



**ACT**  
Government

# ACT GOVERNMENT DIGITAL STRATEGY 2016–2019

## DOCUMENT AUDIENCE

This document is intended for:

- > Citizens, Businesses and Community Groups in the ACT and region to enable a broad understanding of the Government's Digital Direction and how the Public Service will interact in the Digital context.
- > ACT Government Public Servants to enable them to understand and adopt a singular cohesive approach to Digital initiatives—it is the basis for a cultural change across the Public Service.
- > Other State and Commonwealth practitioners who may find some value in the ideas and concepts presented here.

This document is a full narrative version of the Strategy. It exists to frame a cultural context and technical world view and is intended for those who wish to have an understanding of the thinking and positioning of the Strategy in the ACT context.

## RELATED DOCUMENTS

A variety of other documents will flow from this initial Strategy including:

- > The Concise ACT Government Digital Strategy
- > A “one page” Strategy reference

To support the implementation of the Strategy material will be made available including:

- > Presentation material in support of Strategy Workshops
- > Strategy Implementation Roadmap
- > Portfolio plan of reference or ‘bellwether’ projects that demonstrate progress in the Strategy implementation

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# INTRODUCTION

**The ACT community lives in an increasingly digital world.**

**It is a world defined by possibility and aspiration; disruption and renewal; pace and impatience.**

**Technology has become an integral part of our lives and our culture. We are intimately bound to it in a way that transcends the historical relationships between man and machine.**

**Technology helps us think, work, learn and socialise. And it works in our lives in a way that is becoming as natural and fundamental**

**as breathing. The citizens and businesses of the ACT have their expectations set by their experiences in business and social uses of technology such as internet banking, Facebook and Snapchat. This is the context in which we work.**

**The ACT Public Service must harness the possibilities in a way that makes sense for our customers—the citizens, community groups, businesses and stakeholders of the Australian Capital Territory. We have choices to make.**

**This strategy is the articulation of those choices.**



## Vision

To be a fearlessly digital city/state that has embraced revolutionary and innovative technology to

**grow and diversify our economy,  
connect our people,  
accelerate our learning, and  
nurture our culture and community.**

## Purpose

The purpose of the Digital Strategy is to clearly express the ACT Government's intentions and create the impetus and architecture for fully digitised services and technology platform renovation. Collectively, as the ACT Government and Public Service, we must renew our vision and approach to technology. We must create an enthusiasm for digital service delivery that makes our citizens more demanding, our staff fully engaged with digital service delivery, and feed an economy that thrives on the energy of innovation and acceleration.

This Strategy will be a cornerstone of conversations. It will be a digital waypoint. It will be a point of cohesion—and it will disrupt complacent thoughts.

It cannot answer all the questions—and in fact it will add questions. But it will bring cohesion—through a common purpose, language and perspective.

Technology is fast-paced and compelling. This strategy provides a perspective at a point in time that will allow the ACT Government to engage with citizens and staff, business and academia, to stand behind a common vision to capitalise on the opportunities of the digital age.

## Scope

This Strategy sets direction for the Digital agenda. It is not a detailed action plan—although many actions will be informed and guided by it. The scope is deliberately at a whole of government level to lay foundations and set direction rather than endeavouring to be a digital master plan. Those individual plans will be enacted across the individual directorates, to meet the objectives set by their respective Ministers.

This Strategy is a natural progression beyond the Digital Canberra Action Plan. As a touchstone for the broader directorate strategies, it will guide other initiatives including the Digital Canberra Action Plan's Smart City implementation. With Digital as a key plank in all of these, there will inevitably be overlaps. But each should be seen as reinforcing the common goals. This strategy will link the various activities with the common thread that is Digital.

The Strategy covers a period of three years. This is sufficient time to gain organisational momentum—but not so long as to risk losing relevance in this fast changing environment.

## Context

The Australian Capital Territory is already well regarded as a centre for Digital thinking and innovation. It has very active communities in start-ups, businesses, research institutions and tertiary circles. The Territory Government contributes at all levels and has driven a strong Digital agenda with initiatives from the Digital Canberra Challenge to the Smart Parking trials. In short, the government is committed to growing the digital economy and creating benefits for citizens.

The ACT is a single level jurisdiction. This has provided a platform for legislative innovation. For example, we were the first Capital in the world to have ride-sharing legislation in place.

Within the Public Service itself, digital services have been rapidly emerging through individual initiatives. The Education Directorate has rolled out the Digital Backpack for students; the Building Consent process is online and paperless. And Access Canberra, through a service framework

established in 2014, has brought a new face to government services through the integration of customer-centred face-to-face service centres with a rapidly increasing menu of fully digital services.

This Strategy is launched from the strength of all these initiatives. It will build foundations on which to build stronger and further. It will bring cohesion and it will help us build digital culture and capability in unison.

The ACT is well positioned to leverage its strengths in continuing its digital journey. As a small and relatively young city/state, we have the potential to be agile in our response to emerging needs and innovative opportunities. Collaboration across the ecosystem can deliver big impact.

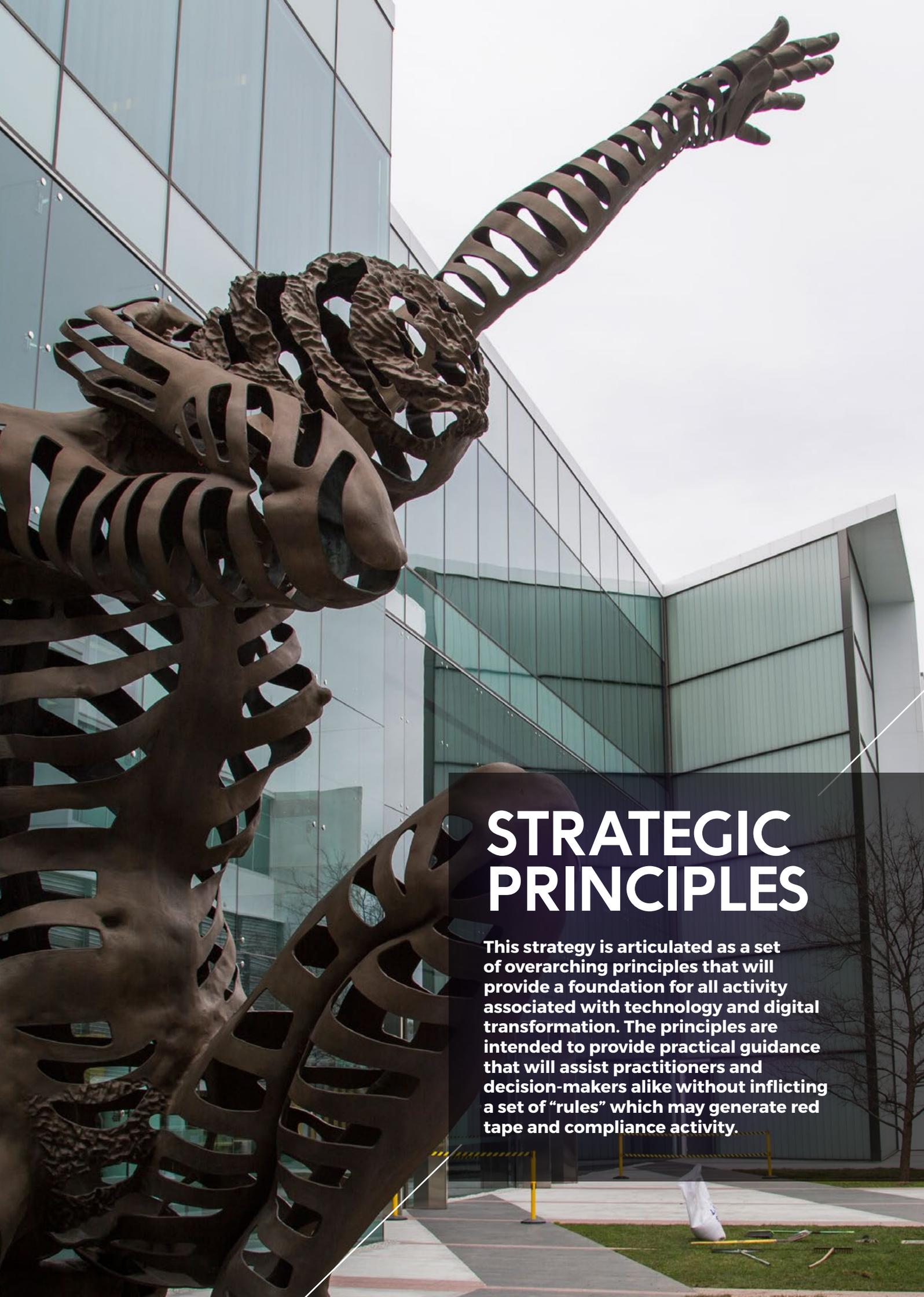
Of course, such benefits are not without their constraints. With a smaller regional population the opportunity to benefit from economies-of-scale is reduced and so our Public Service must be resourceful, efficient and innovative to ensure we can deliver a full set of services for our citizens.

### What is Digital?

“Digital” is a term that has captured people’s imagination on a global scale. It simply resonates with an intuitive understanding that something has changed. This popularisation of digital in our language has also created a diversity of meaning. For the purpose of this document, the following definition has been adopted.

**Digital describes a new way of doing things. Deliberately challenging and disruptive of conventional practice, it is the use of technology to effect radical change. It is about innovation, creating value, ‘in real time’, removing unnecessary costs and activities. It places high value on the creation and use of data. But more than anything—and more than ever before, it places the customer at the centre of its vision.**

Edison said “Genius is one percent inspiration, ninety-nine percent perspiration”. The digital innovations that often characterise our perception of ‘Digital’ are often inspiring in their simplicity—that is the one percent. This strategy necessarily includes the ninety-nine percent “perspiration” that builds our systems of record, business processes and information wealth. It is these supporting roles that give Digital stamina and sustainability.



# STRATEGIC PRINCIPLES

**This strategy is articulated as a set of overarching principles that will provide a foundation for all activity associated with technology and digital transformation. The principles are intended to provide practical guidance that will assist practitioners and decision-makers alike without inflicting a set of “rules” which may generate red tape and compliance activity.**

## Three Perspectives—Three Dimensions

This document presents our strategic principles in a three dimensional perspective.

- > **Growing the Digital Economy** focuses on how the ACT Government will support the growth of local business in the digital economy. The government plays a role as both a customer and sponsor of local businesses, institutions and non-profit organisations. Government directorates, with their resources and reach, are significant players in the local economy.
- > **Delivering Digital Services** to citizens, community groups and businesses. The nature and content of the services themselves are of course embedded in the individual directorates' business strategy. But the principles in this document speak to the approach and delivery of those services.
- > **Building Digital Foundations** recognises the core capabilities on which Digital services are built. These are the principles for the engine room of our technology delivery capability. Often unseen, but critically important to support the customer delivery relationship.

The sections below describe our Digital Principles through the perspective of these dimensions.





# GROWING THE DIGITAL ECONOMY

## Vision for the Digital Economy

The vision for the ACT Government is to have a regional economy that is growing in both size and diversity. Critical to this is the expansion of the digital economy and a vibrant relationship with the local business and academic community.

Canberrans are Australia's best educated, most connected and happiest citizens<sup>1</sup>. And Canberrans are also more likely to give of their time and money, engage in the political process, and participate in local sports than residents of any of Australia's other major cities. It is no accident that Canberra has an established innovative and entrepreneurial business community and a public service that is open to changing the way it engages with citizens.

In the Digital economy, the optimal role for the government to play with the business community is not always obvious. From the simple provision of Open Data through to stronger interventions that only pay back at a macroeconomic level—the choices must be carefully judged to find balance. That balance is best achieved where the government's Digital Service agenda is accelerated by capturing the value of local business and in so doing, fuelling economic growth.

In the business community, this provides everyone with opportunities—but it does not make everyone a winner. Our procurement principles will always insist we are fair to all participants—and will also insist that we obtain good public value for money.

<sup>1</sup> Property Council of Australia survey 2014 ([www.propertycouncil.com.au/Web/Content/Media\\_Release/ACT/2014/Canberra\\_named\\_the\\_nation\\_s\\_most\\_liveable\\_city.aspx](http://www.propertycouncil.com.au/Web/Content/Media_Release/ACT/2014/Canberra_named_the_nation_s_most_liveable_city.aspx))  
OECD Regional wellbeing report ([www.oecdregionalwellbeing.org/region.html#AUS8](http://www.oecdregionalwellbeing.org/region.html#AUS8))

## Principle: Collaboration multiplies Outcomes

We will seek to collaborate with organisations that share a common purpose. We will ground these relationships on a common understanding of each other's contribution and expectations.

**“Alone we can do so little; together we can do so much.”**

**—Helen Keller**

As a city, Canberra already has many initiatives, organisations and forums that promote and sustain innovation and collaboration. We are also a community that values diversity in culture, thinking and capability.

The nexus of diversity, innovation, and collaboration brings a unique power. It is the engine of accelerated evolution.

Our collaboration partners are many. We actively support industry collaboration through programs such as CollabIT and the CBR Innovation Network (CBRIN) through to direct relationships with research and education institutions; from Small/Medium Enterprises (SMEs) to Community Groups. The ACT Government pursues practical relationships through initiatives such as the Small Business Innovation Program (SBIP) and we have a long standing

development partnership with Data61 (formerly NICTA). The ACT also maintains collaborative relationships with the Commonwealth and other States/Territories.

To be successful, all parties must engage with clear expectations and commitments. In particular:

- > A clear articulation of the common purpose of the collaboration expressed as a vision statement in the simplest terms possible to galvanise mutual support.
- > Recognition that addressing the articulated purpose will result in desirable outcomes for each of the collaborating parties.
- > The expectations we have on others will be clearly stated and agreed with them.
- > The contributions each party is willing to make will be clearly articulated—ensuring any limitations are known and acknowledged by others.
- > Throughout collaboration, things will change. This is good and natural. To support change we will all reaffirm our purpose, expectations and contributions to ensure we can always depend on each other and not lose sight of our goals.
- > As a tangible commitment to collaboration, our default position will be to share our code as Open Source<sup>2</sup> and our technology intellectual property under the Creative Commons<sup>3</sup> licensing arrangements.

## Principle: Supporting our Digital Explorers

We will encourage ACT individuals and businesses to reach their potential in the Digital Marketplace by providing support and opportunities that accelerate their growth and influence. We will recognise invention, encourage innovation and promote digital delivery.

**“Man cannot discover new oceans unless he has the courage to lose sight of the shore.”**

**—André Gide**

Today’s explorers may not endure the physical extremes our forefathers suffered in their quests but their attitude and approach to life is unchanged. Our digital explorers still seek out new ventures and set off from safe shores with determination—not knowing whether they will discover granite or gold.

Governments are often not best placed to be at the forefront of expeditionary travel but if we are to benefit from the discoveries we must support and commission those who are.

In practical terms we will:

- > provide direct support for the technology and environmental needs of innovators through established innovation organisations, relationships and initiatives;
- > provide access to enabling data and technology including open data and appropriate access to the government Internet of Things (IoT)<sup>4</sup> (noting the need to ensure privacy and security);
- > undertake procurement activity such as the Small Business Innovation Program and engage with the Local Industry Advocate to encourage participation;
- > make connections between individuals/start-ups and the established commercial community to open opportunities for sales, development and a place on the global stage;
- > encourage ‘prototyping’ activity within government entities—on a scale and growth plan that manages risk by starting small and building on success; and
- > actively and deliberately source from the local market.

<sup>2</sup> [www.opensource.org](http://www.opensource.org)

<sup>3</sup> [www.creativecommons.org.au](http://www.creativecommons.org.au)

<sup>4</sup> The Internet of Things (IoT) is the network of physical objects that contain embedded technology to communicate and sense or interact with their internal states or the external environment.  
Source [www.gartner.com/it-glossary/internet-of-things/](http://www.gartner.com/it-glossary/internet-of-things/)

It is important to recognise the differences between the positions of a start-up offering a new product idea and an operational unit with government as a potential purchaser.

The government will often be seeking:

- > Proven product & mature services
- > Complete product and service support model—24/7
- > Service risk minimisation by transferring risk to the provider
- > Performance framework to ensure outcomes and quality
- > Detailed contractual compliance
- > Capital investment by the provider

As a government these requirements are an effective way of ensuring public value for money. However, it does not position the start-up or entrepreneur well and is often cited as a challenge for small companies wishing to do business with government.

Our strategy is therefore to encourage relationships between our digital explorers and the more established businesses or innovation organisations (eg CBRIN and

CollabIT) when seeking to promote local innovations into the ACT Government. Collaboration between these communities offers the best solution to explore the gap between the offerings of a start-up and the needs of a government entity.

Similarly, timing is everything. For a start-up, speed is everything. Fast to prototype, fast to market—even fast to fail.

By comparison, selling to government is a long game. Governments plan major lifecycle initiatives years ahead of time. This is not simply perverse behaviour. The machinery of government is broad and planning is essential to manage the complex interdependencies and priorities of government spend. And of course ensure policy, procurement and value-for-money are debated in the public arena.

The government will therefore gravitate towards product and service offerings whose timing is aligned to the cycle of government renewal and innovation.

When the cycles of an innovator and government do not align—this should be recognised. We can then provide support for those organisations into new and better aligned markets.

## The Future for our Business People

For me as a Business in the ACT—what does the digital future look like?

- > My business transactions with government are all digital. In fact the whole experience is just like my interactions as a citizen. Simple things are really simple.
- > Opening my new business was simpler and far less time consuming than I expected. Even though it was in a highly regulated industry with applications, inspections and multiple forms I was able to navigate through the process online. I was never asked the same question twice and at all stages I knew exactly what I needed to do. Starting the business required some site inspections. I was able to pick the best timeslot to suit me and all the necessary people turned up on the day and we covered it all in one session. It was more like a consultancy to make my business work better than a compliance inspection!
- > Canberra was the perfect place to get my business off the ground. The support networks for innovation are well established and I have access to a community of knowledge you just don't find anywhere else in the country.

- > It is a very digital community and so I built my business that way. My customers expect that in the ACT because that is how they are used to working. It is good for my business too as it frees up my time to apply the personal touch where it really makes a difference.
- > I also find government data to be really helpful in understanding my customers—I can be sure I have the right offerings for the right customer segments.
- > My business also produces community information and I provide that back to government to publish. This is good for my business as well as giving back to the community and other business owners.
- > Multi-national companies have a strong presence in Canberra. This is partly because it is the home of Commonwealth Government—but increasingly they get value from the innovator community—ideas and collaborations that they can take back into their own organisations. They understand that Canberrans are the best people to get things done in Canberra.

## Principle: Source commodities globally—add value locally

We will source ICT commodities in the global market upon which local providers can add intellectual value and agile capability to deliver differentiated offerings to the government and other markets.

**“It is difficult to imagine a more perfect commodity than a byte of data—endlessly and perfectly reproducible at virtually no cost”**

—Nicholas Carr

The commoditisation of IT has been the topic of conversation for a decade. At the turn of the century, Moore’s Law<sup>5</sup> saw the price/performance of technology more than halve and the differentiation between unique products continuously diminish. This trend accelerated when consumers enthusiastically adopted standards around the now ubiquitous Personal Computer architecture—a cycle repeated in more recent times with smartphone technologies.

The other driver to commoditisation has been the internet. Services are no longer tied to a geographical location—they can be delivered from anywhere in the world. In fact their computing location can change dynamically as demand ebbs and flows.

This is a well-trodden path. Since the industrial revolution new technology has been introduced as high value bespoke products available only to a few. They then quickly evolve to low cost mass-produced versions that are available to all. Henry Ford’s Model T automobile epitomised this transition a century ago. Today, Cloud services are the digital equivalent. The cost of raw units of computing and storage are at an all-time low using global scale and dynamic load shifting around time zones.

As with all commoditisation, something of the artisan’s craft is lost. And at times, when value is not measured in cost alone, the investment in a crafted solution remains the best value.

The ACT Government staunchly supports local industry. With public money at stake, the approach is to create financial headroom by seeking the best value for money through buying cloud commodities from the global and local market.

This allows a greater opportunity for us to focus our resources on the technology artisans—the non-commodity market in the ACT. This may be for specialised Infrastructure as a Service where the requirements cannot be met by global commodities. More often the value-add will be in the software and services which can be created with a minimal investment in hardware and infrastructure. Ideas and customer service are the core of the proposition—not servers and storage.

Therefore whilst we will rapidly move to adopt global commodity computing capabilities through public cloud offerings, we will focus our attention and resources on adding value to these commodity platforms through our own capability and in partnership with local industry.

The local industry contribution could include:

- > specialist Software as a Service (SaaS) applications;
- > service and capability brokerage;
- > bespoke innovations and software development;
- > locally produced commercial off-the-shelf (COTS) software;<sup>6</sup>
- > network and engineering services; and
- > technology support services.

<sup>5</sup> Moore’s law is the observation that the number of transistors in an integrated circuit (and therefore the capability/capacity of IT systems) doubles every two years.

<sup>6</sup> COTS Software – “Commercial Off The Shelf Software”

## Principle: Digital is for everyone

We will promote digital inclusion for all citizens. We will improve the social outcomes for Canberrans and the regional community by promoting the use of open data and access to services for those at every level of digital maturity.

**“Every person is defined by the communities she belongs to.”**

**—Orson Scott Card**

The ACT Government provides a broad range of services. But government services alone do not make a digital city—or a socially engaged one.

We will use our influence on all organisations to further the digital agenda by encouraging and enabling them to provide their services and connect our community in a digital way. This is as much about effecting cultural change as it is about technology adoption. We can lead by example and encourage high public expectations.

We want our citizens to be “Digitally Demanding”!

We will open up our digital resources for others to use. From Open Data to the Internet of Things, we have the ability to influence and support others. We have experience in service delivery and a growing knowledge in all things digital and we will share our experience and learning with others so they may build on our achievements and learn from our adversity.

We will embrace digital collaboration that uses technology to accelerate the social agenda of the community such as the ACT Community Directory<sup>7</sup>. It is social media, search and service. It involves contributors from across the region, Volunteering and Contact Canberra and data from many—including us, the government. Our contribution is small, but our data can be multiplied to positively impact innovators and visionaries, carers and the cared for, businesses, community groups and customers.



<sup>7</sup> <https://vc-act.mycommunitydirectory.com.au/>



# DELIVERING DIGITAL SERVICES

## Vision for delivering Digital Services

Our vision for the ACT Government is to provide a full range of Digital services that facilitate the growth of our economy and nurture our culture and community. We seek to provide services that are enthusiastically adopted as the preferred engagement channel for our customers. For those who are unable or unwilling to engage using digital channels, we will provide cost-effective alternatives that provide an engaging customer experience.

But how do we make this more tangible? What do we mean by Digital service? What are the critical attributes of digital service? They are as follows:

The customer is at the centre of the Digital service we provide. We perform this service for them—not to them.

To achieve this outcome we will bring together appropriate information from across all our services to provide a comprehensive understanding of each customer's needs.

- > A truly Digital service provides straight-through processing. The result is immediate and does not require human intervention to be completed. Where service delivery requires a number of steps, the customer is always informed of the status of the service fulfilment.
- > The service is cost-effective for the government. Simply put—the overall digital transaction cost should be less than that of the process it replaces.
- > Public Servant positions move up the value chain. Where positions are withdrawn as a result of digitisation, many of these are replaced by positions that add greater value for the public in uniquely human ways such as health, education and social

services. In some cases it may enable more time and focus on those who are simply unable to engage in a digital way.

- > Speed is of the essence. New services are made available quickly and simply—then improved over time.
- > We have a Digital delivery culture:
  - we are agile and human-centred in our thinking;
  - we understand and manage risk;
  - we value our customers;
  - we value their right to security and privacy;
  - we acknowledge we do not always deliver to the standard we aspire—but we build stronger capability from our experiences—both good and bad; and
  - we remain unshakably optimistic about our future as a leading Digital community.

We must navigate a balanced approach to our Digital transformation. It is not enough to make a few quick digital statements—the “sugar fix” transactions that are simple and flashy. We must balance our diet with both quick solutions and more sustaining foundational initiatives that together build a true Digital capability.

## Principle: Start with the Customer Relationship

Our business solutions will firstly support customer relationships by delivering valuable outcomes; the business processes and transactions are simply a mechanism for achieving that goal.

**“People don’t care how much you know until they know how much you care”**

**—Theodore Roosevelt**

From the year 2000, online transactions became a growing alternative to traditional channels. Today digital channels are the primary—and sometimes the only channel for interacting with organisations. Transactions are re-engineered around digital and mobile creating a different interaction culture.

This change has been welcomed; is pervasive; and is largely unstoppable. But the change does come with responsibilities for us as a government.

To deliver great service, we must understand our customers—their challenges, their aspirations, their frustrations, their unreasonableness, and the questions they won’t ask because ‘they don’t want to be a burden’.

As digital replaces other channels we must ensure we provide an effective digital channel for all members of our community. We must find them where they are and not expect them to come to us physically and we must understand their situation rather than expect them to come to terms with our processes.

But isn’t it a contradiction in terms to have a digital transaction that fosters a human relationship? To make it work we will do two things.

## The Future for our Citizens

For me as a Citizen of the ACT—what does the digital future look like?

- > I can access all but the most complex government services from any device.
- > Data is shared across government—on my terms, to make a better service experience.
- > I can see all my previous interactions with the ACT Government on all my digital devices—and perhaps even more importantly anyone in government I need to deal with can also see the relevant history. I don’t have to explain it all multiple times.
- > I always get a choice when using government services, but most of the time I can just ‘click here’ and it is all done. I don’t get any old fashioned mail from government anymore—unless I ask for it.
- > Increasingly I can automate how I would like government agencies to handle my payments and renewals. I just get notified along the way.
- > If something changes—I only have to tell the ACT Government once.
- > ‘The computer says no’ is a thing of the past. The computer says ‘How can I help?’ and then does.
- > And it’s not just government...other organisations are using government’s open data to make

their systems work better and give a more personalised service.

- > Sometime I just need a face to face meeting with a professional or maybe just a phone call. When that happens I get to talk to really well informed staff who understand and help. They can see all my relevant information and are quick to sort things out for me.
- > Where I do have to physically turn up for services, I can book and track my appointments on my phone—and I get notified if there is a delay. I know exactly when I can expect to see the teacher, health care professional, consultant—or any other service professional.
- > I like the fact that they know about my preferences and that I get personalised community event notifications digitally. I can just drop them into my calendar.
- > It is not all one way either. I can have my say with government on issues of the day—as a citizen I can influence and inform decisions in ways that make my voice heard.
- > These days I spend hardly any time at all on day-to-day government processes—it’s all pretty simple and automated. It’s a reflection of an efficient public service delivering value for ratepayers.

**Firstly** we will use human-centred design in our digital development. We will put people, not process, at the centre of our interactions. This implies pulling together process, history, regulatory requirements, payments, disputes, misunderstandings and all the other core elements into a nexus of human experience. Integral to our design approach will be the use of techniques that make our services accessible to all, regardless of the devices they use or their need for accessibility options, such as the use of assistive technologies.

**Secondly**, we will understand when we are simply not going to have an effective relationship in the digital dimension. If an interaction cannot be enacted digitally, or the customer cannot engage with technology for any reason, then the alternative must be available, appropriate, and empathetic to the citizen's needs. The response may range from assisted use of a digital channel at a service centre—through to home visits for complex human situations. Digital has a place in all these scenarios—we must ensure that place is effective and appropriate.

One of the most challenging aspects of the digital customer relationship as that of identity. It is unhelpful to envy the European and Baltic nations who have an embedded culture of the 'national identity card'. As a country we have chosen the democratic freedom to have a less prescriptive government intervention. Certainly, our digital interactions with customers may run the risk of being fragmented through uncertainty of identity, but we respect the right of citizens to engage at the lowest level of identification required for any given transaction.

However, we will encourage citizens, through demonstrated trustworthiness, to undertake all their transactions through a single validated digital identity. And we will make this as simple and easy to use as we possibly can.

## Principle: Design for Digital Business

It's very simple. We will design all new and renovated processes to be digital.

**“The best way to predict your future is to create it”**

**—Abraham Lincoln**

Digital is different. The difference from simply being 'online' is nuanced—but it is different and getting inside those differences at a cultural level will drive our success.

To be effective and digital our service delivery organisations will:

- > redesign processes—not simply put existing processes online;
- > apply human-centred design and nudge theory;<sup>8</sup>
- > ask questions of our customers just once;
- > eliminate unnecessary 'red tape';
- > power interactions and process with data we already have and can reuse;
- > explore the Internet of Things and the broader digital world to power our knowledge, transactions and interactions;
- > respect identity and privacy;
- > anticipate our customers' needs; and
- > reflect a culture of public service.

We will design our digital interactions to give our customers the opportunity for the lightest possible touch. We will nudge them to comply with a regulatory framework rather than threaten the consequences of non-compliance.

<sup>8</sup> [www.collinsdictionary.com/submission/12839/nudge%20theory](http://www.collinsdictionary.com/submission/12839/nudge%20theory)

## Principle: Assemble Cloud services, Build only when unique

As a preference, we will buy and integrate Cloud services and only undertake bespoke builds when a unique core capability must be satisfied.

**“If I have seen further it is by standing on the shoulders of giants.”**

**—Sir Isaac Newton**

Building on the themes of collaboration and IT commoditisation we see a new paradigm on how we should construct services. Cloud is discussed in greater detail later in the foundations section. It is clear that Cloud, in its various shapes is an essential component of construction.

The ACT region is small in global and even Australian terms. That is our strength. The implied weakness is that we do not have the scale across which we can leverage investment. The economics are simple. Bespoke technology investments have a high upfront fixed cost and a small incremental cost. We get best bang for buck if we can have millions of users getting value from it. But we do not have millions of users.

We will increasingly buy cloud services. To do so shares the investment burden on a global scale and shifts the costs to an elastic ‘per user’ basis.

The velocity equations are simple too. Even with agile development methodologies, it is far quicker to simply purchase a proven product than it is to develop, test and make it ready for production use.

Nevertheless, cloud is not nirvana. We recognise that some functions are unique to us, unique to the services we provide and our point of difference for key services. For example as a self-determining Territory we have a unique and often world leading regulatory environment. In these cases we will continue to embrace our bespoke solutions and ensure we maintain them well. We also recognise that on occasions, financial constraints may lead us to adopt small bespoke solutions.

At some point in the future, as our points of difference become commoditised, we will migrate functions to cloud-based services and so continually maintain our focus on our points of uniqueness.

We will become a broker of services, using the power of Cloud to integrate best of breed solutions to complement our unique and high value bespoke applications.



## Principle: Growing our Digital Capability

We will grow our capability to envision, design, broker and assemble Digital services. We will be agile, risk intelligent and create superior service value for our customers.

**“The more I accomplish, the more I know I’m capable of accomplishing.”**

—Tawny Lara

The ACT has made a great start. There are some fine exemplars of our maturing digital capability. Our building consents are paper-free; we were the first to have online birth certificates; and in schools our student’s digital backpacks are world leading. We are collaborating with the Federal Government’s Digital Transformation Office to deliver digital support in appointment management for those accessing health services through community-based and outpatient clinics across the Territory.

We will bring together the learning and foundations from these achievements into a more cohesive and joined-up approach to multiply our capability. We will:

- > build, and build on, “Common Capabilities”—units of technology that can be used across government;
- > adopt Bi-modal delivery—two separate modes of delivery<sup>9</sup>—one traditional for systems of record and the other more agile emphasising speed and agility. This will mature into multi-modal delivery—a refined approach where the delivery is tailored to the needs of the individual directorates;
- > recognise the “ages and stages” of directorates to ensure our own digital explorers are empowered to build new capability whilst encouraging the more traditional practices to plan their digital future. We will chart a path for convergence;
- > become risk intelligent by maturing our approach to risk by balancing consequences and potential gains. We will start small and adapt. We will avoid “big bang” projects and become incrementally agile;
- > leverage the power and reach of the Internet of Things (IoT); and
- > commit to open standards, extensibility/API’s.<sup>10</sup>

As we build our capability, we will not forget our engineering roots. We will still value ITIL<sup>11</sup> practice and project management disciplines. We will still embrace application portfolio management. **Digital is many things—but it is not careless.**

<sup>9</sup> <http://www.gartner.com/it-glossary/bimodal>

<sup>10</sup> API – Application Programming Interface. A software interface that allows applications to communicate in a structured way.

<sup>11</sup> Information Technology Infrastructure Library – <https://en.wikipedia.org/wiki/ITIL>

## Principle: Digital Service is built on Data

We will build our services on a comprehensive library of data. Data we will collect just once—and reuse many times. We know that the customer experience will only be as rich and informing as the data that sustains it.

**“Knowing is not enough; we must apply.  
Willing is not enough; we must do.”**

**—Johann Wolfgang von Goethe**

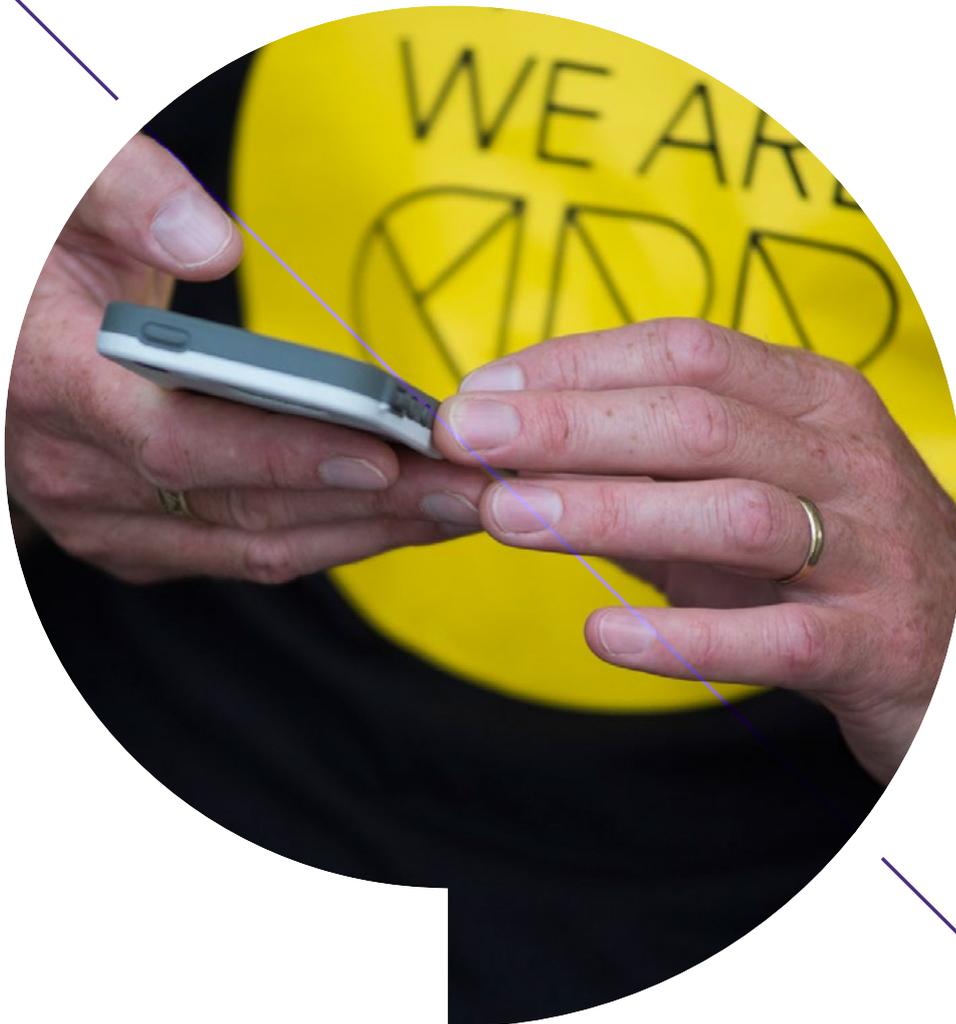
One of the interesting characteristics of effective digital transactions is the balance of data. The best transactions are those where the customer has to provide little else other than their identity and what they want to do. As the service provider we should know all the other details and request information that we don't know sparingly—safely retaining that new information so we do not have to ask for it again.

We will eliminate transactions where the data balance

tips the other way. We will not ask the customer to provide what we already know. In particular, we will not ask repetitively for personal information as a proxy for identity.

We will:

- > use a customer's history to enhance their future engagement with us;
- > collect data once and re-use it as a relationship asset;
- > undertake all our data collection and use in accordance with good privacy and security practice; and
- > fully commit to reuse, by aggregating and depersonalising the information we collect and providing it back to the community as Open Data.



## Principle: Digital Services – Mobile Devices

Digital Services will be designed for use on mobile devices to promote access by anyone, anywhere.

**“It really boils down to this: that all life is interrelated. We are all caught in an inescapable network of mutuality, tired into a single garment of destiny. Whatever affects one destiny, affects all indirectly.”**

—Martin Luther King Jr.

There was a time when we ‘sat down at the computer’. It was the place to perform a function in our work or home life. It was delineated by a specific time and established location.

In the digital age our connectivity is constant. Our interrelationships are defined less by significant events and more by constant micro-exchanges with people and organisations through social media and mobile apps.

In the first decade of this century, consumers adopted laptops over desktops. It was driven by aggressive pricing and the convenience of being portable, wireless and cable-less.

The highly anticipated iPad (together with a range of notepads) drove a further evolution of mobility. With their smaller size, longer battery life and ‘always on’ convenience they were enthusiastically adopted. For the first time, organisations took the small screen format seriously and applications and web pages were adapted to smaller touch screen formats to meet the demand.

And now even iPad shipments are levelling off as consumers want to fit more into their pockets. The smartphone is the destination for every digital engagement.

We will therefore design all our digital interactions with the smartphone as the target. This means:

- > we will adopt a user-centred design approach that is simple and smartphone sympathetic;
- > we will use possession of the smartphone and other mobile devices to reinforce identity—if you have possession of an identified smart device we can be more confident that you are really you<sup>12</sup>;
- > we will take our mobile-centred interface designs and reflect them back into larger screen formats to give desktops and our kiosks the same simple and consistent user interface;
- > we will generally design security to be independent of the individual smartphone device. We will not consider smartphones as ‘trusted’ per se and will therefore ensure our applications do not leave unsecured private information on a device; and
- > our target mobile technologies will be to the major mobile platforms that have significant market share. For other environments we will rely on mobile aware standards (such as HTML5) that will enhance access on any device.

The Digital world is characterised by the expectation of “do it now, do it anywhere, do it fast”. Mobile devices are the ubiquitous portal into this world. We embrace them.

<sup>12</sup> This is an approach that uses the smartphone or smart device for two factor authentication – either via text (SMS), authenticator app or some other stored security token.



# BUILDING DIGITAL FOUNDATIONS

## Vision for our Digital Foundations

Our vision is to have a broad foundation of digital computing capability and practice that allows the ACT to add value in an agile and effective way. To have platforms and services that are cost-effective and enabling. Our data is productive. Our focus is creating value and delivering service.

We often take foundations for granted. We almost casually depend on them to support our weight as we build new and brighter structures upon them.

There are many cultural parables on the need to choose and nurture our foundations. And so it is for Digital. We cannot execute our vision for customer service and economic growth without a foundational platform that lifts the focus of our activities above the day-to-day operations and allows us to add value higher up the technology chain in the domain of the customer interaction.

Digital foundations are diverse. From utility computing platforms to data security practice, solid foundations allow us to focus our vision above the mundane and operational to the strategic and value creating.

## Principle: Cloud is our Service Platform

As our first preference, we will buy software, services and infrastructure from the Cloud. We will migrate our current assets and services into the Cloud at the highest practical value point to optimise services and gain financial benefits.

**“If you think you’ve seen this movie before, you are right. Cloud computing is based on the time-sharing model we leveraged years ago before we could afford our own computers.”**

—David Linthicum

Technology services continue to be commoditised. Services that were once unique, high value and innovative have become ubiquitous, inexpensive and ordinary. Cloud is a fine example of where massive scale and resource sharing has driven a radical price point shift. That point is an order of magnitude lower than that which could be achieved through on-premise infrastructure within the ACT. In addition, the leverage of scarce skills in security and service management means that Cloud is no longer “the risky option”. The leading providers now offer capabilities that are more favourable from a security perspective than on-premise within the Territory.

Further to this, we can obtain greater cost efficiencies and agility by purchasing as high as possible in the technology value chain.

Utilising services high up the technology stack enables us to leverage the scale of cloud providers and offset the scale limitations we incur from having a smaller population base.

For the services we provide, and for the data over which we have stewardship, there is no intrinsic barrier to the use of cloud. There is simply the question of design for security and procurement for outcomes and performance.

As Vivek Kundra, the former Federal CIO for the United States Government noted back in 2010—“There was a time when every household, town, farm or village had its own water well. Today, shared public utilities give us access to clean water by simply turning on the tap; cloud computing works in a similar fashion. Just like water from the tap in your kitchen, cloud computing services can be turned on or off quickly as needed.

Like at the water company, there is a team of dedicated professionals making sure the service provided is safe, secure and available on a 24/7 basis. When the tap isn't on, not only are you saving water, but you aren't paying for resources you don't currently need.”

We will therefore seek to adopt:

- > Software as a Service (SaaS) rather than developing bespoke applications;
- > Office Productivity as a Service (OPaaS) rather than individual Office packages;
- > Platform as a Service (PaaS) rather than creating technology platforms from individual components;<sup>13</sup> and
- > Infrastructure as a Service (IaaS) rather than procuring and maintaining our own servers and storage.

We will build on these global Cloud service platforms—adding value and functionality to them in partnership with our local providers.

## The Future for our Public Servants

For me as a Public Servant in the ACT—what does the digital future look like?

- > The first thing you notice in the office is the lack of paper. We used to have forms for everything and we would wait whilst people filled them in at the counter. Today there is just information.
- > For many of the day to day things people do, we simply don't need to get involved as our customers complete processes online. We spend more of our time on the complex or difficult things that we, as experts, do best. It makes the work more interesting and far less bogged down with 'paper pushing'.
- > We have the time to talk our customers through their issues and for those not used to technology we guide them through how to get things done—this is happening less and less as we involve our customers in designing the services that work for them.
- > We have much better access to data. Whether it be financial reports that are available within hours of month end or real time dashboards about our performance—we feel a lot better informed and can make better choices.
- > There is no question that my job has changed—and it continues to change. We are a much more flexible workforce. Whether we work in front office roles or the technology 'engine room', we all work closer to our customers and the routine parts of the job are automated.
- > In the technology area we move faster than ever. We use technology building blocks to construct solutions quickly rather than trying to do everything ourselves. We have a close relationship with the local technology community who are an important part of a solution development community.
- > Our technology systems are fast and responsive because at peak times we scale up the computing power. At night we save cost and energy by shutting down the capacity we don't need.
- > I can do my work from anywhere—from a 'technology hub,' working in my home suburb to 'working from home' arrangements, it really doesn't matter. I work with portable devices and have easy video links with my customers and colleagues.

<sup>13</sup> PaaS or "Platform as a Service" is a collection of technology services delivered as a service. May include for example a computing platform, database, execution language/operating systems and web servers.

## Principle: Common Capabilities – Common Standards

We will create a set of “Common Capabilities”—technology and service capabilities that reflect the aggregated needs of directorates. We will support these capabilities with a commitment to common and recognised standards.

**“Share your strengths, not your weaknesses.”**

**—Yogi Bhajan**

The economics and benefits of scale and standardisation are simple. By adopting a common technology platform across government we procure it just once, we use more of it and improve unit pricing, we become expert with it and we can create value on it—value that is accessible to all.

We will therefore create a set of “Common Capabilities” which we will leverage across all directorates. We will undertake all practicable steps to align new business initiatives to build on the Common Capabilities and diverge only when convergence and compromise cannot be achieved.

The Common Capabilities will include products, services and solutions provided internally or by the business community.



The library of Common Capabilities will mature and build over time and will include:

- > Telecommunications and Networking
- > Web site and Content Management Services (CMS)
- > Cloud Services including Disaster Recovery platforms
- > Specialist Services (eg User Interface design to security analysts)
- > Customer Relationship Management (CRM) platforms
- > Rostering Solutions
- > Digital Archiving
- > Enterprise Resource and Planning (ERP) Platforms

New Common Capabilities will be introduced through a lead directorate. Rather than adopting an insular approach to business initiatives, we will develop a whole of government capability which will be a foundation for use in other directorates. Whilst this places a burden on the original directorate it also enables them to tap into all directorates and bring a broader experience and skill set—reducing risk and setting the scene for a successful capability build.

All directorates will consider Common Capabilities as their first option—focussing on what makes us the same—rather than what makes us different.

Similarly, existing solutions will migrate to the Common Capabilities at the first appropriate lifecycle point. The best economic outcome is not obtained by forcing artificial transitions to Common Capabilities—but by using lifecycle events where investment is required to maintain the integrity of our services.

Common Capabilities also refers to skill sets and standards. The library of Common Capabilities will include technology standards around which we will reinforce capability. A simple example might be the acquisition and use of HTML5 web coding skills.

As our library of Common Capabilities expands, we will be able to focus more energy on building and innovating new strengths that lift our Digital service capability.

## Principle: The Dataculturists

We will harvest, curate and utilise data from all available sources to create value for the government and the community.

**“It is a capital mistake to theorise before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts.”**

**—Arthur Conan Doyle, Sherlock Holmes**

We recognise that data is the lifeblood of Digital service. It supports us in three ways:

- > Data enables a single view of Customer across our services;
- > It provides the information required for Operational Reporting so we can measure our historical performance; and
- > It provides the elements of knowledge on which Business Intelligence can be built to inform our future.

The use of data will always be managed in the context of privacy requirements and will reflect a joined-up service approach for citizens, community groups and businesses.

We will:

- > create data platforms and services as Common Capabilities;
- > provide managed access to our data to ensure private information is either used for the purpose it was collected, used within a statutory framework, or anonymised;

- > unlock data from core applications;
- > commit to providing Open Data back to the community;
- > increasingly seek to provide not just data, but data API's to enable others to leverage our data higher in the information value chain;
- > improve data quality (including data definitions and standards)—prioritising data that is life and mission critical, and acknowledging the shortcomings of un-remediated datasets;
- > expose personal information to individuals during transactions to enable them to correct errors;
- > re-use data to minimise the amount of collection; and
- > mandate (through contract) our access to data generated by Software as a Service applications.

Citizens, businesses and community groups will increasingly find new and innovative uses for government-provided data. New applications, new community services and new businesses will evolve building on our open data to power innovation ideas that are home grown in business and community organisations. It is no longer solely the government's charter to provide services to the public. Open data empowers everyone.

Data is as critical as it is complex. Achieving absolute data quality or perfect understanding of the data relationships is not possible. We therefore recognise that data stewardship is a question of balance. Data in itself is not the end game and so we do not aspire to perfection—we instead seek maturity.

## Principle: The Geospatial Dimension

The geospatial components of all transactions will be included in the growing body of government and open data that defines the physical world in which our citizens live, work and interact.

**“From now on, space by itself and time by itself are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality.”**

—Hermann Minkowski, 1908

Whilst the basic dimensions with which we describe our universe have not changed, the digital age has allowed us to pack a lot more into them. We see our world in much greater detail than ever before because we can store, retrieve, process and create value from a myriad of geospatial facts and perspectives.

We can map with satellite imagery and fly-by with drones. We can overlay our world-view with abstract concepts and invisible infrastructure. For Emergency Services it is a matter of life and death.

To be a smart city we must also be a spatially aware city.

We already have a strong and growing capability in some directorates and it is timely to bring a broader whole of government awareness and cohesion for geospatial information. It is particularly important to build new capability with geospatial considerations in mind.

We will:

- > include geospatial platforms and services to be one of our common capabilities;
- > use geospatial content to underpin appropriate transactions and data acquisitions;
- > seek all opportunities to use this information to provide value for the government, community groups, businesses and citizens;
- > use the wealth of geospatial information collected by our citizens to enhance our knowledge of the territory and region;
- > provide central overarching governance for geospatial data and practice;
- > provide open geospatial data back to the community as open data; and
- > collaborate with geospatial centres of excellence across Australia to support a whole of nation resource.

Geospatial is no longer a specialist niche discipline. From simple ‘Fix my Street’ apps to complex national mapping—it is now mainstream. It is an essential prime element of the digital world and it will be given prominence in our digital planning and implementation.



## Principle: Responsive Procurement

To reflect the needs of the Digital Age, our ICT procurement will be responsive and agile. It will be fair, accessible, transparent and deliver value for money.

**“We should not forget that it will be just as important to our descendants to be prosperous in their time as it is to us to be prosperous in our time.”**

**—Theodore Roosevelt**

The digital world embraces speed and experimentation. Just as these characteristics make us adopt new approaches to technology, so too we must take new approaches to procurement.

The fundamental principles of government procurement will be respected. We will be transparent, fair and ethical. We will encourage competition and seek the best value for money on behalf of our citizens. We will be inclusive and accessible for ACT businesses.

And we will also recognise that Digital projects require accelerated timeframes, agile processes and, at times, rapidly evolving requirements.

We will:

- > engage early with providers to prototype and explore;
- > procure with non-traditional constraints—eg fixed price and variable requirements;
- > purchase as high up the value chain as is practicable—eg SaaS rather than just software on our hardware;
- > favour solutions based on open standards and extensibility or technology that has become a de facto standard for government;
- > take advantage of the physical proximity of local technology businesses to support agile and collaborative innovation and development;
- > create panel partnerships for important common capabilities to reduce the overheads of procurement for both government and vendors alike; and
- > leverage Commonwealth arrangements where it is practical to do so.

Whilst a commercial contract may be the outcome of a procurement process, it is necessary to continue to manage these contracts throughout their lifecycle as if they were an asset—which in many ways, they are.

As we move further up the value chain we become a broker and integrator of services. We must become agile and expert in these roles to support the digital agenda.

## Principle: Security and Assurance

We will protect our citizens. We will protect our government. We will be vigilant.

**“No one can build his security upon the nobleness of another person.”**

**—Willa Cather, Alexander’s Bridge**

Appropriate security practice is a non-negotiable component of all the work we undertake. The speed and agility of Digital could be confused with a propensity to be less vigilant. In fact the reverse is true. With Digital comes straight through processing,<sup>14</sup> a wealth of data and global connectivity. Security and assurance could not be more important.

The large Cloud providers are the leaders in security practice. They have the largest and best equipped teams to protect infrastructure and applications from security exploits. It is in our interests to leverage this capability. It is one of the drivers for moving our technology procurement as high as possible in the value chain.

Cloud is just one component in our defence. Effective security starts with good design as even the best cloud capability will not mitigate the weaknesses of a poor security architecture.

We must also acknowledge that many privacy and security events are a result of human behaviour—not technical failure.

We will:

- > develop a culture of security awareness and good practice;
- > keep our customers safe online;
- > undertake regular assurance across all ICT activities;
- > design for privacy and security;
- > use cloud as a powerful weapon;
- > use cloud as an effective platform for Disaster Recovery (DR) capability;
- > adopt open standards—they have the highest security resilience; and
- > be open about our failures—our customers have a right to know and it makes us stronger.

Cyber-attacks are an ever present threat to our privacy, security and economic well being. We should remain vigilant and concerned. We will not win every battle—but we must continue to win the war.



<sup>14</sup> [https://en.wikipedia.org/wiki/Straight-through\\_processing](https://en.wikipedia.org/wiki/Straight-through_processing)

## Principle: Strategic Governance

Governance will ensure the strategic intentions of the ACT Government are met through information management, projects, operations and digital transactions.

**“A leader is a steward of trust.”**

**—Idowu Koyenikan**

Good governance is an enabler not a burden.

The strategic outcomes for any government are achieved through the individual day-to-day activities of Public Servants. In the digital world these include long term projects to renew systems of record right through to short agile experiments.

Good governance provides a mechanism to align these activities in support of our Strategy. To be effective Governance must be encompassing, authoritative and transparent without creating a treacle of compliance activity.

A key foundation for Digital governance will be the establishment of the Digital Service Governance Committee (DSGC). This committee, chaired by the Chief Digital Officer, will report to the Strategic Board and provide the all-important point of cohesion for all technology activities.

We will therefore:

- > establish the Digital Service Governance Committee (DSGC) reporting to the Strategic Board to bring cohesion to the individual directorate governance structures to:
  - provide advice to the Strategic Board in respect of the alignment of technology initiatives to the Digital Strategy—and in particular, supporting Treasury in providing advice to the Strategic Board in respect of budget planning processes;
  - provide support, encouragement and suggestions to directorates for initiatives that seek to effect business transformation through the use of technology;
  - provide governance and guidance over technology architecture, standards and practices;
  - identify and endorse Common Capabilities;
  - be a forum for resolution of points of difference in the technology directions of directorates;
  - provide oversight on behalf of the Strategic Board on technology projects of strategic significance or risk; and
  - evolve and endorse the Whole of Government Digital Strategy to ensure it remains current and relevant.
- > ensure the governance delegations across directorates reflect the accountabilities of the sponsoring executives and are aligned to their over-arching business purpose;
- > ensure governance bodies have the necessary delegated authority;
- > ensure steering or advisory groups recognise they do not have governance delegations;
- > clearly articulate to project participants the parameters within which they may operate;
- > adopt Prince2 structures for programmes/projects with an ICT component and base ICT operational governance on ITIL; and
- > use the governance structures as a two way communication vehicle to inform the Strategic Board on the status of the Digital portfolio.

Governance steers us. When we are all on course it is a light touch on the tiller—but without that touch we inexorably drift off into uncertainty.

# IMPLEMENTATION

**As indicated in the scope—this document is a statement of our strategy. It sets direction and establishes working principles which our business implementation plans can reference—and against which they can be tested.**

The strategy is not an outcome in itself but inevitably there are some key projects which will be critical launch pads for aspects of it. For example:

- > Common Data Platform
- > iConnect—a whole of government platform to orchestrate digital transactions
- > ERP convergence
- > The establishment of on-demand cloud infrastructure

These and other projects will be established through the relevant funding and governance processes.

In an overarching sense, the implementation of all ICT activity in line with the Strategy will be the responsibility of the Digital Service Governance Committee (DSGC). Further to this, Economic Development already have accountability for economic growth and this Strategy simply supports their work and provides a broader technology context. All aspects of the strategy implementation are subject to the availability and approval of funding. This has the potential to constrain the scope and/or extend the timeframe of the strategy implementation.

Ultimately, success is generated by the day to day activities of all individuals using the Strategy as a guide to decision making. The sum total of these decisions and actions generates the momentum that creates successful and cohesive Digital outcomes across the whole of government.

To align our work plans to this Strategy, the Chief Digital Officer will facilitate a series of Digital Strategy Workshops with each directorate to review their respective technology and business plans through the lens of this Strategy. Included in this exercise will be the determination of “what success looks like”—from an individual directorate and whole of government perspective.

In addition, a self-assessment scorecard will be produced to track progress against the strategy principles over time.

Directorates have adopted a range of strategy and planning tools and are at various stages of maturity in their use. Some have gained great value from business capability modelling which maps the services to be delivered against the requisite organisational

capabilities. Others have adopted an approach aligned to an enterprise architecture view—other simply plan through a comprehensive program of work.

All of these approaches are appropriate noting the ‘ages and stages’ of the directorates. The purpose of the Digital Strategy Workshops is to align these plans to the overall whole of government direction.

**The mantra for the Chief Digital Officer will be to ‘do it with you—not to you’.**

The result of these workshops will be to provide a view of the Digital Strategy implementation plan through the initiatives of directorates—that is the business initiatives, together with some focussed foundational initiatives will be the vehicle for implementation.

Under the governance principle, the DSGC will oversee the implementation of this Strategy and provide whole of government oversight to all technology initiatives. In addition to the current governance arrangements, which focus largely on the annual planning/business case cycle, the DSGC will provide month by month oversight and direction to the individual business group strategies, plans, investments, implementation and lifecycle management.

An important aspect of the DSCG agenda will be for each directorate to present and maintain a roadmap for their portfolio of systems and applications. This will support investment decisions by providing a strategic context and ensuring there is not a build-up of technology debt and risk.

This strategy document will be followed by a strategy implementation roadmap which will be constructed collegially and managed as a measure of our digital progress and enterprise cohesion.

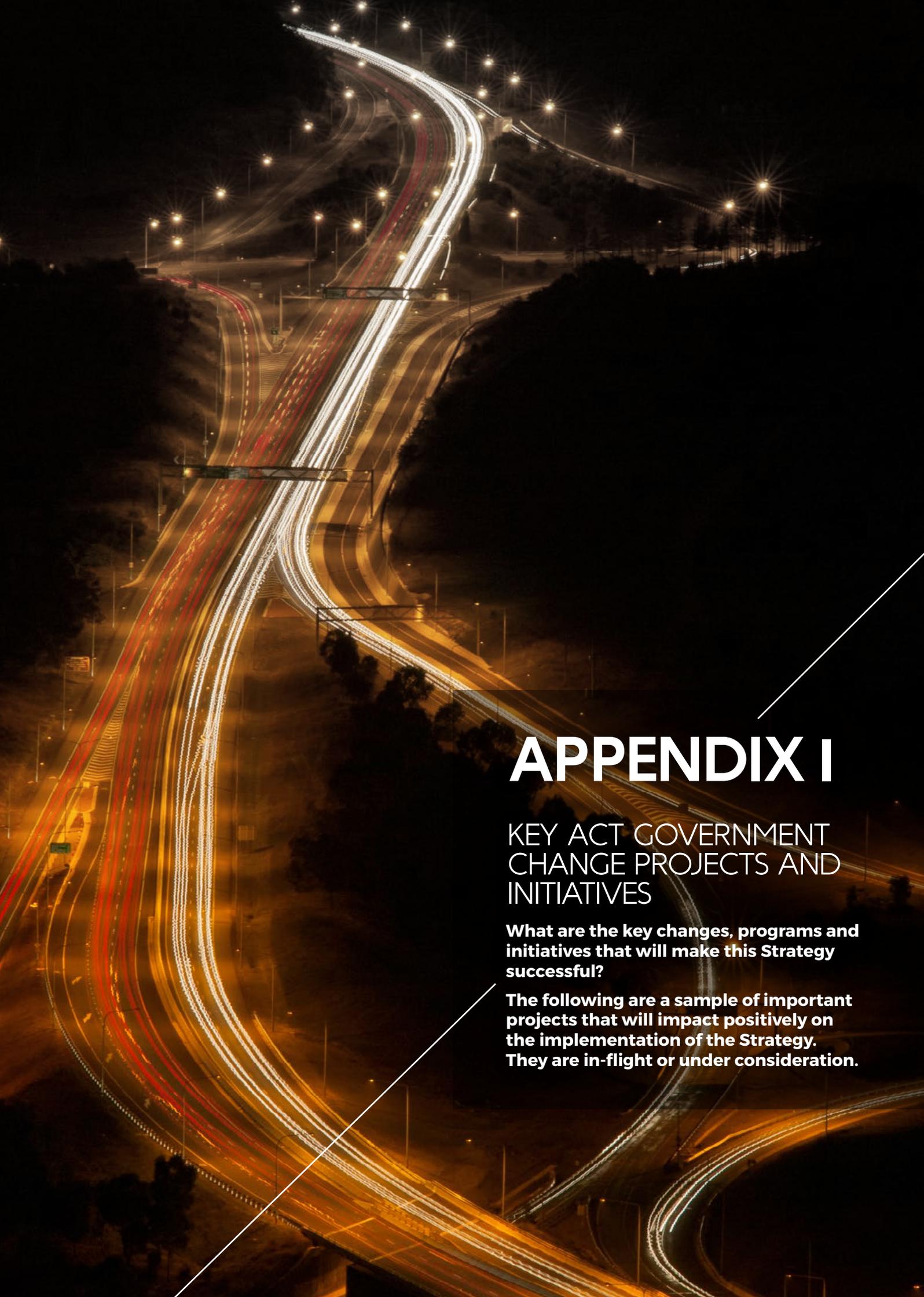
# CONCLUSION

With the appointment of the inaugural Chief Digital Officer (CDO), the ACT government signalled a change—a change that brings the ‘disruptive’ elements of the CDO role. It is also one to bring cohesion to our digital activities.

This Strategy will not answer all the questions. But it does form a foundation for thinking and action. It provokes an ongoing and dynamic conversation that makes us think differently about how we do things—challenging the routine practices of the past.

It also draws us together as one government, one public service with one common vision:

*To be a fearlessly digital city/state that has embraced revolutionary and innovative technology to grow and diversify our economy, connect our people, accelerate our learning, and nurture our culture and community.*



# APPENDIX I

## KEY ACT GOVERNMENT CHANGE PROJECTS AND INITIATIVES

**What are the key changes, programs and initiatives that will make this Strategy successful?**

**The following are a sample of important projects that will impact positively on the implementation of the Strategy. They are in-flight or under consideration.**



## Data Lake and Analytics

The establishment of a whole of government Data Lake and an associated analytical capability. It is based on an incremental approach starting with the social sector and broadening its capture to provide appropriate and effective information sharing to support operational reporting, frontline staff support and business intelligence. It will also be the platform for Open and Community Data.

## Cloud Infrastructure Migration

The transition from on premise servers and storage to public cloud based servers, storage and platforms.

## iConnect Program

iConnect is the platform on which all online and digital services will be orchestrated and delivered. This includes offering personalised anytime, anywhere engagement with government via any device with an Internet connection. Services capabilities include digital mailboxes, end-to-end transactions and bill payments, service reminders and automatic payments.

## One Service One Experience initiative

The One Service One Experience initiative supports the provision of joined up customer experience and digital solutions for our community now and into the future. The initiative will enhance service delivery by establishing a common customer service platform within Access Canberra and deliver more online services.

## Access Canberra Intelligent Regulator

This is a project to make it easier for citizens and business when they may need a number of regulatory approvals. It will firstly redesign and consolidate approvals needed in the liquor and motor vehicle sector. Building on this capability, Access Canberra will use this platform to apply the same model to other industry sectors.

## Smart Modern Strategic Procurement Reform Program

Procurement reform is key to the Digital Strategy and this program will re-engineer our processes to modernise all aspects of procurement.

## Whole of Government Electronic Document and Records Management System (EDRMS)

This project will result in a cohesive whole of government digital recordkeeping platform, increased recordkeeping efficiency and compliance, and support greater value creation from government information.

## eDevelopment

This project is to replace and enhance the current development application (DA) and building approval (BA) system. It will provide an easy and convenient way to lodge applications anytime and anywhere via any device with internet connection.

## Engagement HQ

Community engagement exercises are resource-intensive and typically only manage to engage time-rich segments of the community. Engagement programs are delivered more efficiently utilising interactive online engagement software that offers diverse outreach mechanisms, 24/7 feedback opportunities and time-saving analysis and reporting tools.

## ACTmapi System

ACTmapi system is ACT Government's public facing web mapping and services portal, the system is design to make it easier to access and utilise ACT government location information by the ACT government and community.

## ArcGIS Online

This initiative is a core component of the ACT Government's spatial environment. ArcGIS Online allows all facets of ACT Government to collect, administer and publish maps and data online either through ACTmapi (ACT Government's Web mapping tool) or through ArcGIS Online shared services internally. There are currently 90 accounts within ArcGIS Online that service 150+ users. A key function of ArcGIS Online is to ensure ACT Government spatial data is accessible and harvestable, via metadata from other systems and through other channels.

## Digital Plan Lodgement

Historically both subdivision plans (Deposited Plans—DPs) and Unit Plans (UPs) have been drafted on plastic film and lodged manually for registration at the Land Titles Office (LTO). Other than the final lodgement all processing of Subdivision and Unit plans is carried out digitally and the final plan is scanned and distributed digitally both within government and to the public. Storing and archiving these film plans is becoming a problem and it is proposed to implement digital lodgement of the final plans which will enable complete digital processing and tracking of the plan from lodgement to registration.

## Imagery Program

Updated aerial imagery is essential for addressing issues relating to the impacts of climate change, disaster management, water security, environmental management, urban planning and infrastructure design.

The geospatial ACT government community will coordinate the capture of regular (more than 3 times a year) imagery for ACT, this will increase efficiencies by reducing field work and streamline government process. This program is still in its scoping phase, but there are clear benefits to coordinating a whole of government imagery capture.

## Geocoding

ACT Government makes critical business decisions based on location information. Before you can analyse, extrapolate or profit from location information, the data needs to be geo-located. Geocoding is complex, and mistakes in geocode assignment can lead to poor business decisions. The ACT Government needs to ensure all addressing databases is geocoded for better geospatial statistical analysis. The geocoding system would also assist in the validation of addresses.

## Revenue Collection and Concession Payments Transformation

The Revenue Office is replacing its revenue collection and concession payments systems with a single platform as part of a three year transformation program. This will deliver better, faster and smarter digital services to make transactions easier and more efficient for customers and staff. Improved services will include online access to billing information, electronic rather than paper bills and self-assessments. The new platform will also integrate with systems being used by partner agencies.

## University of Canberra Public Hospital

The University of Canberra Public Hospital Digital Program of Work is currently under development, however the Infrastructure Program provides an opportunity for substantial organisational and service delivery change, in addition to the provision of new infrastructure. One of the four key pillars that underpins this program is the inclusion of innovative digital technologies to enable and support future models of care and service delivery. There are a number of key innovation areas that are under consideration for consumers including:

- > Moving to an electronic medical records to allow for a seamless transition for consumers between services
- > Next generation patient entertainment to ensure consumers requirements are met
- > Mobility enabled future allowing consumers to connect

## Health-e-Futures Program

In an environment of increasing demand and complexity, new and innovative ways of delivering health care are required to increase efficiency, quality, safety and productivity. Digital information and communications technologies are key components of responding to these dynamics while continuing to deliver high standards of health outcomes.

The Health e-Futures Program has been established as part of a \$90 million investment in e-health capacity and ICT infrastructure. The objective of this program of work is to deliver digital technology innovations that put the customer at the centre of the solution.

Patient Centric solutions being delivered as part of the Health-e-Futures Program include:

- > Clinical Systems that provide a consolidated, secure shareable patient-centric health record enabling information to be available to the right person at the right place and time.
- > Support Services that use technology to efficiently manage the resources which support the Health Directorate in the areas of patient administration and service delivery, staff management, food services, and bed management.
- > Digital Health Infrastructure to provide the foundation to bring existing infrastructure to the standards and capabilities necessary to support future technologies.

## Integrated Library Management System

The objective of the project is to replace Libraries ACT's outdated, inefficient and unstable library management and RFID systems with an integrated and robust solution that will increase staff productivity, improve library user experience and provide a robust platform for future enhanced, digital, user-centred services.

## Transport Canberra and City Services (TCCS) Asset Management System Replacement

The objective of the project is to transition from an aging 'locally hosted' to a contemporary 'onshore cloud hosted' Asset Management System (AMS) for TAMS, that currently manages some \$10 Billion worth of Infrastructure Assets which could be scalable to meet whole of government asset management requirements.

A contemporary asset management system would have the capability of combining 2D/3D intelligent infrastructure models and point clouds with engineering information and asset performance management. This capability would more effectively enable the integration of TAMS Asset Data with other government initiatives like Capital Metro and the 3D modelling of the Northbourne Avenue corridor.

## Transport Canberra and City Services (TCCS) Project Wise for ACT Government (Cloud based)

The objectives of the project are:

- > Create and manage a common project and data environment across an organisation or whole of government.
- > Maximized value across the Organisation—inform project stakeholders and enterprise systems in a more consistent, timely and predictable manner using high-impact deliverables.
- > Timely and Actionable Participation—synchronise collaboration and comments to resolve issues quickly and effectively returning feedback in context to all the relevant designers.

The 'Onshore Cloud Hosted' Project Wise portal will mean an increase in collaboration not only between TAMS business units, but with the consultants and developers submitting works, documents and information to TAMS as well.

## Transport Canberra and City Services (TCCS) Automated Summary Works as Executed Portal

The objective of the project is to deliver higher quality, more accurate, timely and up-to-date asset information that will significantly enhance the directorate's asset management, planning and decision making processes. This project supports critical government initiatives such as Open Government and Digital Canberra which will greatly facilitate connectivity between industry and the ACT Government in a way that will streamline current work processes. The outcome of this process will allow for greater efficiencies in data management handling and subsequent information management and dissemination to asset managers and key stakeholders.

# APPENDIX 2

## STRATEGY PRINCIPLE SELF-ASSESSMENT SCORECARD

### Growing the Digital Economy

PRINCIPLE	SCORE OF 5	SCORE OF 3	SCORE OF 1	SCORE/RATIONALE
Collaboration multiplies Outcomes	Collaboration with multiple parties is very successful and our natural way of working. We have clear arrangements and collaboration practices.	We collaborate with a number of external parties. Some areas are better than others and the arrangements are generally documented at some level.	We collaborate a little but mainly internally and generally by necessity. Few formal arrangements.	
Supporting our Digital Explorers	We have valuable relationships with ACT businesses and participate strongly through the SBIP. We provide access to data and government capabilities which is making local businesses successful.	We have had at least one SBIP candidate initiative that is working well. We are also actively participating in creating a pipeline of activity through SBIP and other channels.	We provide no tangible support to Digital Explorers and have immature relationships with the business community.	
Source commodities globally — add value locally	Commodity IT is sourced at best value—we achieve savings targets. We utilise the benefits of close working in Canberra to add significant IP to enable high quality digital outcomes.	We are in transition, having made progress implementing on commodity platforms. We are developing strong relationships that have the potential to add digital value to our offerings.	We make little distinction between commodity and high value technology. We have not yet made bankable savings—nor have we added much IP to the technology offerings.	
Digital is for everyone	Social outcomes for Canberrans are vastly improved through the use of open data and digital services. The Public Service example is followed by the private sector.	We have provided some data sets that are used to make some good changes for Canberrans. The private sector is noticing what we are doing.	Or digital activity is fairly insular with minimal open data sets being made available. The private sector do not consider the government as an exemplar in this area.	

### Delivering Digital Services

PRINCIPLE	SCORE OF 5	SCORE OF 3	SCORE OF 1	SCORE/RATIONALE
Start with the Customer Relationship	The customers see us as a single service provider and is delighted with the consistent and helpful advice and services they receive—whatever the channel.	We generally provide a single face to the customer but at times we can be a little fragmented with handoffs to other service areas. Overall though our services are effective.	The customer has to deal with the many silos of government leading to frustrating interactions and at times inconsistent advice. The channels of interaction vary in quality.	
Design for Digital Business	Our new digital services are simple, 'straight through' and effective. The customer finds them intuitive, helpful and minimalist.	New services are online and fairly simple to use. Most of them can be completed without intervention or service centre visits.	New services still have manual components in them and require service centre visits and letters to be sent. The user interface is acceptable but not digital.	
Assemble Cloud services, Build only when unique	We employ many well-integrated SaaS applications and have a well-maintained set of unique applications.	We have some SaaS applications and they are generally well integrated. However we still have a number of bespoke apps that we will put into SaaS at the next lifecycle point.	We have minimal number of SaaS applications and they are individual service silos that are not well integrated.	
Growing our Digital Capability	We have a rich set of common capabilities and an experienced digital delivery capability. Our applications are open, modular and integrated at a service and data level. We fully leverage the wider digital world through the IoT.	There remains some duplication but we have a good foundation of common capabilities. Our applications are improving in extensibility and modularity. We have some capability to leverage the IoT.	We still have many application silos that contain much duplicated code. They are limited by 'spaghetti' architecture and waterfall methodologies.	
Digital Service is built on Data	We have a comprehensive set of data to power our service applications. We only ask once.	For most transactions we only have to ask a few questions—but some data is hard to access and we have to ask the same question in different applications.	Our applications don't really share data—and it is hard to commission new digital apps because it is hard to access the necessary data.	
Digital Services — Mobile Devices	All relevant and/or appropriate services and applications are delivered to mobile devices natively either through apps or HTML5 compliant mobile browsers.	Most services are OK on mobile devices and web pages render usefully on small screens. Some apps are still really only workable on a big screen.	Delivery to mobile devices is patchy. Some work well but others simply don't render useably on a small screen.	

# Building Digital Foundations

PRINCIPLE	SCORE OF 5	SCORE OF 3	SCORE OF 1	SCORE/RATIONALE
Cloud is our Service Platform	Our infrastructure is all cloud based except where it is more economic in house. The cloud services are dynamically managed for optimal cost-performance.	We are in transition to the cloud but are starting to get benefits and cloud management is maturing.	We have minimal cloud infrastructure. Our cost base is far from optimal.	
Common Capabilities — Common Standards	We have a rich set of Common Capabilities that all directorates use. It has reduced our 'time to market' and improved operating costs significantly. We have a well-defined set of standards we work to.	Our collection of Common Capabilities is improving. There remains some duplication but this is largely due to lifecycle alignment. Our standards adoption and use is well advanced with only a few legacy exceptions.	We have few Common Capabilities and there is significant duplication. We have too many standards and too many proprietary technology implementations.	
The Datacurturers	We understand and use data in all of its dimensions. From open and community data through to data governance we obtain great value from our data and consider our governance mature and effective. We are true 'Datacurturers' and participate fully in the Data Working Group.	We have a good open data inventory and are starting to get a single view of customer. Data Governance is still a little siloed but our frameworks are maturing well and we are participating in the Open Data working Group.	We have few open data sets and our use of data for citizen benefit is limited. Data governance is low and dispersed across the directorates.	
The Geospatial Dimension	Geospatial data is fully mainstreamed and embedded in our apps and datasets. We make great use of smartphones capabilities and provide data about the ACT in richly described geospatial terms.	Geospatial data is being embedded in new applications and services. The geospatial description of the ACT is becoming more detailed and useful.	Geospatial is seen and managed as a niche capability required for a few directorates. Geospatial data is not routinely captured or used.	
Responsive Procurement	Our procurement is fair, fast and agile. We have high value relationships supported by effective and appropriate commercial contracts which are actively managed through their lifecycle to provide best value.	Good procurement has established a growing set of relationships that can be leveraged in an agile way. Some procurements are still critical path for projects. Most contractual arrangements are effective.	Procurement in our business group is long and extending project timeframes unnecessarily. Contracts are managed on an ad hoc or exception basis and often reach end of life without a replacement strategy in place.	
Security and Assurance	We have no significant security incidents or privacy breaches and our architecture provides multiple layers of protection. We proactively assure our security outcomes.	We have minimal security incidents but we know about them. As a result we have some audit issues to deal with and our architecture has some single layers of resilience.	We have some security incidents—and we may not even know about them. We do not have a good plan for remediation and have many outstanding audit points.	
Strategic Governance	Governance sets and enables the technology direction in line with the government's priorities. There is a whole of government digital cohesiveness. Risks are transparent and managed. Ultimately all decisions are made quickly and knowledgeably at the appropriate level in the organisation.	Governance is a positive enabler and the top level accountabilities are in place. At some lower levels there remain some inconsistencies but in general there is a line of sight between the government priorities and what is happening at ground level.	Governance is ad hoc and does not necessarily reflect the accountabilities of the various stakeholders. As a result directions are not always consistent and slow decision making often slows down projects.	







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