NICTA Submission on the NSW Government ICT Strategic Framework

Dear ICT Team

NICTA thanks the NSW Government for the opportunity to provide input into the development of the NSW Government ICT Strategic Framework.

NICTA, as Australia’s largest ICT research organisation, and headquartered in NSW, is vitally interested in the development and application of ICT for the benefit of the people of NSW.

The consultation draft provides a wide-ranging, high level approach which we think defines an appropriate framework for leveraging ICT for the benefit of NSW citizens. We would also like to underline areas of emphasis we think may contribute to the plan as well provide some commentary on technology and research where we think there are potential opportunities for NSW. Please note that the NICTA submission on the NSW Digital Economy Action Plan provides relevant commentary for the framework, and for this reason we have attached the relevant NICTA submission from November 24th, 2011.

We look forward to contributing to the development of the framework in an ongoing and iterative way over the next 12 months.

High Level Comments

- **Engagement** – the draft outlines a foundation for engagement of government, industry and research stakeholders. We would add to this the need for frequent, small interactions which develop an ongoing conversation among stakeholders. This is especially important with state agencies involved in service delivery such as DEC and Transport NSW. Such a process could be started through the governance arrangements outlined. We would also emphasise the need for citizen engagement. If government services are to be citizen-centric then it is important that citizens are involved intimately in their development, evaluation and evolution.

- **Empowering government staff** – the draft recognises the need to provide government staff with needed skills, and in the “Ongoing engagement” section mentions the “freedom to innovate”. Developing the “freedom to innovate” will need consolidated effort as it can often be seen as weakening control or increasing risk. Managed properly it can be used to support senior management initiatives quickly and efficiently. Examples may include allowing staff to “BYO” computing and mobile devices, allowing front-line staff to experiment with public cloud or to collaborate using tools such as Google Docs.

- **Growth and innovation of the ICT industry** – the investment and productivity section of the draft mentions the need to support growth and innovation in the local industry and use this to drive productivity gains. With a $2B annual spend there is a large opportunity to
foster local industry, and we feel it will be important to develop this concept in some detail, especially in light of the need to balance local industry development with global best practice.

- **Research sector engagement** – there is already a good level of conversation between NICTA and parts of NSW Government. We think this can be built upon with two aims. First, ongoing conversation between government agencies and research organisations like NICTA provide important input in developing research directions relevant to the needs of NSW. Second, organisations like NICTA have a unique long-term view on the ongoing development and trends within the ICT sector which can be used to inform policy development. NICTA would welcome building on our existing relationships to strengthen this two-way process.

**Specific Areas to Emphasise**

- **Citizen focussed service delivery** – there are several aspects we think are important to consider in developing effective service delivery:
  - Information and services should discoverable and searchable as easily as using Google.
  - Good user-interfaces and design of the overall user-experience is vital. This can be the difference between a service which is never used, or one which becomes a productivity aid in daily life.
  - Co-creation of services means involving the users (that is, citizens) in the design, ongoing development, and evaluation of the services they will be using. This is tightly coupled with the design of user-experience and interfaces.
  - The draft describes services “anywhere, anytime”. We would further refine this to say the right service, at the right time, through the most appropriate channel. To get this relevancy right requires a good understanding of context and user-behaviour.
  - Mobile platforms are increasingly important. More than 50% of Australian and NSW citizens have smart phones and a smart phone or tablet will become the digital platform of choice for most Australians. For this reason, considerable attention needs to be paid to how we best deliver and leverage the advantage of mobile platforms. Perhaps surprisingly, recent UK experience has shown mobile to be an effective service delivery platform, even for the less-privileged

- **Productivity improvements** – the draft includes a discussion on ways to improve productivity through leveraging ICT and cultural change. We would also add to this a specific focus on identifying paper-based and manual processes which can be digitised and automated. NICTA has had success in the lending industry in standardising and digitising manual processes which has led to vastly faster and more cost-effective service. NICTA will also identify opportunities for improved productivity through projects in the Digital Productivity Showcase.

- **Cloud services** – The public cloud provides significant opportunities to lower costs, provide scalable services and also improve resilience to certain kinds of IT failures. At the Federal level, AGIMO has developed a draft Cloud Computing Strategy which may provide useful input to developing the framework.

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1 Presentation at FutureGov 2011 by Zack Pandor Director of Information and Transformation, The Shared Services Partnership Limited, UNITED KINGDOM
Examples from other governments – Singapore has developed a coherent and wide-ranging e-Government implementation which may inform the development of the framework. Details may be found at [http://www.egov.gov.sg/](http://www.egov.gov.sg/) and there is a new Masterplan released for 2011-15\(^4\). In the UK, there has been interesting innovation driven by extreme fiscal pressures caused by the GFC\(^5\).

### Relevant NICTA work

NICTA’s research and business team agenda relates directly to much of the NSW economy and the aims expressed in the ICT framework document. We would like to highlight some activities and projects of particular relevance.

- common data standards ... the 'Reference Architecture' work required here is definitely in -
  - single view of government for the citizen ... especially identification and authentication,
  - NICTA trusted network
- information security (although not mentioned, Cloud security / resilience is Anna's theme)
- resilience and business continuity
- guidance on new technologies ... Cloud and open standards, and drawing on e-Gov lessons.
- Our SOA design and enterprise architecture review expertise can definitely be used to apply to this and help. Cross organisation Integration strategy and technology (similar to LIXI project) can also be applied.
- We can defo do POC like the transport 131500 mashup to support govt to put forward biz case in order to win project budget or win over collaborating agencies.
  - ePASA etc?
  - Information sharing – roksana’s trusted networking project
- Use of trust metrics. NICTA – use of social media tools, sentiment analysis
- e-Government Cluster
- DPS.

### Government Services

Digital technology is also important for government. A project NICTA is exploring with ACBI is an e-Gov tele-kiosk which will be able to offer a service equivalent to going in person to a government agency such as the RMS. It will allow a remote operator to interact with the client and deal remotely with paper forms, identification and other services which often require a highly skilled government customer contact staff member to meet a citizen in person. Such a technology would allow better matching of staff to client needs, allow better pooling of resources and reduce the amount of travel for those in remote and regional NSW.

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\(^5\) Presentation at FutureGov 2011, by Andrew Stott UK Transparency Board, Former Deputy GCIO, UNITED KINGDOM
NICTA, November 24, 2011.

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We are in midst of a generational change in the way our economy operates with several interconnected trends impacting us simultaneously.

Over the next decade the economy will need to re-organise itself to take advantage of the increasingly compelling power and utility of mobile devices and new opportunities presented through the use of cloud computing. To take advantage of this, we need skilled people who know how to provide services relevant to the cloud and get benefit out of the cloud. We will also need to train or attract large numbers of people who know how to optimise delivery of services and content over the mobile devices that are increasingly becoming our primary form of interacting with the digital world. To gain the full benefit of this transformation also means that the NSW public need to be aware of the capabilities of new technology and can engage with it.

Alongside this transformation is the now potent ability of computers to draw insight from vast amounts of data and to help us optimise the use of precious physical resources like transport networks, energy and water\(^6\). This insight can be used as input to planning, in real-time to better manage traffic and safety, to predict problems, to understand the bottlenecks in the health system, or to generally increase productivity.

NSW is well-placed to take advantage of these trends with examples of world-leading practice in many areas. The task before us to encourage us to move as much of the NSW economy into the digital realm as possible so as to take advantage of the benefits possible as this occurs.

\(^6\) NICTA Smart Infrastructure Discussion Paper, November 2009

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