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Department of Premier and Cabinet
By email: dgov-administrator@dpc.wa.gov.au

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Dear Mr Petersen

WA Draft Digital Strategy 2021-2024 – AIIA Submission

Thank you for the opportunity to comment on the Western Australian government's Draft Digital Strategy for 2021-2024.

About the AIIA

The Australian Information Industry Association (AIIA) is Australia's peak representative body and advocacy group for those in the digital ecosystem. We are a not-for-profit organisation to benefit members, and AIIA membership fees are tax deductible. Since 1978, the AIIA has pursued activities to stimulate and grow the digital ecosystem, to create a favourable business environment for our members and to contribute to Australia's economic prosperity.

We do this by delivering outstanding member value by:

- providing a strong voice of influence
- building a sense of community through events and education
- enabling a network for collaboration and inspiration; and
- developing compelling content and relevant and interesting information.

We represent a larger number of technology organisations in Australia, including:

- Global corporations such as Apple, Adobe, Avanade, Deloitte, Gartner, Google, IBM, Infosys, Intel, Lenovo, Microsoft and Oracle
- Multinational companies including Optus and Telstra
- National organisations including Data#3, ASG, Empired, and Technology One; and
- a large number of small and medium businesses, start-ups, universities and digital incubators.

Some 92% of AIIA members are small and medium Australian businesses and 8% of AIIA members are large Australian companies and multinational corporations.

Introduction

We support Western Australia's consideration of digital inclusion, a worthy ambition, as a parallel process.

In our response we have focused on areas that while they may have been addressed by the WA Government seem to be excluded or only cursorily mentioned within the digital strategy.

The AIIA has developed feedback under six subheadings for the Western Australian government to consider in its tweaking of the Strategy in the months to come.

We have read this Strategy as not as a whole-of-government digital strategy but as a citizen-service delivery model. If it were the former, it would address, among other foci:

- Government procurement
- Regionalisation
- Digital Infrastructure
- Upskilling
- Uplifting Digital Capability

The AIIA believes the delivery of ICT and accessible Internet services in a region as large and sparsely populated as WA can be greatly assisted with regulatory reforms that help facilitate the roll out of infrastructure while continuing to adhere to best practice principles. It has been put to the AIIA by a member that current WA Government ICT procurement models are also not conducive to industry partnerships and therefore restrict innovation and limit efficiency. In its 2020 report “Accelerating Digital Inclusion in the New Normal”, the World Economic Forum highlights the importance of government partnering with the private sector to optimise digital inclusion outcomes. Some of the areas discussed include regulatory reform, subsidies and brokered agreements, policy reform, the critical role of private and public sector dialogue and asset utilisation.

Such collaboration helps:

- Prevent funding issues and potential cost overruns.
- Deliver projects in a timely fashion.
- Maximise innovation and outcomes and reduce the risk of creating redundant assets.
- Provide effective legislation for all stakeholders for the benefit of the community

Digital capability and upskilling

The Western Australian (WA) Government should aim for a ‘digital on the inside’ and digital-by-design character of government systems. By doing so it will ensure that government offerings form a unified architecture that works end-to-end to make the best possible use of digital technology.

Digital capability is about embracing skillsets to equip agencies for 21st century service models. By upskilling agencies and public servants in the areas of cloud computing management, cyber security, service design and research, the WA government can meaningfully invest in the future of work and integrate these new skills into citizen service offerings.

The Future of Workforce includes 5 key technical skill sets, namely Artificial Intelligence & Data, Cloud Computing, Cyber Security, Automation and Internet of Things.¹

In light of the Federal Government’s recent budget announcement of significant funding for micro-credentialling, the wholesale upskilling of the public service is an important element of digital strategy

¹ AIIA, *Building Australia’s Digital Future in a Post-COVID-19 World*, p.22
https://www.aiia.com.au/data/assets/pdf_file/0017/103562/Building-Australias-Digital-Future-in-a-Post-COVID-World-AIIA-Whitepaper-2020.pdf

for government. The AIIA is partnering with the Queensland Government and Queensland University of Technology on digital short courses and would welcome the opportunity to work on a similar project, enabling bespoke digital skills courses to be created for the WA public service, together with the WA government.

Infrastructure and platforms

As foreshadowed in the Strategy's intent to migrate more citizen-focused services onto WA.gov.au ("WA.gov.au – You'll be able to access simple government information and services in one place", p.6 of the Strategy), the AIIA supports the aim of a one-stop, multi-access portal for Government services, empowered by Tell-us-Once principles and the digitisation of the majority of citizen interaction and government documentation, including the digitisation of drivers' licenses and e-Invoicing, by 2025.

In order to realise the Strategy, it must be acknowledged that not all citizens in WA have access to high quality telecommunications infrastructure. We understand this has been addressed in the parallel digital inclusion blueprint.

While the extensive network assets and widespread existing coverage support a "no dig" approach to achieving the goals of the government's digital strategy, there are communities, farmers and remote tourism operators, for example, where there may be no existing or inadequate mobile coverage for their needs. A member of the AIIA has submitted that many of these coverage issues can be addressed through a variety of existing technologies. These include:

- Greater use of mobility solutions which now offer improved value for money, significant data increases, "peace of mind" plans, and comparable speeds to fixed-line broadband.
- Telstra Mobile Smart Antennas, T-Go approved repeaters (stationary and mobile), Satellite Small Cells and co-investment infrastructure programs.
- Considering collaborative approaches which include Federal, State and private sector resourcing to resolve problems and foster innovation and further accelerate the rollout of 5G

The latter recommendation is especially relevant in light of the \$4.5bn NBN upgrade in the Federal Budget, with \$3.5bn invested in a range of upgrades to the existing network architecture to make ultra-fast speeds accessible to households and businesses, together with \$300m of funding for NBN Co to partner with governments and local councils to improve broadband in regional areas and \$700m to improve business access to high-speed fibre broadband.

Cybersecurity and privacy

The Government has recently allocated an additional \$1.8 million to establish a Cyber Security Operations Centre. The AIIA submits that the WA Government consider further expansion and collaboration to build out this capability. The Digital Strategy 21-24 should align with the recently-released Federal security framework - 2020 Cyber Security Strategy – in this regard.

The AIIA understands the WA Government is also seeking to further diversify the State's economy and drive growth and regional employment opportunities. We understand that the City of Bunbury, for example, is seeking to establish its credentials further as the State's second city and is looking to ICT to create employment, provide services (including tele-health and education services) and generate opportunity – as a "Digital City". Existing players and members of the AIIA are well-placed to support cyber security centre investment in Bunbury. The AIIA would welcome the opportunity to engage further regarding how this could be meaningfully achieved.

It is essential that as the WA Government develops processes, platforms and modes of engagement with citizens that privacy be by-design, as the federal government ensured with the recent

development of the CovidSAFE app. If privacy can be baked in at the outset of such development processes, citizens will go with government on the transformation journey, assured that privacy and security are part and parcel of the design process and not retrospectively applied when issues arise.

Cloud capability

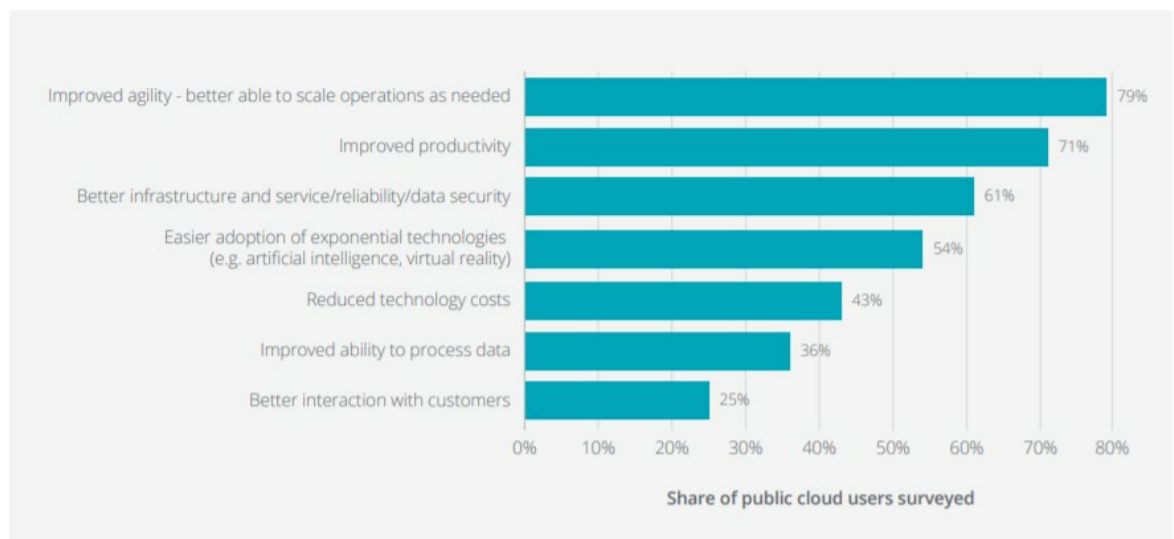
Cloud is a fundamental pillar of citizen service delivery capability.

While the Digital Strategy document briefly references cloud benefits, we see a disconnect between ambition and a clear pathway to achievement.

Cloud computing in the 21st century is scalable, extensible, and secure. The Federal Government's cloud.gov.au is leading the way in allowing industry and government actors to install and leverage Cloud Foundry Command Line Interface (**CLI**) tools, taking part in an open-source ecosystem of software development. Leveraging cloud technology allows a shift in effort from maintenance – 'keeping the lights on' as the Digital Transformation Agency (**DTA**) terms it – to improvements in service delivery.

The WA government, informed by the DTA's Secure Cloud Strategy, can leverage cloud to move away from large upfront investments in infrastructure and towards nimble, agile approaches allowing digital transformation at scale. The WA Cloud Policy and Supplementary Guide and Toolkit, together with the Cloud Community of Practice Yammer channel, the GovNext-ICT Program, and the recent Memorandum of Understanding with Microsoft,² need to be fully leveraged as part of the Digital Strategy 2021-2024 to ensure citizen engagement can be transformed to the maximum potential by enabling state agencies' access to cloud across the board.

Chart 2.2 Main benefits of cloud experienced by agencies surveyed



Source: Deloitte Access Economics, 2019

Source: <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-value-public-cloud-services-australia-220319.pdf>

² <https://www.itnews.com.au/news/wa-strikes-govt-wide-cloud-deal-with-microsoft-553355>

Open data principles

The WA Government should continue to practice openness to developers by investing in open-source APIs to ramp up data sharing capabilities. At a federal level the government may look to the Commonwealth Government's catalogue of APIs, enabling access to Australian Designs, IP Rights, Trade Marks, ABN Lookup, Debt Agreements, Insolvency Index and ANZSIC codes APIs, among others.³ The data.wa.gov.au portal, by which various APIs and 1920 datasets are accessible, is a laudable example of open data principles at work.

The AIIA's White Paper, *Building Australia's Digital Future in a Post-COVID-19 World*, described the vital nexus between digital infrastructure and data access thus:

*Digital infrastructure and data go hand in hand; once the digital infrastructure is in place, organisations and governments need to leverage and utilise data in a permission based, trusted, transparent and secure manner. With only 20% of the world's data searchable and 80% sitting within organisations and behind firewalls, the potential is incredible. Unleashing the power of new technology will enable organisations to develop deeper insights, make exponentially better decisions and engage customers as never before.*⁴

As discussed in the White Paper, citizens are open to data being shared between agencies in a Tell-us-Once style process, if two conditions are met: the first being that the customer experience becomes more personalised as a result, and the second being that governments are responsible and trustworthy in the manner in which they share that data.⁵ The Western Australian Government should put a focus on responsive personalisation and data responsibility in its pursuit of the Tell-us-Once model. In this vein, the AIIA has recommended to the Federal Government that a data sharing code of conduct be developed applying to all Australian governments:

*Recommendation ... [that] Government to lead, in collaboration with industry, the development of a data sharing code of conduct (along the lines of other industry codes of conduct), that sits within the current privacy legislation and provides guidelines as to how government and industry handle, manage, protect and use customer and citizen data.*⁶

³ <https://api.gov.au/apis>.

⁴ AIIA, *Building Australia's Digital Future in a Post-COVID-19 World*, p.19
https://www.aiia.com.au/_data/assets/pdf_file/0017/103562/Building-Australias-Digital-Future-in-a-Post-COVID-World-AIIA-Whitepaper-2020.pdf

⁵ AIIA, *Building Australia's Digital Future in a Post-COVID-19 World*, p.30
https://www.aiia.com.au/_data/assets/pdf_file/0017/103562/Building-Australias-Digital-Future-in-a-Post-COVID-World-AIIA-Whitepaper-2020.pdf

⁶ Ibid, p.31



Source: A pictorial representation of the Tell-us-Once principle by TBS Canada:
<https://www.youtube.com/watch?v=eM186AW-fc4&app=desktop>

Digital Identity and standards

The Federal Government in its recent Budget has poured \$256.6m into a whole-of-government Digital Identity scheme equivalent to a 100-point ID check. In line with this initiative, the WA government should devote attention to articulated standards around digital identity and ensuring they align with federal government movement in this space.

Regionalisation and ecosystems

The AIIA believes that a digital backbone and post-COVID changes will lead to a regionalisation of business and the workforce in those states that successfully support this change. The AIIA agrees with the digital inclusion index that national momentum and coordination is required and that tackling the geographic and social challenges will require state-based, regional and local initiatives with strong engagement strategies. The amount of working-from-home has grown exponentially and the tyranny of distance, requiring domestic and international travel, has been effectively challenged by the adoption of technology. Additionally, most organisations are looking to reduce their bricks-and-mortar footprint in favour of virtual workplaces. Reduction in travel time reduces greenhouse gas emissions, wear and tear on roads and infrastructure, which are significant outcomes given that delays to future investment in and maintenance of traditional infrastructure are likely. Reduction in overheads allows regional workforces to be adopted at an increased level. The corresponding economic lift in regional areas will also improve the socioeconomic outcomes for those regional areas. Now is the time to invest wisely in regional areas, capitalising on the Post-COVID-19 world and leveraging the technological change that has rapidly adopted in the COVID-19 environment to ensure Western Australia is not left behind.

Boosting investment in the regions away from the South West Corner, focusing on the Gascoyne region, the Kimberley region and the Goldfields-Esperance area,⁷ would enable more people to work

⁷ See Gascoyne Regional Investment Blueprint (<https://www.gdc.wa.gov.au/wp-content/uploads/2015/07/Gascoyne-Blueprint-FINAL.pdf>); Goldfields-Esperance Regional Development site

remotely and improve access to goods and services, leveraging strong regional players with aligned incentives. Post COVID-19, there is already a shift in people's preferences and migration from Sydney and Melbourne to Western Australia. Co-ordinating the movement and/or creation of industry, at scale, will require incentives and planning to capture businesses and eventually ICT ecosystems into the state. The economic benefits of creating jobs in an economic ecosystem is widely studied and documented. Every dollar earned in an ecosystem has a 3-5 times multiplier effect in the community. Importantly, the seeding works best in creating a holistic, integrated ecosystem, not the planting of individual entrepreneurial seeds, where many may sprout with the support of sustenance and wither soon after. Philip E. Auerswald and Lokesh M. Dani, in the New Oxford Handbook of Economic Geography, have written:

“An ecosystem is defined as a dynamically stable network of interconnected firms and institutions within a bounded geographical space. It is proposed that representing regional economic networks as ‘ecosystems’ provides analytical structure and depth to theories of the sources of regional advantage, the role of entrepreneurs in regional development, and the determinants of resilience in regional economic systems.”

The AIIA notes that a consortium of Industry and Government in NSW is planning a Silicon Valley-style hub near Central Station, Sydney. By clustering interdependent technology firms and labour, the vision is to build a digital ecosystem whose network effects benefit the participants. Western Australia must create a similar consortium to foster collaboration between start-ups, small firms, research bodies and universities. Government-led, this consortium must proactively plan to grow and retain skilled labour, attract skilled labour and develop ICT capabilities that are all aligned to the aim of increasing the labour force and prosperity of the state. AIIA considers that a similar approach in Western Australia would lead to the desired outcomes.

Artificial Intelligence

The digital strategy document seems to be silent on Artificial Intelligence and automation, which is crucial to a consideration of the provision of citizen-facing services. A consideration of ethics, processes and standards is crucial to determining when, how and why AI is used within government services. AI Oversight whereby use-cases go to an approving committee for the green light is one example of how such standards may be implemented. The AIIA is aware of a decision-making pilot being undertaken by the WA government but believe the strategy needs to encompass a broader consideration of ethical applications of AI.

In a context in which governments are attempting to do more with less, AI-based technologies have the ability to revolutionise the ways governments work, easing human 'toil' in favour of efficient, automated processes that enable human agents to focus on what they do best. As a near-term opportunity, the WA Government should build in Robotic Process Automation (**RPA**) along its existing tool chain. Routine, repetitive tasks should be automated, freeing up human capital for complex, meaningful tasks. Layered human review may be applied using a threshold model for high-stakes decision-making about rights, access and debt recovery. The automation of tasks can significantly reduce handling time, assist in the transition to electronic forms from paper-based forms, and improve accuracy in tasks subject to high levels of human error.

Examples of processes that have been automated:

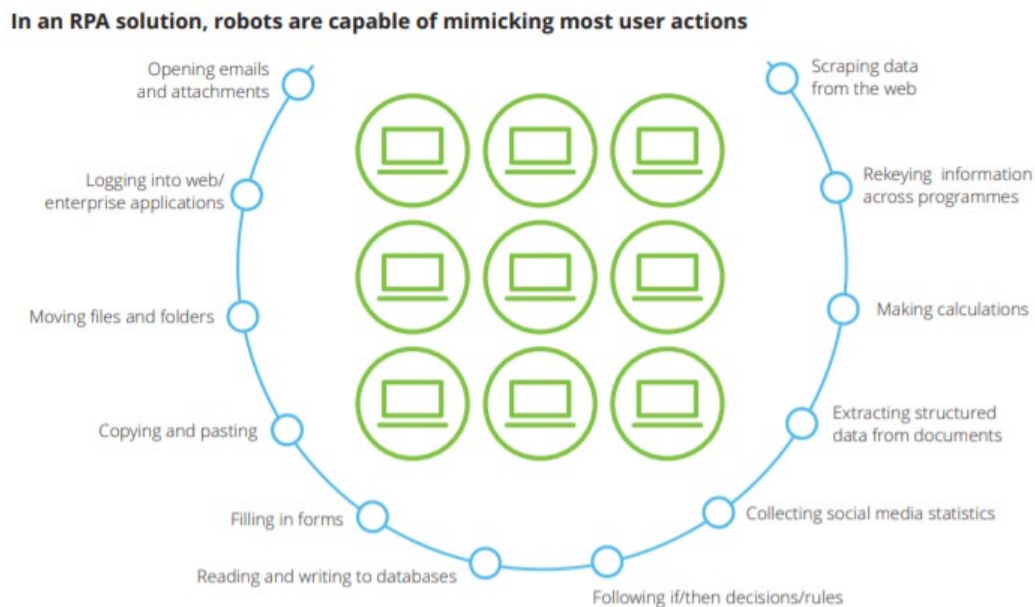
- a. landlord registration
- b. parking permit renewals

(<http://www.drd.wa.gov.au/regions/Pages/Goldfields-Esperance.aspx>); Kimberley Development Commission (<https://kdc.wa.gov.au/>)

- c. housing applications
- d. direct debit payment processing
- e. query-processing
- f. invoice-settling

A UK Deloitte report into RPA characterised it as the ‘new machinery of government’ and one of the most untapped levers by the public sector of this age.⁸ As explained on p. 5 of the report,⁹ RPA robots are capable of most user actions. When ‘bookended’ by human oversight, leveraging RPA becomes not just an efficient but also a low-risk proposition. Another ripe area for digital growth, and one in which the federal government has invested through tools such as the Australian Taxation Office’s ‘Alex’, is the chatbot.

To make citizen-service a 24/7 proposition, chatbots can engage with citizens at all hours for frequently asked or simple queries, leaving complex matters to human agents. Once RPA has been deployed within government, cognitive technologies such as machine learning, deep learning and natural language processing (**NLP**) may be investigated to analyse data sets, identify patterns, generate complex insights and make predictions. These deeper processes have the potential to improve simpler robotic solutions such as RPA and chatbots, as more complex bots have the ability to distinguish helpful answers from unhelpful ones and refine its mode of answering with each iteration of the chatbot’s activity.¹⁰



Source: <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Innovation/deloitte-uk-innovation-the-new-machinery-of-govt.pdf> p.5.

Practical implementation and funding

Notwithstanding our above comments and recommendations, we support the worthy aims of the strategy around reducing the digital divide, boosting cybersecurity, focusing on open data, ICT as a

⁸ <https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Innovation/deloitte-uk-innovation-the-new-machinery-of-govt.pdf>

⁹ Ibid, p.5.

¹⁰ https://www2.deloitte.com/content/dam/insights/us/articles/3832_AI-augmented-government/DUP_AI-augmented-government.pdf, p.13.

service and so on, however the pathway and roadmap to success outlined in the latter section of the Strategy do not give the AIIA complete confidence that these outcomes will be achieved. If governments do not create structures for success around governance and budgets with agency authority to deliver, then the same behaviours will continue to occur.

The WA Government should give consideration to the authoritative centralisation of an agency with independent budgets to drive the outcomes set out by this strategy. It should also give consideration to whether ICT business-as-usual (BAU) funding should be allocated towards whole-of-government digital initiatives, and whether ICT BAU budgets should have a minimum percentage required for innovative Proofs-of-Concepts and solutions. This is the approach the AIIA has put to the Queensland government, with a recommendation that only 50% of BAU budgets should be used to 'keep the lights on' with the remainder devoted to innovative initiatives.

The AIIA submits that budgets for each agency could be poured into an equivalent of the federal DTA with a focus on whole-of-government capability, scale and cloud capability, removing the siloed approach implied by the text on p.13:

Agencies will be responsible for their own digital transformation. Our whole of government digital transformation leader, the Office of Digital Government will continue to drive, facilitate and support digital transformation in the public sector.

The WA Government should also consider how government procurement processes can be used efficiently to drive these outcomes, as well as consider creating a whole ecosystem around government procurement. The AIIA and its members are a leader in this area of reform and would welcome involvement in such a process.

Conclusion

The AIIA is in full support of the WA Government's draft digital strategy for 2021-2024 and hopes that the above recommendations and emphases are of use to your government in developing the strategy further, ensuring that it is as current and cognizant of cutting-edge opportunities to government as possible.

The AIIA would welcome the opportunity to engage with your government further as you develop the Strategy. Should you have any questions about the content of this response, please contact policy@aiia.com.au.

Yours sincerely



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