



**Australian Mobile
Telecommunications
Association**

AMTA submission to Reserve Bank of Australia

Dual -Network Cards and Mobile Wallet Technology

21 February 2017

Introduction

The Australian Mobile Telecommunications Association (AMTA) is the peak industry body representing Australia's mobile telecommunications industry. Its mission is to promote an environmentally, socially and economically responsible, successful and sustainable mobile telecommunications industry in Australia, with members including the mobile Carriage Service Providers (CSPs), handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry. For more details about AMTA, see www.amta.org.au.

AMTA welcomes the opportunity to provide comments to the Reserve Bank of Australia on the *Dual-Network Cards and Mobile Wallet Technology* Consultation Paper. We have provided some commentary below with regard to the enabling role mobile technology plays in Australia's economy and the continuing growth in demand for mobile services and applications as well as industry's preparations for 5G – the next generation of mobile technology. We have also provided some comments in relation to developments around mobile payments, mobile wallet schemes and mobile devices. We have also noted some developments in digital identity authentication as the embedded SIM (eSIM).

Economic benefits of Mobile Broadband

Mobile broadband (MBB) plays a key role in stimulating Australia's economic growth and productivity. It is a driving force in connecting people and businesses, stimulating innovation and technological progress, and transforming industries. Future development of mobile applications and services, including mobile payment schemes and mobile wallets, will re-shape the Australian economy and drive productivity improvements.

Recent research by Deloitte Access Economics found that mobile telecommunications creates significant benefits in terms of productivity and workforce participation.¹

Specifically, the research showed that Australia's economy was \$42.9 billion (2.6% of GDP) bigger in 2015 than it would otherwise have been because of the benefits generated by mobile technology take-up with an increase in:

- long term productivity of \$34 billion or 2% of GDP); and
- workforce participation of \$8.9 billion, or 0.6% of GDP).²

The research also found that 65 000 full-time equivalent jobs were supported by the increased GDP attributable to workforce participation (equivalent to 1% of total employment in the Australian economy).³

1 Deloitte Access Economics, *Mobile Nation: Driving workforce participation and productivity*, 2016.

2 Ibid

3 Ibid

Demand for Mobile Broadband continues to grow

The global demand for MBB continues to grow and the evolution of 5G and IoT services will also drive investment in spectrum resources and network deployment by the mobile industry.

Ericsson's [Mobility Report](#) (Nov 2016) forecast:

- There will be 550 million 5G subscriptions by the end of 2022;
- 4.6 billion LTE subscriptions by the end of 2022;
- Mobile broadband will account for 90% of all subscriptions by end of 2022;
- VoLTE subscriptions will surpass 200 million by the end of 2016;
- Mobile data traffic grew by 50% from Q3 2015 to Q3 2016;
- Between 2016 and 2022 traffic generated by smartphones will increase by 10 times; and
- As the most populous region, Asia Pacific has the largest share of mobile data traffic. This is likely to continue into 2022, with a rapid growth in mobile broadband subscriptions expected in the region. China alone is set to add 440 million mobile broadband subscriptions between the end of 2016 and 2022.⁴

A recent report by Accenture Strategy forecast that in the USA, 5G deployment will create up to 3 million jobs and raise GDP by \$500(USD) billion due to an expected investment of \$275(USD) billion by industry over the next seven years. This investment in deployment will include the roll-out of hundreds of thousands of small cells.⁵

Sanjay Dhar, managing director at Accenture Strategy, said:

“Full realization of the economic growth and cost savings will depend on how robustly 5G networks are deployed locally, and will require different approaches in local communities from those used in the past.”⁶

As demand for MBB continues to grow, industry is required to continually address capacity issues and develop more innovative solutions to meet demand for mobile data with limited spectrum resources. The mobile industry has been upgrading and rolling-out new networks for 4G LTE and LTE-A as well as adopting new technologies that improve efficiency.

⁴ [Ericsson Mobility Report](#), On the pulse of the networked society, November 2016

⁵ Accenture Strategy - [CTIA Report: 5G Deployment Will Create Jobs And Boost U.S. GDP](#)

⁶ Ibid

Preparing for 5G

While wide deployment of 5G is not anticipated before 2020, AMTA members are already collaborating and testing 5G technologies as carriers continue to invest in 4G (LTE and LTE-A) networks.

[Ericsson and Telstra](#) recently conducted outdoor tests of a 5G trial system in Melbourne. The purpose of the trial was to demonstrate 5G capabilities in a real world environment over a live network.

[Ericsson](#) is working with 24 service provider partners worldwide to develop 5G capability and is part of Verizon's Technology Forum, a group that is working to define parameters for 5G specifications in advance of future standards.

Nokia is involved in a number of 5G innovation projects globally and is also working to promote 5G global standardisation and industrialisation.

[Nokia is partnering with Optus](#) and has conducted closed 5G trials in Sydney on a new 5G radio test bed on Nokia's Airscale product.

[Nokia and VHA](#) have also recently conducted a public live demonstration of 5G in Sydney in partnership with the University of Technology (UTS). The public trial included a demonstration of potential applications - controlling a robot, virtual reality and speed tests using 5G capabilities.

[Huawei and VHA](#) are conducting tests of 5G technology that have included dense urban cityscape scenarios and [Huawei](#) is also partnering with Vodafone UK on 5G trials.

To deliver the benefits of 5G, the mobile industry will continue to invest in infrastructure and will rely on sound Government policies around the availability of radiofrequency spectrum and the ability to deploy networks.

Mobile Payments and Mobile Wallet

Mobile payments and mobile wallet technology both have much to offer consumers in terms of choice, flexibility and convenience.

Clearly, such arrangements involve not only technical convergence between traditional payment/credit cards, mobile devices and mobile phone services but also involve complex arrangements between financial institutions and mobile telecommunications service providers. This complexity is due to the substantial set of regulations and legislative requirements that apply to both financial institutions and telecommunications service providers and also involves consideration of the technical standards for handset manufacturers.

In examining existing dual network cards (also called combi-cards) where both a scheme payment card and EFTPOS debit card are jointly hosted on a single physical card, we note some key differences when compared to mobile wallets on a phone.

A mobile wallet, such as Samsung Pay or Apple Pay can hold more than one card, and hence does away with the need for combi-cards, as a given payment card repository can hold not two, but many

payment credentials (for example five card credentials). Furthermore, in the contactless payment environment, which is driven from the end user preference for speed and convenience, the selection of the payment card (credential) to pay with, is completed on the mobile phone, rather than the payment terminal (as executed for traditional swipe, and the dipping of a chip card.) In the case of a contactless payment card, the default payment credential is used.

Examining the mobile wallet use case on a phone in the context of the dual network payment card; the mobile wallet is more flexible, and relies on single purpose cards for ingestion into the mobile wallet, and for ease of selection by the end user.

Finally, the security and privacy needs of consumers are always paramount and must be considered in the development and provision of these applications and services.

Developments in mobile digital identity and eSIMs

AMTA notes that globally the mobile industry is working towards the replacement of the removable cards (the Universal Integrated Circuit Card - UICC) that contains the logical SIM (Subscriber Identity Module) with an embedded SIM (eSIMs) that is part of the device and cannot be removed but can be remotely provisioned by the mobile service provider.⁷ The eSIM will continue to be the piece of hardware that contains the logic which stores the identity of the user and the related security keys that are used to authenticate users on a mobile network and validate the device being used.⁸

The digital age has led to an unprecedented level of access to information and services. However, access to such information and services often requires the user to sign-up to websites and applications, resulting in the need to remember user names and passwords. With such a high proportion of users forgetting log-in details, there is a need for a secure solution that bypasses the issue of forgetting passwords, thereby keeping the user engaged.

The GSMA notes that the mobile device will play a key role in the merging of physical and digital identities and has developed its MobileConnect service to provide a trusted digital identity authentication service to customers and service providers.

Mobile Connect is a secure universal log-in solution. Simply by matching the user to their mobile phone, Mobile Connect allows them to log-in to websites and applications quickly without the need to remember passwords and usernames. It's safe, secure and no personal information is shared without permission.⁹

Conclusion

AMTA welcomes further engagement with the Reserve Bank of Australia in relation to the issues identified in the Consultation Paper.

For any questions about this submission, please contact Lisa Brown, Policy Manager, AMTA at lisa.brown@amta.org.au or at (02) 6232 4488.

⁷ GSMA – [Understanding SIM Evolution, March 2015](#)

⁸ Ibid

⁹ GSMA - [Mobile Connect: mobile high-security authentication](#) Sept 2016