrayal' of the principle of improved services. The state only improved that part of the process that is in its favour – speedy collections. The component of the process that favours the citizen – appeals – remains unsatisfactory. In order to appeal against a fine, citizens must run the gauntlet and, ultimately, may simply decide that it is not worth it. It could well be that it is not worth waiting in line for several hours to appeal a fine of R$100. The person's time and peace of mind are simply worth more, so fines go unappealed. As a result, the state simply keeps that money and is free from ruling on a legitimate recourse. The right of inspection and transparency must go hand in hand with obligations. An increase in obligations must necessarily imply an increase in rights. It is also important that there will be supervision over state agents who make decisions within the process. We must ensure that state employees made the right decision and used transparent criteria. The profound imbalance that favours obligations must be removed.

The best way to approach real transformation is to select key processes that have a chance of success, work with the knowledge-base held by the employees and are strictly focused on what the population needs. Both approaches are part of the process and full understanding requires this interaction. All of these processes are regulated by a myriad of laws, decrees, bills and guidelines that were written at different times and, in some cases, are not even consistent. Therefore the process is fraught with non-conforming situations, discontinuities and inconsistencies. Proper citizen-centric process mapping is required and the people who understand the process must be involved. Since it is impossible to tackle everything at the same time, choices must be made. It is important that these choices not be arbitrary, and are strictly relevant to the population.

In Brazil, next generation e-government initiatives are focused on the social inclusion of millions of Brazilians. I believe that this focus provides us with an excuse for using technology as a pretext to debate new ways of governing. This debate sees technology as a means, not an end in itself. What this means is that any discussion regarding technologies must necessarily be preceded by a discussion of process integration of citizen priority demands, which will then guide the implementation of technology solutions. This debate also forces us to be constantly aware of the need to interact with the citizen to understand the citizen priorities of government services and processes.

As soon as we start to discuss and review processes we see that, in most cases, the reason a given process does not work is that it simply takes too long for the paperwork to get from one place to another. Half of the process time is taken up with physically moving paper around. What this means is that, by simply eliminating paper, before even starting on the process, we can speed things up by 50 per cent. This increased efficiency will be captured merely by redesigning the process to include IT, even before taking into consideration the quality and efficiency of the work itself. IT allows for a different flow – routines can work in tandem, flows are parallel and no longer sequential. Paper flows are necessarily sequential, whereas electronic flows are not.

As an example, we might look at a process for issuing a building permit. In most cities this would require input from the historic landmarks group, from the environmental authority, town water authority etc. Building authorisation processes require input from many different government bodies yet, with rare exceptions, each of these opinions is independent and does not require input from any other. Therefore much of this process could run in parallel. If one sets off ten different initiatives and brings them together at the decision point, the process will not have changed but the time required will have been reduced to one tenth. So the first thing that information and communication technologies can do is make the process quicker and easier to manage. At the same time, and this will depend on political will, these technologies allow the state to rethink its processes, which leads us to the other 50 per cent.

IT enables measuring processes that would be very difficult to measure in a paper-based system. If a poor process is automated, it becomes relatively easy to find out what is wrong with it. The first advantage is in terms of speed and the possibility for running routines in parallel. The second advantage is that we can now measure all of this. Paper-based processes are tedious and laborious to measure, and the results are imprecise since the process must be measured step by step, document by document. Although good approximations are possible, these are generally not used. We must bear in mind that good management requires control, and control requires measurements. Therefore the first thing we must do is organise processes so that we can measure them. This can only be done if there is broad citizen involvement. Whoever implements an automated system or process redesign must be aware that the citizens have veto power, a power that no measure of government decrees can eliminate. The process must belong to whoever did the work and to those who benefit from it, therefore the importance of bringing together planning and execution bodies and those who will benefit. Planners, implementers and citizens must not be kept separate. Those who work the process must be part of the redesign effort and have input. Likewise citizens must have input, given that society is the reason why the state implements these processes in the first place.

Information and communication technologies are a good excuse for a quiet revolution, one which is set in motion without grand announcements and which for this reason is free of the emotional burden imposed by typical state reform processes. Whether it be unresolved union issues, employee attempts to obtain compensation or, more importantly, mistaken views of administration or a decree with no practical means of execution, thought up in some government office, all components must be placed on the table so that we are made fully aware of the complexity of change. Above all, it is the citizen who must be heard.

3.2

'Brazil excess cost': comparison of time and cost to open a business in four countries

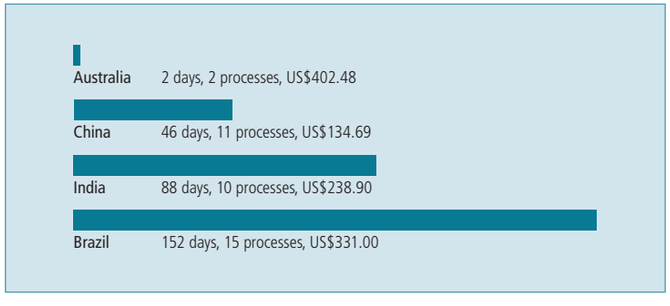

Figure 1.
Source: Doing Business 2004, World Bank report.

And last but not least, we believe there are two basic criteria to bear in mind before setting off on this silent transformation. The first criterion to bear in mind is how relevant change is to improving the quality of public services. We will start with processes that are relevant for the population as a whole. The second is that there must be a desire for change or, in other words, those individuals who make up the work process must be in favour of the transformation. Both criteria must be met. An example of a relevant process would be to be able to open a business quickly and efficiently in Brazil – right now there is a significant amount of pressure in this direction. Our lack of performance in this issue is related to the 'Brazil excess cost' that companies face in Brazil – holding back our competitiveness (see Figure 1).

Designing a 'Connected State with its Citizens' strategy

With this in mind, one of the central concerns of our next generation National eGov Programme is that it contributes towards closing the immense gap that exists today between citizen obligations and citizen rights in terms of the relationship between the Brazilian people and their government – federal, state or local. This is the overall focus of our government, which we have tried to translate into our e-government vision. We have attempted to directly relate our initiatives in this area with the central objective of the current government: social inclusion based on reducing the large social differences in Brazil. Therefore we believe it is important to mention the seven fundamental principles upon which we have built our e-government initiative:

- Promoting citizenship as the top overriding priority;
- Investing in knowledge management as a strategic instrument for public policy management and articulation;
- Rational use of resources;
- Adopting policies, standards and guidelines that are common across all technology processes and solutions – interoperability;
- Integration with other government and related powers;
- The use of open source software as a strategic resource;
- Holding e-government and digital inclusion to be un-dissociable.

In our view any permanent e-government policy that proposes to be foundational in nature must bear in mind three key building blocks:

- Designing and formatting solutions that focus on citizen inclusion along the economic, social and political (local and global) dimensions – satisfying the pains and unmet needs of citizens and companies throughout their respective lifecycles;
- A concern with integrating solutions across the three layers of the State (federal, state and municipal) so as to create technological efficiency and independence;
- Ensuring that the digitally excluded population has access to technological innovation.

If we fail to do so, the silent revolution will not be effective as it will reach only a smaller portion of the population. Our initiatives already bear in mind these strategic concerns. I would like to mention these in turn.

First, we must develop the agenda for citizen-centric solutions that are interoperable across the layers of the state. Initially this agenda will cover core services in the areas of health, education, social services, procurement, accountability, economic development and public safety. The first version of the agenda is being developed with the federal and other levels of government via the activities of the G2G Committee and the National e-Government Diagnostic. This will view the relationships between society

Interlocking relationships in Brazil's 'Connected State with its Citizens' strategy

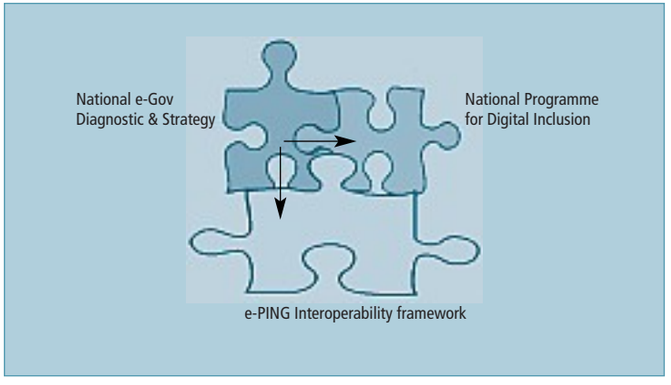

Figure 2.

3.2

and the government, using the citizen as the point of focus, and then design a set of prioritised solutions that will likely overturn the rationale that has guided most e-government initiatives: that planning should take into account only the needs of the government. We are certain that this path will lead to a significant number of rights, qualitatively/quantitatively altering the focus of e-government actions to date.

Key issues addressed by National e-Government Strategy framework

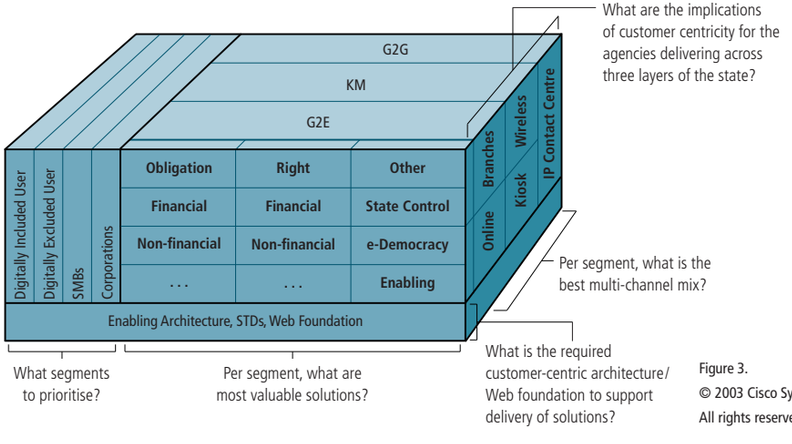

Figure 3.

The analytical model used to prioritise the needs and expectations of citizens and businesses is based on four fundamental categories: rights, obligations, democratic participation and social control. The framework was developed

through a nationwide market research survey conducted with citizens, businesses and public institutions to identify the gap between supply and demand for government services. The end product will be a national e-government strategy guided by the critical life events of citizens and companies. Core to the strategy is the development of a framework that addresses a number of key issues in the transformation as depicted in Figure 3. This strategic framework was developed through a joint collaborative effort between the Federal Government of Brazil and Cisco's Strategy group – the Internet Business Solutions Group.

'In Brazil, next generation e-government initiatives are focused on the social inclusion of millions of Brazilians. I believe that this focus provides us with an excuse for using technology as a pretext to debate new ways of governing.'

The National e-Government Diagnostic will identify citizen (and company) problems and unmet needs. In doing so the aim is to achieve the right channel mix through which their rights will be delivered and they may comply with their obligations. In other words, we have questioned citizens and companies about their 'distribution' preferences: to relate to the government online, via telephone, SMS, face-to-face, call centres, kiosks or other means for a particular service class and micro life event. The answer to these questions are key to defining a strategy that reaches not only the population in socioeconomic categories A and B, who normally have Internet access, but also effectively reaches those in C, D and E who do not. Any plan that the government implements must include multiple-access channels in a coordinated fashion from the point of view of the citizen/company.

The end product of this survey and associated srategy and that of the ongoing debates within the government will provide a basis upon which to decide which key processes should be priority for redesign, taking into account the necessary standards of interoperability for execution. We will also use this to determine where we should start to redesign and implement IT solutions in the government's internal or back-office processes to capture the massive efficiency improvement potential.

The second major strategic initiative refers to the e-government framework for interoperability (e-PING). E-PING is a reference model that must be used to guide the development of solutions and the implementation of e-government technology infrastructure nationwide. Integrating solutions across the three layers of the state will improve the quality of citizen services and modernise the Brazilian state. The first step in this direction is to unify concepts. One cannot build a common language to be shared by the

different government databases if these very databases and sources are not developed using common and accepted definitions. This requires a debate as to how the different government sectors may be unified, often requiring that the scope of functional activities within government be redefined.

However, developing a standard for interoperability presumes a degree of technological independence required by any government (federal, state and municipal), as well as a concern with building standards that take into account the legacy systems accumulated by the different government bodies over the years. The standard for interoperability that the Brazilian Government proposes to use was developed by the Secretariat for Logistics and Information Technology (SLTI), part of the Ministry of Planning, together with the Federal Data Processing System (Serpro) and other Federal government bodies. It is based on the end products and guidelines that came out of the strategic discussions held by the different e-government committees. The main guidelines understand interoperability to mean the existence of an architecture (policies, rules, standards and methodology) upon which to integrate the Federal Government's information systems to that of other governments, and the development of a collaborative environment for solution, process and data integration. These principles are used to guide all actions in the direction of IT-based vertical and horizontal integration of government processes, digital inclusion and the improved quality of government actions. This in turn will encourage transparency, social control and lead to an improved relationship between government and society – the result of more efficient services.

Role of alternative channels to reduce the digital divide in Brazil

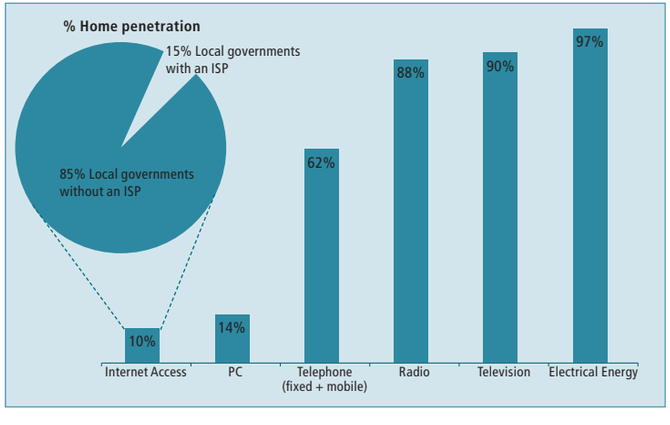

Figure 4.
Source: IBGE – Pesquisa Nacional de Amostra Domiciliar (2002).

Finally, the Brazilian Digital Inclusion Programme (the government programme that aims to unify and integrate all digital inclusion initiatives within the federal umbrella) is the third building block of the e-government programme. One of the objectives is the significant expansion of access of both citizens and small/micro businesses to the benefits of information and communication technology. We like to talk about the un-dissociability of e-government and digital inclusion, or of government and social inclusion. This building block is key to ensuring that all citizens have access to the National e-Government Plan initiatives, especially those in socioeconomic categories C, D and E. Reducing the enormous digital divide in Brazil will require the creative use of a number of advanced technologies including wireless in its different modalities, power line communications, among others.

The specific initiatives associated with this programme are as follows:

- Connected PC initiative targeted at maximising inclusion of the C income class;
- Connected Public Schools initiative aimed at broadband deployment Brazil-wide to enable next generation education models;
- Community Digital Inclusion centres targeted at the D and E income categories;
- Broadband deployments across the three layers of government to provide the enabling infrastructure to deliver the portfolio of solutions prioritised in the National eGov Strategy described above.

Of particular note is the delivery of customised solutions sets appropiate for the heterogeneous communities targeted.

The challenges ahead in materialising the strategy

There is no ideal set of circumstances. Piloting will be key before major rollout can begin and never with any announcement of major change. Success will depend on executing one slice at a time with the right measurements in place. Redesign should not be preceded by advertising, but rather one should wait to announce results after it is a done deal and the measured results demonstrate progress.

A major barrier to realising this vision includes managing change as it applies to civil servants. This is the most critical and neglected aspect of change. When we learn that a given process is not good, the first thing we talk about is the need for qualified personnel. So, if your manpower is not qualified, off they go for training completely unconnected to the citizen-centric process. Often this training is broad in scope and, while it might be of use to the individual, it is of little value to the process. When these employees come back to work they find that their boss did not receive the same training and nobody can implement anything! What should happen is that first a decision is made to change the process, followed by a definition of the change team, which must include employees involved with the process at hand.

The first step is to train the people so that they have the required skills to map the process properly, they must understand the methodology. It is entirely possible to come up with the ideal process, only to learn that it cannot be put in motion for lack of the right details, addressing the barriers etc. This is an improvement plan, one of continuous change and management. Continuous change is an important element to ensure that the process works. Processes subject to continuous improvement are constantly being redesigned. Understanding the issues is a prerequisite to any redesign process.

Public Private Partnerships (PPPs) have a significant potential to accelerate the execution, particularly as it relates to massively reducing the digital divide. However, they also bring risks. What are these? If the model selected is not a good one, or if the solution is not sufficiently evaluated, then the problem will simply be transferred elsewhere, creating equally anachronistic systems that may even be more costly. The result may be new monopolies at some other location, and not an actual solution to the problem. It is essential that the entire team responsible for the project be fully aware and familiar with the process. It is important to look at other experiences worldwide and assess the risks. Detailed planning is essential. Doubts should not be swept under the rug but addressed ahead of time. We must go after the numbers we do not have and look for new paths to follow in the event that our original estimates are not confirmed.

'Public Private Partnerships (PPPs) have a significant potential to accelerate the execution, particularly as it relates to massively reducing the digital divide. However, they also bring risk.'

Whoever leads change must act as a guardian of rights, because obligations take care of themselves. These changes must incorporate the view of the citizen. Services will be more efficient if they can increase citizens' access to self-service and the ability to take care of themselves. The simpler we can make it for citizens to 'do it themselves', to depend less on anybody else and have services available 24 hours a day, the more efficient that service will become. It is even better if no physical dislocation is required. Hence the importance of ICT. Therefore solutions must be user-friendly so as to enable the largest possible number of people to use them. Adoption is not an easy task, because processes that have large numbers of users and very simple operations are often exponentially complex. The reason for this is that there are all sorts of possibilities across the country that we simply cannot foresee, and each may lead to a different interpretation.

Any complex change must take into account that the plan will never be executed as originally conceived, but must be sufficiently flexible in terms of guidelines and standards to incorporate and manage change. We must foresee what could go wrong; accept that retreat may at times be inevitable, and that elements will have to be reviewed. We normally consider plans to be future thinking and forget that we are talking about a management strategy within government. How can we ensure that approvals will come through as expected, or that we will get the courts and Congress to agree, or that we can make things move within the government itself? Our plan must be efficient; we must manage and pull the process – not push it. Whoever is responsible must be capable of pulling it out of the bog every time it gets stuck, as it no doubt will. The manager of any government process is, above all else, a 'puller', who grabs one end and defines a final target. Nevertheless, there will still be a number of hurdles to slow things down, but even keeping these slowdowns to 20 per cent will already be progress and a huge payback to the citizens, the companies and the country itself.

Seize the initiative with centralised project management: e-government in Estonia

Andrus Aaslaid | Adviser to the Minister of Economic Affairs and Communications, Estonia

ESTONIA
POPULATION: **1,350,900** (July 2004 est.)
GDP in $'s purchasing power parity: **$17.37 billion** (2003 est.)
INTERNET USAGE: **621,000** (2002)
PERCENTAGE OF POPULATION: **69.4%**

From economic ruin and massive inflation in the early 1990s, Estonia is now – thanks to the inspired leadership of Prime Minister Mart Laar – among the world's top five nations in terms of e-government development. Andrus Aaslaid explains how this miraculous economic and administrative turnaround took place. Having instituted major reforms to the Estonian administration including an online tax declaration system and electronic ID cards, Estonia established the innovative X-Roads project, integrating databases, to provide a unified data exchange layer between administrations. According to Aaslaid, the key to successful e-government is central control and co-ordination. 'My advice is be a totalitarian,' he says. 'Forget enlightened democracy: e-government is an IT project!'

Reforming the administration

Partly as a result of good fortune and partly due to foresight, Estonia is today a leading example of e-government, where every cabinet meeting is e-enabled so that ministers can participate from any location and where the citizens can comment on, support and even introduce pressure on the administration from the comfort of their armchairs. We are ranked in the top ten online nations in the world and – according to a report from Harvard University – in the top five for e-government development.

Perhaps surprisingly I see the foundations for Estonia's e-government success as having been laid in the 1990s in the banking sector. At that time a lot of Russians felt happier depositing their money in Estonia than at home and very quickly the idea developed that rather than moving money physically around it was easier and safer to make the processes electronic. Estonian's lead in e-banking then provided the culture and the skills that have helped us make swift progress in relation to e-government.

The other key factor I would emphasise is leadership. Mart Laar, Prime Minister between 1992 and 1994 (and again in 1999) presided over an intensive period of economic and statutory reform. He was a visionary, but he had little choice. 'Estonia was ruined, our economy was in shambles,' Laar reminded a Montreal audience in 2004. 'Shops were completely empty… Real wages fell by some 45 per cent, fuel prices rose by more than 10,000 per cent… [and] inflation was running at more than 1,000 per cent per annum. People stood hours and hours in line to buy food.'

One of Laar's key advisers was a man called Linnar Viik who was a huge enthusiast and futurist about how the public sector should work. The public administration reform was strongly influenced by their ideas. Initially, they took Germany as a model, but they found that model too bureaucratic and restrictive. Instead they favoured a more flexible, pragmatic approach, one that was not based on the assumption that what the law does not allow is prohibited. One principle that was very important to them was transparency. They believed that information should be freely available to everyone and that all public administrative acts should be accessible to the public. This gave a huge stimulus to the use of IT in the administration, since it is impossible to give the public genuine access to information if it is all kept on paper.

3.3

Getting services online

In terms of building e-government the first truly successful application was an online tax declaration system, introduced in 2000. This was for citizens only: the book-keeping rules for business were more complex and, without wishing to be too cynical, the political priority was making the life of private individuals easier. This service was a great success with about 400,000 online declarations in 2003 (we have a population of 1.3 million, so 400,000 declarations is a healthy percentage).

In moving into other areas, we were very conscious of the need to reform processes rather than just put services online. Of course, this involves a huge change management process, but we had the enthusiasm from the top to push this through and we were strongly committed to organising services round the citizen. We wanted to move from a situation where the citizen has to carry information from one state institution to the next, to an approach where information flows freely between institutions for the citizen's convenience. Initially, of course, some of the development got a bit chaotic. As we developed more online services, the number of administrative databases increased rapidly and at the time of writing, there are about 200 databases, each related to different services.

So the next big step for us is integration – we need to link all these databases together. This is being tackled via our X-Roads project, which will provide a unified and secure data exchange layer between administrations. Global features for security and access will be provided via a single Web access point. The X-Roads system takes responsibility for access rights and maintains a log of whatever information someone requests. It sits between

any interrogator and the database(s) being queried, so the interrogator is never directly connected to the information source. At the time of writing, this system had been in development for over three years. It relates to services from land registry to social security information and pensions. By the end of 2003, 150 state agencies had been incorporated; the system is free of charge and anyone can log in using Explorer and Netscape.

> 'I do not believe you can offer effective e-government if you do not know to whom you are talking – in other words, if you cannot authenticate your citizen. If you want online services, you need to know who is online. End of story.'

Of course, our approach involves a large amount of information sharing between different parts of the public sector and under the German model this would be unacceptable. But in Estonia we are pragmatic and citizens can see the benefits to themselves of the different parts of the state sharing information effectively. What we have also done is introduce a new Databases Act. This comes into effect from 2005 and means that a citizen can monitor how his or her data has been used. So every transaction on every database will be logged and the citizen will be able to check what requests have been made, by whom and for what purpose. And if citizens think the use of the information was improper, there is a special office, the Data Protection Inspectorate, to whom they can take their complaint.

ID cards as the foundation

Another distinctive feature of our approach to e-government has been an unusually pervasive use – and mandatory introduction – of national ID cards. At the time of writing, these dovetail into the use of bank authorisation codes so, for example, a citizen can log into the X-Roads system using either the Estonian ID card or an Internet bank code (issued by four of the main banks, including Hansa and Sampo).

From a personal point of view, I am an ID card fundamentalist. I do not believe you can offer effective e-government if you do not know to whom you are talking – in other words, if you cannot authenticate your citizen. If you want online services, you need to know who is online. End of story. We can have an endless debate about whether it should be mandatory or not – and there has been a lot of criticism about our decision to make it mandatory – but we took that road because experience from nearby countries – Finland, for example – showed quite clearly that if you make it voluntary, you do not get critical mass.

I admit we had other factors going for us, supporting a wider take-up of ID cards. For example, unlike in many other countries, in Estonia you have to have proof of ID with you when you are paying with a credit card. A passport is bulky to carry, so the vast majority – about 98 per cent – of people get an ID card simply because it is a handy way to back up their plastic and never use it electronically at all.

I still believe, however, that the mandatory decision was the correct one. It certainly played a key role in moving to public online services. You can imagine the endless debates when introducing new services, about how many people might or might not end up with an ID card and so be able to use the service. Now, you can make that forecast with confidence and design the service knowing how your customer will identify themselves. Around 600,000 people now carry the cards. There is no punishment if you do not have one, but everyone who applies for a passport or passport renewal gets a card at the same time. Since the first batch of passports is set to expire around 2006, we can expect the penetration of ID cards to rise sharply, heading well over 70 per cent by 2007.

As it happens, most people still access e-services using their bank codes rather than their ID cards. The bank systems were there first, as we have seen, and the government decided to take advantage. For example, the majority of tax declarations are filed by people logging in with a bank card. We could have stayed entirely with the bank system, but we did not simply want proof of identify for logging in, we also wanted digital signatures. This feature has actually started to reverse the trend: banks are seeing the digital signature technology as a key component of new services, so it may well be that in a few years' time we will see the government ID card replacing the bank cards, rather than vice-versa.

There is another reason for that trend: the banks are responsible for authenticating their own cards, but the ID cards are the responsibility of, and guaranteed by, the administration. This tends to give the ID card identity more legal weight than the bank cards.

Looking to the future

First, my advice to others. Run national IT policy exactly as you would run an IT department in a very large company. Be a dictator, especially where budgets are concerned. If people want to create their own solutions, fine. But they must submit them to a centralised authority for budget approval. You need a statutory framework that states precisely what minimum requirements must be fulfilled for financing. So we work very closely with the Ministry of Finance, using budgetary control to ensure that there is a co-ordinated IT strategy based on rigorous standards. But you also need to educate the Finance Ministry, since their priority will always be to balance the books and they are used to operating in a world where the aim is to scale bids back to a more reasonable level. Well, in IT that does not always work.

If you take half the money from a project, it often makes sense to stop the whole project than start the project and get nowhere.

The issue of central control and co-ordination, however, is absolutely crucial. Enthusiasm for e-government is a great thing and it is nice when different people get the message and want to take initiatives, but if it is going to work, it has to be coordinated. My advice is be a totalitarian. Forget enlightened democracy: e-government is an IT project! Run it like one; manage it like one; seize the initiative with centralised project management and budgetary control. If you do not do that, things fall apart and the centre cannot hold… You will not do it, of course, despite my advice. E-government is not just about IT decisions, it is political and that makes sticking to a centrally determined coherent strategy much more difficult. Everyone wants to have fame and glory for their own solutions. It happened here too and we can only be thankful that those involved were exceptionally smart so eventually it led in the right direction.

'The future is all about integration. We need to create a form of public administration that is as convenient as modern day banking. Processes need to be fully electronic and they need to be integrated. It is not just about central government. We need to work strongly with local government so they become service centres rather than government offices.'

Secondly, you need to remember that e-government is about selling. I talked about working with the Ministry of Finance to get the levers to ensure central coordination, but to make real progress you need to convince the rest of the government of the value of this different approach to public administration. And of course you need to sell e-government to the citizen. The tendency in e-government initiatives is to be over-reluctant to change processes and then to fall down in marketing the new processes. So we have now defined a new framework for projects where these issues are clearly identified and those involved forced to confront them. To give an example. We recently changed the process for getting exam results at the end of secondary education. Basically, the paper processes were not working – lots of students were only finding out their results when they actually received their diplomas. So this year there is a solution where results could be received via SMS or looked up on a website. We advertised these opportunities to students and the process was hugely popular because everyone wanted to know their grades right away. In fact, the take-up was ten times larger than expected, so the service was crashing but fortunately only temporarily, so they were modifying the service on a daily basis. But it worked; it held up and delivered what it was supposed to and was very successful.

Thirdly, for me the future is all about integration. We need to create a form of public administration that is as convenient as modern day banking. Processes need to be fully electronic and they need to be integrated. It is not just about central government. We need to work strongly with local government so they become service centres rather than government offices. What I mean is that all government databases should be linked up intelligently so that you can have simple online processes organised for the convenience of the citizen. Rather than going into a local government office and being sent from one desk to the next or from the local government office to the regional government office etc, the local government office should be a one-stop shop where the citizen can get his problems solved. Indeed, the role of the public servant should be to offer advice to the individual on how to achieve their objective themselves, using their own computer, their own ID card, and their own authority to transact. I want to use my country the same way I use my bank: as I transfer money from this account to that account so, for example, I should be able to book an inspector to assess my property on a particular date or whatever.

In fact, one of my colleagues and I have a running joke: that in ten years' time you will be able to sign up for Estonian citizenship as you do for an off-shore bank account. Your ID card will arrive in an envelope and, from that moment you will be able to pay your taxes, elect your leaders and have full access to all public services without ever having to actually be in the country. That is the kind of transformed public administration I want to get to.

Setting an example

Want to find out more? Estonia runs an E-Governance Academy, financed by the Open Society Institute and the United Nations Development Programme.

The Academy was set up to help other countries benefit from the lessons learned during the highly successful introduction of e-government in Estonia. The programmes are focused on changing attitudes to e-government, not necessarily on providing solutions. They are intended to help participants identify their own goals and then evaluate the different IT approaches that might be useful.

You can find out more information at http://www.ega.ee/.

E-government in Mexico: a quest for transparency and efficiency

Abraham Sotelo | Head, Electronic Government and Information Technology Policy Unit, Ministry of Public Administration (SFP), Mexico

MEXICO
POPULATION: **102,797,200**
GDP in $'s purchasing power parity: **$941.2 billion** (2003 est.)
INTERNET USAGE: **12,250,000**
PERCENTAGE OF POPULATION: **11.9%**

Abraham Sotelo reviews e-government strategy in Mexico, which has been implemented in the service of Mexico's 'Good Government Agenda', putting citizens first and thereby regaining their trust in public administration.

Good government agenda and the e-government imperative

From the outset, President Fox's administration has been determined to bring about an overhaul in the functioning of key public institutions by putting citizens first, as the foremost concern behind every operation and process.

This was the key rationale behind the establishment of the Good Government Agenda: to construct good government as the bedrock of Mexico's new democratic governance and hence to regain the trust of our citizens in their public administration. One of its key strategic lines focuses on e-government as a propelling force for the achievement of this objective.

The promise of ICTs to foster high-performance governments

E-government is a key instrument to generate maximum public value. In this sense, we have identified three basic features of high-performance e-government policies in leading countries, which we take as our reference point in fulfilling the Good Government Agenda:

First, *they are relentlessly citizen-centred and user-focused*; that is, they hold themselves accountable; they actively accept their role as stewards of the public trust; and they make their operations and results transparent to all. They are also innovative and flexible, continually striving to improve value delivery, and are able to respond creatively to new challenges and opportunities, as defined by citizens and the imperative of fostering competitive entrepreneurial activity.

Secondly, *they are focused on outcomes* defined by their mission – not just on inputs and outputs. Electronic government enables better outcomes or less cost, according to clear and robust performance metrics. These measurements also encompass the effort to upgrade the capabilities and ICT skills of public managers; who develop leadership in cultivating working relationships with other agencies, organisations and stakeholders.

Thirdly, *they adopt a flexible and adaptable policy framework legislative vis à vis technological change*, so as to embrace and foster technology deployment, rather than react to technological change or, worse, erect artificial barriers to ICT uptake. In this sense, from a government operational standpoint, policy should facilitate the effective flow of information across agencies and jurisdictions (federal, state and local) in order to establish an integrated, yet flexible and adaptable, technological framework.

E-government in Mexico: our achievements so far vis à vis implementation challenges

According to a recent UN global benchmarking study, Mexico's e-government has improved faster and more effectively than in most countries: it ranks fourth in the world – after the United States, Chile and Australia – in terms of a Web Measure Index, which measures the cumulative sophistication of a public administration's online presence.

As to our efforts to bring about citizen-centred e-government, it is worth mentioning the sophistication and functionality attained in the development of Mexico's Citizen Portal, where anyone can find relevant and useful information on everything to do with government activities, as related to specific user's needs. Mexico's Citizen Portal has won the most prestigious Stockholm Challenge Award 2003–04, the world's premier recognition for Internet solutions, over 900 projects from 100 other countries.

With the aim of fostering an outcome-focused e-government, this administration has made it possible to deliver value to both citizens and enterprises, by streamlining – from 170 in 2001 to nearly 834 in 2004 – government services and regulations using online solutions, public kiosks and telecentres. Among these online solutions with the highest impact are: electronic unified medical records in public healthcare, automatic updates of the enterprises' registry of employees covered by social security, the filing of taxes online and online transactions to facilitate the compliance with export/import regulation. Moreover, we have collaborated with the new Federal Institute for the Access to Public Information in the establishment of a system to deal with citizen demands in this area online. This is a critical application to ensure compliance with the Federal Law for Transparency and Access to Public Information.

It is important for us to stress that, while we have striven to cut down on red tape we have also balanced the concern for public accountability with the need to guarantee the security of electronic transactions. This, in turn, allows for the continuous growth of online government procurement in a context of transparency and accountability: more than 63.5 per cent of all federal government purchases are now made online through the COMPRANET system. In June 2004, COMPRANET was certified by the World Bank to be adopted in the operation of administrative services in Mexico of the Banco Interamericano de Reconstrucción y Fomento (BIRF), one of its financial operations divisions for the Americans.

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Furthermore, a Single User Accreditation Registry (RUPA, in Spanish) has been developed, as the equivalent of a digital ID authentification system, which allows the user to be easily identified every time she or he interacts with the government, hence allowing for a very efficient G2C interaction.

Additionally, a key outcome pursued through the e-government strategy is that of bridging the digital divide. In this sense, within the framework of the National e-Mexico System, we have strongly supported the coordination across government jurisdictions: federal, state and local; in order to implement a comprehensive suite of digital government solutions for the functioning of Community Digital Centers in every municipality throughout the country. This is a daunting task, to cut across federal, state and local boundaries; but it has taken us further on the path towards integrated, seamless, government service offerings to the population at large, consistent with our citizen-centred vision.

A near-future vision of e-government in Mexico

Effective coordination should come about in areas such as ITC procurement and financing; these should favour steady technological upgrading and management modernisation, rather than pure cost-reduction and operational efficiency.

The most current challenge on the regulatory front is the adoption of an effective legal equivalent between digital and paper processes in any given economy, which covers both private and public transactions.

Moreover, government has the responsibility to be a leader in promoting a culture of privacy protection and security. This is crucial when considering integrated and efficient government service delivery involving personal data sharing among agencies. This is consistent with our vision of the future institutionalisation of a paperless service model for government, in which great efficiency gains will be realised within government, by means of robust authentification and digital signature mechanisms.

In turn, this will evolve into a real e-government marketplace for goods and services, favouring the consolidation of procurement across several agencies, which will result in substantive cost-savings and more resources that will be put to better use in areas of more impact for social and economic development.

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Finally, as this infrastructure unfolds quickly, so will the evolution of multi-channel e-government service delivery, as expected through the emergence of mobile-government solutions which will make G2C interactions even more ubiquitous. The result will be an ever-accessible (24/7) single government service counter, to the benefit of the population at large, because boosting citizen uptake of e-government is our ultimate challenge in the years to come.

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Karen Evans is the Administrator of the Office of Electronic Government and Information Technology (IT) at the Office of Management and Budget. Prior to this she was Chief Information Officer for the Department of Energy. She was elected to the post of Vice-Chairman of the Federal Chief Information Officers Council in December 2002. Before joining Energy, she was Director, Information Resources Management Division, Office of Justice Programs (OJP), US Department of Justice, Washington, D.C. She is a twenty-year veteran of government service with responsibilities ranging from GS-2 to SES, working with several agencies, including the National Park Services, the Office of Personnel Management, and the Farmers Home Administration (FmHA) of the Department of Agriculture. Prior to joining OJP, she served as the Assistant Director for Information Services at DOJ headquarters, where she successfully managed Internet resources for the Department, including electronic mail services and security. While at FmHA, she served as the acting Deputy Assistant Administrator for Management Information Systems, Deputy Director for the Applications Management Division and the Chief of Emerging Technology. She holds a Bachelor's degree in Chemistry and a Master of Business Administration degree from West Virginia University.

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John Grant is Acting Australian Government Chief Information Officer, Australian Government Information Management Office. The Office facilitates the efficient and effective use of ICT by Australian Government departments and agencies. John has experience in policy and programme development and implementation. Prior to joining the National Office for the Information Economy in June 2001, John headed up the division in the Australian Competition and Consumer Commission charged with promoting compliance with the prohibition on price exploitation arising from the implementation of the New Tax System. From 1996 to 1999 John headed up the Office of Small Business. Previously he has been involved in a wide range of industry policy and programme issues including government information and communications technology policy and the then 150 per cent research and development tax concession.

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Ian Watmore took up the position of UK Government CIO and Head of E-Government Unit in September 2004. Prior to that he was UK Managing Director of global management and technology services company Accenture. He has worked in both the public and private sectors, mainly in the UK and Ireland but with spells in South Africa, New Zealand, the USA and mainland Europe. Ian is past President of the Management Consultants Association, chairs the CIO Board of eSkills UK (the Sector Skills Council for IT and Telecommunications) and previously represented Accenture on various external bodies such as the Council for Industry and Higher Education and Business in the Community. In a personal capacity he is on the Board of the English Institute for Sport, a Lottery-funded institute focused on serving high performance athletes in preparation for Olympic and other major sporting events.

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