Microsoft Australia

Submission to the WA Inquiry into ICT Procurement and Contract Management

September 2015

Microsoft Australia welcomes the opportunity to comment on the WA Inquiry into ICT Procurement and Contract Management. This submission provides commentary on the two broad domains of ICT Delivery and Government ICT solutions

Microsoft's investment in Western Australia

Microsoft recognises that WA Government has taken important steps to drive digital transformation and better services within the state. Microsoft directly has some 40+ staff located in Perth, supported by more than 500 staff in Microsoft's Australian headquarters in Sydney. The Microsoft software and services platform business model uniquely relies upon the development and support of a substantial network of independent software vendors and development businesses.

According to a recent independent economic analysis, Microsoft has some 1,155 partners in WA, employing more than 32,000 people and delivering $2.1 billion in economic activity within the State in 2013[1]. Last financial year, Microsoft donated over $50 million to Not For Profits (NFPs) in Australia. A significant proportion of those donations went to NFPs in WA.

Microsoft has also launched two Australian data centres for our Azure, Office 365 and CRM Online cloud services. These services allow government agencies and companies to on-board their existing applications as well as write new apps which take advantage of the even broader capabilities offered by a cloud-delivered platform as a service.

Having Microsoft cloud services located in Australia extends the range of architectural and operational possibilities for customers and developers building globally relevant businesses from WA. They also reduce the bandwidth costs for customers using the platform and enables more data-rich scenarios that would otherwise require expensive upload costs and security concerns outside Australia.

The following commentary is provided with this context of the Microsoft partner ecosystem and its ability to enable ICT innovation for the citizens and government of WA.

Thank you for the opportunity to provide input to this important inquiry.

Cheryl Robertson

State Director, Microsoft WA

James Kavanagh

Chief Technology Officer, Microsoft Australia

[1] Microsoft-Capitalis Research, Partner Economic Impact Study, June 2014

Making Western Australia a leader in open, digital government

The WA Government has made good progress with open data initiatives and beginning its transition towards digital government by establishing the whole-of-government Open Data Policy. There is now a real opportunity to build on those foundations and to consider broader whole of government initiatives.

According to Microsoft-sponsored research from IDC, government organisations worldwide stand to gain $206 billion in value over the next four years by connecting data streams, using new analytics tools, and delivering insights to more people. The mega-trends in technology that make it possible are cloud, mobile and embedded devices, social media, and analytics. Unifying these technologies through an open platform that works cohesively from end to end is crucial.

One of the most immediate opportunities for governments is to reduce IT expenditure through the switch to cloud platforms. Cloud platforms offer many benefits including realising cost savings by leveraging the buying power of large organisations, enabling flexibility around consumption models and access, reduced management or administrative overheads, reduced power consumption and access to deep expertise from leading providers. Moving to cloud platforms is important to improve productivity within agencies, for example, by automating activity currently done manually to free staff up for more high-value tasks, enabling applications to be accessed by staff on multiple devices in different locations or when working in the field, and increasing convenience and useability for people accessing services by making a single service accessible across multiple platforms.

One of the many interesting examples of transforming a government business can be found in Estonia. For further reference please see: http://blogs.microsoft.com/cybertrust/2015/02/04/groundbreaking-project-assesses-public-cloud-for-a-more-resilient-estonia/

Around the world, the delivery of government services is being transformed by the ability to pull insights from data. Governments are finding new ways to connect IT systems and free up data to improve services across nearly every function. This is opening up innovations in core service areas, such as emergency management, infrastructure, transport and health. Cloud, mobile and embedded devices, social media, and analytics are key. These technologies need to be unified through an open platform that works cohesively from end to end to maximise benefits to agencies and end users.

The recent announcements of the WA Whole of Government Open Data Policy demonstrate that the WA Government is committed to making open data sets available, usable and accessible by developers and the broader community. Providing greater context around high-value uses of the data, for example, releasing data in parallel with running open innovation events (like Hackathons and Open Learning event) that highlight problems government agencies hope to be addressed through applications using the data, may also encourage innovation amongst businesses.

The future WA ICT strategy should continue to foster and encourage innovation in digital government by:

- Promoting an interoperable, technology neutral approach to service procurement and delivery.

- Encouraging and fully understanding the adoption and potential of cloud-based services for WA government.
- Continuing to promote the release of WA Government data in an open format and implementing open API policies. Assisting or encouraging some owners of high-value data to digitise and release it.
- Run open innovation events to highlight high-value opportunities for third parties to develop applications making use of open government data.

Key priority areas for customer-focused service delivery

Microsoft recommends that government services are designed to allow users to determine their preference for digital channels. This can be achieved by taking a holistic, connected and accessible approach to online government service delivery. Cloud computing can act as the virtual glue underpinning this approach by connecting a user's different devices to the same service, holding preferences, settings and accessibility tools, and allowing those features to follow a user from device to device.

Within the foreseeable future, there will be accessible devices that can understand and interpret a user's needs, preferences and immediate surroundings. In this adaptive world, the cloud will allow a wider range of preferences, and an expanding range of accessibility technologies, to follow users wherever they go and on whatever devices they use. The key characteristics of these next-generation accessible devices will be multi-modal interaction (including speech, touch, gestures, and eye gaze), contextual awareness (of factors such as ambient noise, whether the user is in car, and the user's mood), and the ability to be personalised.

Open government data can empower WA citizens to shape the services they want and use. When data is open and available, government operations can be improved; third parties can build innovative applications leveraging this data; and the ability for citizens to directly engage in both the design and ongoing operation of government services can be leveraged and significantly improved.

Combining these two trends and creating focused mechanisms for innovators to collaborate together can create amazing customer service scenarios. Leadership from the highest levels of government can create the impetus and mechanism to uncover the most innovative ideas and know-how from outside government through a competitive selection process.

To establish a solid foundation for inclusive digital government service delivery into the future the WA government can:

- Adopt globally recognised standards. Market-led, globally-harmonised standards and the procurement policies that reference them are the foundation of accessible and interoperable IT products and cloud services.
- Create market incentives to encourage inclusive and accessible service design, for example, making digital inclusion a key criteria for procurement activities or open innovation activities.
- Participate in innovative public-private partnerships to develop accessible services.

- Foster a culture of continuous improvement of service and re-usability of services to ensure ongoing effectiveness and efficiency.

Designing ICT innovations with the WA Community

Microsoft strongly believes that leadership from the most senior levels of government is essential to build a model that uncovers the most innovative ideas and know-how from outside government through a competitive selection process.

The challenge will be to create forums where communities, organisations and businesses that do not have regular engagement can collaborate and input into Government policy and service design – but also ensure that there is capacity within these groups to continue this engagement through design, implementation and delivery.

Having the right people at the table is critical to drive real outcomes for Government. Where open innovation and policy co-design initiatives fail is when they become dominated by one particular group rather than embracing multiple viewpoints and skillsets. Having organisations at the table that have the experience, confidence, capacity and capability to deliver for Government is also a critical factor to enable an ongoing successful engagement and eventual implementation.

For policy co-design and open innovation Microsoft recommends:

- Avoid group think by looking outside the regular 'insiders'.
- Encourage collaboration and multi-disciplinary approaches.
- Look beyond start-ups for innovation within existing SMEs and social enterprises, as well as within government, health and education organisations.
- Encourage organisations that have capability, capacity and experience in working with government to get engaged in open innovation initiatives.

Enabling local innovation and building local delivery capability

Better performing small businesses are more likely to have the capacity to engage with Government and our research has found that the best performing small businesses tend to be rapid adopters of technology.

Similarly, the most efficient way for small business to engage, pitch and supply information to Government (and for Government to engage) is through digital formats and social media.

The latest ABS data confirms that small to medium enterprise (SME) use of digital technology is increasing, but still lags larger businesses in critical categories. While 80% of businesses with more than 20 staff have websites, just 36% of small businesses (0-4 employees) do so. Further, only 26% of businesses overall have a social media presence, although 64% of businesses with more than 200 staff do so.[2]

[2] Australian Bureau of Statistics, *8166.0 - Summary of IT Use and Innovation in Australian Business, 2012-13*, published June 2013.

This is concerning giving evidence linking greater technology take-up to improved business outcomes. Analysis undertaken by the Boston Consulting Group (BCG) for Microsoft internationally surveyed more than 4000 SMEs in the United States, China, India, Germany and Brazil on technology adoption and business outcomes. It found that SMEs categorised as technology leaders – those who stayed ahead of the curve and adopted Internet connectivity, cloud computing and productivity software - increased annual revenue 15% faster, and created almost double the jobs, of their peers. The next best performers measured by business outcomes were technology followers, who adopted mainstream applications, such as creating a website, but did not embrace cloud-computing. The worst performing companies were technology laggards, who generally had low levels of adoption and no online presence.

The study found that if 15% of technology laggards and 30% of technology followers in these five countries became technology leaders over the three year period of the survey, they would have grown their businesses by a combined $770 billion and created 6.2 million jobs.[3]

Building on the BCG study, PwC analysis for Microsoft Australia found that, over a single year, if 15% of Australian SMEs became technology leaders rather than technology laggards, and 30% of technology followers became technology leaders, GDP would increase by nearly $6 billion (or 0.4 per cent) in 2012-13, real wages would increase by 0.5 per cent and turnover would be raised by $11 billion. The PwC analysis also identified that Australian SMEs could save $570m in capital and operating costs if 45% of SMEs that did not lead in technology adoption moved to cloud services.[4]

As WA Government seeks to streamline its procurement arrangements and open the door to more innovative approaches to accessing services and products – Microsoft does believe it is important to enable small businesses to participate in these arrangements.

The most common barriers to SME technology adoption are lack of time, money, knowledge and in-house expertise. These same barriers also impact on the ability of businesses to make complementary changes to their business or organisational models that maximise the benefits from the technology investment.

The ability of small business to engage effectively does require some efforts to build digital readiness. To this end a better ICT procurement approach could encourage technology adoption amongst SMEs by:

- Using online government service delivery to incentivise change and reduce business costs, for example, making core business transactions available online and on multiple platforms.
- Encouraging more flexible training options that suit the lifestyles of time poor SMEs and access to a skilled pool of workers.
- Ensuring a strong local innovation ecosystem that is connected to the broader SME network

[3] Boston Consulting Group, *Ahead of the Curve: lessons on technology and growth from small-business leaders*, October 2013.
[4] PwC, *Economic impact assessment SME tech adoption technical note*, May 2014.

Collaboration between industry and government to build better services

The internet is facilitating a hyper-connected business environment, with new opportunities for digital innovation and entrepreneurship.

This offers advantages for WA by strengthening the ability of smart businesses to grow globally, driven by greater access to new markets, more sources of capital, and the ability to implement new business models based on cloud-based, mobile tools and geographically disparate workforces. It is also making it easier for multinational companies to locate high-value work in WA if the appropriate skills exist here. Furthermore, it offers WA the potential to multi-skill or upskill workforces and/or move intellect and capacity from one industry or sector to another. This may be specifically useful in times of changing economic conditions i.e. Resource downturn.

Innovation and entrepreneurialism are critical to improving business productivity and competitiveness. ABS data shows that businesses that pursued innovation in 2011-12 were more than twice as likely to have improved productivity as businesses that were not innovation active. They were also more likely to have created jobs and improved their profitability.

Government can benefit from and access new ways of thinking by finding creative, open and collaborative ways to engage with this hyper-connected community.

A recent discussion paper released by Microsoft Australia, *Joined-Up Innovation,* identified seven steps to increase digital innovation in Australia, including:

- Increasing interconnections between different players in the Australian innovation system
- Re-inventing the way Australians work and innovate
- Looking beyond supporting start-ups to encourage entrepreneurial activity amongst existing businesses
- Transforming business, in particular to encourage collaboration and multi-disciplinary approaches
- Improving knowledge and information sharing
- Recognising and cultivating the right skills
- Encouraging mobility between roles and sectors.[5]

The challenge is ensuring that emerging innovators, start-ups, social entrepreneurs and others that do not have experience in engaging with Government are well engaged.

Importantly creating forums and processes that enable small businesses who are not digitally savvy to engage with those that are can deliver some extraordinary outcomes. If this is leveraged towards solving WA Government challenges, opportunities emerge to deliver a public benefit as well as create exportable intellectual property to address similar challenges elsewhere.

[5] Microsoft Australia, *Joined-Up Innovation*, June 2014.

ICT delivery skills and capabilities for a digital WA government

Enabling a fully digital government requires a digitally-engaged and skilled workforce. Departments and agencies should be actively encouraging staff to use online tools which improve productivity or enhance digital skills and knowledge.

A fully digital government also recognises the blurring boundaries between work and leisure time that is occurring through digital technologies; and the increasing demand for flexible working arrangements focused on outcomes from workers.

To this point, Microsoft in collaboration with Ipsos undertook some research into Australians relationship with technology[6]. This report, Life on Demand, found that Australians across all age groups and demographics are masters of their technology and their time.

Work and play are completely interchangeable – no matter what time it is, we maximise every spare moment, whether it's for life admin, work or leisure. 30% of Aussies are checking work emails on devices at home before they leave for work, 23% are doing work activities while they are socialising with their friends. 44% are doing work activities after work at home and 38% are working on the weekend. But all that work is not at the expense of our leisure.

53% of Australians play while at work, dipping in and out of gaming, watching videos, online shopping, browsing blogs/media and checking or updating social media.

Flexible, collegiate ways of working are eroding the command and control style relationships between managers and team members that have been commonplace in the workplace until now. As a result, we'll start to see greater emphasis on trust, autonomy, and accountability in work, as exemplified by flexible work styles and practice.

Social media networks will become increasingly prevalent in the work environment as organisations continue to appreciate the value derived from social networking in our personal lives and applying it to get a competitive advantage in a corporate context.

In this version of the future office, networks will be used to harness the wisdom of the crowd to solve problems, offer real-time feedback, share ideas, co-create products and improve social and cultural cohesion. It should be noted that whilst considering this a view into the office of the future, the future is now approaching at a far more rapid pace than ever before. "Future" planning was once a five year view, this is now closer to a 2 year view when we consider the rate of change that technology is now enabling.

[6] Microsoft-Ipsos, *Life on Demand: How technology is transforming daily life*, August 2014

Microsoft practices this philosophy within its own business, using activity-based working, focusing on outcomes and supporting staff to engage through internal social media and broader collaboration. This culture is set from the top down, with Pip Marlow, Microsoft Australia's Managing Director, dispensing with an office and practising hot-desking. Since implementing this approach, Microsoft has returned 50% of its office space in the Sydney head office, reduced administrative overheads (such as printing) and increased employee engagement and flexibility.

Challenges for moving to this new way of working that the WA public service may need to consider and manage include:

- Organisational cultures that resist new ways of working
- A need to adapt management practices, ensuring appropriate technology
- Expertise and guidelines are in place to support this change
- Managing teams where some staff are suited to flexible, collaborative work while others prefer routine and uniformity.

Employee skills outside of IT roles are also increasingly important to the successful deployment of technology in the workplace and consequent productivity increases. Employee knowledge is a significant factor in companies' decisions to invest in technology. Once an investment is made, workforce skills impact on the success of the deployment and the company's ability to make complementary innovations to business and organisational processes. Introducing new technology is often a spur to up-skill staff in a business.[7]

The highly dynamic nature of life and work also demands new-style capabilities from employees including teamwork, cross boundary collaboration and design-thinking. New services for customers and citizens are changing more frequently and require new methods for creation and delivery that demand agile methods are employed and where data is used to monitor and inform the development process. New technical capabilities such as data scientists and demographers will become important as government moves to provide acceptable levels of service to citizens.

Microsoft recommends that a strategy for lifting skills needed in the digital economy outside of IT professionals covers:

- Improving foundation skills (i.e. literacy, numeracy, basic IT skills) as these are the building blocks of more advanced skills
- Improving digital literacy and STEM[8] skills amongst non-STEM professionals
- Developing creative and managerial skills
- Encouraging mobility between roles and sectors
- Encouraging and celebrating multi-disciplinary, flexible and collaborative workplaces that drive innovation.

[7] Australian Industry Group, *Ready or Not? Technology Investment and Productivity in Australian Businesses*, June 2013.

[8] STEM: Acronym referring to the academic disciplines of **science technology, engineering, and mathematics**

How can Western Australia accelerate towards fully digital government

As digital technologies become the norm for a wide range of economic and social activities, lack of access to these services and technologies, or an inability to use them, risks social or economic exclusion. In many cases, groups that are more likely to encounter other forms of social exclusion or disadvantage, such as people with a disability, the elderly, regional communities or Indigenous Australians, are also less likely to have digital skills or access to technology.

The problem of digital exclusion is persistent despite high overall penetration rates for technology adoption in Australia, with the Australian Centre for Broadband Innovation (ACBI) recently reporting that 1 in 5 adult Australians still do not use the Internet.[9] Rather than exacerbate existing disadvantage, digital services offer opportunities to overcome social and economic barriers and increase the ability of marginalised groups to increase their social and economic participation.

Ensuring digital inclusion requires innovative approaches and partnerships with industry, community and the not for profit (NFP) sector. This includes working with these stakeholders to identify those groups that do not have the technology or skills to use social media or digital services and would benefit from engaging with Government through these channels. Only through this sort of engagement can the Government identify barriers to digital engagement and systematically remove them. These barriers and solutions may vary by service, location, demographic and users' needs.

Accessibility can also be a major barrier to digital engagement and must be considered at every step of the design process of government services. Benefits of accessible technology include facilitating communication and collaboration between sighted and non-sighted people by providing just-in-time delivery of information without the need for special printing, and by enabling people who are blind or have other vision impairments to enlarge or customise fonts. Governments that make accessibility a priority can publish information and deliver online services on sites that are accessible to people with vision impairments. Such an approach increases online traffic, satisfaction, and loyalty, and encourages user-friendly services that are accessible to all users, including those with disabilities or age-related impairments.

Microsoft recommends that in reassessing the ICT delivery and procurement strategy, WA government commits to:

- Work with community, industry and the NFP sector to identify those groups that do not have the technology or skills to use digital services or social media and would benefit from engaging with Government through these channels. Identify the barriers to digital engagement for different groups and systematically remove them.
- Promote an interoperable, technology neutral approach to procurement and service delivery.
- Incentivise accessible service design through procurement practices and the release of open data to encourage innovation.

[9] Australian Centre for Broadband Innovation, *Broadband impact and challenges: realising the benefits of the digital economy,* December 2013.