

Information Technology Strategy

Victorian
Government

2016–2020



VICTORIA

Developed by the Department of Premier and Cabinet.



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MESSAGE FROM THE SPECIAL MINISTER OF STATE



Victorians want their personal engagement with government services to be useful, easy, and respectful of their time.

We want the same for citizens. This government is working on public sector reform, and this strategy sets out the information technology components of that journey. Good government is more than good policy and direction for the State, it is also the sum of individual citizen interactions and creating an environment for better outcomes in the lives of citizens. We want Victorians to be served well by their government, and we want that to be done with minimum effort for citizens.

We want a government that is open and transparent, enabling new opportunities for citizens and Victorian businesses. Dynamic changes in technology can make life better. We want a new chapter for Victorians, arising from the unfolding digital revolution of which we are all a part. We want to be seen as an 'employer of choice' so that we attract and retain the best staff, for the benefit of all Victorians.

It will be an ongoing challenge to harness these changes for the good of Victorians and the betterment of government services and interactions. It is not just technology that will make the difference, but how we make use of the opportunities to rethink our systems, interactions and processes.

This *Information Technology Strategy* charts our direction for open information, digital services, strong modern systems, and increased capability. It gives guidance to decision-makers in the public service and provides insight into government's approach for use by the Information and Communication Technology (ICT) sector.

This *Information Technology Strategy* sets direction for four priorities: reform in how government manages and makes transparent its **information and data**, seizing opportunities from the **digital** revolution, reforming government's underlying **technology** and lifting up the **capability** of government employees to implement ICT solutions that are innovative, contemporary and beneficial.

Information technology is not an end in itself. It is an enabler of the good outcomes that this Government is working towards. This strategy positions information technology as supporting the design and delivery of good policy, good services and good outcomes for Victorians.

A stylized, handwritten signature in black ink. The signature is fluid and cursive, with the first letter 'G' being particularly large and prominent. The name 'Gavin' is clearly legible at the start.

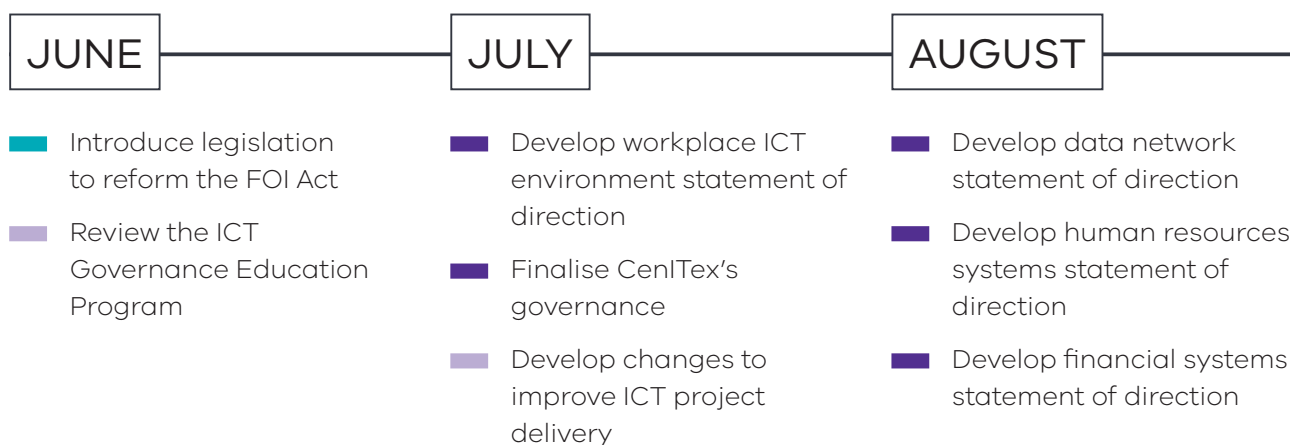
Gavin Jennings
Special Minister of State

INFORMATION TECHNOLOGY STRATEGY ON A PAGE

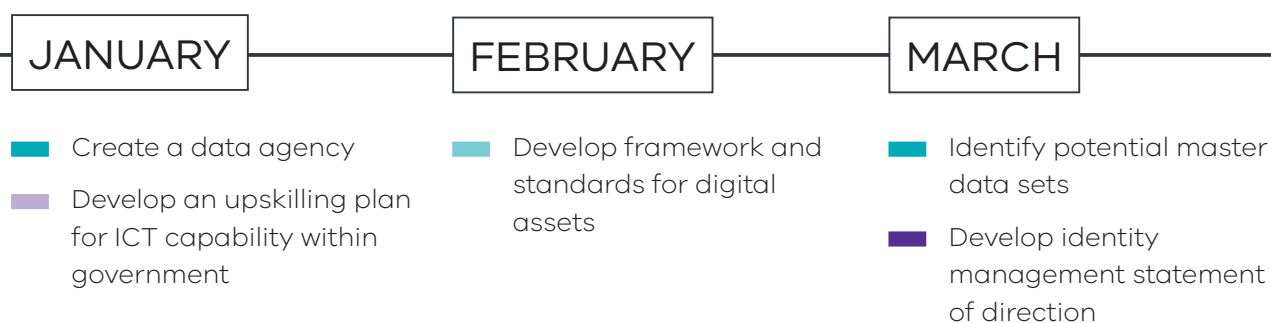
PRIORITIES			
INFORMATION AND DATA REFORM	DIGITAL OPPORTUNITY	TECHNOLOGY REFORM	CAPABILITY UPLIFT
<ul style="list-style-type: none"> › Open information and data › Holistic management of information › Systemic approach to government data sharing 	<ul style="list-style-type: none"> › Digital services › Mobile delivery › Digital engagement with citizens 	<ul style="list-style-type: none"> › Modern staff productivity systems › Sharing corporate systems › Shared technology services › Cloud-based systems › Improved security 	<ul style="list-style-type: none"> › Strengthening ICT project delivery and probity › Strengthening ICT procurement › Transform willingness to engage › Increased awareness of contemporary technology approaches
OBJECTIVES			
<p>Government information and data is accessible by the staff and systems that need it to deliver better services and policy</p> <p>Government data is managed holistically to remove duplication and gaps</p> <p>Government information and data is open and available for business and research purposes</p>	<p>Victorians are able to transact with government services and information in a way that is useful, easy and always available</p> <p>They are able to participate in system and policy design simply and easily</p>	<p>Government employees have a modern, agile workplace</p> <p>Government systems are secure and support efficient, joined-up services for Victorians</p> <p>Government systems and technology take advantage of cloud-delivered services</p>	<p>ICT projects are overseen by executives who are trained, empowered and accountable</p> <p>Staff are trained to procure based on contemporary technology solutions</p> <p>There is engagement to understand real user needs</p> <p>Staff have the skills and capability required to incorporate new approaches in their operations</p>
KEY ACTIONS			
<ul style="list-style-type: none"> › Create a data agency that will better use and share data and information to improve policy making and service design › Focus release of government data on value and quality › Negotiate with Commonwealth to access data sets for policy and services › Build data analytics capacity › Reform the <i>Freedom of Information Act 1982</i> (Vic) and the Office of the Freedom of Information Commissioner › Develop an information management framework 	<ul style="list-style-type: none"> › Service Victoria's development of a digital distribution channel for simple, high volume transactions › Consolidate Government's digital presence › Develop a framework and standards for digital assets › Develop government consultation and collaboration platform 	<ul style="list-style-type: none"> › Finalise CenITex's governance arrangements and establish a performance management framework › Define the modern employee ICT workplace › Determine the case for shared corporate systems: e.g. finance, human resources, payroll › Develop clearer advice for cloud procurement and whole of government procurement › Develop a cyber strategy for the Victorian government › Develop a State Emergency Response plan for cyber security 	<ul style="list-style-type: none"> › Deliver targeted training for executives on their role on the boards of ICT projects › Strengthen advice and guidance on ICT project delivery planning › Launch a public dashboard of ICT projects over \$1m › Use the Public Sector Innovation Fund to identify projects that will build ICT capability › Build VPS open data capability and understanding through a number of engagement mechanisms

STRATEGY TIMELINE FOR 2016/2017

2016



2017





SEPTEMBER

- Review the release of data
- Establish a performance management framework for CenITex
- Review how the government procures ICT

OCTOBER

- Develop consultation and collaboration platform

DECEMBER

- Develop an information management framework
- Pilot API Gateway
- Develop cyber security statement of direction
- Develop cloud service standards and procurement models
- Undertake a Public Sector Innovation Fund project with Code for Australia

APRIL

- Explore long-term data storage options
- Develop automated briefing statement of direction

MAY

- Review government's digital presence

JUNE

- Development of Service Victoria

KEY PRIORITY AREA

- Information and data
- Digital opportunity
- Technology reform
- Capability uplift

ACTIONS

- 1 to 6
- 7 to 11
- 12 to 21
- 22 to 26

CONTEXT

This *Information Technology Strategy* provides direction on government information management and technology for the next five years (to be reviewed annually). It supports the technology changes required to enable public sector reform and aligns with a focus on value and effectiveness. It is set in the context of increasing recognition of the value of data and information; the opportunities and disruption of the digital revolution; a focus on public sector reform and a recognition of the capability uplift needed for government to operate well in the twenty-first century.

INFORMATION AND DATA

Information and data are the currency of government service delivery and policy-making. Making government information and data open (as appropriate) and transparent drives innovation in our economy. 'Big data' tools allow for hidden insights to be uncovered, leading to better decisions and better service delivery. Clearer analysis of government data reduces duplication and joins up services.

CUSTOMERS AND CITIZENS

As individuals, we use a myriad of digital devices to interact with our friends and family. We use them to learn, communicate, undertake banking transactions, look up the weather and buy goods and services.

Figure 1 shows the mean number of digital devices per household.¹

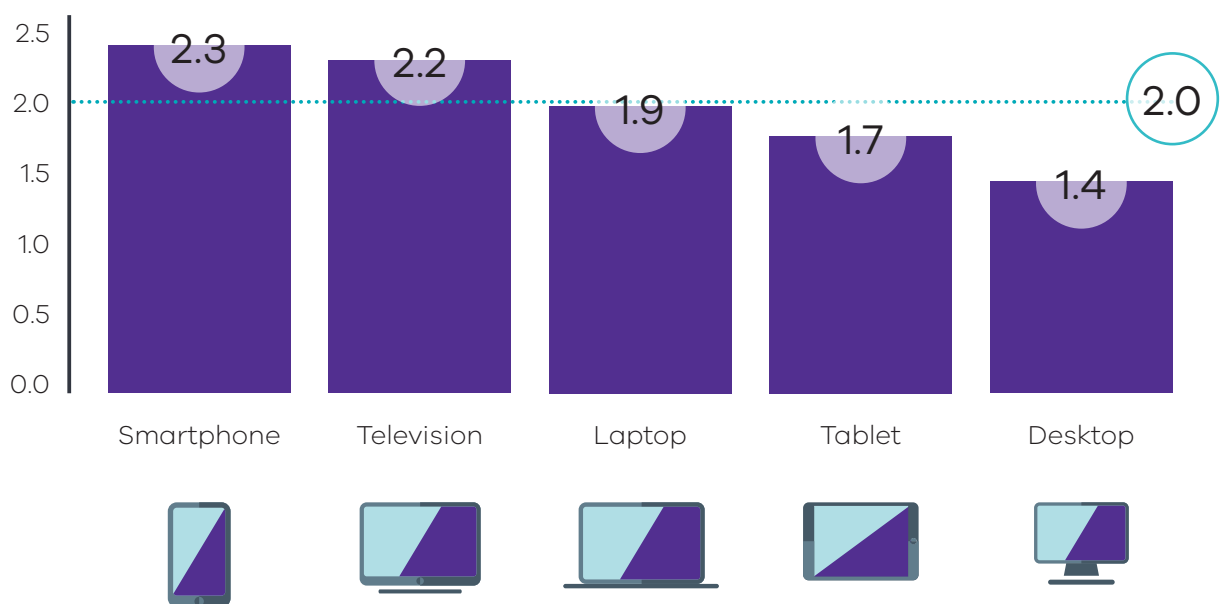


FIGURE 1: MEAN NUMBER OF DIGITAL DEVICES PER HOUSEHOLD

¹ Media Consumer Survey 2015: Australian media and digital preferences, 4th edition, Deloitte, 2015

Customers and citizens expect access to online services at all times and from any location.

Digital technologies present an opportunity to improve government effectiveness and the citizen experience. By taking advantage of these technologies, organisations and citizens can better share valuable information, which enhances innovation and decision-making processes.

PUBLIC SECTOR REFORM

Public sector reform (see Figure 2) includes better technology for government employees, who should have a modern and agile workplace that does not hinder their effectiveness.

To achieve this, the government is rethinking its workplace. Government ICT systems should be robust and allow employees to easily use the systems they need to do their job through establishing:

- › a systematic approach to achieving specific targeted outcomes, driven by better use of data and performance benchmarks
- › operational models that enable the public purpose sector² to operate transparently, remain accountable to the public, and be supported by the best available technology
- › improved planning processes and the delivery of integrated, personalised services
- › collaborative and innovative approaches to policy and service delivery, developed in conjunction with the public purpose sector, citizens and communities of interest
- › longer term planning and budgeting to align strategies, budgets and outcomes.

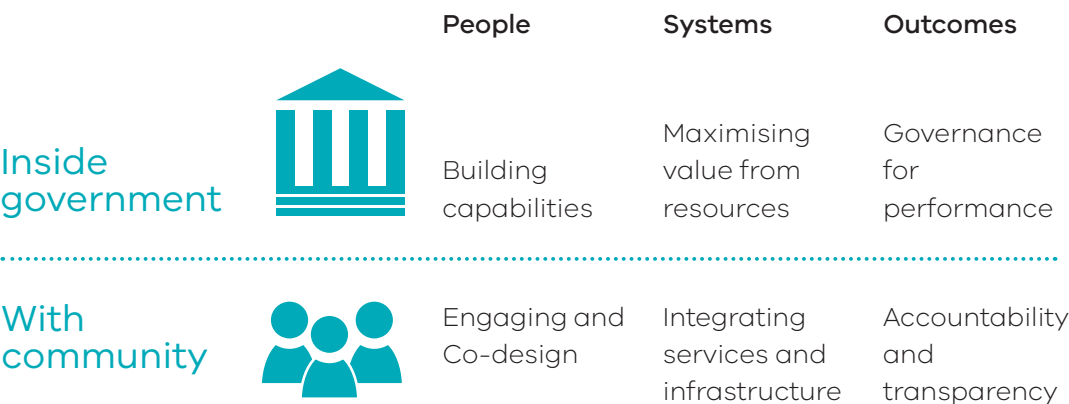


FIGURE 2: PUBLIC SECTOR REFORM

² The public purpose sector is the sum of the government and non-government organisations that together deliver public value.

EMPLOYEES

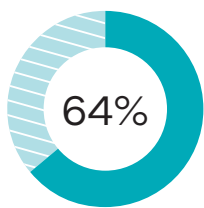
Technology change is redefining the way customer services are designed and delivered in the public sector. Figure 3 shows eight key drivers shaping the future of public sector service delivery³.



FIGURE 3: KEY DRIVERS SHAPING THE FUTURE OF PUBLIC SECTOR DELIVERY

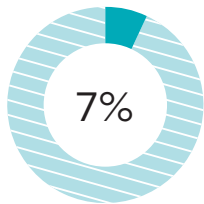
An efficient digital workplace encompasses the technologies people use in today's workplace, such as core business applications, collaboration tools, instant messaging and enterprise social media tools.

³ Global and local innovations: What digital government could look like, Deloitte, 2015.



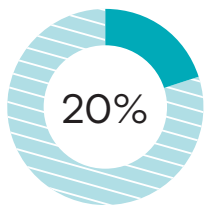
Talent attraction

64% of employees would opt for a lower paying job if they could work away from the office



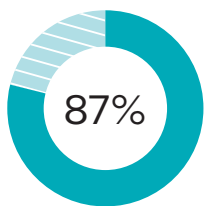
Employee productivity

Organisations with strong online social networks are 7% more productive than those without



Employee satisfaction

Organisations that installed social media tools internally found a median 20% increase in employee satisfaction



Employee retention

When employee engagement increases, there is a corresponding increase in retention by up to 87%

FIGURE 4: THE BENEFITS OF ADOPTING A DIGITAL WORKPLACE

The benefits of adopting a digital workplace⁴ are depicted in Figure 4.

To achieve these benefits, organisations are dedicating more of their ICT budget to supporting digital workplace strategies with measurable returns, providing employees with the tools they require to collaborate, communicate and connect with each other.

INDUSTRY ENGAGEMENT

Government will continue to engage with the ICT industry to employ better systems for citizens and employees.

⁴ Figures 2 and 3 are based on the following sources:

- › *Tech trends 2015: The fusion of business and IT*, Deloitte, 2015.
- › Anderson, Ed; Mazzucca, Jennifer, *Survey analysis: Cloud adoption across vertical industries exhibits more similarities than differences*, Gartner, 2015.
- › *Gov on the Go: Boosting public sector productivity by going mobile*, Deloitte, 2013
- › *Tech trends 2014: Inspiring disruption – a public sector perspective*, Deloitte, 2014.

PACE LAYERING

Gartner's 'pace-layering' approach for service delivery (Figure 5), proposes building adaptable services that minimise long-term disruption to core functions and operations⁵. The government will use this approach, which focuses on small, innovative pilots ('innovation layer') and core corporate systems ('systems of record'), leaving elements like licensing and housing ('systems of differentiation') to individual departments. See Appendix B for a list of corporate systems.

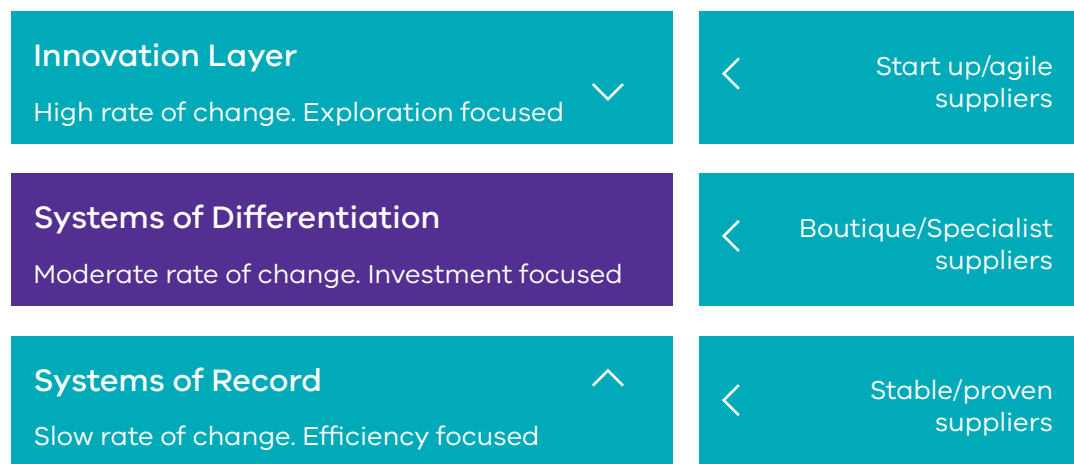


FIGURE 5: THE GARTNER PACE-LAYERING MODEL

CLOUD SOLUTIONS

Cloud computing is an effective, mature and low cost delivery mechanism for a number of government computing requirements. While it is not suitable for every application, a significant proportion of government's operations could benefit from the cloud's flexibility, scalability, built-in collaboration tools, delivery on mobile platforms, and automatic updating of systems. The cloud gives government more business continuity options.

The government will be developing standards and exploring procurement models to reduce the friction for government agencies to make use of the cloud.

GOVERNANCE AND IMPLEMENTATION

Strong governance

This *Strategy* has been approved by the government and endorsed by the Victorian Secretaries' Board (VSB), which represents all government departments and Victoria Police. It applies to all departments and the agencies outlined in Appendix A. It is expected that additional portfolio agencies will be brought within the ambit of the *Strategy* over time.

⁵ Gartner Pace Layering Approach, 2011.

The VSB will approve standard statements of direction for shared services and ICT frameworks, policy and standards. The Department of Premier and Cabinet (DPC) is developing this material.

Figure 6 outlines the governance structure for the *Strategy* in relation to shared services that are not formed as a separate entity. The approach will include consultation with relevant Chief Information Officers (CIOs), Chief Financial Officers, Deputy Secretaries and Human Resources Directors.

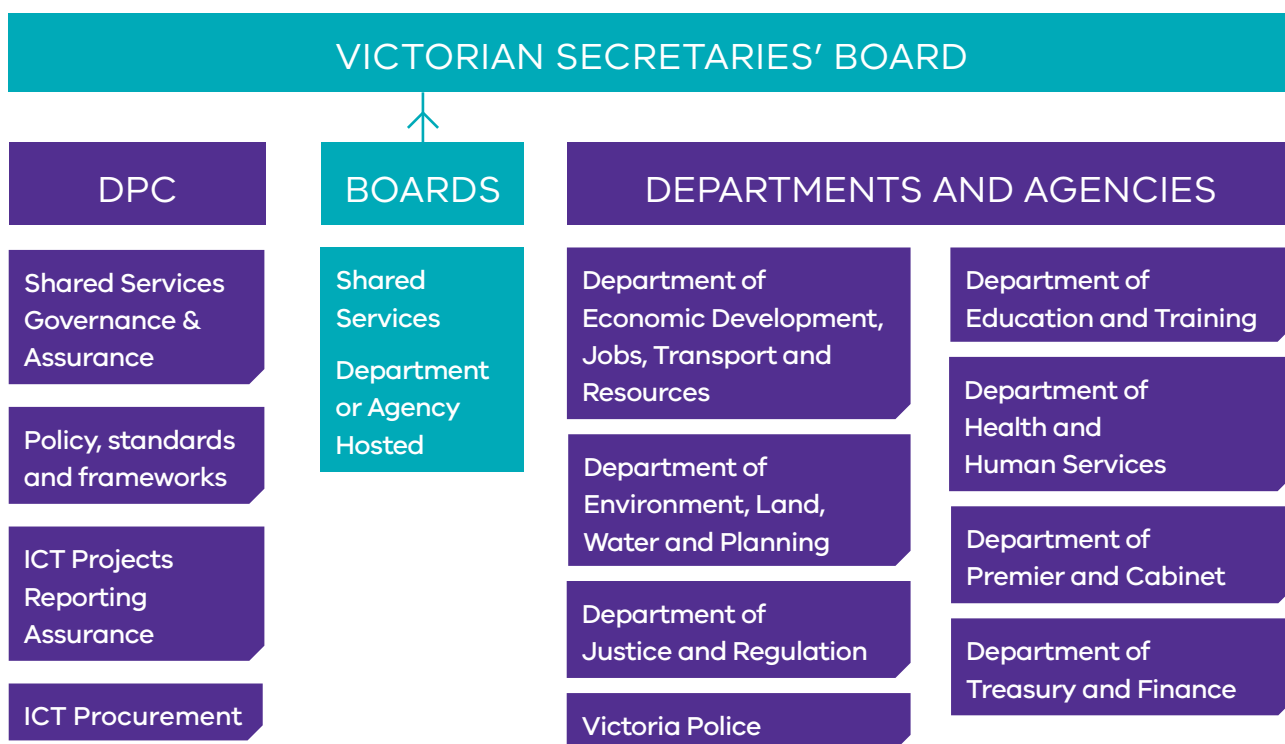


FIGURE 6: PROPOSED GOVERNANCE STRUCTURE FOR SHARED SERVICES IN THE VICTORIAN GOVERNMENT (FOR SERVICES NOT CREATED AS A SEPARATE ENTITY)

Implementation

ICT systems across the public service are at different stages of their lifecycle. At the appropriate point in each system's lifecycle, departments and agencies will develop business cases that support investment in new or refreshed technology systems.

The government's intention is that it will make good use of existing investments where possible. Where this is not possible, it will procure modern services from the market (in the first instance, procuring cloud computing services to minimise the risk of software obsolescence). For new investments, the government will apply the order of consideration shown in Figure 7.

For back-end systems, including the employee technology workplace environment and financial and human resource systems (see Appendix B), departments should adopt an existing Victorian Government solution where one exists and is suitable (creating a shared service).

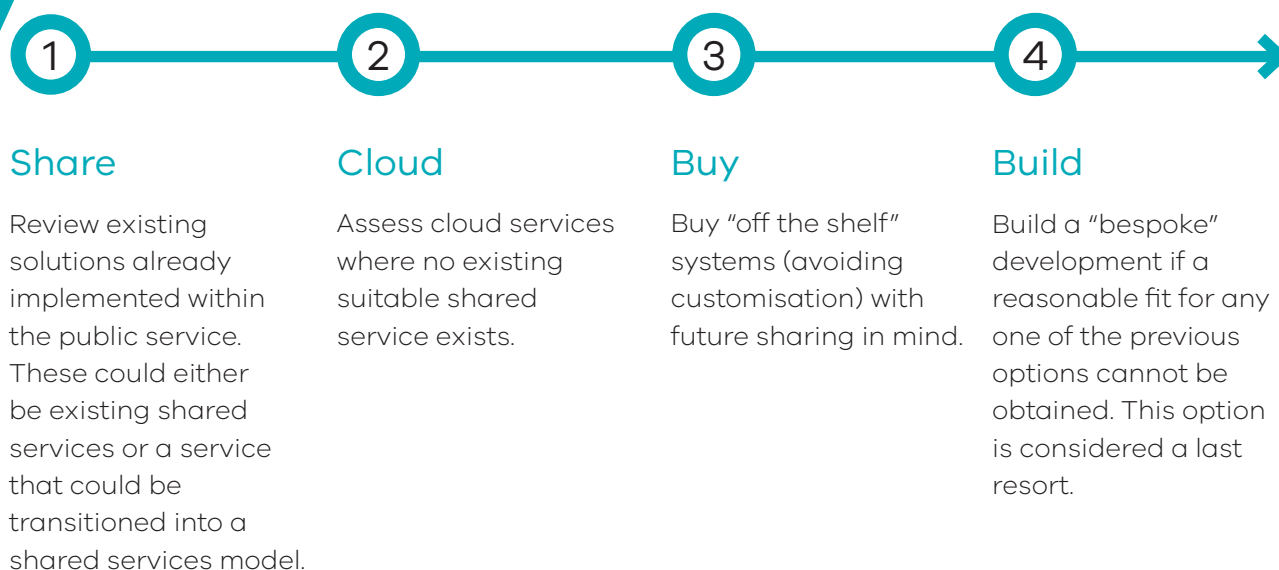


FIGURE 7: ORDER OF CONSIDERATION FOR ICT INVESTMENT

Where an existing solution does not exist, the order of consideration for an ICT investment will apply, with a cloud solution being considered next, or failing that, developing a new whole-of-Victorian-Government (shared service) solution based on commercial software. The development of bespoke systems will only occur rarely.

This approach to ICT implementation maximises value by ensuring that common technology and systems are reused across departments where possible. It also:

- › recognises the investment lifecycle for departments
- › continues financial and operational flexibility for departments
- › ensures that departments consider whole of government solutions
- › provides an avenue for non-participation in specific initiatives (if warranted) by allowing departments to submit a business case for opting out
- › supports a common approach for standard corporate systems and systems of record.

To implement this approach:

- › DPC will develop a forward plan of the back-end systems lifecycle for departments and identify in each case whether a Victorian Government solution is likely to exist (e.g. the provision of payroll services) or a new or refreshed technology system will be required (e.g. a financial management system). This forward plan will be actively monitored by the VSB.
- › At the relevant point in the system lifecycle, DPC will prepare a preliminary business case for consideration by the VSB that costs the various options open to departments of adopting:
 - › an existing Victorian Government solution, and the comparative cost of each option; or
 - › a new or refreshed technology system.

- › Where there is an existing Victorian Government solution, the VSB will determine which solution should become the default. A department nominated to be the default solution provider is responsible for managing the relationship with relevant technology service providers.
- › Where a new or refreshed system is required, the VSB will determine whether to proceed with the procurement of a new common system, or cluster of systems, or whether it is appropriate in exceptional circumstances (agreed with the VSB) for a department to proceed on its own. For those that proceed to a shared service, DPC will consult with departments to identify high level business needs for the relevant system.

Potential whole of government solutions may also arise in areas where technology plays a role in addressing complex social issues, such as family violence. This approach will apply to these systems over time, as they are identified as being suitable. The VSB will determine which non-back-end ICT systems (generally those considered unique to an agency's core function) can be addressed using this framework, as opposed to a department or agency-specific solution. Figure 8 outlines this process.

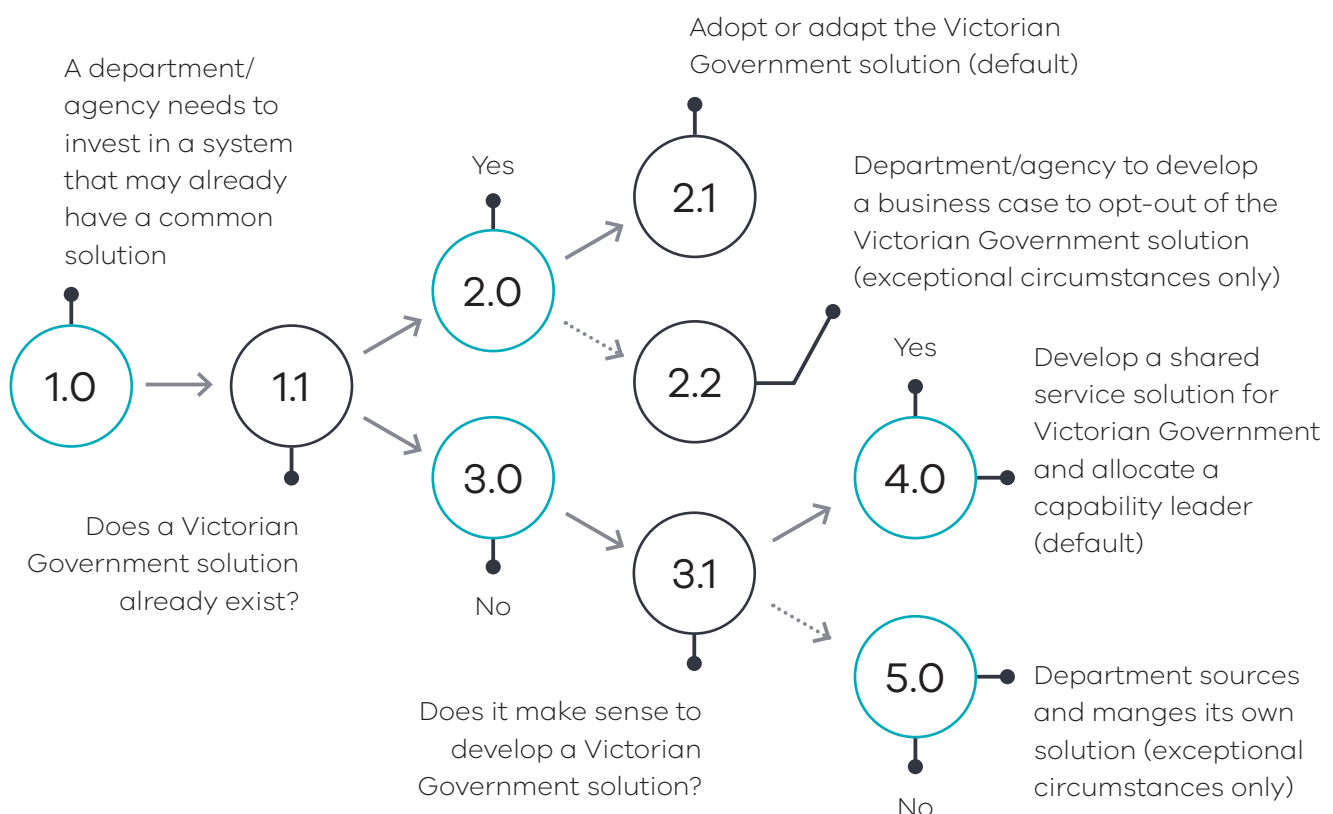


FIGURE 8: IMPLEMENTATION PROCESS FOR ALIGNING DEPARTMENT AND AGENCY INVESTMENT CYCLES TO VICTORIAN GOVERNMENT SOLUTIONS

Strategy review

This *Information Technology Strategy* will be reviewed annually to accommodate changes to government requirements and market opportunities. Implementation will be over a number of years, as it will take time to update the government's current business processes and systems.

INFORMATION TECHNOLOGY DELIVERY GUIDELINES

The following guidelines (Figure 9) underpin *Strategy* delivery and technology and information management investment decisions across the Victorian Public Service.



Digital (default)

The digital channel will be the default design paradigm for government services



Co-designed and citizen-centric

Victorians will be actively encouraged to participate in the design of citizen-centric digital services, which will be provided with end users in mind



Capability fostered

Government employees will develop capabilities to utilise market-based services to enable business objectives



Open, shared and managed information and data

- › default position is open and published (explicit exceptions)
- › managed as a shared and valued resource, decoupled from systems structures
- › uses standard global formats (decoupled from software products, allowing interoperation)
- › 'single source of truth' for personal data to reduce duplication, be transparent to citizens and open to correction
- › kept securely; available as needed – stored properly, described, and available to search



Enhanced business systems

For new and refreshed business systems, a modern approach to delivery will be undertaken. The order of consideration will be reuse, cloud, buy, then build



Mobile

Presentation of government services will be designed and available from the perspective of smart phones and tablets first



Strengthened procurement

Systems procurement will resist vendor 'lock-in', promote competition, and prefer open global data standards and standard global interoperability interfaces



Employee choice and flexibility

Employees should be given choice of devices and personal productivity and collaboration tools and should be able to easily work remotely from an office to serve citizens where they are



Robust ICT program governance

Responsible governance and management structures will be in place throughout the life of a project to provide confidence in decision-making and outcomes that meet stakeholder needs



Standard corporate systems

Systems that provide basic corporate functionality, (such as identity, document management, briefing, finance, human resources management and procurement) will be shared, standardised and consolidated

FIGURE 9: DELIVERY GUIDELINES FOR INFORMATION TECHNOLOGY

PRIORITY 1: INFORMATION AND DATA REFORM

OVERVIEW

Government collects, uses, stores and manages a large amount of information and data.

Government information and data should be open and transparent where possible. It should also be treated as an asset, meaning it must be accurate, not duplicated, stored sensibly, protected from unauthorised access where necessary, available when needed and shared as required.

Victorian businesses and entrepreneurs should be given the opportunity to create value from government data. Citizens should be able to easily view and correct their personal details, regardless of how it is stored by the government. Schools and universities should be able to use government data for learning and research.

In order to reach these goals, the government is rethinking its approach to managing information and data.

A data agency will be established to facilitate risk management and information sharing between agencies. Part of this work will involve identifying legislative and other barriers to information sharing. New arrangements for information sharing and data management across government will be developed.

Insights generated through the analytics work undertaken by this new function will be used by policy designers and decision makers to improve policy, service design and operational delivery. Greater emphasis will be placed on creating a 'single source of truth' for data, better document management, and standardised data formats. Similarly, government will aim to maintain one set of common records across functions, removing the risk of duplication and improving the productivity of government employees.

Not all data can be made open and transparent. Exceptions relate to private citizen or employee information, safety and security, and commercial data.



Information and data

These terms are sometimes used interchangeably, with various interpretations.

For our purpose:

Information – is what humans consume. It has been put into context, analysed to some extent, and in a format created, literally, "to inform". It is not formally structured to a high degree. As an example: the written preamble to the Budget papers.

Data – is a more fundamental component of information. It forms the building blocks of information, and needs to have its context formally described to be useful. For information technology purposes, data tends to describe highly structured information (such as in a database). One example is the tables of financial figures in the Budget papers.



PRINCIPLES

Information and data should be:

Open by default, treated as available for public use and scrutiny unless classified	Accurate reliable and correctable
Respected treated as an asset with value over its life cycle	Described accurately labelled in terms of its content, accuracy, currency and purpose
Owned has an explicit owner for important datasets and information	Classified assigned a classification as dictated by security, privacy and storage requirements
Useful only created where a need exists, and fit for that purpose	Automated systems that need data from other systems can interoperate directly
Shared where appropriate	Secure held appropriately according to its security and privacy classification
Discoverable easily found in enterprise-wide searches and by its content descriptors	Kept retained until no longer required, according to legislation or business need
Not duplicated treated as a single shared resource where appropriate	Effective managed by staff who are trained and capable

FIGURE 10: INFORMATION AND DATA PRINCIPLES



DIRECTION

Data and information should be treated under the principles shown in Figure 10, in particular:

- › transparent
- › open
- › treated as an asset
- › stored securely
- › easily found
- › shared.

Transparent

Governments worldwide have recognised the economic value in shared data. Victoria has started sharing data, and will focus on regularly releasing useful, high quality data.


Performance indicators will be set for quality and usefulness. Government staff are being challenged to release data and information by default, or provide clear reasons why not.

Open

Innovation is created through partnership with the community. Data sharing is a catalyst for collaboration and cooperation between the community and government.

Using released data, the government will collaborate with the community to design better services and policy. This will be achieved through events, forums and opportunities such as *GovHack*, an initiative that brings citizens and government together to apply their creative skills to open government data.

New digital platforms will support open data initiatives to take advantage of tools driven by web services enabled by Application Programming Interface (API) technology.



Legislation will be introduced to support openness through the reform of the *Freedom of Information Act 1982* (Vic) and the Office of the Freedom of Information Commissioner.

An asset

Government is an information business. It cannot deliver services or develop policy without access to information and data. In the past, government has not consistently treated its data and information as an asset. This has resulted in duplication, unclear ownership, incorrectly filed information and other forms of poor information management.

The government is working to change this mindset, with a focus on understanding the value of information and data. The government also recognises the need for consistent master data sets relating to, for example, customers, suppliers, citizens, employees, services and financial accounts.

Stored carefully and consistently

The volume of government information drives increasing storage requirements and highlights the need for it to be easy to find. As technology improves, data must be migrated to systems that can still read it.

The government is working on a clearer classification and information description schema. Improving search capability may be the eventual answer, but in the meantime, metadata is still needed to contextualise search-discovered information.

The government is also exploring contemporary options for long-term storage of certain types of data. This will aid discovery, increase security and improve availability of government information and data.

Shared

Government initiatives often involve collaboration across government and the broader public purpose sector.

Government needs to take a stronger approach to sharing its data internally. As an example, the *Royal Commission into Family Violence* has highlighted that government's internal use of data needs to be effective and systemic. Creating a multi-agency family violence safeguarding function and data agency to undertake high-level data integration and analytics is an important first step in putting focus on this need.

Effective information sharing supports the co-design and delivery of services and enables greater transparency of performance. More than technology, this requires long-term attention to the right culture, skills, practice, process, and policy settings.

Government creates, collects and holds data with the potential to drive innovation, reveal new research findings, create new business opportunities, enable new services and support improvement to existing services. Making data freely available to the public is the State's default position. Where possible, agencies must make data sets available with no or minimal restrictions (including the proactive removal of cost barriers) as outlined in the *DataVic Access Policy Guidelines*⁶.

ACTIONS FOR INFORMATION AND DATA

ACTION	DUE
1 Introduce legislation to reform the <i>Freedom of Information Act 1982</i> (Vic) and the Office of the Freedom of Information Commissioner	June 2016
2 Review how the government measures the release of data by developing performance indicators for quality and usefulness	September 2016
3 Develop an information management framework	December 2016
4 Create a data agency that will better use and share data and information to improve policy making and service design	January 2017
5 Identify potential master data sets and design the cross-sharing of these data sets with a supporting business case	March 2017
6 Explore options for the long term storage of data, which should aid discovery, increase security and improve availability of government information	April 2017

6 DataVic Access Policy – <http://www.dtf.vic.gov.au/Publications/Victoria-Economy-publications/IP-and-DataVic/DataVic-Access-Policy>

PRIORITY 2: DIGITAL OPPORTUNITY

OVERVIEW

Victorians should be able to interact digitally with government services and information in a way that is useful, easy and always available.

To achieve this, government engagement mechanisms will focus on digital-first, citizen-centric delivery of government services and transactions.

The government is committed to helping citizens share their views on key issues, enabling better policy and service design.

Content should be presented in clear language that is easy to understand.

Citizens should be able to transact and engage with government through mobile devices, such as smart phones and tablets. In the digital era, the government will focus its digital design on delivering consistent and simple citizen engagement channels (see Figure 11).

There will be exceptions to the digital-first approach; not all citizens prefer (or have the means) to engage with government online. Ensuring that citizens are able to meaningfully engage with government when they do not have access to, or are unable to use, technology is a matter of equity. Some needs are complex and require special attention. In these cases, the government will continue to cater for specific requirements. However, digital technology is easy, useful and always available, and will be the preferred choice for providing a government service.



DIGITAL DESIGN PRINCIPLES

The government's digital presence should be:



EASY TO USE	making it preferred to other communication and interaction methods
SIMPLE	leading directly to the most used services and information
AVAILABLE	24/7 access
USEFUL	designed to solve common problems
CONSISTENT	working the same way for standard functions, for example data collection
JOINED TOGETHER	integrated between agencies
MOBILE	designed first for smart phones and tablets and easily consumed on these devices
COMPLETE	when the path to completion is accepted, ready to complete online without manual tasks being inserted into the process
CLEAR	uses direct active language
FAST	quick to submit and provides an efficient end-to-end process
AWARE OF HISTORY	able to provide a record of past interactions where appropriate
AWARE OF USER	able to use known information from previous interactions with government

FIGURE 11: DIGITAL PRESENCE PRINCIPLES

DIRECTION

The government is developing better digital channels and mobile services.

Better service delivery

Citizens, business and government benefit from government digital service delivery. These opportunities must be driven by service users, and consider privacy and user security. Digital service delivery opportunities must be based on value and effectiveness.

Better digital transactions

The 2016-17 Victorian Budget provides \$81 million for Service Victoria's development, following planning undertaken in 2015-16. Service Victoria will modernise the delivery of high volume government transactions, setting a new standard for customer service in Victoria. This includes developing a digital distribution channel for simple, high volume transactions.

Better digital services

The government has set standards in relation to websites, which include the use of *responsive design* or *adaptive design* so that government websites are usable on mobile devices. These standards will be reviewed to create a comprehensive framework to cover all categories of digital assets, including web, mobile, apps, and social media.

Currently, a comprehensive list of government mobile apps for use on mobile devices is available at www.vic.gov.au/social-media/mobile-apps.

The government will pilot the capability for government information being offered by third parties through Application Programming Interfaces (APIs).

Digital collaboration for better policy and service design

The government regularly consults citizens regarding their views and opinions on potential government policies, programs and services. The government is now focusing on making it easier to consult online and get better insights through a platform-based approach to consultation. Digital platforms can be used to consult and collaborate more widely, allowing all Victorians the opportunity to share their views on important topics.

The government will develop a consultation platform to engage Victorian citizens and obtain deeper insights into how the government can better shape policy and service delivery.

ACTIONS FOR DIGITAL

ACTION		DUE
7	Develop a unified consultation and collaboration platform	October 2016
8	Pilot an API Gateway to facilitate sharing between agencies and the community	December 2016
9	Develop a framework and standards for digital assets, including mobile apps, websites and other digital services	February 2017
10	Review government's digital presence with a view to consolidation where it will make information discovery easier for citizens, and develop a framework for delivery	May 2017
11	Development of Service Victoria, including a digital distribution channel for simple, high volume transactions	June 2017

PRIORITY 3: TECHNOLOGY REFORM

OVERVIEW

Government employees should not be hindered in their effectiveness and responsiveness because of outdated tools, poor systems or a proliferation of different corporate systems trying to achieve the same outcome. The government aims to be an employer of choice in order to attract the best talent for the benefit of all Victorians.

To achieve this, the government is rethinking its workplace.

Personal productivity systems should have robust, industrial-strength back-end components, but allow employees to easily use contemporary tools.

Employees should be able to use a familiar and standard system for everyday corporate processes such as procurement and finance, and document, performance and identity management. No matter what department an employee is in, or what location they are working from (including regional offices), these systems should be similar even if an employee moves between departments.



Employees should have easy access to appropriate software relating to email, calendar, document creation, address book and collaboration tools. Employees should also have modern devices that improve their productivity and effectiveness. They should have a single government identity and an email address that moves with them throughout their tenure.

Employees should have tools and systems that allow them to work flexibly, providing a workplace that contributes to increased effectiveness. A modern flexible workplace which supports personal productivity retains talented staff and increases the opportunity for staff diversity.

The briefing of government should also be improved: streamlining and automating approval processes, incorporating automated document management, and creating clear accompanying data on the authority and status of documents.

Technology projects that deliver change in major systems should be undertaken in a way that minimises risk and maximises value. To achieve this, the government's approach to ICT project delivery will be based on shorter timeframes to value, smaller-delivery pieces, increasing in-house capability and the transparency of project status. High quality independent assurance will be undertaken for large projects.

Network and cyber security

Government systems should be secure. A fast-escalating cyber threat landscape means that government must take a strategic approach to managing system security.

Departments and agencies currently manage their own ICT networks, with minimal connectivity across government. This approach poses issues across government, including those shown in Figure 12.

To address these issues, the government will develop statements of direction for developing its network and cyber security capabilities, and will set these in the context of a strategic response to the cyber threat.



FIGURE 12: CURRENT NETWORK AND CYBER SECURITY ISSUES WITHIN GOVERNMENT

MODERN AND COMMON SYSTEMS FOR GOVERNMENT BUSINESS

Principles

The *Strategy* implementation process maximises investment by ensuring that common technology and systems are reused across departments and agencies where appropriate (see Figure 13).

Government business systems should be:


SECURE based on a robust network, secure systems and secure data storage	STANDARD AND CONSOLIDATED in both corporate and business systems	IDENTITY-CAPABLE not needing individual credentials, but able to use an identity system
DELIVERED CAREFULLY through capable, accountable and transparent project delivery		MANAGED through their lifecycle, including keeping within upgrade timeframes

FIGURE 13: VICTORIAN GOVERNMENT BUSINESS SYSTEM PRINCIPLES

Direction

The government is setting requirements for a modern workplace, standardising its back-end systems, sharing its corporate services where this makes sense, managing its projects and taking a strategic view of cyber security. This will reduce the cost and productivity loss associated with machinery of government changes by disconnecting corporate services (where possible) from direct relationships with individual departments or agencies. Corporate systems would therefore be treated in the same way as other large enterprises.

At the basic level, many employees are hampered by out-of-date government systems for tasks like booking a meeting, sending an email or interacting digitally within a group. They are frustrated they can't work digitally when they are away from their desks.

The government is developing a standard set of workplace requirements to meet the needs of a modern, agile workforce. This will allow new employees to become productive quickly, and ensure that existing employees have access to workplace solutions that suit the way they work.

CENITEX

Principles

The government's existing shared services will be based on principles (Figure 14) that were approved as part of the *Business Support Services Strategic Review (BSSSR)* in June 2015. As a critical shared service in government, CenITex is aligning itself to these principles.



FIGURE 14: SHARED SERVICES PRINCIPLES

Direction

Finalise CenITex's governance arrangements

CenITex's is a government ICT shared service provider for several departments and agencies. It is a state-owned enterprise (SOE) with an appointed board. This arrangement has been reviewed to ensure:

- › appropriate accountability.
- › a strengthening of CenITex's customer focus and establishment of a stronger customer service direction.

The CenITex board has been revised to include significant customer representation. The board has retained existing members for continuity and for their expertise.

To finalise CenITex's governance arrangements, the government will update and refresh the CenITex enabling order and remove its 'reorganising body' status. Returning CenITex to an ongoing state body under the *State Owned Enterprises Act 1992* (Vic) will provide the stability and the new sense of direction required to meet the challenges of a rapidly evolving ICT environment.

Establish CenITex's performance management framework

CenITex will also strengthen its performance management framework. The CenITex Board will use three forms of monitoring (see Figure 15) to oversee the performance of the organisation.



Business view

Understanding the health of the overall business, whether it is delivering in accordance with the business plan, and whether it remains financially viable and competitive overall.



Services view

Understanding whether this service is achieving the performance metrics set and expected by its customers, whether this service is competitive when considered against alternatives, and whether this service is financially viable.



Customer view

Understanding whether each customer is receiving the service they signed up for, whether the customer feedback has been positive, negative or indifferent, whether there are any significant outstanding customer issues or changes in the customer's use of the shared service.

FIGURE 15: MONITORING CATEGORIES FOR SHARED SERVICES

ACTIONS FOR TECHNOLOGY REFORM

ACTION		DUE
Modern systems for employees		
12	Develop a statement of direction for a workplace ICT environment with a supporting implementation roadmap	July 2016
13	Develop a statement of direction for a Victorian Government data network, including a future design supported by an implementation roadmap and preliminary business case	August 2016
14	Develop a statement of direction, and an overarching strategy for cyber security	December 2016
15	Develop a statement of direction for staff/contractor identity management, with a supporting implementation roadmap and business case to enable workplace, shared services, and network standardisation	March 2017
Modern and shared systems for government business		
16	Develop a statement of direction for human resources systems that will support a common systems approach to human resources for the government	August 2016
17	Develop a statement of direction for financial systems that will support a common systems approach to finance for the government	August 2016
18	Develop standards and improved procurement models for government agencies to access cloud services	December 2016
19	Develop a statement of direction and implementation plan for automated briefing processes and associated document and information management to support streamlined government briefing	April 2017
CenITex's governance		
20	Finalise CenITex governance arrangements	July 2016
21	Establish a performance management framework for CenITex	September 2016

PRIORITY 4: CAPABILITY UPLIFT

OVERVIEW

Government's internal capability to utilise, implement and procure systems and services from the contemporary ICT market needs to be strengthened.

The following capability enablers are being addressed:

- › Building broader technology capability and awareness across the VPS
- › Strengthening ICT project delivery
- › Strengthening ICT procurement
- › Transforming confidence and willingness to engage.


ICT CAPABILITY

Improved ICT capability is needed within the public service. Information technology is a foundational enabler of modern government and needs to be more broadly understood as a core skillset of public servants, not just the technical staff tasked with managing systems.

The government will identify roles, responsibilities and training needs in order to uplift ICT capability within the government.

The government will also identify new ways of building technology capability through bringing non-government sector experience into government through projects such as those supported by the Public Sector Innovation Fund.





Further, the Victorian Public Sector Commission is supporting the Victorian Secretaries' Board in its stewardship role to build capability across the public service. The resulting *People Capability Strategy* establishes an agreed understanding of which core and specialist capabilities contribute most to lifting capacity across the government's workforce and support agile organisations. This strategy applies a service-wide lens to map capability gaps and current and future needs, and to design and deliver our response. The Commission is also working with government departments to ensure the Graduate Recruitment and Development Scheme (GRADS) continues to meet needs including in the areas of Science, Technology, Engineering and Maths (STEM) specialties.

ICT PROJECTS

As in many other organisations, the public service has experienced a track record of both successful and unsuccessful delivery of ICT projects. The government will continue to make use of well-respected project methodologies and is committed to being a confident and informed purchaser.

The government is reviewing how it delivers ICT projects with a focus on capability, gateway processes, independent assurance, and increased accountability through clearer governance and transparency. From mid 2016, the government will also publish a quarterly dashboard detailing the status of ICT projects with a budget over \$1 million.

Executives who sit on ICT project boards will be required to undertake specialist training in the requirements of ICT project board responsibilities. The government will continue to strengthen its existing program, and ensure greater use of independent auditors and probity advisers on complex projects.

Projects with an ICT component that are high value or high risk will continue to be treated as a special High Value High Risk (HVHR) investment category, with specific technical guidance to address recurring planning, management and implementation issues.

In addition, the government has developed an approach to improve assurance for major ICT projects. This includes requirements for projects to be subject to rigorous independent review, have a probity focus, and use independent project experts to provide ongoing quality assurance during project implementation.



PROCUREMENT MODEL REVIEW

Government procurement is critical to the delivery of ICT services. With cloud services now fully mature, and current Commonwealth Government procurement mechanisms providing opportunities, the Victorian Government is reviewing the following aspects of its procurement process:

- › existing procurement arrangements, processes and tools, including ICT services obtained through the eServices panel
- › the procurement of cloud services
- › how the government can procure more effectively from Commonwealth contracts and panels.

WILLINGNESS TO ENGAGE

Government staff can build their technology capability through working in new ways, and one of the best ways of learning new approaches is by undertaking them in partnership with experts.

The *Public Sector Innovation Fund*, which encourages government to use new approaches to delivering better outcomes for Victorians, is promoting projects that rely on modern approaches such as ‘agile’ development, co-design, data analytics and design thinking.

For example, events like the *Information Roundtable* of 2015 drew together industry and academic representatives with senior public servants from state and local Victorian governments, and the Commonwealth Government. These events allowed all stakeholders an opportunity to work through the opportunities and challenges around information sharing, and identify priority areas to address. This work spurred information sharing projects and initiatives now underway across government.

Further, a series of innovation workshops during the second half of 2016 will engage industry, academia and the public service around the opportunities and challenges for innovation in government, with the target of identifying new ways that technology and transformative expertise can be used within government to improve policy development and service delivery for Victoria.

These modern approaches are being adopted by Service Victoria to plan a new whole-of-government service capability that will enhance delivery of government transactions with citizens and enable the delivery of a more effective customer experience. Planning will enable changes to systems, processes and information, setting a new standard for customer service in Victoria.

In March 2016, the government released eight future industries strategies, including the *Construction Technologies sector strategy*. The government is piloting the use of Building Information Modelling technologies with industry across government construction projects, with a view to increasing the government’s own use of contemporary and globally recognised technologies and approaches.

Victorians have told us they prefer digital services, but less than one percent of the state's transactional services are available digitally end-to-end. Service Victoria is engaging with experts from other industries and with customers to bring new insights into service design and solve the roadblocks to fully online services.

Open data events and other public-facing opportunities will also be pursued to bring government staff into the open data community and engage with the broader public around policy and service delivery analysis and change. These events build conversations and information exchange between government experts and the broader community, which in turn supports a greater awareness, understanding and appetite for the open data agenda across government.

ACTIONS FOR CAPABILITY UPLIFT

ACTION		DUE
22	Develop and implement a series of changes to improve ICT project delivery (ICT Dashboard; quality assurance; independent advice)	July 2016
23	Review and update the ICT Governance Education Program for executives sitting on ICT project boards	June 2016
24	Review how the government procures ICT	September 2016
25	Undertake a Public Sector Innovation Fund project with Code for Australia	December 2016
26	Develop an upskilling plan for ICT capability within the government	January 2017

Contact information

DPC's Enterprise Solutions Branch produces standards, policies, and governance frameworks for whole-of-Victorian Government shared services and ICT. It also identifies future opportunities in these areas and reports on significant ICT investments.

For further information relating to the *Information Technology Strategy*, see the contact mechanisms shown at www.enterprisesolutions.vic.gov.au.

APPENDIX A – SCOPE

SCOPE OF THE INFORMATION TECHNOLOGY STRATEGY

This *Strategy* has been designed to have wide applicability across Victorian Government departments and agencies. It should guide design, planning and action within any agency funded by the government.

For the purposes of accountability in relation to the specific actions of the *Strategy*, the following departments and agencies are formally in scope:

All departments

Department of Economic Development, Jobs, Transport and Resources

Department of Education and Training

Department of Environment, Land, Water and Planning

Department of Health and Human Services

Department of Justice and Regulation

Department of Premier and Cabinet

Department of Treasury and Finance

Agencies

CenITex

Victoria Police

Other agencies will determine their inclusion in the scope of this *Strategy* through consultation with their portfolio departments.



APPENDIX B – CORPORATE SYSTEMS

VICTORIAN GOVERNMENT CORPORATE SYSTEMS

Financials

- Accounts payable
- Accounts receivable
- Asset/materials management
- Billing
- Debt collection
- General ledger
- Government grants
- Planning and budgeting
- Procurement

Human capital management

- Benefits and remuneration management
- Employee performance management
- Health and safety
- Learning and development
- Payroll
- Recruitment, including position description development

Identity

- Citizen access channel
- Collaboration
- Common staff directory
- Staff/resource access management (i.e. common identity)

Other

- Cabinet documentation
- Document management
- Draft legislation
- PPQs
- Records management
- Secure data exchange
- Web content management





VICTORIA