NSW GOVERNMENT ICT STRATEGY
Case Studies
The NSW Government ICT Strategy supports the public sector to drive better service delivery, greater transparency, and better value from investment in Information and communications technology (ICT).

The NSW Government aims to be a leader in the use of ICT, encourage community and industry collaboration, make it easier to do business with Government, and build sustainable public sector productivity to the benefit of the entire State.

The following case studies represent examples from across Government on the innovative ways that ICT is being used to transform service delivery including the use of cloud technology, digitisation of library resources, the use of 3D and laser technology, app developments and digital management systems.

The ICT Strategy looks to take advantage of the expertise in government and industry and to take advantage of new concepts, market opportunities and innovative technologies.

To start a conversation or for more information visit:


https://twitter.com/ICT_NSW
Apps 4 Seniors and Scientists

apps4nsw is a program of data challenges that creates applications for smartphones, tablets and the web based on government held data.

The first competition held in 2014 produced two winning apps for seniors and scientists.

Seniors Card

NSW Seniors Card is a free program provided by the Department of Family and Community Services to assist semi-retired and retired people over 60 enjoy an active and healthy lifestyle.

The Seniors Card promotes participation by seniors in their local community through their engagement with government and other services. The directory is a trusted go to guide for information on consumer rights, financial and legal issues and an array of discounts.

The Seniors Card app is based on directory data and provides information on discounts from nearby stores and other services for seniors.

Art of Science

The Art of Science app presents illustrations from the Australian Museum’s archival collections.

The Scott sisters were among the first to illustrate the life histories and immature stages of Australian moths and butterflies in the 1850s and 1860s. The collection was originally curated for an exhibition at the Museum in 2011 which also toured to regional NSW. The highlights of the exhibition were water-coloured paintings created between 1846 and 1851.

The Museum identified the apps4nsw initiative as a great way to bring a fresh approach to the presentation of the Scott sister's collection.

Outcomes

Interested developers completed an expression of interest and the shortlisted applicants were invited to pitch their ideas to a judging panel. The winners were than set the challenge of producing a market-ready app in less than two months.

The Art of Science app was rated the ‘Best New App’ on iTunes in the month after launch.

The project has enabled the Australian Museum to pilot a new way of working with collection content and technical specialists to repurpose existing exhibition and archival material in creative ways, in order to make content accessible to a wider audience.
NSW Police Force is Australia’s oldest and largest police organisation and the primary law enforcement agency of NSW which provides community based policing from more than 500 police stations.

Documenting and presenting evidence of a crime scene is crucial to securing a conviction but evidence often quickly degrades. Quick, precise information is needed, and crime scenes such as those involving fatal traffic accidents, unstable terrain or inclement weather hinder crime scene collection and analysis.

Detectives are sometimes unable to see crime scenes first hand and juries often need a visual representation of evidence. The standard approach was limited to computer visuals or more commonly photographs or poor detail CCTV footage.

NSW Police are now able to build 3D maps of crime scenes using a laser scanner. The 3D laser offers faster and more accurate capturing of information to assist in an investigation process and to illustrate crime scenes to juries. Detectives, juries and others can walk through an accurate reconstruction of a crime scene. A 3D printer provides technically accurate models of crime scenes and helps detectives understand the capabilities of plastic weapons and to reconstruct evidence.

By dedicating time and resources the full capabilities of the technologies are being realised. This knowledge will be shared across the Force with more people being trained to effectively use the resources.

NSW Police Force is leading the way in the use of these technologies with the aim that this evidence can be presented in courts. With the laser technology the aim is that the software will be run off an average police computer giving the force and regional stations the opportunity to utilise the advances.

“NSW Police are now able to build 3D maps of crime scenes using a laser scanner.”
HOMES as a service

The Department of Family and Community Services delivers services to some of the most disadvantaged individuals, families and communities in NSW.

HOMES is an in-house managed core system for Housing NSW and Land and Housing Corporation (LaHC) keeping track of tenancy information as well as managing the shared waiting lists for non-government or public housing including end to end asset management and associated program maintenance across NSW.

The infrastructure was out of date and required significant capital investment to bring it up to current standards.

This core business system has been moved to an as-a-service model. The HOMES as a Service project has essentially been a ‘lift and move’ exercise to shift from out dated infrastructure to new hardware and networks housed externally and fully managed by the system vendor.

Major areas of effort have included working with the Privacy Commission and the Department of Finance and Services to clarify any obstacles to allowing an offshore provider to manage the cloud based system and process data of significant scale on behalf of the Department of Family and Community Services (FACS).

The move to HaaS will mean that FACS will be better able to ensure currency and vendor ownership and management of the underlying application and infrastructure without periodic and significant capital investment.

Traditional CAPEX modelled services procurement has been substituted by a pay as you go OPEX model.

The HaaS model allows for improved cash flow and flexible cost management of the system.

A robust review of the risks associated with moving the as a service model brought all concerns into the open and enabled a focus on business priorities and leveraged industry leaders knowledge and direction rather than on technology issues.

Moving to a transactional based model means FACS only pay for what they use, it also opens up further opportunities for a multi tenanted systems model to support increased system usage by NGO’s.

FACS have negotiated a number of innovative components within its contract for example, a service credit regime to provide incentive to the vendor to deliver above service level agreements, and a pricing cap to ensure delivery of the business case benefit.
NSW Fire and Rescue is responsible for the provision of emergency services relating to fire, rescue and hazardous materials handling throughout NSW. It is a key agency involved in the response phase of disaster incidents.

For more than 125 years each fire station maintained hard copy ‘occurrence’ books that record everything that happens in any given day; record incidents, phone calls, all coming and going from the station and visitor lists. The books were stored in firehouse basements and information was often duplicated or illegible. Searching hard copy books was a cumbersome and inefficient task.

“NSW Fire and Rescue now manage corporate information through cloud based services with security and privacy assurance.”

NSW Fire and Rescue commenced the deployment of 400 Google Chromeboxes to all NSW fire stations to replace physical and digital record keeping systems.

The Chromebox is a cloud based desktop device which runs software applications from Google’s Chrome operating system rather than at a local hard drive.

NSW Fire and Rescue now manage corporate information through cloud based services with security and privacy assurance.

Proprietary software licence fees have been minimised for applications such as staff rostering, logistics, and computer aided dispatch because these are now managed in house, available through a browser based private cloud. The Chromebox device has no mechanical features (hard drive, disc drive), so it is virtually impervious to the dust and dirt common to fire stations. This has reduced the load on the IT maintenance team.

NSW Fire and Rescue’s immediately saved 50% upfront by choosing Chromeboxes over an alternative operating system and estimate significant future savings with the lack of ongoing licensing software needed. The devices are more dependable and the NSW Fire and Rescue support teams consider them more reliable than desk top applications.

The Chromebox’s are addressing a specific need for digital record keeping and tracking rapid responses. The decision to adopt a cloud based, always-on network approach means faster and more efficient systems, and a noticeably faster browsing experience resulting in safer communities.
The Bureau of Crime Statistics and Research (BOCSAR) is a statistical and research agency within the Department of Justice and Attorney General. BOCSAR is responsible for analysing and distributing information on crime and criminal justice in New South Wales.

BOCSAR’s most common information requests concern local crime rates, crime trends and crime mapping.

Prior to 2013 the BOCSAR website suffered from two main problems:

- The complete range of crime statistics available was difficult to access as they were held in different parts of the site.
- The website did not hold information to address many common queries e.g. crime by suburb or postcode, rate maps of crime, age and gender of victims and offenders or when and where offences occurred.

BOCSAR and the Information Services Branch within Department of Justice and Attorney General formed a team to develop a web based crime mapping tool.

The ‘NSW Crime Tool’ is a one-stop web resource from which users can access crime maps, data, trends and graphs which meet their individual specifications.

Any interested individual can now access the most recent crime statistics around the clock from the BOCSAR website. Data, maps and graphs are available for over 50 offences across NSW for the past 18 years.

It is being used by BOCSAR staff, Crime Prevention Division, other government officers, journalists, local councils, students, house hunters and many others.

The NSW Crime Tool allows both novice and sophisticated users to efficiently access crime data which meets their individual requirements.

The tool has allowed a large amount of information to be made available to the public in an easily navigable format.

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The State Library of NSW is the state’s public reference and information service, including Mitchell and Dixon libraries.

The Library’s collections, including photographs, manuscripts, books, maps, pictures, oral histories, newspapers and artefacts, are valued at more than $2.142 billion.

The two main drivers behind the need to digitise the collections were the risk of loss and high demand from the community for increased access online.

The Digital Excellence project involves the digitisation of these vast collections to provide unprecedented, world-wide access to our state, and nation’s most iconic and historically significant documents and objects.

The program includes a 10 year collection digitisation plan and a significant upgrade to its digital infrastructure over the first 3 years.

With very few large scale and similar digitisation projects to reference and learn from, the Library pioneered a number of cutting edge digitisation activities early in the first year.

Program highlights to date:

- Over 2 million newspaper pages have been digitised and are now fully searchable online.
- Approximately 1,000 hours of at risk oral history and sound recordings have been converted to a digital format.
- Approximately 4,500 books (1.3 million pages) from the valuable David Scott Mitchell bequest, have been scanned.
- The large-scale digitisation of the Library’s extensive WWI collections
- The replacement of 38 microfilm reader scanners in the reading rooms, the implementation of a VOIP service, the upgrade of the network bandwidth and the increase of digital storage capacity.

“The Library’s collections are valued at more than $2 billion.”

The digitisation of heritage and cultural materials is difficult and a specialised field of work that required a core ICT infrastructure renewal, and to achieve scale, the Library is partnering with industry to transfer skills and knowledge to the industry sector.

This program embedded a resource base across the Library to achieve digital transformation throughout the Library rather than being limited to an ICT project.
The NSW State Parole Authority (SPA) is an independent statutory authority. The Authority considers the release to parole of offenders who have sentences of more than three years with a non-parole period, sets the conditions of release and makes determinations on parole, Intensive Correction, Periodic Detention or Home Detention orders.

There was no computerisation utilised at the SPA for the management of files and documents. As part of the manual processes, the SPA collated photocopies and then physically distributed vast volumes of documentation to Authority members.

The SPA consumed 150 reams (75,000 pages) of A4 paper per week. Couriers then distributed this documentation throughout NSW.

The new approach focused on electronic capture and collation of documentation for SPA meetings by using the corporate electronic document records management system and disseminating the documentation online.

The SPA have saved a total of $144,906 in paper, copy charge, courier, off-site storage, paper file retrieval and staff overtime costs. Approximately 95% of SPA information is now captured, managed, stored and delivered electronically and in accordance with State Records Legislation.

The process of collation, delivery and the setting up of hearings and meetings has been reduced from two days to a few hours of staff time and effort.

Members can now download meeting documentation almost instantly, when, where and in the format required.

It is now easier to find and access information and to make informed decisions based on full and accurate records.

“Approximately 95% of SPA information is now captured, managed, stored and delivered electronically and in accordance with State Records Legislation.”
The Department of Trade and Investment, Regional Infrastructure and Services (NSW Trade and Investment) is the lead economic development agency in NSW responsible for driving sustainable economic growth across the State.

NSW Trade and Investment was maintaining obsolete, unsupported, incompatible and nonscalable systems across the organisation. There was no single view of the business and its operations, with a range of disparate systems and inadequate and unreliable internal controls.

NSW Trade and Investment explored how to consolidate systems, controls, processes and data. It selected a cloud based enterprise solution which included a transition and consolidation to a single Enterprise Resource Planning (ERP) system.

The need to consolidate numerous independent finance, procurement, projects, payroll and human resources systems across the agency was the catalyst behind the move to SAP’s Business ByDesign cloud service.

Business ByDesign is being used to manage finance, procurement and sourcing functionality from servers based in Germany. The local SAP hosts payroll and human resource platforms.

The consolidated system is expected to result in savings of more than $12.5 million a year by bringing all its member agencies and institutions onto a single Enterprise Resource Planning (ERP) system.

To enable the project to succeed under very tight timeframes the project was approached as a major organisational priority. A high level executive team was responsible for its implementation from start to finish, with no intermediary.

The focus stayed on adopting the solution with minimal customisation; this required the business to be disciplined and to change its practices to enable the adoption of a standard contract with minimal change requests.

“NSW Trade and Investment explored how to consolidate systems, controls, processes and data.”