Australian Government

**Australian Customs and
Border Protection Service**

Technology Strategy

April 2014

Contents

Overview

This technology strategy outlines how we will transform the Australian Customs and Border Protection Service's (the Service) current technology environment to one that delivers on our vision and mission. It describes:

- Our current environment and drivers for change
- Our future vision for technology and major change areas
- The major transformation shifts we need to make and the partners who will help us achieve our vision.

Our environment

The operating environment for the Service is characterised by an increasing volume and complexity of border transactions, occurring in diverse channels across a range of physical and electronic environments, with limited resources and reduced time in which to intervene at the border.

This environment will continue to evolve, presenting new challenges and opportunities. International air and sea passengers are projected to increase 25 per cent from around 34.3 million in 2013-14, to some 42.9 million by 2016-17. Over the same period, incoming air cargo

is projected to increase by 85 per cent from 28.3 million to 52.4 million, while sea cargo will increase by 20 per cent from 2.7 million to 3.24 million manifest lines. Travel and trade patterns are becoming more complex, with the range of goods, biosecurity hazards and economic risks growing. The geographic area within which the Service operates is also expanding, with more remote ports coming on line and ramping up operations.

At the same time, entities trying to breach Australia's borders are becoming increasingly responsive and resilient to law enforcement interventions and tactics. Opportunities for organised crime today are unprecedented – increased globalisation, escalating cross-border movements of people, goods and money, emerging international markets, and rapidly developing and converging technologies provide a fertile operating environment for organised crime. The risk of infiltration and corruption remains high, with events during 2012–13 demonstrating the need for us to increase our focus on such vulnerabilities. Recent high-profile overseas examples of the threat from the 'trusted insider' have highlighted the very real damage the actions of these individuals can have.

Technological advancements will impact heavily on our future operating environment. These advancements offer increasing opportunities to improve

how we enable our business operations with capabilities such as biometrics for enhanced border control, eGate technology to support the expansion of automated entry systems and an evolving cyber security environment to manage security risks. It also offers challenges through the exploitation of technological advances by criminal networks who may attempt to compromise the security of the border and the processes and systems used to protect it. Internet trade is also expanding globally, presenting challenges to the traditional format of trade relationships – both licit and illicit, with an exponential growth in the volume of goods purchased online crossing the border.

The evolving operating environment presents a range of opportunities and challenges specific to technology. A greater reliance on digitisation and automation to deliver our services to our staff and clients, along with the need for our officers to be mobile and constantly connected requires that our critical systems and the information we deliver are secure, accessible, reliable and fault tolerant. Our reliance on technology will increase even further as we redeploy officers in the field. For example, fewer officers in airports will mean that we will no longer be able to rely on humans as a contingency in the event of a technology outage. Technology innovations will provide us with opportunities to better support our officers, but we must be disciplined in evaluating the benefits and risks to ensure that capabilities are fit for purpose and aligned with business needs.

Why change?

Our current technical environment is at a critical stage. It has become unwieldy and complex to manage, costly, inefficient and high risk. We have large numbers of disconnected, duplicated and siloed systems to support our core operational activities. Many support stove-piped business processes, have already reached or are rapidly approaching the end of their useful life, or are dependent on individuals with skills which are becoming increasingly difficult to obtain.

Over recent years, budget reductions have resulted in a serious lack of investment in critical maintenance and enhancement activities. This has meant that our existing siloed investments have been stretched beyond their limits. This has led to a technical environment that does not effectively support current business models let alone our future aspirations. With greater investment and access to new and evolving technologies, we will be able to deliver and support the fast paced, dynamic business we aspire to be.

Our move towards a more agile, operationally-focused agency must be underpinned by a connected information environment supported by reliable, accessible and secure systems. Our future operating environment requires systems that are interoperable with our partners, industry and our clients.

> We must take advantage of technological advances if we are to enable transformation and deliver more effective and efficient services.

This transformation must occur in an environment where resources and finances are tight. It will also require new structures, approaches and skillsets.

Our vision for technology – what success looks like

Our technology vision

"To provide an integrated set of technology capabilities that fully support our business operations, enabling our officers to efficiently and effectively carry out their duties."

By 2018, the Service will be far better supported by technology than it is today. Our corporate mission to protect Australia and support its economic prosperity by facilitating legitimate trade and travel will be enabled by secure, integrated and reliable technology capabilities.

Our officers will have ubiquitous access to integrated technology capabilities that will help to manage their personal and career development, support their daily work and reduce the burden of manual data entry. There will be seamless connectivity, operational collaboration and controlled sharing of data both within and outside the Service. Collaboration and information sharing will extend across all security classifications, increasing our responsiveness in dealing with current and emerging threats.

Our technology capabilities will provide real-time access to information, supporting evidencebased decision making. Our Border Force Officers and Regional Commanders will have access to mobile platforms that will allow them to be agile and highly deployable. We will provide our officers with access to visual, geospatial and social data for analytical purposes, all from their preferred device. This access will be secure and reliable.

Our technology capabilities and business processes will be increasingly standardised, reducing the need for specialist product knowledge and increasing our overall efficiency. Our operations will be supported by technology that enables high levels of automation for high volume, low-value activities, freeing up our precious human resources for higher value activities that are better performed by human beings.

We will integrate technology capability delivery across the Service. This will mean that accountability for delivering technology capabilities such as eGates, biometrics, x-ray, forensics and officer borne technologies such as cameras, radios and mobile devices will be consolidated.

We will continue as an information service provider for our partner agencies. This will ensure that they remain able to deliver on their organisational commitments through direct access to the information they require.

Our external stakeholders and clients will be able to interact with the Service electronically in a secure and reliable way. Access to and submission of information will be underpinned by modern, accessible and industry standard technologies.

Our long-term vision for technology capabilities will be clearly reflected in our reference architectures, patterns and standards. These will be communicated and understood by those who need to know.

Our technology mission

To achieve this vision, we will adopt the following mission:

"Provide technology capabilities that allow the Service to deliver on its mandate to protect our borders while facilitating legitimate trade and travel."

Operational focus

We must move from being a traditional ICT organisation that is focussed primarily on capability delivery determined by the corporate parts of the agency, to a broader technology capability delivery organisation that is focused primarily on delivering capabilities to support our business operators.

Centralised services

We must move from individual business lines independently controlling their own technology capabilities to a point where the technology organisation is responsible for leading and managing all technology capabilities across the Service.

What change is needed?

In order to transform our technology environment we need fundamental change in four key areas.

Standard solutions

We must move from custom-built technology solutions that are specific to each line of business to the use of standard technologies for common or commodity-based business needs. We will only use custom build as an approach where there is a specific and differentiating business need. Where common or commodity services have been identified, assessment on the technical approach will be performed at the portfolio level.

Whole of life view

We must move from making technology investment decisions based on a view of one financial year to a point where investment decisions are made based on a clear view of the total cost of ownership over the entire life of the capability.
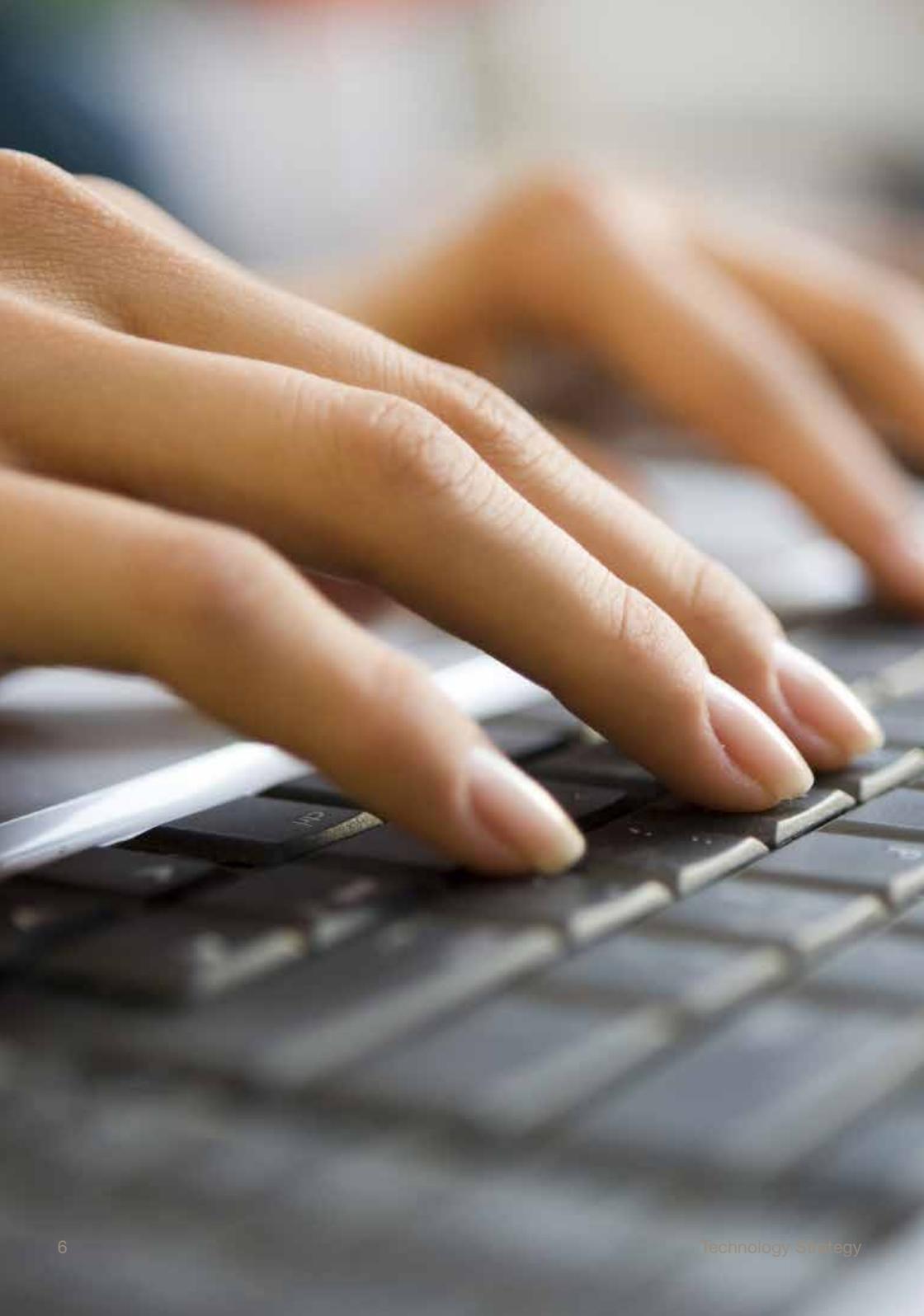
Our approach

To deliver on our vision and mission we will focus on the following Technology:

Applications

The applications and systems that meet corporate [whole of Service], business [one or more specific functional areas] and individual [Service staff] needs considering the broader portfolio.

Infrastructure

The platforms and connectivity which deliver technology capabilities across the Service considering the broader portfolio.

Other supporting technology capabilities

The devices to support individual and corporate needs [such as CCTV, long range communications, and video communications] and the technology to support operational business functions [such as X-ray capabilities and officer-borne technologies].
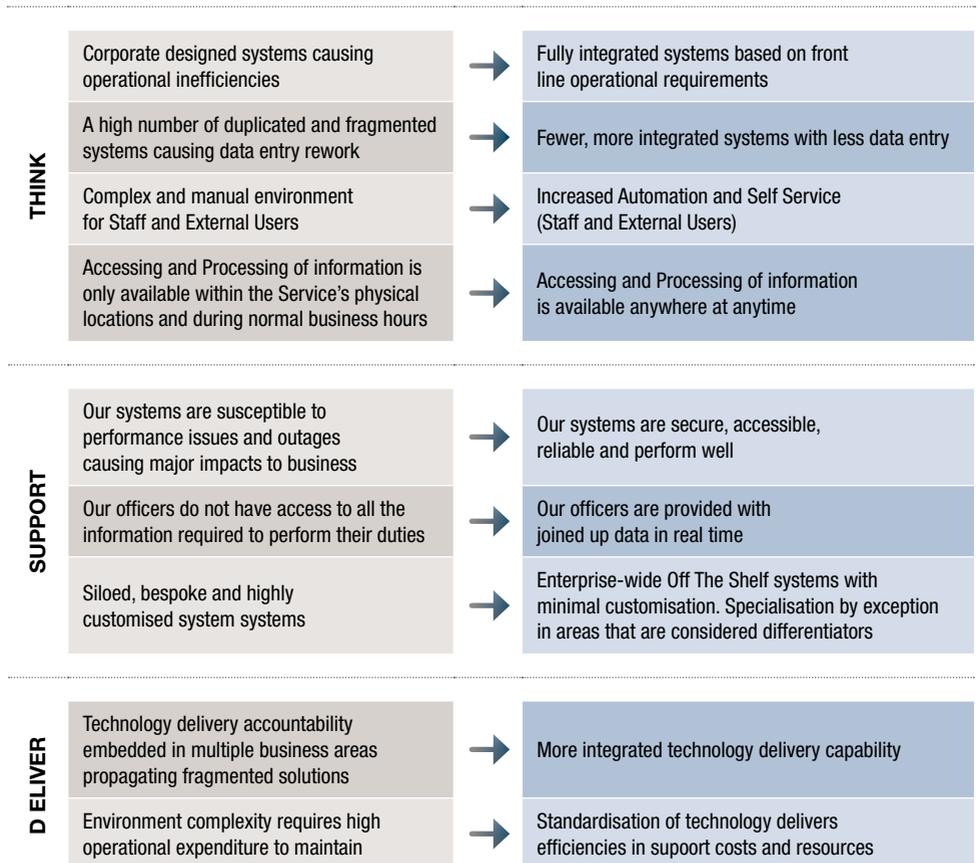
To support the transformation journey our activities and decisions must be bound by the following principles. These principles will guide our technology decisions ensuring that our vision can be achieved and that we deliver on our mission.

Principle	Short Description
Enterprise View	We will adopt an enterprise-wide view of all technology issues, seeking to implement technology solutions that meet enterprise as well as specific business needs. We will maximise the wider application and re-use of the technology and promote standardisation across the Service and broader Immigration and Border Protection portfolio.
Simplicity of Use	We will deliver a consistent, streamlined, integrated and intuitive experience for end users. Users will be able to work across different domains using a single logon and without the need to re-learn tools.
Fit for Purpose	We will implement technology based on operational suitability requirements to support business needs (availability, durability, security, disaster recovery etc.). Capabilities will be proven prior to implementation.
Reuse	We will maximise our technology investments by re-using capabilities across multiple business lines.
Reliable and Secure	We will provide a reliable and secure technology environment to enable information sharing while ensuring that we meet our obligations for the proper use and protection of information.
Prioritised	We will allocate resources in line with Service-wide priorities.
Agile	We will provide systems that are flexible and responsive to changing business needs. They will be integrated, but loosely coupled to allow specific business functions to evolve and adapt supporting emerging requirements.
Aligned with Information Environment	We will deliver Technology capabilities that are directly aligned with our Information Environment Strategy.

Transformation shifts – how will we know we have been successful?

We know we will have delivered on the strategy when the following strategic shifts have been realised:

THINK

Corporate designed systems causing operational inefficiencies	→ Fully integrated systems based on front line operational requirements
A high number of duplicated and fragmented systems causing data entry rework	→ Fewer, more integrated systems with less data entry
Complex and manual environment for Staff and External Users	→ Increased Automation and Self Service (Staff and External Users)
Accessing and Processing of information is only available within the Service's physical locations and during normal business hours	→ Accessing and Processing of information is available anywhere at anytime

SUPPORT

Our systems are susceptible to performance issues and outages causing major impacts to business	→ Our systems are secure, accessible, reliable and perform well
Our officers do not have access to all the information required to perform their duties	→ Our officers are provided with joined up data in real time
Siloed, bespoke and highly customised system systems	→ Enterprise-wide Off The Shelf systems with minimal customisation. Specialisation by exception in areas that are considered differentiators

DELIVER

Technology delivery accountability embedded in multiple business areas propagating fragmented solutions	→ More integrated technology delivery capability
Environment complexity requires high operational expenditure to maintain	→ Standardisation of technology delivers efficiencies in supoort costs and resources

Our key partners

In addition to the engagements and partnerships within the Service, enhancing our technology environment will require the support of a number of key external partners. The following partners have been identified as key to helping us achieve our vision:

- Border management community
- National security community
- Law enforcement community
- Other Commonwealth Government partners
- State and territory jurisdictions
- International partners
- Technology Vendor Community
- Industry and
- The community.