Excellence in e-Government Awards

October 2008

2008 Finalist Case Studies

‘Inspiring agencies to excel and achieve in e-government’
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Foreword

This is the third year that the e-Awards for Excellence in e-Government have been presented. The e-Awards were introduced by the Australian Government in 2006 and characterise the best of government information and communications technology (ICT) innovation. These initiatives demonstrate what can be achieved by government agencies at all levels through the imaginative application of technology to e-government programs.

The e-Awards recognise the most outstanding initiatives in e-government that have been implemented in the past two years. Initiatives were chosen based on the positive impact they have had on the lives of Australian citizens, the community and business while improving the efficiency and effectiveness of government administration and service delivery.

The e-Awards are open to agencies from all levels of government in Australia and there were a record number of entries this year, with all being of an exceptionally high standard.

The judging panel, which comprised government Chief Information Officers and industry representatives, was looking for initiatives that significantly improve services and transform the way government interacts with the community and business.

The e-Awards were presented by the Australian Government Chief Information Officer at CeBIT Australia, the largest ICT event in Australasia, in Sydney on 21 May 2008.

This annual publication showcases the initiatives that were selected as finalists in this year. Congratulations to all the finalists who are featured.

THE HON LINDSAY TANNER
Minister for Finance and Deregulation
October 2008
CrimTrac

National Police Reference System

Police officers throughout Australia now have a new tool to help them investigate persons of interest, and to quickly identify potential threats to police or public safety. So it is little wonder they have welcomed the National Police Reference System (NPRS), which has already helped to finalise long-term unsolved cases.

**What is the National Police Reference System?**

The NPRS is a national system that sources information about persons of interest from all police jurisdictions across Australia and then provides a consolidated view. Police can access the information through their existing software systems, or through a generic application developed by CrimTrac.

The NPRS provides a variety of nationwide search requests tailored to the needs of police. In addition to this, operational police can use the NPRS to access nationwide profiles of persons of interest. These profiles include detailed information about people who have been issued with warnings, warrants or orders, have offence histories or have been involved with firearms, or are on bail. The NPRS also gives police access to records of people who are wanted, unidentified, missing, escapees, or on child protection registers.

**Development of the National Police Reference System**

In 2002 the CrimTrac Board of Management approved the project to develop a pilot (NPRS) system. CrimTrac partnered with New South Wales Police and Victoria Police to design and build a system that would be suitable for all jurisdictions. More than 1,000 police formally evaluated the pilot system using existing systems that had been modified according to standards adopted by the project. Police in other jurisdictions also trialled the system using a generic application developed by CrimTrac. Operational police were consulted throughout the process.
The pilot met both qualitative and quantitative measures and, in October 2005, the Australasian Police Ministers’ Council agreed to support a national roll-out of NPRS, and funds were approved in June 2006.

The information provided by the NPRS is defined by a common information model, which was developed after extensive consultation among all parties to define common policing concepts related to persons of interest. The project also involved negotiating agreed technical standards to ensure interoperability between the NPRS and jurisdictions.

**Features of the National Police Reference System**

Features of the NPRS include:

- web services that enable the various police jurisdictions to provide and obtain information, create links to distributed information and integrate nationwide information into their local systems
- web services that provide a variety of nationwide search requests tailored to operational police needs and consolidated views of a person of interest
- real-time and batch uploads of information
- centrally stored searchable information (at CrimTrac) and other information stored centrally or in jurisdictional domains
- the ability to access information using the CrimTrac generic application or existing systems (the preferred method)
- auditing and security provided through the Australian Federal Police secure network.

An important feature of the NPRS is that it is flexible enough to allow differences in the information, depending on the technical capabilities of each jurisdiction. The system is based on open technical standards, allowing interoperability with any party regardless of their operating environment.

The system is based on a common information model that harmonises policing models in the various jurisdictions. The model defines the scope of information to be shared, the agreed common business definitions, and relationships between items of information. It is flexible and extendible, supporting distributed data hosting and allowing arbitrary links to be made among entities.

The NPRS is a good example of how the Australian Government Information Management Office Australian Government Interoperability Framework can be applied.

**Outcomes for government and the community**

The development of a national information sharing mechanism complements police systems in the different jurisdictions and provides police with comprehensive information for making decisions.

By simplifying information flows and providing immediate access to information from different jurisdictions, the NPRS leads to faster identification of suspects, shortened crime investigation times, and higher crime clearance rates. By providing a national view,
the system also helps to counter the increasing mobility of criminals and terrorists, as well as crimes that exploit inter-jurisdictional boundaries. This all adds up to improved community safety.

Specifically, the NPRS helps police:
- ensure police and public safety
- manage custody cases
- develop suspect and offender profiles
- execute warrants
- determine bail
- prepare court briefs
- check criminal histories
- identify people and suspects
- investigate unidentified bodies
- investigate criminal cases
- investigate missing persons.

The system has had immediate concrete outcomes for police efficiency and safety. Police used a simple check provided by the NPRS to locate a person who had been reported missing in 1990. In another case, an officer using the NPRS discovered that a suspect had been convicted for similar offences in another state. He also discovered that when his interstate colleagues had executed a warrant at the suspect’s house, he was carrying a concealed firearm.

**Accessibility and usability**

The NPRS will be rolled out to 50,000 police by March 2009, when users will be able to access 9.7 million detailed records of persons of interest, and some 2 million photographs. Information is updated from real time to daily, and can be delivered to desktops, mobile data terminals and handheld devices, making it readily accessible to police wherever they are.
Because it is based on common standards, the NPRS can be accessed through a wide range of applications. The generic application developed by CrimTrac for jurisdictions that do not have existing systems was reviewed by contractors who specialised in web accessibility standards, and has been tested by many users, some with slight disabilities. All were extremely satisfied with the presentation and accessibility. Where jurisdictions have opted to modify their existing systems to incorporate the information provided by the NPRS, they are responsible for the accessibility of their systems.

Police responses to the usability of NPRS have been overwhelmingly favourable, as demonstrated by one officer who said:

_I am fairly computer illiterate but I have no problems using NPRS... If all the computer systems in the police force were that easy to use it would cause a lot less stress at work._

**Future directions**

The NPRS has the potential to be developed further, as it can support a broader range of enquiries, including enquiries on vehicles, drivers licences, known associates, organisations, locations, firearms and firearm licence holders. It is also capable of supporting a complex search that will allow the user to conduct an enquiry using descriptor information to identify a list of possible suspects or people who may assist, such as witnesses. Work to introduce these additional features is being planned.

**Project name**
National Police Reference System

**Project URL**
N/A

**Date of project**
October 2005 (currently being rolled out nationally)

**Agency**
CrimTrac

**Agency website**
www.crimtrac.gov.au

**Contact name**
Peter Brown
two Highly Commended 2008 e-Awards
TWO HIGHLY COMMENDED 2008 E-AWARDS
Assessment Resource Centre

The Australian Government requires all Australian schools to issue reports to parents using a consistent five-point grading scale. The development of the Assessment Resource Centre (ARC) online service has made this task a whole lot easier for teachers in New South Wales, and will ensure that New South Wales schools lead the way in meeting the new government requirement. ARC is also helping parents and students gain a better understanding of standards-based teaching, learning and assessment.

The usefulness of the project is demonstrated by the number of visitors to the site, with over 300,000 pages viewed every month in 2007.

What is the Assessment Resource Centre?

ARC is an online service that uses innovative technology to provide teachers across New South Wales with a platform to share actual samples of graded student work, together with commentaries explaining how a particular grade is arrived at. ARC currently holds 1,000 samples of student work, in various formats, which have been given grades agreed upon by teachers from all over the state.

Features of the Assessment Resource Centre

The 1,000 samples of work on ARC cover all subjects and all stages of learning, from Years 1 to 10, as well as the Higher School Certificate Standards Packages of actual Year 12 examination responses. The samples, covering a range of subjects, are provided in a wide variety of formats, including scanned handwritten samples, audio, video, photographs, projects and multimedia presentations.

The site is also interactive, enabling users to contribute their own grades and comment on the work samples, and give and receive direct feedback to and from the Board of Studies NSW. A team of volunteer teachers regularly reviews work samples and aligns them with the grades. An online mail-list and on-site feedback system allow discussion to assist in adding new samples cost-effectively and efficiently.

An important feature of ARC is that it is secure, and thus protected from errors, site vandalism or unavailability. The Board of Studies web services are currently achieving ISO27001 Information Security certification, and use strong quality processes to ensure that public content on ARC is secure. While ARC uses a free open source content management system running on a Linux/Apache server base, the website is kept secure by allowing only content authors access to a staging site version. At regular intervals, the authorised contents of the staging site are copied to the live version, which no author has access to. This has improved management of the site’s security because a very small and cost-effective team can do a rollback to maintain version control if a content error occurs.
In 2007 the New South Wales Government issued a web standard directive to increase interoperability between government agency websites. The ARC site was extensively remodelled to conform with these templates. Cross-linking with other government education websites has also been encouraged, and there are now more than 300 inbound links to ARC.

Outcomes for government and the community

ARC is primarily intended to help teachers across New South Wales confidently mark their students’ work against consistent state-wide standards, regardless of their school sector or location. By providing information on the internet, ARC ensures that teachers have access to the samples and details of hundreds of teaching and learning activities from wherever they are, be it in Balmain or Broken Hill. Teachers are accessing the site from both home and school, and are making it a part of their regular personal and professional development.

Internet delivery ensures that the site is also useful to students and parents. Students can see examples of work and how they are graded, while parents are visiting the site regularly to better understand their children’s performance in school assessment tasks.

ARC is the first site to provide online material to fully support the Australian Government requirement for all Australian schools to issue reports to parents using a consistent five-point scale. The creation of ARC means that New South Wales schools are better prepared to meet this requirement than schools in any other state or territory, and it will ensure more standardised grading in the New South Wales school system.

The usefulness of ARC is illustrated by the number of visitors to the website, with 23,000 visitors viewing more than 300,000 pages each month during 2007. Furthermore, the site is increasingly visited by academics and educators from the United Kingdom and other countries who are finding that this unique set of graded samples at a range of benchmark levels provides a set of standards that can help improve education at all levels.
Accessibility and usability

Internet delivery broadens the audience of the online service, and means that it is accessible and useful to teachers in any location. It also means that the service can be accessed by parents and students, ensuring that they can understand the criteria used to evaluate school work.

Extensive consultation on usability has been a particular hallmark of this project throughout its development. The content, its display and its navigational structure have been extensively remodelled in response to the specific needs of teachers. ARC has been designed so that users can easily navigate the samples according to the subject, stage and grade of the work.

Many techniques have been used to analyse and address accessibility and usability issues with ARC. Contemporary search engine optimisation, usability, user forums, analysis of site paths and other techniques have revealed problems, which have been resolved rapidly.

More than 200 of nearly 2000 student work samples on ARC are in video or audio format, making them accessible to a wider audience. A current and ongoing accessibility improvement project includes providing closed captioning for all media to help hearing-impaired visitors to the site.

Future directions

The ARC project is being further embedded in the way the Board of Studies NSW delivers services. The Board is assessing sustainability and the support levels required to maintain the project, and developing a continuous improvement plan.

It has established detailed user monitoring and extensive feedback channels to inform future modifications and developments.

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<td>Contact name</td>
<td>Lyndon Sharp</td>
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Rockdale City Council consortium

Local SmartForms

As businesses increasingly find themselves in a time-poor world, the ability to streamline processes and reduce red tape becomes even more critical. The Local SmartForms initiative has done just that, creating a world first by using the Australian Government’s existing SmartForms licensing arrangement with Adobe to make council services easily accessible to businesses using existing software.

The project involved a consortium of 41 councils, a target audience of at least 136,000 small businesses, and a 7-month implementation timeframe.

What is Local SmartForms?

Local SmartForms is an online service that streamlines interactions between local government and local businesses. The initiative uses innovative technology to consolidate more than 1,600 paper forms into 21 dynamic PDF SmartForms and deliver them to businesses via a shared platform called FormCentral. Using Local SmartForms, businesses can access council forms online at any time, and fill them out using commonly available Adobe software.

Development of Local SmartForms

The consortium of 41 councils was determined to improve services for business, and agreed that there was significant potential to use shared electronic forms.

The development of Local SmartForms began with a series of forums across New South Wales to assess the opportunities for a shared approach. The forums included representatives from the Australian Government’s SmartForms team as well as solution partners from Adobe and IBM, the key e-forms system providers at the time.

Following the forums, the councils established an eForms working group to decide which forms to target, and then review the purpose of each form and how it could be simplified. This involved overcoming obstacles such as individual council branding, urban/regional variations, and capacity gaps for councils and businesses.

The development team prototyped three forms and subjected them to a thorough peer review by council staff, as well as independent usability testing from potential customers. The team then developed the remaining suite of forms.

At the same time, the consortium conducted a review to highlight how council processes would need to change to take advantage of the improved efficiencies provided by the forms.

In developing the service, the consortium targeted the requirements and capacity of councils and businesses, and used the Department of Innovation, Industry, Science and Research Online Forms Usability Design Guidelines.
Features of Local SmartForms

The Local SmartForms service has two main features:
- a suite of interactive PDF form templates
- a shared form delivery and management system (FormCentral).

The suite of form templates has inbuilt validation to ensure information on forms is always complete and correct, and external validation via web services. Businesses use a single transaction process to apply, calculate fees, pay and submit. And, importantly, they can submit forms electronically, even when an ink signature is legally required, and can save partially completed forms offline. An attractive feature for businesses is that the system uses modular components to make the forms consistent.

FormCentral allows a single template to be shared across multiple councils by using white-labelled dynamic branding of forms. It also features the ability for documents to be attached to submissions, payment processing through an integrated secure online payment facility, and flexible options for making payments. Customer submission history and status can be tracked through an easy-to-use online portal.

The Local SmartForms service demonstrates a strong commitment to sharing services and reusing existing ICT investments by:
- using free Adobe Reader, which overcomes issues associated with browser and operating system compatibility
- using existing licences for Adobe LiveCycle that have been purchased by the Australian Government on behalf of all levels of government
- using open standards such as XML and web services to support system interoperability and future extension
- combining reusable form elements and templates to ensure consistency of information capture across forms and to speed the development of future SmartForms.
Outcomes for government and the community

The Local SmartForms service solution delivers benefits for both government and businesses by:

• streamlining council application processes, making it more efficient to process applications
• reducing time and costs by minimising processing time, which delivers significant efficiency gains
• making it easier for businesses to understand and complete applications, leading to fewer errors and fewer resubmissions
• pre-filling forms with customer data to make it faster to complete forms
• making applications more convenient, so that businesses can apply online at any time or take the form offline
• developing consistent forms to simplify application and regulatory processes
• leveraging existing ICT investments on the desktops of businesses and within government.

The shared service makes it easy for new Councils to join the service and take advantage of the collaborative efforts of the collective group.

Other benefits of Local SmartForms are that it makes a significant contribution to the Australian Government’s target of halving the number of government forms by 2010, and greatly reduces the use of paper, thus contributing to a better environment.

Accessibility and usability

Throughout the development of Local SmartForms, the development team used best practice approaches to consultation and iterative development to ensure the initiative met usability and accessibility requirements. The free Adobe Reader, combined with the self-guided workflow built into the Local SmartForms and the customer profile features of FormCentral, enable businesses to submit forms online.

Independent usability testing was performed with small business users at the prototype stage to ensure the solution would deliver a superior experience for users, with Local SmartForms getting an average rating of 4.5 out of 5 for usability. Ongoing user feedback is tracked and addressed in upgrade releases of the service.

All relevant Australian and international standards, including W3C WCAG 1.0 Level AA, have been built into the system. The PDF technology also complies with the stringent US Section 508 mandate on accessibility, and can be used by businesses with screen readers.

The service is reliable, with close to 100 per cent up-time since it was deployed. The ‘save offline’ feature retains data in the case of internet or PC failure, which particularly benefits businesses with slow or intermittent internet access. The security of customer information is verified by TRUSTe.
Future directions

The Local SmartForms initiative has proven to be an example of collaborative e-government projects. In particular, it has highlighted a number of opportunities for further development, including:

- closer strategic and operational relationships between key stakeholders
- deeper integration with council core systems to improve efficiency
- advanced functionality, such as digital signatures and notary services.

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<td>Greg Smith</td>
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South East Water Limited

HydroShare

As Australia faces an ongoing battle with drought and limited water reserves, improving water management is essential to the nation’s future sustainability. Yet many Australian businesses and organisations find it difficult to manage their water use because of a lack of precise, reliable data. This is all changing, however, with the development of HydroShare, an innovative tool that provides easily accessible information on water use. The information can help identify areas of wastage, which will not only save the organisations using it significant amounts of money, but will ultimately benefit all Australians by reducing demands on such a precious natural resource.

What is HydroShare?

Designed for industrial and commercial users, HydroShare is an innovative, powerful and easy-to-use tool that provides ready access to information about water use. It can collect a variety of information, including water consumption, water quality, river and stream flows and levels, and ground water measurements.

Collecting such information used to involve visiting remote locations or using old dialup telemetry methods, but HydroShare has replaced these methods with a simple system that logs data from a transmitter using a new generation of smart data loggers. The system can log data from a wide array of devices, including water meters, chlorine residual analysers and electricity power meters, and translate it into easy-to-understand trends and tables. This information is then hosted on a comprehensive website that is updated in real time and can be accessed by organisations using any web browser software.

Development of HydroShare

In developing HydroShare, South East Water consulted private sector partners and a variety of clients, ranging from large government organisations to small rural catchment management authorities. It held a workshop in order to consult with secondary school teachers about the system design.

Features of HydroShare

HydroShare features the latest mobile communication technologies, which enable data to be transmitted cheaply and effectively. While conventional telemetry units cost more than $6,000 a site, and also require the extra expense of an operator interface, HydroShare can provide a complete package for around $2,000.

Another key feature that helps minimise investment costs is delivering data using a website. This means that anyone with authorised access can access HydroShare data
without having to use special hardware or software. This method of delivering data also enables multiple users within an organisation to concurrently access the same data, along with water authorities and other relevant organisations.

Because the system is built on open standards and protocols, there is the flexibility to choose any make or model of smart data logging device. As long as a data device can transmit stored data wirelessly using internet protocols, it can be adapted to HydroShare. Back-end software is used to enter data into the HydroShare database, from where it is instantly viewable on a client’s web page.

The logging units simply email compressed and encrypted data to servers for collection and processing. This simplified data capture made it easier to implement the project and enhances the potential to deploy HydroShare nationally and internationally.

Another feature is the use of maps provided by Microsoft Virtual Earth to map asset locations and their relevant attributes. A Global Positioning System is also integrated so that field staff can find remote assets and those that are difficult to find.

To ensure the reliability of data capture, the transmitters operate off a battery with a 10-year capacity, and have an alert function for when power is running low.

**Outcomes for government and the community**

HydroShare has been deployed to approximately 70 different public or government-owned organisations, and over 150 private enterprises. It is being used by businesses, schools, hospitals, parks and gardens, golf courses, and other organisations keen to manage their water use. They are all deriving benefits from the low cost of the system, and from receiving reliable, up-to-date data, and automatically generated reports and alarms, to help them understand and control their water consumption.
Over half of the monitored sites have detected potential leaks or wastage of water. A pilot program involving 26 Victorian schools has led to savings of $80,000 a year as a result of detecting leaks. The technological advances HydroShare provides are enabling organisations to optimise their environmental performance and make significant savings by increasing their efficiency.

A growing number of schools are using HydroShare to manage their water use, and students are also using it to help with their studies. South East Water has developed curriculum units to help students use HydroShare to learn about how to use water more efficiently. It provides staff and students with an easy way to view, understand and manage data about their school’s water use, and understand how technology can be used to help this process.

**Accessibility and usability**

A key feature of HydroShare’s design was to provide access to data through any web browser without requiring special hardware or software. Users can share the data with as many people as they wish, and can also download raw data formatted as a comma separated data file. Water authorities and other relevant organisations can view the data at the same time to help identify, analyse and resolve any use or quality issues.

The HydroShare website uses style sheets to separate presentation from document structure. All images and interactive features include popup and alternative text to help users identify the function of interactive components. The usability of the project has been demonstrated by its use in classrooms across the country.

Because each site is different, clients can request modifications to the standard template used to deploy HydroShare. For example, sites that monitor the water use of large high-rise office blocks require very different configurations to sites at rural water companies.

**Future directions**

South East Water is working with Sustainability Victoria to survey a sample of HydroShare customers to find out who uses it, how they use it, and for what purpose, in order to establish future directions for the project. It is also refining the standard template based on feedback from a wide range of customers.

South East Water is also working to create a new relationship between the community and water. To help domestic and non-domestic customers better manage their water use, it is developing numerous technological solutions such as smart metering, remote metering, leak detection and repair services.
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TWO HIGHLY COMMENDED 2008 e-AWARDS
three Finalists 2008 e-Awards
Board of Studies NSW

Statewide Online Computing Skills Test: vision-impaired version

As part of its pioneering role in delivering mandatory public examinations online, the Board of Studies NSW developed the Computing Skills Test (CST). The first mandatory CST for Year 10 students was conducted in 2006, and represented the first Australian public examination to be offered online. The Board then modified the CST so that blind or vision-impaired students can sit the test on computers, rather than using Braille or other print formats. The version catering for vision-impaired students has been available since 2007.

What is the Computing Skills Test: vision-impaired version?

The vision-impaired version of the CST is a modified online version of the mandatory CST and was developed for blind and vision-impaired students. The special version enables these students to access the CST using a specially designed browser application. Schools can provide screen-reading technology for blind students to do the test.

The project meets the objective of the Board of Studies NSW of developing standard test tools that offer every student an equal opportunity to demonstrate what they have learned. Vision Australia has confirmed that this is the first time an education authority has created such an effective means of testing the skills of vision-impaired students.

Development of the Computing Skills Test: vision-impaired version

The design, development and testing of this special version of the CST required extensive consultation. When developing the test, the Board of Studies NSW worked extensively with Vision Australia, the Royal Institute for Deaf and Blind Children, selected test schools and vision-impaired students.

Feedback from over 100 schools that participated in workshops over several years has helped to significantly improve the test process. Improvements have included changes to the test administration process, the communications plan, the student test interface and the mechanism for collecting results from different school networks. The Board’s response to feedback during the development process has resulted not only in a significantly better product, but has also helped foster a feeling of ownership among those involved.

Features of the Computing Skills Test: vision-impaired version

The Board of Studies NSW mandatory Year 10 CST makes revolutionary use of e-assessment tools to transform services for blind and vision-impaired students. In 2007, 960 students, including vision-impaired students, used this test. The specially designed
Another feature of the special version of the CST is that it is a cost-effective assessment tool. It employs existing computers and screen reading technology such as JAWS, which means that schools do not have to invest in additional ICT infrastructure.

It is important to ensure the security of online tests in order to gain the confidence of both students and supervisors. The CST achieves this by removing a student’s access to all other applications, documents or web pages. The Board’s Test Development Unit is ISO27001 Information Security certified, and online services will also soon be certified. An external security consultant rated the test process as highly satisfactory.

The CST applications allow students to modify font size and colour and screen background colour. Furthermore, the screen display of the test is flexible, enabling the test content area to fill the screen and take full advantage of larger screen sizes where available.

To ensure that no two students in the same school will sit the same questions at the same time, test questions are randomly selected from pools of similarly weighted multiple choice items.

Outcomes for the government and the community

The real winners from the development of the special version of the CST for vision-impaired students are obviously the students themselves, but the Board of Studies NSW and the community have also benefited from the project.

Braille exam papers are difficult and time consuming to develop, and considered out of date by many vision-impaired students. Online delivery simultaneously helps reduce costs and provide more equitable services to students with special needs. Given the choice of online or pen and paper versions of the CST, most schools select online.

A small, successful, value-for-money program such as the CST for vision-impaired students helps the Board of Studies NSW develop future online public examinations.

Delivering these tests online also delivers benefits to New South Wales schools and to the community by reducing the financial and environmental costs incurred by traditional pen and paper exams. In 2007 over 56,000 students sat the CST online, saving the print and distribution costs of 3 million paper pages.

Accessibility and usability

As the special online testing system is designed for vision-impaired students, usability and accessibility were of the utmost importance when it was being developed. A range of experts in different areas of research, who have observed students in test situations since 2001, reviewed the screen layout and operational functionality. Features such as allowing students to modify font size and colour, and screen background colour, ensure that the CST for vision-impaired students conforms to W3C Priority 1 accessibility.
The CST can also cater for other special needs. Based on their login details and special examination provisions, students can be allowed differing test times, or allowed to pause the test (a possible provision for diabetic students).

Another feature that enhances the usability of the test is that all examination questions are downloaded before the test starts. This enables students on networks of varying speeds, and computers of varying capacity, to experience a test of identical length and functionality.

**Future directions**

The project is being further embedded in the way the Board of Studies NSW delivers services. The Board is assessing sustainability and the support levels required to maintain the project, and developing a continuous improvement plan. It has established detailed user monitoring and extensive feedback channels to inform future modifications and developments.

Based on the success of the CST, the Board is exploring how it can deliver interactive, on-demand, computer-based testing for other subjects. As technologies available to schools become more advanced, the Board is poised to expand and share its online testing technologies.

The CST and its special features for vision-impaired students were recently showcased at a seminar on computers in examinations. Other education authorities and systems were invited to share the lessons learnt in developing the test and to consider future directions of online testing.

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Centrelink

Cross Agency Portal Project (DHS MyAccount)

Thanks to the development of the Department of Human Services (DHS) MyAccount, Australians now have easier access to Centrelink, Medicare and Child Support Agency (CSA) online services. This is particularly important for those living in rural and remote areas.

MyAccount reflects the commitment of DHS agencies to sharing technology and development approaches to integrate services across government agencies and improve the delivery of these services to all Australians.

What is the Cross Agency Portal Project (DHS MyAccount)?

Launched in March 2007, MyAccount is a secure, single-entry point from the DHS website, providing Australians access to online services and information from DHS and its agencies, Centrelink, Medicare and CSA. It is planned to eventually provide access to other government organisations.

MyAccount is the Australia Government’s first cross-agency collaboration in authentication, and provides a basis for achieving a whole-of-government sign-on capability.

Development of DHS MyAccount

MyAccount was developed to help deliver social and health-related services by linking agencies in the DHS portfolio. Centrelink was chosen to lead the development (via its IT Refresh Program), in collaboration with DHS, Medicare and CSA.

Using the Centrelink Project Management Framework, Refresh Program practices and standard IT development processes, the project team delivered components of work to meet the DHS Citizen Portal objectives. More importantly, a structured iterative methodology enabled the project team to work collaboratively in gathering requirements and in later development.

The early definition of business requirements was critical to allow enough time for collaboration without delaying the project. The use of an IBM test coordinator provided an additional layer of impartiality to the cross-agency testing process.

The project team effectively managed relationships between diverse and multiple stakeholders under difficult circumstances and demonstrated a high level of collaboration, providing a benchmark for future cross-agency projects. The establishment of an internal governance group was very useful in providing support to the project manager and in escalating and managing both internal and external issues.
**Features of DHS MyAccount**

The two main features of MyAccount are that it:

- leverages IBM portal technology used to enable access to Centrelink online services
- has an authentication hub that provides authentication and a single sign-on capability.

By leveraging Centrelink’s reusable portal capability, MyAccount minimised both development effort and cost. For example, no further development was required for the functionality that allows users to find the location of a DHS agency, as it was previously developed for Centrelink’s Customer Portal.

The authentication hub provides appropriate security safeguards across DHS agencies to all customers. As shown in Figure 1, the access and authentication model provides user registration, authentication and access control services crucial to controlling user access to agency systems and auditing services that ensures the true identity of the user. The model ensures that services are accessed by customers who are who they say they are. The authentication hub has been designed to accommodate future expansion as a whole-of-government single sign-on service.

**Figure 1: Access and authentication model**

Another feature of MyAccount is the single entry point that customers can use to securely access the health and welfare services currently provided by Centrelink, CSA and Medicare. For example, MyAccount allows DHS customers (who have registered for online services) to conduct transactions with Centrelink and then access information or services with CSA or Medicare without the need to re-authenticate with each agency as previously required. Customers can choose to use an existing identifier, such as their Centrelink customer access number, as their DHS-wide username to access all available services (see Figure 2).
Outcomes for government and the community

MyAccount provides benefits for both the community and government.

For the community it provides:
- a one-stop-shop to DHS online services
- the ability to access services remotely
- the ability to log in once to access most DHS agency online services or information
- the need to remember only one username and password
- access to a personalised view of MyAccount (usually based on a user profile), which provides contextualised content – for example, the system may identify the customer as a student and provide relevant information and services
- the ability to customise their view of MyAccount to suit their preferences, allowing them to change settings such as font size, colour, screen layout.

From the perspective of DHS agencies, MyAccount means that they can now take their services conveniently to customers as and when required, irrespective of geographic location. Further, by encouraging people to use a single login point, DHS has more opportunity to cross-promote services. This is a significant step towards making online services easier to use and more efficient and attractive to customers.

Accessibility and usability

To ensure users have a positive online experience, the project team undertook extensive accessibility and usability testing when developing MyAccount. It adopted a user-centred design approach that involved a number of sessions where customers of the relevant DHS agencies provided input. Participating customers were drawn from metropolitan and rural areas, and had differing levels of computer experience.
Designs were progressively iterated from raw paper mock-up designs through to fully fleshed-out electronic prototypes. This process was enhanced by making ‘on the fly’ changes to prototype design when major usability issues were identified. Although the process was focused on addressing the user experience goals, the team placed particular emphasis on ensuring electronic prototypes were standards-based and accessible.

The team conducted three iterations of collaborative design leading up to the initial release of MyAccount. Customers were initially involved in naming and organising information to create the information architecture. This stage aimed to label information in terms understood by end users, and organise topics so that they are easy to navigate.

Draft screen designs were then used in collaborative design sessions with end users. Participants role-played real-life scenarios and were asked how they would use the screens to complete the scenarios. Suggestions were fed into redesign and subsequent collaborative design sessions with the Centrelink web standards team, ensuring the design complied with usability and accessibility standards. The team then conducted final usability testing, with the focus on meeting strict usability and user experience criteria.

In addition to extensive usability testing, the team ensured that MyAccount conformed to the latest accessibility standards and guidelines, including Web Accessibility Initiative (WAI) standards for accessibility – currently the Web Content Accessibility Guidelines 1.0. Vision Australia – Accessible Information Services also carried out accessibility testing and the review of the portal was based on World Wide Web Consortium (W3C) standards, which included testing for users of assistive technologies.

**Future directions**

MyAccount has delivered components of the DHS Citizen Portal, which in the longer term is intended to provide Australians with a personalised, comprehensive and convenient means of accessing relevant Australian Government health and welfare services and benefits.

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Department of Defence

Remote Electronic Voting Federal Election 2007

Being away from your electorate on election day always complicates voting. To smooth the process for Defence personnel serving overseas, the Department of Defence teamed up with the Australian Electoral Commission and developed the Remote Electronic Voting system. The new system overcomes problems associated with paper ballot postal voting, which can be slow and cumbersome, and sometimes results in votes not being counted.

What is Remote Electronic Voting?

The Remote Electronic Voting system allows Defence personnel serving overseas to vote in real time over an intranet. After logging on to the system, they have access to all the options they would receive on a paper ballot in Australia. Once they have cast their vote, they receive confirmation that it has been received, so they can be confident that their vote has been counted.

The 2007 Federal Election saw the first use of electronic voting over an intranet for Defence personnel serving overseas. The trial was conducted in areas of military operation in Iraq, Afghanistan, Timor Leste and the Solomon Islands.

Development of Remote Electronic Voting

The Remote Electronic Voting system was developed over a very short period of time, and necessitated a high level of cooperation between Defence and the Electoral Commission.

In developing the project, an important aspect was ensuring that the system satisfied the security requirements of both organisations. Security approval had to be gained from internal Defence security regulators, as well as from the Defence Signals Directorate. The project also required technical interoperability between systems in the two organisations, with both organisations having to show that all security and data integrity requirements could be maintained.

Specifically, in developing the system, Defence and the Electoral Commission had to:

• establish an appropriate environment within the Electoral Commission
• isolate and integrate the Electoral Commission electronic voting environment with the Defence restricted network
• rigorously test software, applications, hardware and communications through the Defence restricted network
• overcome network complexities
• provide a technical and business support model to Defence personnel that integrated with Electoral Commission systems.
Initially, the system failed to operate consistently due to platform complexities and differing local configurations in each area. But this was overcome by Defence developing a common bridging platform.

**Features of Remote Electronic Voting**

Perhaps the most important feature of Remote Electronic Voting is that it allows Defence personnel to cast their vote in real time, using information identical to that received by a voter using a paper ballot. Once they log in to the system, personnel can select from the candidates in their enrolled electorate in both the House of Representatives and the Senate. The Senate ballot includes the option of voting above and below the line.

The system, including Defence hard networks, satellite technology and deployed networks connecting to the Electoral Commission server, ensures that personnel who lodge their vote electronically during the voting period will have their vote counted.

To overcome any incompatibility issues that may arise with systems in the various areas of military deployment, the system features a bridging platform that negates local customised configurations.

The system is available 24 hours a day during the voting period and can provide business or technical assistance to Defence personnel.

Together, these features mean that Remote Electronic Voting overcomes the problems associated with using a traditional paper ballot postal voting system.

**Outcomes for government and Defence personnel**

The electronic voting initiative supports the objectives of both the Defence Department and the Electoral Commission by ensuring that eligible voters maintain the right to have their say in Australian federal elections.

Defence personnel benefit from voting electronically because it enables them to:
- vote for up to 3 weeks before election day
- securely lodge their vote
- check that their vote is received.

This provides significant advantages over a paper ballot postal voting system, which is limited by the large distances involved, the uncertain nature of operational areas, and the requirement to count all votes within the 13-day statutory period. The results of the trial clearly demonstrate the success of Remote Electronic Voting, with the more than 1,500 votes submitted in the 2007 Federal Election all counted.
Accessibility and usability

When developing the Remote Electronic Voting system, Defence and the Electoral Commission ensured that both accessibility and usability were priorities. To this end, Defence ICT management ensured that there were more than 12 distinct software testing cycles in the lead-up to deploying the new system.

Select Defence personnel based in Australia had the opportunity to provide input into the usability of the system. Deployed Defence personnel were also able to provide input into the setup, positioning and intuition of the system and software. All four military areas of operation covered by the trial submitted feedback through Defence ICT management. This usability testing involved face-to-face sessions between representatives from the Electoral Commission, Defence ICT management and more than 40 deployed Defence personnel. The latter were walked through both the administrative and electronic voting process used by the system and, where possible, their feedback was incorporated into the project. Personnel in other deployed areas of military operation were able to provide input by email and phone.

The Electoral Commission confirmed that the electronic voting software conformed to relevant legislative requirements. Defence ICT management ensured that the system conformed to Defence operational requirements and that its presentation and access was consistent with Defence guidelines. The electronic voting software was also independently audited to ensure that there was no malicious code and that voters’ intentions would be reflected in the output. Although it was a unique task to provide the accessibility required by this project in the complex Defence ICT environment, all security requirements were upheld.

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Land Exchange Victoria

Victorian Electronic Conveyancing System

In a world-first initiative, the Victorian Government has taken some of the pain out of buying a house or other property. In November 2007 the Department of Sustainability and Environment launched the Electronic Conveyancing System, which allows property settlements to be managed online. The new system is set to revolutionise the way industry and government deal with conveyancing and land title registration, and is the most significant change in this area in 150 years.

What is the Electronic Conveyancing System?

The Electronic Conveyancing System eliminates many of the inconveniences involved in conveyancing by allowing a range of transactions to be performed electronically, including:

- financial property settlements
- lodgement of land transfers
- lodgement of mortgages and discharge of mortgages into Land Victoria
- withdrawal of caveats (not standalone)
- payment of duty to the State Revenue Office.

The system is designed to reduce the paper shuffle that previously occurred before property settlement day, simplify financial transactions by enabling funds to be disbursed electronically, and eliminate the need for people to meet in the same room to exchange documents and cheques.

Development of the Electronic Conveyancing System

The Department of Sustainability and Environment, through its Land Exchange Program, worked collaboratively with all the major stakeholders in developing and piloting the Electronic Conveyancing System. Its aim was to establish an efficient and cost-effective conveyancing process for solicitors, conveyancers, financial institutions and their clients (vendors and purchasers of property).

Features of the Electronic Conveyancing System

In the Electronic Conveyancing System, electronic documents replace the paper documents used in traditional conveying processes.

Security is an important feature of the system. Subscribers can access a secure website which allows them to prepare electronic documents, including electronic certificates of title. They have to use digital certificates to perform signing events and ensure sufficient levels of security and traceability. Once all parties agree that the electronic documents created in the system accurately reflect their transaction, they can authorise an electronic settlement.
Electronic lodgement of documents and payments is another feature of the system. Authorising an electronic settlement involves lodging the electronic documents with Land Victoria and paying duty and fees electronically. The parties can also elect to settle the financial aspects of the transaction by using the Reserve Bank Information and Transfer System via the Electronic Conveyancing Financial Settlement Manager (provided by the Australian Securities Exchange).

Another feature of the system is the real-time transfer of payments. The system requires confirmation that payments have been received in the recipients’ accounts before allowing the electronic documents to be lodged with Land Victoria.

The system was built on a J2EE Platform using Oracle as the DBMS. It was developed using a variety of standards (such as Web Services for interfaces between systems) and technologies (such as WebSphere, Eclipse and Java 5).

**Outcomes for government and the community**

The Electronic Conveyancing System streamlines conveyancing transactions and processes, allowing for a faster, cheaper and more convenient conveyancing process. The standard paper-based conveyancing process requires a significant amount of coordination and manual handling of documents. Establishing an online workspace in which conveyancing can be conducted electronically significantly improves the business processes and delivery of services in the conveyancing industry.

Specific benefits arising from using the system include:

- eliminating the need for paper documents, which are often lost or incorrectly completed and can cause settlements to fail
- eliminating the need for the relevant parties to physically attend settlements
- reducing data entry
- improving data quality
- reducing the time spent arranging settlements
- replacing bank cheques with electronic funds transfer and multiple disbursements into nominated accounts.

Studies conducted on behalf of the Department of Sustainability and Environment have shown that electronic settlement will generate savings of between $235 and $395 per transaction for industry. It is estimated that electronic conveyancing will also help reduce the cost of home ownership in Victoria, saving industry and the community more than $70 million each year by 2012.

Being able to lodge documents and make payments electronically also promotes greater equality in pricing and access for people living in rural and regional areas. The electronic system means that people living in these areas no longer need to travel to Melbourne to lodge documents with government agencies or arrange for someone to do it on their behalf.
Most of the efficiencies and savings arising from using electronic conveyancing relate to industry and the community. However, there is scope to also provide government with improved efficiency by creating simplified information flows.

**Accessibility and usability**

In developing the Electronic Conveyancing System, the Department of Sustainability and Environment collaborated extensively with the finance industry, solicitors and conveyancers in order to collect industry input into the design and usability of the system.

Feedback obtained during the piloting of a release of the system with major Australian financial institutions in August 2006 was used to ensure that the system delivered the usability features stakeholders wanted. This drive for a usable system continues, with any interested users able to give direct and detailed feedback on the usability of the system.

To the maximum extent possible, the World Wide Web Consortium’s (W3C) Web Content Accessibility Guidelines have been applied to both the Electronic Conveyancing System and the Land Exchange website.

**Future directions**

The next release of the Electronic Conveyancing System is being developed and is scheduled for release in late 2008. This release will include additional functionality that users have identified will be useful.

In the meantime, the Victorian Government is committed to having a national electronic conveyancing system and, to this end, it has provided the Electronic Conveyancing System free to all Australian states and territories for them to evaluate.

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Medicare Australia

Transformation of Community Pharmacy Claiming through PBS Online

The implementation of PBS Online has fundamentally changed the way pharmacies across Australia claim their government payment for dispensing medicine subsidised under the Pharmaceutical Benefits Scheme (PBS). Pharmacies have embraced the new technology because it is easier, quicker and improves cash flow, while the Australian Government and citizens are also benefiting from the increased efficiency of the PBS system.

What is PBS Online?

PBS Online enables information to be exchanged between Medicare Australia and pharmacies over the internet in real time. It represents a significant improvement on previous PBS systems, both in the convenience and reliability it provides to pharmacies.

PBS Online replaces outdated systems that relied on manual, batch and disk processing. The PBS Online software is now integrated with the pharmacy dispensing system. As pharmacies dispense medicine, PBS Online provides real time entitlement and concessional checks, and the appropriate payments are simultaneously lodged over the internet. This is all done using strong encryption technologies, ensuring that the convenience does not come at the expense of individuals’ privacy.

Development of PBS Online

In developing the PBS Online solution, Medicare Australia reused the application programming interface (API) that had been developed for Medicare online claiming, and modified it to include PBS business rules. Software vendors then integrated the API into their dispensing software products. This substantially reduced the development process for both software vendors and Medicare Australia. A large consulting firm was engaged to integrate the PBS Online solution into Medicare Australia’s back-end PBS applications.

However, the initial implementation of the PBS Online solution revealed many issues around performance, functionality and scalability. The Pharmacy Guild of Australia worked with software vendors and Medicare Australia to resolve these issues, and in late 2006 the revamped PBS Online was rolled out.

Features of PBS Online

Perhaps the most important feature of PBS Online is the security arrangements in place to protect sensitive information and provide privacy for Australian citizens. The system uses Public Key Infrastructure (PKI) to digitally sign and encrypt messages so that citizens’ information remains confidential. Pharmacies are issued with PKI certificates when they register to claim online.
Another outstanding feature is the speed of the system. PBS Online replaces older, slower systems that relied on manual, batch and disk processing systems. In place of this, PBS Online allows pharmacies to check entitlements and concessions, as well as lodge payment claims over the internet as they dispense medicine. There are up to 1.2 million transactions processed each day and, in peak times, the system can receive around 150,000 transactions an hour. But even at peak transaction times, the end-to-end process to receive the request, make the assessment and to receive the message back in the pharmacy takes no more than five seconds. This also includes checking the customer’s concessional eligibility status with Centrelink.

As the PBS Online system has been adopted by 95 per cent of pharmacists, its capacity to remain online and process requests quickly is important to a large number of businesses. The system is available 24 hours a day, seven days a week, and is designed for stability, having experienced no downtime since November 2007.

The technology deployed to pharmacies to connect with PBS Online has also been used at Medicare Australia to speed up the processing of claims submitted by the minority of pharmacies still using older methods.

**Outcomes for government and the community**

The PBS Online system has achieved widespread support and use and has been a win-win situation for everyone involved – pharmacists, Medicare Australia, the Government and Australian citizens.

The fact that PBS Online is being used by 95 per cent of pharmacies clearly indicates that they see obvious benefits in the system, including:

- a quicker and more convenient PBS claiming process that provides them with greater certainty
- an improvement in their cash flow as they are paid more quickly
- high levels of automation, which reduce the work involved in lodging claims and reconciling payments.

For Medicare Australia, the system has:

- increased administrative efficiency by reducing the need for data entry and correction
- improved data quality by capturing data at the source
- increased pharmacists’ satisfaction with the way Medicare Australia services are delivered
- increased job satisfaction for staff, who have moved from data entry to more interesting roles.

The government has also derived benefits from PBS Online, including:

- greater integrity in the PBS program as the result of real time entitlement and concession eligibility checks
- the creation of a secure connection between pharmacies and the government, providing infrastructure that can support the delivery of future health services.
Individual citizens have benefited from the certainty that their pharmacist can check their concessional status, ensuring that they pay the correct contribution for their medicine.

**Accessibility and usability**

The phenomenal take up of the project was only possible through the effective engagement with stakeholders, listening to their concerns, and working with software vendors to provide the best solutions. Pharmacies have embraced PBS Online because of its functionality, performance and reliability. The quick response times and constant availability of the project are central features that enhance usability.

A key business driver for pharmacies was the integration of the PBS claiming solution with pharmacy dispensing software. In collaboration with pharmacy software vendors, Medicare Australia developed a client adaptor. This software integrates the features of PBS claiming with secure messaging protocols to dramatically simplify the pharmacist’s experience.

To support the roll out and the ongoing operations of PBS Online, Medicare Australia re-engineered its business support arrangements. This included improving the security of information transmitted, streamlining telephone helpdesk arrangements, and putting system status information on its website to make the system more user friendly.

**Future directions**

With nearly complete take up of PBS Online by community pharmacies, attention has now turned to introducing PBS Online into hospitals for PBS claiming. The learnings from this project will enable Medicare Australia to reuse the functionality already in place and to provide better assistance to stakeholders in delivering this enhancement. Hospitals and government will achieve benefits of efficiency in processing, more accurate information and surety of payment.

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Small Business Victoria

Business Victoria Website

As part of its commitment to making it easier and cheaper for small businesses to comply with government regulations, the Victorian Government has introduced its World Class Service initiative. The initiative aims to reduce the administrative burden for Victorian small businesses, which the Organisation for Economic Cooperation and Development estimates to be $3.85 billion a year. It also aims to produce better skilled managers and more dynamic small businesses, and deliver government services more efficiently. The Business Victoria website is a crucial tool for delivering World Class Service to Victorian small businesses.

What is Business Victoria?

As the key channel for delivering the World Class Service initiative, the Business Victoria website provides Victorian businesses with a single place to find information, ask questions and manage their dealings with government.

The website is a flexible, interactive and accessible service network that integrates information and services from more than 100 local, state and federal government agencies. The comprehensive project also links a variety of communication channels including telephone and counter services.

Development of Business Victoria

The Business Victoria website was developed in response to research into the needs and challenges of small business owners. In 2004, Small Business Victoria developed the Victoria Business Master Key (VBMK) project to address the lack of integrated and personalised service delivery for business. Initially, the VBMK incorporated services from only six key regulatory agencies, and focused on delivering services online. The World Class Service initiative builds on the VBMK to provide a greater range of key customer management and transactional capabilities.

A study of best practice government services from around Australia and the world highlighted a number of benchmark services that would simplify business transactions with government. These concepts were incorporated into the Business Victoria website to ensure the services provided were of the best possible standard. A strong stakeholder consultation and engagement process was also implemented, which has been used at all stages of the website’s development.
Features of Business Victoria

Business Victoria has partnered with over 100 agencies across all levels of government to provide a range of services. These include:

- unique interactive tutorials which produce personalised checklists of actions to run a business. These guides synthesise wide-ranging information from across government within an interactive platform – a unique approach for presenting personalised regulatory information
- a service that finds and saves licences, permits and registrations for a specific business
- an online forms platform that allows businesses to complete and submit interactive forms from over 30 agencies across Victoria. The forms are submitted directly to the relevant agency, and the service allows for attachments and payment processing
- personalised subscription services, which deliver updates on relevant services and include general business news, export opportunities and assistance, future regulatory changes, and workshops and seminars
- podcasts and vodcasts, which are especially useful for geographically isolated users and provide an alternative to text-based information
- an event management system, which enables external agencies to advertise business events, and incorporates event recording, publishing, booking, payment and ticketing
- frequently asked questions and advanced search facilities from across government
- a Find an Adviser service that combines six databases from national industry bodies and associations to provide a searchable database of accountants, lawyers and business advisers
- the ability for registered users to save information, licences and forms, join industry networks and subscribe to business updates.

Another feature of Business Victoria is that, while it has built and shared substantial technology, it also reuses existing capabilities. Some technologies that have been leveraged include the Department of Innovation, Industry, Science and Research’s VANGuard authentication service and forms service, Victorian Government identity technology, and a range of information stores from across government and non-government.

The system is reliable, secure, scalable and flexible. Availability exceeds 99 per cent, and the security has been the subject of a number of international case studies.

Outcomes for government and the community

Business Victoria’s innovative use of technology has significantly improved the way government services are delivered; reduced business costs associated with red tape; and provided businesses with convenient access to services and clear information about regulations. Studies indicate the project will deliver significant savings to small business by 2010.
The service has been welcomed by both service providers and businesses. Of Victoria’s 79 local councils, 78 host and promote online tools. The site receives more than 100,000 visitors a month, has over 28,000 registered users, and experienced an annual growth rate of 40 per cent last year.

User feedback has been overwhelmingly positive, with 95 per cent of users recommending the services and 88 per cent reporting improved regulatory efficiency and confidence. Users generally have significantly higher expectations of increased profitability, employment and investment. Furthermore, the project has improved the perception of government services, with 67 per cent of users saying that government services are generally good (compared with 47 per cent for non-users).

There are also positive outcomes for the government, which derives substantial capital efficiencies from combining service delivery from multiple agencies into a single platform. To date, the initiative has reduced by two-thirds the direct cost of service events.

**Accessibility and usability**

Small Business Victoria uses a variety of processes to improve the usability of the site, including:

- mapping business activity to understand business processes in detail
- doing primary research, including customer needs research, service performance research and usability testing, and reviewing third-party research
- benchmarking against global best practice
- managing partner and customer feedback.

Usability testing is undertaken as part of product development, which is complemented by annual site testing. Small Business Victoria uses statistical information and user feedback to enhance the user experience.

Site content is developed by specialist web writers so that it is effective and understandable in an online format. Specialists in educational psychology and online training and education are also involved in developing content. In addition, automated tools are used to assess content readability.

The entire site has been independently tested and shown to comply with World Wide Web Consortium’s (W3C) Web Content Accessibility Guidelines.
**Future directions**

Small Business Victoria is continuing to work with partners and stakeholders to refine, enhance and expand the services provided by the project. Specifically, it is:

- expanding services so that businesses can submit forms and make payments online, initially focusing on industries with high regulatory requirements
- developing an online library to bring together information on business planning and marketing from a wide range of government and non-government agencies
- developing a service that will step business owners through the complex process of employing people, customised to their specific circumstances.

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four The Awards Process
Nomination criteria

The primary focus for the e-Award is the promotion of excellence in the use of information and communications technology (ICT) and takes into account the following criteria.

Criterion 1 – Transformation of services to citizens

How the initiative demonstrates that it has significantly improved services to the community and/or citizens, facilitated business or improved government capabilities.

The assessment is made on the extent to which the initiative:
• meets the objectives of the agency
• improves service delivery
• demonstrates benefits to clients/end users
• improves government processes to create greater efficiencies.

Criterion 2 – Innovative use of ICT in the delivery of government services

How the initiative demonstrates that it has applied technology innovatively to create new or different services or re-used solutions to become a leader in its field.

The assessment is made on the extent to which the initiative:
• uses information technology innovatively to improve services or solve problems
• demonstrates value-for-money use of ICT
• demonstrates innovation or best practice through re-use of systems, open standards, shared systems, environmental achievements, interoperability, security, data protection, or scalability
• reflects a commitment to sharing the technology.

Criterion 3 – Accessible and usable ICT solutions

How the initiative demonstrates that it addresses accessibility and usability issues.

The assessment is made on the extent to which the initiative:
• has considered accessibility and usability issues during development
• conforms to accessibility guidelines (for example W3C level 1 for websites)
• has consulted with users in the design
• has undertaken usability testing.
How the awards were judged

Members of the judging panel made an individual examination of all nominations according to the selection criteria.

Scores from the panel were compiled by the Australian Government Information Management Office (AGIMO), and the 10 highest scored projects constituted the finalists.

The nomination with the highest overall score received the e-Award. The three nominations with the next highest scores received highly commended awards.

Judging panel

The judging panel was appointed by AGIMO and consisted of the following people from government and the ICT industry.

Ms Ann Steward, Chairperson
Australian Government Chief Information Officer

Mr Adrian Beresford-Wylie
Chief Executive Officer, Local Government Association

Ms Jo Bryson
Executive Director, Office of e-Government
Western Australian Department of the Premier and Cabinet

Mr Michael Chisnall
General Manager InTACT, ACT Government

Ms Maryann Jamieson
Director, ICT Strategy and Policy,
Northern Territory Department of Corporate and Information Services

Mr Mitchell Knevett
Manager, Inter Agency Policy and Projects Unit
Tasmanian Department of Premier and Cabinet

Dr Bruce McCabe
Managing Director, S2 Intelligence Pty Ltd

Mr Emmanuel Rodriguez
New South Wales Government Chief Information Officer