Networking government: e-government in New Zealand

By Laurence Millar
Director, E-government Unit
State Services Commission

Introduction

Worldwide, governments are seeking ways to use information and communications technologies (ICT) to improve the efficiency, effectiveness and convenience of public services. This has become widely referred to as e-government. Successful delivery of online services has rapidly become an important measure of effective public sector management.

In New Zealand, e-government has developed rapidly since the 1990s. This year the State Services Commission's E-government Unit conducted the first comprehensive assessment of the New Zealand Government's online presence. This included a formal assessment of more than 100 government websites, analysis of departments' use of the Internet and networks, and surveys to measure the demand for e-government.

This article explains the key findings of the review, summarises some of the history of e-government in New Zealand, and looks briefly at what lies ahead. It suggests that, although there are inevitably further challenges ahead, the story of e-government in New Zealand is overall a positive one.

The beginning

By the mid-1990s most New Zealand government departments had established a web presence: in 1996, only 13 of the 38 core public service departments did not have a website. The benefits promised by ICT were being enthusiastically embraced and e-government was being ushered into the country.

This early development of online services was not centrally driven or coordinated: individual departments and agencies developed their own online initiatives. There was no overall strategy and no single point of entry for government services online. The beginning of a more coordinated approach came in 1995, when the Ministry of Commerce (now the Ministry of Economic Development) launched the first online government directory. In 1997 this directory was merged with the Department of Internal Affairs' online Blue Pages project, becoming the New Zealand Government Online website, the precursor to www.govt.nz, the current all-of-government web portal.

Recognising the need for a more strategic approach to the government's online presence, the State Services Commission established an IT Policy Taskforce in 1997. The taskforce, working with the Chief Executives' Group on Information Management and Technology, advised the Government to develop a guiding vision for online services and initiate the development of a sector-wide strategy. The taskforce subsequently issued a number of significant policy documents, culminating with a Vision Statement in May 2000[1] outlining a strategic direction for e-government in New Zealand and addressing some of the issues around its implementation.

In retrospect, this document was of signal importance for several reasons: it established the founding strategic principles for the programme of e-government; it provided a platform for critically needed leadership; and, perhaps most importantly, it acted as the lodestone for the needle of the e-government compass, enabling the Government and Public Service departments to coordinate their previously disparate efforts to advance public services online.

Three pillars

The founding strategic principles in the Vision Statement were: a methodical, graduated approach; cross-government collaboration; a commitment to using ICT in ways that would increase rather than limit opportunities for participation; and a determination to ensure that the technology was only an instrument for an improved public sector, not an end in itself.

The emphasis on planned, systematic implementation of e-government reflected an awareness of problems in other countries with haphazard and uncoordinated growth. The authors of the statement were at pains to stress the importance of a coherent approach:

> *The Government's approach to implementing e-government in the interests of improved participation and services will be well planned. There will be no overnight and dramatic developments, but rather a more staged approach with developments building on those that have gone before.*[2]

The Vision Statement recognised that work in a multi-agency environment requires a correspondingly pluralistic perspective in the early stages of planning. The project teams that worked on e-government initiatives were made up of public servants from a cross-section of government departments. This ensured that the users in each agency remained a key focus throughout the development process. This approach continues today, with an E-government Unit Advisory Board, Steering Groups and governing bodies of e-government projects all comprised of representatives of the government departments who will use, or are using the technologies.

The third important element in the Vision Statement was its focus on *people*, not *technology.* Maintaining a citizen-centric and outcome-driven perspective was reiterated throughout the early papers produced by the State Services Commission. The aim was to ensure that the promise of technology was grounded in the business needs of the government and the service needs of the public.

Together, these three concepts continue to function as the philosophical pillars of policy decisions about e-government.

[1] http://www.e.govt.nz/programme/vision.asp
[2] ibid.

The E-government Unit

Following the Government's adoption of the Vision Statement, the E-government Unit was formally established in the State Services Commission on 1 July 2000. The Unit's responsibilities, as defined by Cabinet, in May 2000[3], were:

- **Strategy:** development of overarching e-government strategy, and common system and data management policies, standards and guidelines.
- **Leadership:** facilitate the uptake by government agencies of the e-government vision and information system and data management policies, standards and guidelines.
- **Coordination/collaboration:** identify opportunities for beneficial collaboration across government agencies, leverage better returns from existing information management and technology investment, and provide coordination for multi-agency e-government projects.
- **Policy:** provide advice to the Minister of State Services in relation to e-government.
- **Monitoring:** monitor progress toward achieving the e-government vision, and progress on information management and technology investment (the latter function being an extension of the State Service's Commission's existing role in scrutinising public service capacity investments).

The E-government Strategy

In April 2001 the work of the new unit resulted in the publication by the government of New Zealand's first E-government Strategy[4]. This document defined the strategic aims of New Zealand's e-government programme, with the vision of establishing New Zealand as *"a world leader in e-government"*. The supporting mission was defined as:

> *By 2004 the Internet will be the dominant means of enabling ready access to government information, services and processes.*

The Minister for State Services, the Hon Trevor Mallard, described the aim of the strategy at the launch:

> *(To) make sure that New Zealand is equipped with the type of public sector it will need in the coming years. A public sector that is easy to access, convenient to deal with, able to customise its services to meet individual needs and is cost effective.*[5]

The E-government Unit began a programme of work designed to realise this vision by providing platforms for future e-government initiatives, both for department-specific purposes and all-of-government enterprises. This programme consisted of policy frameworks, including standards, guidelines and – initially with mixed results – operational projects.

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[3] Cab (00) M14/1F(1).
[4] http://www.e.govt.nz/docs/e-gov-strategy-apr-01/
[5] http://www.executive.govt.nz/minister/mallard/e-government/business.htm

The central plank of the E-government Unit's policy work has been the maintenance of the Strategy itself as a relevant and contemporary working document. To ensure it remains up-to-date in a rapidly changing technology environment, the Strategy has been regularly reviewed and updated. The second update, for example, issued in December 2001[6], provided specific new detail on matters including critical success factors for e-government and a breakdown of the phases of e-government maturity. These were additions that reflected a growing understanding of the scope of the programme.

The Strategy was updated again in June 2003[7]. This document marked a significant development on the earlier versions in that it defined goals for the programme stretching forward until 2010. The Mission was expanded to include:

> *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.*

For the first time, the Strategy included an end game; by 2010 e-government would be able to lose the 'e' and be completely assimilated into everyday the business of government.

Standards and guidelines

The standards and guidelines produced by the E-government Unit, in conjunction with government departments, are designed to facilitate an accessible, cost-effective and collaborative government online presence and the efficient delivery of information and services to the public. The main standards and guidelines produced to date include:

- the Government Web Guidelines, which guarantee minimum standards of accessibility for all New Zealanders, irrespective of their physical or technological constraints;
- the E-government Interoperability Framework, which ensures that departments adopt technology and process that work together and reduce inefficiencies;
- the New Zealand Government Locator Service, the standard for the metadata that powers www.govt.nz;
- the Authentication Best Practice Framework, which proposes a standard for the different streams of authentication work likely to be undertaken by government departments; and
- the E-government Service Delivery Architecture, which provides an overarching design framework for service delivery using information technology.

These standards and guidelines constitute the spine of e-government. In keeping with the emphasis on planned, systematic implementation of e-government, the development of sound and practicable standards and guidelines ensures that government departments are able to

[6] http://ww.e.govt.nz/docs/e-gov-strategy-dec-01/
[7] http://www.e.govt.nz/docs/e-gov-strategy-june-2003/

actively pursue their own business goals and management solutions within a coherent national strategy framework. It should also be noted that theses standards and guidelines are developed and implemented through a process of cross-department collaboration. They are not developed in isolation by any one agency and then imposed upon all departments. At each stage of development, there is a process of consultation and active participation by a wide range of government agencies.

Key operational projects

The E-government Unit has undertaken a number of operational projects in addition to its work on the Strategy, standards and guidelines. Two have been of particular significance for the development of e-government in New Zealand and the lessons learned: the Secure Electronic Environment (S.E.E.) project[8], which established a secure way to exchange emails between government departments, and the electronic procurement project, GoProcure. Both involved multi-department collaboration and proved to be challenging test-beds for innovative public sector management.

S.E.E. and GoProcure were both included in the original e-government work programme developed with the Vision Statement in 2000. The State Services Commission, Treasury and the Department of the Prime Minister and Cabinet (DPMC) had already completed some initial work on the S.E.E. project, begun in 1999. In recognising the need for a secure way to exchange emails between government departments, the first S.E.E gateways were built. Once the gateways were functioning, the project needed continuing governance and management and this responsibility was given to the State Services Commission. This set a precedent for all of the larger, all-of-government operational initiatives, such as www.govt.nz and the Online Authentication project.

The S.E.E. project was notable for other reasons; it was the first multi-platform, multi-vendor global email gateway system, and the first New Zealand all-of-government operational technology project. Significantly, in August 2004, the upgrade of all members' email gateways to SEEMail version 2 was successfully completed, underscoring the longevity and success of the project. Thirty of the thirty-five government departments now use the SEEMail gateways, ensuring security and business continuity for government communications.

Another aspect of the S.E.E project that continues to deliver benefits to the business of government is the Shared Workspace project[9]. First piloted in 2000, this originally consisted of a single online workspace shared by staff working at SSC, Treasury and DPMC. Today, there are 21 workspaces and membership has grown to nearly one thousand users, comprising staff from most of the government departments.

GoProcure[10], the electronic procurement project launched in November 2002, provided a number of valuable pointers to the characteristics of service in e-government; it remains an important stage in the development of e-government in New Zealand. Originally it was intended to allow government departments, and many Crown entities, to buy goods and services from on-line catalogues with orders being automatically sent to suppliers, but a combination of factors contributed to it not moving beyond the trial phase.

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[8] http://www.e.govt.nz/see/index.asp
[9] http://www.e-government.govt.nz/workspace/index.asp
[10] http://www.e.govt.nz/procurement/history/

While the GoProcure project was prudently structured, with a trial and key decision points, there was a significant underestimation of the change management process required for it to succeed. First, the match between the technology and the needs of the users was insufficient to maximise usage. The 'people not technology' philosophy was not rigidly observed, to the project's detriment. Secondly, problems encountered while implementing the system, and the realisation that the projected benefits were being compromised by the rising costs of implementation, eroded the viability of the project. Together, these circumstances resulted in the project being scaled down and then wound up.

An important principle established in the GoProcure project was the resolve of the State Services Commission and the Government not to 'throw good money after bad.' There is a tendency in large IT projects to assiduously avoid the taint of failure, often in the face of overwhelming evidence. In the case of GoProcure, the trial was scaled down in June 2003 when it was decided that the initially planned 'Full Suite' option was more difficult to implement and operate than initially scoped. As the Minister for State Services, Trevor Mallard, said at the time:

> *The project was deliberately broken into a number of distinct phases and decision points. This is good practice with complex or large information technology projects.*
>
> *It gives the Government the opportunity to limit its risk exposure whilst trying out innovative solutions in an environment that does not involve a long-term commitment.*

Once the next decision point was reached – the end of the trial period in December 2003 – it was decided that proceeding with the roll-out to more government departments was not going to yield the expected benefits. The alternative option, to scale the project up, include more departments and gamble on recovering some investment over the project's life span, was rejected. The decision was not to commit further public funds, acknowledging that the prudent course of action was to wind up the project and readdress the government's procurement requirements.

After GoProcure, a Syndicated Procurement team[11] was established within the E-government Unit. This team was able to capitalise on the lessons learned in the GoProcure project and, through a combination of technology and training, more effectively meet the needs of public sector procurement professionals. In the first year of its operation, the team promoted and facilitated the uptake of 79 syndicated procurement contracts across the public sector, for a net saving of NZ$2.32 million. While it would be simplistic to argue that the investment in GoProcure has been recovered, there is no doubt that the combination of lessons learned and a commitment to re-engaging with the project's purpose and being unafraid to fail resulted in a strengthened public sector management process.

Of course, there have been a variety of other e-government projects that are worthy of description and analysis: the Online Authentication project; www.govt.nz and the 'portlets,' www.biz.org.nz, TEd and WorkSite; and, the E-government Interoperability Framework (e-GIF). In many ways, each of these projects has been informed by, or informed, the progress and success of the other projects. The whole point of e-government is 'networking

[11] http://www.e.govt.nz/procurement/

government.' As e-government transforms the Public and State sectors, there will invariably be a tightly knit matrix of interrelationships and synergies.

So, four years into the programme, how close are we to realizing the goals of the E-government Strategy?

Reviewing progress

The June 2003 update of the E-government Strategy stated the 2004 mission as:

> *By June 2004, the Internet will be the dominant means of enabling ready access to government.*

At the beginning of 2004, the E-government Unit began its review of the Public Service and non-Public Service departments' progress towards the achievement of this mission and alignment with the Strategy. This review, the first comprehensive assessment of the government's online presence, measured forty-one government departments'[12] performance against the success criteria of convenience and satisfaction, integration and efficiency, and participation. These three outcomes were identified in the Strategy as the measures of successful e-government.

These goals are cross-referenced with the 2004, 2007 and 2010 missions to reflect a phased programme of achievement. The criteria by which success with the 2004 mission is to be judged are:

> ***Convenience and Satisfaction:*** *People will be able to find details of a wide range of government services on the Internet.*
>
> ***Integration and Efficiency:*** *Agencies will begin to integrate services through use of common e-government "foundations" (technology, standards and policies).*
>
> *Agencies will be more citizen- and results-oriented in the way they design themselves.*
>
> ***Participation:*** *Government agencies will be making better use of the Internet to inform the public of what is happening in government, and of opportunities to be involved in government processes.*
>
> *Agencies will be learning ways to make use of the Internet to consult people about policy development, and service design and delivery.*

The 2004 review had five components or modules: three focussed on the individual departments and two involving a more holistic evaluation of e-government to provide a context for interpreting the department-specific findings. The five modules were:

- assessments of the departments' websites by an independent contractor;

[12] http://www.e-government.govt.nz/docs/ready-access-2004/chapter5.html

- an appraisal of the quality of the departments' metadata[13] records used on www.govt.nz;
- extensive consultation with the departments;
- commissioning and analysis of recent surveys into e-government in New Zealand to measure the demand; and,
- a review of the E-government Unit's contribution to the Strategy's outcomes and targets.

The results of the first three of these modules were mapped against the three success criteria to determine the relative position of individual government departments to the 2004 mission, and to chart their alignment with the E-government Strategy generally. The results of the last two modules were used to inform the weighting of these considerations.

The results of this review were published in the report, *Achieving e-government 2004: A report on progress towards the New Zealand E-government Strategy*[14]. When the Minister for State Services, Trevor Mallard, launched the report at the Public Sector Senior Managers Conference in Wellington, he described the findings of the report thus:

> *Overall, we have achieved the 2004 mission ... Across the board, government departments are making good progress towards e-government goals.*
>
> *Obviously, there are some departments - particularly those with a more service-oriented focus - that are quite advanced. And there are some departments that are not as far down the road, generally due to the nature of their core business.*
>
> *What's important in the report is that the overall picture is a positive one.*[15]

Indeed, overall, the picture of e-government in New Zealand is a positive one. Of the departmental websites assessed[16] (comprising a total of 113 primary and subsidiary websites for 39 departments), 67% were categorised as of a 'high' or 'good' standard. The websites were assessed against criteria based on the Government Web Guidelines[17], an adaptation of the e-Gov Watch usability methodology[18], and the information and services provided online. Across the board, on this assessment, government departments deliver information online very well.

Best practice examples of government department websites were: Inland Revenue (www.ird.govt.nz), Statistics New Zealand (www.stats.govt.nz), and Archives New Zealand (www.archives.govt.nz). IRD scored well in the Information Delivery and e-Services categories. Statistics was the top ranked site for Information Delivery, and Archives was the top ranked site in both the Required Government Content and Usability categories.

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[13] Metadata is the structure of the descriptions that government departments apply to their information and services. These descriptions organize the data on web portals, such as www.govt.nz.
[14] http://www.e-government.govt.nz/docs/ready-access-2004/index.html
[15] http://www.beehive.govt.nz/ViewDocument.cfm?DocumentID=21259
[16] Two departments were not included because their sites were being redeveloped at the time of the review.

[17] http://www.e-government.govt.nz/web-guidelines/index.asp
[18] http://www.e-govwatch.org.nz

Best practice examples of individual websites were: The Growth and Innovation Framework (www.gif.med.govt.nz), The Ministry of Tourism (www.tourism.govt.nz), and Climate Change (www.climatechange.govt.nz). The GIF site was particularly strong across the Accessibility, Usability and Government Web Guidelines categories, Tourism rated well for Information Delivery, and Climate Change scored well in Usability and Web Guidelines.

Similarly, the metadata prepared by departments is generally of a high quality. The success of www.govt.nz, which is currently averaging more than 22,000 visitors a week, attests to the standard of the metadata being produced by departments. Best practice examples of department metadata records were: the Ministry for Culture and Heritage, the Education Review Office and the National Library of New Zealand. These departments, and many others, have accurate, well-written and up-to-date metadata that presents good coverage of the range of information and services they provide. This means people can quickly and easily access this information, either on the department’s website, or via www.govt.nz.

In terms of alignment with the E-government Strategy, most departments have altered their information systems strategic plans and other organizational-wide plans to align themselves with the Strategy’s targets. In fact, in some instances, departments are already well on their way to achieving the 2007 mission, that:

> *Networks and technologies will be integral to the delivery of government information, services and processes.*

However, as the authors of the 2004 assessment report note, many of the future goals and objectives of the Strategy are more applicable to departments that provide services to the public. The 2005 review of the Strategy will accordingly emphasise the distinction between departments that are service oriented and those that, for example, are more policy based. More extensive analysis and planning will then be devoted to those departments that fall outside the service model.

Of course, not all the findings were positive. The review also identified how departments could improve their web presence or areas where they could more closely align with the Strategy. In this respect the profiles of the 41 departments in the report are a valuable asset for identifying opportunities for improvement and development.

E-government is a progression, a series of steps building towards the goal of a transformed public sector. It is fundamental to the continued enhancement of government that the momentum developed to this point is maintained, and that even greater resolve, innovation and leadership is shown.

The future

The future of e-government in New Zealand is an exciting prospect. The transformation of government operations through the Internet by 2010 will mean that policy development, service design and delivery, democratic and political processes will undergo significant changes as e-government facilitates greater participation in government. There has already been a gradual increase in the use of the Internet to invite input during the policy development; the Ministry of Research, Science and Technology has actively used e-consultation as one of several channels to invite participation from the public, as has the Online Authentication programme. Concurrent with the expected increase in levels of participation, will be the emergence of more demand-oriented initiatives. Increasing pressures for all-of-government solutions to policy and service issues will likely see an increasing public expectation to participate in the way that government policies and services are designed and delivered. Government will need to be more responsive, more customer-centric and more of a seamless experience for New Zealanders.

One of the more important initiatives in this transformation is the delivery of linked services. This means that a member of the public will be able to accomplish a variety of different interactions with multiple government departments in one online transaction.

Someone wishing to open a business, for example, could go to a business portal and fill out one online form that would be dispatched to the various central and local government departments requiring documentation for this process. Someone lodging a change-of-address form online could have it routed to NZ Post, Inland Revenue, Land Information New Zealand and the relevant councils. E-government is about networking people, information and services so that New Zealanders experience the most efficient, effective and responsive government that we can deliver.

The challenges presented by this level of interoperability and cooperation between departments, while not insurmountable, will certainly require great leaps in both the application of technology and management strategies. There are lessons to be learned from the experience of overseas jurisdictions; complex and costly implementations, high support costs and difficulties with interdepartmental interoperability. These problems have been compounded by limited citizen take-up, either because the wrong services were delivered or because the software and hardware requirements were insufficiently intuitive for users to comfortably adopt.

New Zealand has some distinct advantages in having a relatively compact, single tiered central government, a solid foundation of e-government standards developed over the last four or five years, a collaborative management ethos across the Public Services, and a populace who are both Internet savvy and early adopters of new technologies. But delivering on the e-government mission for 2007 will require a sea-change in the way government departments view service delivery: from a supply-based model to a demand-based model centred on the customer. To facilitate this transformation, effective organizational, governance and funding models for shared infrastructures will need to be developed and implemented. This is the next phase of e-government in New Zealand.