Australian Public Service Mobile Roadmap

Adopting mobile technology across government

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AGIMO is part of the Department of Finance and Deregulation

Foreword

All forms of mobile technology, such as smartphones, tablets, 4G, wifi, mobile-enabled websites and mobile applications, have become a ubiquitous part of Australian society. In the short time that we've had access to these technologies they have profoundly changed the ways we work and interact with others — professionally and personally. For many of us we are more effective, connected and productive as a consequence.

The *Australian Public Service Information and Communications Technology Strategy 2012-2015* (*ICT Strategy*)[1] and the *National Digital Economy Strategy Update: Advancing Australia as a Digital Economy* (*NDES Update*) [2] recognise the far reaching potential of mobile technology to increase public sector and national productivity through enabling more convenient, easy-to-use services, increasing organisations' productivity and facilitating open engagement with citizens, communities and businesses. The *NDES Update* includes a new commitment of 'Digital First' for client service delivery including a focus on mobile platforms.

Australian Government agencies are embracing the potential of mobile by adapting websites and services for convenient access on mobile devices, developing innovative mobile applications, and using tools, such as social media, to engage more effectively with mobile users — when and where they want to. Increasingly consumerisation is driving agencies to support new technologies with personally-owned mobile devices in the workplace — an opportunity to be leveraged rather than a problem to be discouraged. Agencies are addressing the many challenges inherent with mobile technology, such as maintaining security and privacy, integrating with existing systems, and establishing new policies to support new work practices.

The aim of this roadmap is to build a consistent, whole-of-government approach to adopting mobile technology that will help us achieve the objectives outlined in the *ICT Strategy* and meet the commitments and milestones of the *NDES Update*. Our goal is to better position the Australian Government to use mobile technology in new and innovative ways to extend services to citizens, improve agency and staff productivity, and engage more effectively.

This roadmap will be implemented under the governance established for the *ICT Strategy* and Digital First under the direction of the Secretaries ICT Governance Board (SIGB) supported by the Chief Information Officers' Committee (CIOC).

This roadmap will be regularly reviewed and, where necessary, updated to ensure it remains strongly aligned with government priorities.

Introduction

The imperative to adopt mobile technology in government has never been greater.

Australians are enthusiastic adopters of smartphones and tablet computers. As at May 2012, 8.67 million Australians use smartphones and 4.37 million use tablets.[3] Adult take-up of smartphones has increased from 25 per cent of the population at June 2011 to 49 per cent at May 2012.

> *"For a century, each Prime Minister used to lug his Cabinet papers home in a bulky folder that would have felled a forest worth of paper over a year. I slip an iPad into my brief case."*
>
> *Prime Minister Julia Gillard*
> *Opening remarks to the Digital Economy Forum, 5 October 2012*

Australians have long expressed a preference for accessing government services using online channels.[4] The availability of innovative and convenient mobile services offered by the private sector, such as online banking and the increased use of social media, are indicators that public expectations are for similar access to government services and information. The expectations that government will embrace the opportunities of mobile technology also carry into the workplace where staff see practical applications for the mobile devices they already use in their personal lives.

The most compelling call to action is mobile technology's recognised contribution to productivity for both consumers and providers of government services, and for society as a whole. A recent Deloitte Access Economics study estimates an $11.8 billion productivity benefit over 2012 to 2025 as mobile shifts from being a device for individuals to being a platform underpinning business.[5] Worldwide, governments are using mobile technology to make considerable improvements in their national, economic and social development.[6]

Why this roadmap?

The *ICT Strategy* outlines the benefits that arise from a strategic and coordinated approach to ICT. It suggests that by leveraging and sharing the work of lead agencies across the APS, government can provide better and more streamlined services to people when, where and how it suits them, so they can be more productive. It also better positions the APS to respond with innovative solutions to rapid technological changes, such as those seen with mobile technology, and therefore meet the expectations of citizens and businesses. Agencies also stand to benefit from the opportunities they offer through sharing improved and more efficient business processes.

Building on this the *NDES Update* commits the Government to a policy of 'Digital First'. A key commitment in Digital First is to require agencies to make key priority services available online, including on mobile platforms, by December 2017. These priority services will include a range of income support, child support, families assistance, taxation and health and aged care related services. This will help the achieve the Government's target which requires that 80% of Australians choose to engage with the government online by 2020.

The opportunities offered by mobile technology differ among agencies due to the diversity of agency business objectives. Most have already employed some form of mobile technology and are looking to increase its use to improve service delivery and workplace productivity.

This roadmap is intended for agency senior executives, chief information officers, and business and program managers. It highlights the opportunities available to agencies and sets forward a coordinated approach across government to adopt mobile technology with the aim of delivering the strategic priorities of the *ICT Strategy* — delivering better services, improving the efficiency of government operations, and engaging openly with citizens, communities and businesses.

The Way Forward below outlines a number of specific actions for AGIMO and agencies to undertake over the next two years to achieve:

- appropriate customer-facing services conveniently available through accessible, personalised, location-aware, and easy to use mobile channels;
- improved workplace productivity through effectively employed mobile technology;
- increased capability to develop and support mobile solutions;
- adoption of a consultative, user-centric design approach with industry that acknowledges and builds on whole-of-government solutions and encourages more consistent but no less innovative use of mobile technology; and
- the establishment of policies, standards and practices to assist the efficient adoption of mobile solutions.

It also includes actions for AGIMO to investigate:

- common approaches to remote access services that work across the full range of mobile devices to better support a more mobile workforce; and
- further application of mobile technology to support the APS Telework goal of 12% of staff regularly teleworking by 2020.

This roadmap has been endorsed by the Secretaries' ICT Governance Board and will be implemented under the governance of the *ICT Strategy*.

Centrelink Express Plus: Improving access with mobile services

in 2012, the Department of Human Services (DHS) successfully released Express Plus, a mobile application to provide easy to use access to Centrelink's services for students, families, job seekers and seniors. The application was designed to demonstrate DHS innovation, and improve service access and delivery while reducing operating costs through channel shift.

DHS developed the application in 12 weeks after successfully demonstrating the viability of mobile applications as a delivery channel with a prototype. The project focussed testing on customer experience and incorporated improvements based on feedback received from customer reviews.

As at February 2013, Australians have downloaded the application over 330,000 times and used it to conduct over 4 million transactions, advancing DHS' strategic objective to provide citizens with 'services you need, when you need them'. DHS also has a better understanding of its customer base through usage statistics such as demand by customer segment and usage by transaction type.

Benefits for Australian Government agencies

The opportunities offered by mobile technology continue to expand with the advances in wireless broadband and the rapid development of new market offerings. There are now many well established business solutions, optimised for the mobile devices, that also have direct application to government services, workplace practices and the engagement of stakeholders.

Greater access to services

For those interacting with government, mobile technology offers more personal and easier to use services available anytime, anywhere. Through this new channel, agencies can reach out to more people and interact seamlessly with a faster flow of information, leading to improved government performance.

The reach of mobile continues to expand through an increase in signal coverage, boosting consumer take-up, and improved network speed, enabling more streamlined and interactive services. The rollout of the National Broadband Network will provide further support to mobile platforms by giving Australian homes and businesses access to greater wi-fi speeds and capacity. Already, 64% of internet connected households have established a wi-fi network within their home. This is accessed through a range of devices, with 60% of internet connected Australians using smartphones for internet access within the home, and one-third of homes using portable tablet computers[7].

Push messaging extends the reach of government services as a cost effective means for agencies to send personalised notifications or targeted information to specific individuals or groups. Push messages are notably applicable when urgent advice or quick action is warranted — in areas such as health and safety information, education, employment and grant opportunities, personalised notifications and news updates.

Mobile forms and applications can improve the availability and responsiveness of interactive and transactional services. These can reduce the need for face-to-face interactions and the lodgement of paper forms with a resultant savings of time and transportation costs by the public, as well as in processing costs by agencies.

Interactive services include service requests, inquiries, comments and problems. Transactional services include self-service options related to employment, grants programs, taxation, licensing, procurement, appointment booking, transaction signing, e-commerce (e.g. payments and claims).

The capabilities built into mobile devices, such as cameras and global positioning, open up possibilities for more sophisticated user experiences. For example, a new class of location-aware applications use a device's location data provide information and services tailored to the user's needs and current location. Agencies can extend the benefits of their online channel by offering new services built around these capabilities or simply enabling existing online transactions for mobile devices.

Improved operational efficiency and staff mobility

Agencies can achieve significant productivity gains through the sensible use of mobile technology, particularly for staff who frequently travel or work away from their desks. Several roles, such as field workers, facility and ICT technicians, asset managers, and executives, have a clear opportunity to achieve productivity gains through access to office tools while they are interacting with clients and stakeholders.

Mobile business applications with access to corporate information offer a flexible alternative to the traditional desktop work environment. Mature interactive applications, enabled by cloud computing and advances in mobile network speeds, are already being widely used — from office productivity tools through to case management tools and mobile video conferencing for interactive communications on the go.

With wireless connectivity, these applications enable innovative and empowering work models, such as telework and activity-based work (ABW). The ABW model shifts away from assigned desks to work spaces where employees fit their personal 'workplace' to their current task. While new workplace models require a significant culture shift, the less-formal, less-structured communication with more opportunities for collaboration offers increased productivity and flexibility. Organisations that have successfully implemented ABW report significant savings in office costs for power, paper usage and real estate, improvements in employee productivity and morale, and an increased ability to attract and retain top talent.[8]

Several government organisations, such as the city councils of Leichhardt and Goulburn[9] and the UK Government[10] have trialled tablet computers and report success in reducing printer usage and providing workplace flexibility.

The option to use their own preferred technologies at work by adopting Bring Your Own Device (BYOD) practices can provide greater employee independence, convenience and job satisfaction.

The productivity and cost saving potential of mobile technologies represent a call to action for agencies to investigate opportunities to improve their workplace and teleworking arrangements.

Broader engagement

Mobile channels and social media provide increased opportunities to collaborate with stakeholders in real-time and provide them with up to date government information regardless of their location. Capabilities such as the ability to send images and interact by video open up new approaches to broaden engagement. For example, a citizen wanting to advise an agency of an environmental issue might easily send location tagged photographic evidence straight from their smartphone.

Agencies can achieve greater citizen participation in the consideration of policy options and decision making through the improved sharing of information and ideas with stakeholders. This gives agencies greater opportunity to engage more immediately with people, often in particularly difficult circumstances, where they might otherwise fall through the cracks.

Agencies can also explore partnerships with non-government organisations and businesses to create new opportunities for improved government service delivery. By providing open access to structured data and system interfaces, while ensuring security and privacy, agencies can enable third-party organisations, and even citizen-developers, to deliver innovative mobile services and applications to people, businesses and

communities. This increases the value to the broader economy of government data and services. It also creates opportunities for new cross-jurisdictional services by joining up data sources from agencies across governments.

Practical considerations

There are several factors which agencies should consider when adopting mobile technology. Key considerations fall into the following areas and will be developed into more detailed guidance as the activities outlined in this roadmap are progressively completed. These are:

- **security** — challenges with the control of the transmission and storage of information on smartphones and tablet computers;
- **technology and standards** — the rapidly growing and changing area of mobile technology requires timely standards development;
- **policy** — ensuring compliance with existing policy and the need to update policy to reflect changes brought about by mobile technology;
- **personally-owned devices** — approaches to integrate personally-owned devices into the workplace, i.e. bring your own device (BYOD) policies;
- **processes and management tools** — such as mobile device management for the ability to control fleets of mobile devices;
- **system integration** — with existing ICT systems, e.g. applications and printers, as well as in support of end to end joined up services;
- **integration with whole-of-government initiatives** — such as the Commercial Service Provider Assurance Framework;[11] and
- **support and training** — for devices and software.

A significant body of work on mobile technology has already been completed. This includes BYOD security and policy guidance by the Defence Signals Directorate, and teleworking advice by the Australian Public Service Commission and Department of Broadband, Communications and the Digital Economy, building on the earlier Telework Policy for ICT Staff. Many agencies have mature policy and guidance for mobile technology that could be easily adapted for more general use.

This roadmap sets a framework for broader collaboration by establishing communities of practice under the direction of the Chief Information Officers' Committee (CIOC). This will enable agencies to share knowledge and experience that already exists. It will also accelerate the development of practical policy, standards and guidance to reduce barriers to and promote better practice in the use of mobile technology across government.

The initial body of guidance will address:

- **Extending the online channel:** The considerations include optimising websites for mobile devices, developing mobile applications that enable end-to-end services supported by multiple agencies, and enabling open access for third-party developers. It will also include financial aspects such as costs, benefits and risks, and other matters such as accessibility, branding, security and privacy.
- **Staff productivity:** Considerations include personally-owned and agency-supplied mobile devices, mobile teleworking, and the legal, HR, organisational, and technology elements for an agency policy.

The guidance material will be developed in consultation with the CIOC. The communities of practice will be tasked to keep the guidance updated to reflect lessons learned and advances in mobile technology.

The way forward

To achieve the outcomes of the *ICT Strategy*, and support *Digital First* this roadmap requires Australian Government agencies to actively use mobile technology to:

1. deliver better services to citizens, communities and business;
2. improve the productivity of APS operations; and
3. facilitate open engagement between government and these citizens, communities and businesses.

This roadmap outlines specific actions for agencies collectively to achieve the following objectives:

- appropriate customer-facing services conveniently available through accessible, personalised, location-aware, and easy to use mobile channels;
- improved workplace productivity through effectively employed mobile technology;
- increased capability to develop and support mobile ICT solutions;
- adoption of a consultative, user-centric design approach with industry that acknowledges and builds on whole-of-government solutions and encourages more consistent but no less innovative use of mobile technology; and
- the establishment of policies, standards and practices to assist the efficient adoption of new mobile solutions, including open data and APIs for information and services for use by third-parties.

Approach

Many agencies report significant success in adopting mobile technologies in their online service delivery channels and within their workplaces, and are already realising the benefits of improved productivity and client satisfaction. Several of these agencies have agreed to a collaborative, knowledge-sharing approach through the use of communities of practice supported by AGIMO. The aim is to leverage and reuse existing work in consultation with industry to help equip all agencies with the knowledge and guidance that they need to achieve the objectives of this plan.

AGIMO will complete the following actions by December 2013:

- establish and support communities of practice for mobile-enabled service delivery and workplace mobility;
- facilitate the development of a framework of policy, standards and guidance to reduce barriers and promote better practice in agency use of mobile technology;
- survey the usability of agency websites and applications for mobile devices;
- investigate common approaches to remote access services that work across a broad range of mobile devices to better support a more mobile workforce;
- create a central register of government mobile applications;
- investigate further application of mobile technology to support the APS Telework goal of 12% of staff regularly teleworking by 2020;

- work with agencies to identify issues and constraints for the implementation of BYOD; and
- establish annual reporting to SIGB, under the *ICT Strategy*, on the adoption of mobile technology by agencies.

Agencies will complete the following actions by December 2013:

- identify opportunities to release agency information and services so that they can be consumed by third-party developers to create new services;
- establish projects to support the use of mobile technology for improved business processes and workplace practices, such as teleworking;
- contribute their policies, architecture, sample code and lessons learned to the communities of practice for re-use by other agencies; and
- contribute to the development of a framework of policy, standards and guidance to reduce barriers to, and promote better practice in, the use of mobile technology by APS agencies and their staff.

AGIMO will complete the following action by June 2014:

- publish a best practice guide for BYOD policy implementation.

Agencies will complete the following actions by June 2014:

- as part of their *Digital First* plan identify and prioritise key opportunities to use mobile technology to deliver better customer services; and
- as part of their *Digital First* plan indicate relevant key information and services that will be made available to access and use on mobile devices.

AGIMO will complete the following actions by December 2014:

- update the established framework to reflect lessons learned and advances in technology; and
- continue to support the communities of practice.

Agencies will complete the following actions by June 2015:

- implement priority opportunities to provide new and enable existing online services and information on mobile technology;
- release relevant agency information and services for consumption and reuse by third-party developers to deliver new services; and
- commence initiatives to improve staff productivity through mobile technology and improvements to work place policies and arrangements; and
- publish a report on their progress toward adopting mobile technology.

Success indicators

As a result of these actions the APS will use mobile technology to ensure we:

- **Continue to meet expectations:** The government is an active participant in the take-up of mobile technologies, adopting convenient, easy to use, personalised and location-aware solutions. Australians and government staff are more productive through streamlined interactions with government.
- **Broaden the reach of government services:** Mobile services deliver more targeted communications and reach more Australians who in the past had difficulty accessing them because of geographic remoteness, disability or caring responsibilities.

- **Improve the efficiency of government operations:** The APS effectively employs mobile technologies to improve workplace productivity and advance the Government's teleworking goal by empowering staff with mobile tools and flexible workplace practices. The sharing of mobile technology related policies, standards and practices across agencies brings faster adoption and reuse of mobile technology capabilities.
- **Openly engage:** APS staff engage more broadly with citizens, communities and businesses through an extended reach enabled by mobile technology.

The following diagram summarises the timeline for the objectives, actions and outcomes of this roadmap.

Objectives

Appropriate mobile-friendly services	Improved workplace productivity	Mobile ICT capability	Consultative design approach	Mobile policies, practices & standards

Actions

2013 **2014** **2015**

- Establish communities
- Ongoing support for communities of practice
- Develop policy, standards and guides
- Continuous improvement of policy, standards and guides
- Investigate and incorporate opportunities into agency strategies
- Ongoing agency implementations
- Investigate common approach to remote access
- Investigate telework opportunities

Outcomes

- Continuing to meet expectations
- Broader reach of government services
- Improved efficiency of government operations
- More open engagement

Endnotes

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