



## **SWIFT's Submission**

In response to the RBA paper  
"Strategic Review of Innovation in  
the Payments System: Conclusions"

**Submitted on 29 August, 2012**

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### **IMPORTANT**

This document is in response key focus areas raised by the Reserve Bank Australia (RBA) in its “Conclusion on Strategic Review of Innovation in Payment Systems”. We appreciate and thank the RBA for an opportunity to provide input and welcome any comments or questions. If you have any feedback please contact SWIFT through any of the indicated individuals listed at the end of this paper.

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## 1 Executive Summary

SWIFT is delighted to have the opportunity to provide our thoughts on the Reserve Bank of Australia's conclusion on the "Strategic Review of Innovation in Payment Systems: Conclusions."

SWIFT has had an opportunity to observe, experience and support the evolution of payment eco-systems over many years. As a financial market infrastructure provider operating in 212 countries, we now have 67 high value and 25 low value domestic payment systems running over SWIFT. This year, we celebrate 30 successful years of operations in Australia. During this time we have worked closely with the Australian financial community to introduce many innovative solutions, most notably the FIN Copy RTGS service that has provided a stable backbone for the movement of wholesale funds for many years.

Australia's current payments' systems operate within a disciplined framework that focuses on performance, reliability, safety and controlled risk. However, we agree with the premise of the RBA's paper "Strategic Review of Innovation in the Payments System: Conclusions" in that there are 'gaps' that should be addressed at a system-wide level. By removing these gaps, there will be enormous potential for new innovative services to be built on top of a new state-of-the-art real-time clearing and settlement system.

SWIFT can support the proposed new payment's system in Australia:

- We have developed technology, tools and capabilities which can be taken "off the shelf." This includes a portfolio of business solutions, message standards, messaging and consulting services to support the business and operational needs of Market infrastructures.
- We provide a 'single window' allowing participants to re-use their investment in SWIFT infrastructure and thereby reduce TCO.
- We are an industry-owned, not-for-profit cooperative, able to embrace the requirements of the entire community
- We have the experience providing community services for large-scale implementations including Market practice groups, Training, Consulting, Community migration management.
- We can foster and facilitate innovation in a streamlined and non-disruptive manner by leveraging experience and expertise in other markets, and
- We are able to deliver customised services that meet the specific needs of local markets. This "Go Local" strategy can be witnessed in the innovative services that are planned for India and Norway<sup>1</sup>.

This paper is designed to be a starting point for discussion. We are keen to discuss and debate with energy and commitment to begin framing an action program now. We are open to the idea of partnering with other service providers for any part of the solution that we are not able to deliver, or where a better alternative exists.

SWIFT has successfully provided financial messaging services to the Australian community for 30 years, and we look forward to supporting the next evolution in the payments' system.

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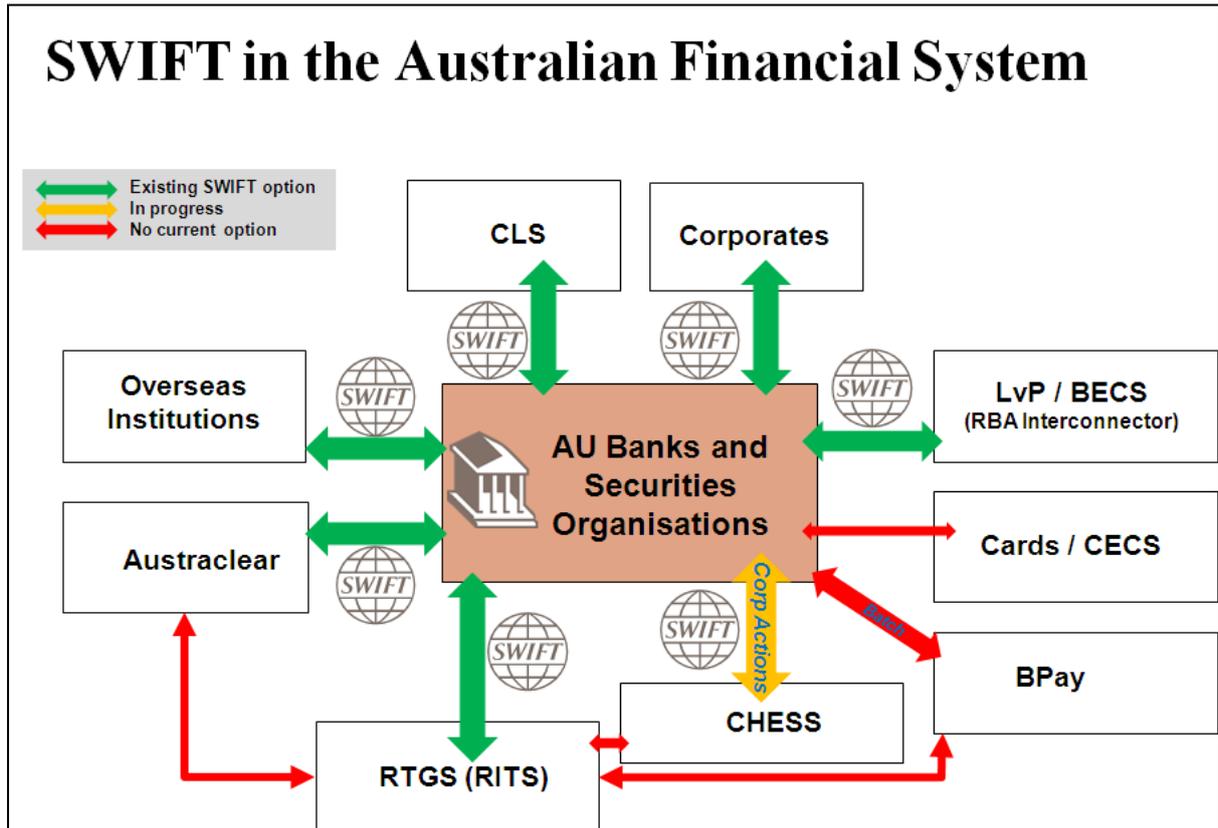
<sup>1</sup> [Details on the India and Norway projects can be provided on request](#)

## 2 SWIFT in the Australian Financial System

As the following diagram will show, SWIFT is a critical infrastructure within the Australian financial system. We link Australian banks and securities organisations to domestic and global institutions and market infrastructures.

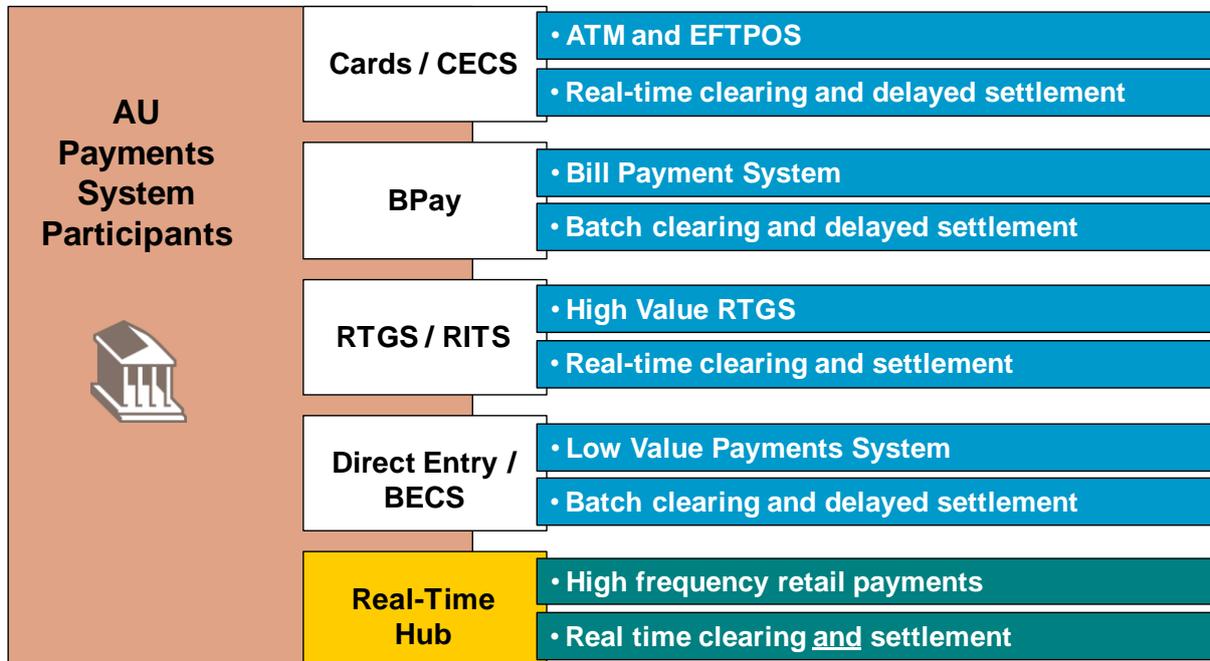
During 30 years of operations in Australia, we have provided unparalleled levels of stability, security and operational efficiency.

With the RBA now resetting the public policy in terms of the payments system, SWIFT is primed and ready to assist the industry to implement another world first piece of shared infrastructure.



### 3 SWIFT's response to the conclusion document

Based on discussions with the RBA and industry, we see the new 'real-time clearing Hub' as an additional system that will run in parallel to the existing electronic payments systems of today. This is illustrated in the following diagram:



For our response to the RBA's Conclusions paper, we have chosen to focus on the five 'Initial Strategic Objectives' as listed in Box E of the RBA paper. The following section describes how SWIFT believe the industry could achieve these objectives in a way that re-uses much of the investment that many payments system participants have already made in their SWIFT infrastructure.

#### 3.1 Same Day settlement of Direct Entry payments

**“All Direct Entry payments should be settled on the day payment instructions are exchanged by the end of 2013”**

It is SWIFT's understanding that the industry is already making good progress towards same day settlement of Direct Entry payments, especially now that phase 1 of the Low Value Settlement System (LVSS) is live. At a payments system level, it would seem that the technical components required to achieve same day settlement are now in place. One of the major banks in Australia is using SWIFT's FileAct file transfer mechanism to send and receive their LvP clearing files. These files are switched to/from the COIN network via the RBA's Clearing Interconnector. FileAct is also used for communication of the LVSS messages by three of the Tier 1 banks.

We would also like to make note of the Settlement Before Interchange (SBI) system that went live in New Zealand in November 2011. This service utilises the SWIFT's FileAct Y-Copy mechanism, allowing for settlement of batches of retail transactions during multiple settlement windows in any given business day. The net value of the batch is settled at the Reserve Bank of New Zealand before the recipient receives the file. This has removed overnight settlement risk from the New Zealand LVP system. Given that the Australian LvP system is also based on bilateral interchange, we believe that the Australian market should consider this model for the future evolution of the Direct Entry system.

### 3.2 Real-time payments

**“There should be the capacity for businesses and consumers to make payments in real time, with close to immediate funds availability to the recipient, by the end of 2016”**

At this point in time, it is difficult to define precisely how this objective can be met as detailed business requirements for this solution are currently unknown or unspecified. Nonetheless, we believe that SWIFT can cater for many of the requirements using existing, off-the-shelf components that many of the payments' system participants have already invested in.

For instance, the SWIFT InterAct messaging protocol could be used to send and receive ISO20022 payment messages to and from the 'Hub'. If the store-and-forward capability of SWIFTNet were utilised, we could also perform standards validation on the messages, capture details of the message exchange for non-repudiation purposes, hold the messages on queue in case of system issues at the recipient end and copy some parts of the transaction to the Reserve Bank for immediate settlement. The settlement could be handled as a Y or T Copy, meaning SWIFT could either wait for the settlement approval from the RBA (Y Copy) or the settlement instruction to the RBA could be simultaneous to the clearing instruction to the counterparty bank or payments' provider (T Copy). These are all standard features of SWIFTNet. If very low response times were a requirement, we could strip back many of the above features and implement the service as a real-time InterAct service, rather than a store-and-forward service. It should also be noted that almost all SWIFT users already have an interface that can handle SWIFT's InterAct protocol, meaning that the low level protocol elements (query / response / ACK / NAK / etc..) would not need to be designed and built.

If these ready to use components were part of the solution, We believe that the complexity and cost of the overall build would be reduced significantly.

### 3.3 Payments outside normal banking hours

**“There should be the ability to make and receive low-value payments outside normal banking hours by the end of 2016. This would include availability of the Direct Entry system and any real-time system”**

Currently SWIFT has a set period of hours each weekend whereby services may be interrupted to allow us to perform maintenance on the network. We are currently reviewing our long term strategy and roadmap for SWIFTNet including research into how we can meet the availability needs of local markets and will be happy to engage with the Australian community to gather requirements in this regard.

### 3.4 Additional remittance information

**“Businesses and consumers should have the capacity to send more complete remittance information with payments by the end of 2016”**

ISO20022 in the retail payments environment has become attractive in multiple markets in recent years. The standard is rich, flexible and mature, and would support RBA in its vision for a “ready for future challenges” payments infrastructure. ISO20022 is a standard that has been designed to provide (i) enhanced data quality through richer content that supports the full range of payment products (ii) reduced implementation cost by decoupling the syntax from business content and (iii) a technology that allows for a shorter time to market. Further using ISO20022, invoice and remittance information can be exchanged in addition to traditional payments instructions.

SEPA in Europe is leading the trend towards ISO, with direct debit and credit transfer to be exchange in ISO20022/XML by 2014. Some ASEAN countries have also selected ISO 20022 to support their next generation of ACHs to support the PAN-ASEAN Credit Transfer, and we believe ISO20022 will become an important foundation for the ASEAN Economic Community. New Zealand has adopted some elements of ISO20022 in their SBI system to provide central bank settlement status information. China has started to introduce ISO20022 in their CNAPS2 system. Japan is adopting ISO20022 in their Zengin system. There is also a considerable amount of adoption of ISO20022 in the securities space as well. Indeed, the move towards ISO20022 continues to gather pace around the globe.

As registration authority for ISO 20022, SWIFT has deep expertise and experience in supporting communities in their adoption and maintenance of international standards, and we are eager to do so in Australia. We have strong partnerships with international and domestic application vendors and system integrators who are experienced in the implementation of ISO standards. At the network level, SWIFT also has the ability to validate that the messages sent across the network conform to the standard and that they are rejected back to the sender should they try to send something that does not conform to the latest version of the standard.

SWIFT strongly recommend that any new payments' system be based on the internationally-recognised ISO20022 standard.

### **3.5 Addressing of payments**

**“A system for more easily addressing retail payments to any recipient should be available. To the extent that this is provided by a new real-time system, it should be available by the end of 2017”**

SWIFT has a proven and well-understood addressing mechanism that centrally handles the routing of messages to the intended recipient and this can be adapted to meet the needs of the Australian community. If bank details for the account to which funds are being sent are not known by the sender (for instance, off the back of a mobile payment), we can easily foresee providing a solution where one of the components of the central 'Hub' could be one or more databases that map unique identifiers (such as mobile numbers) to a bank and account. Look-up to this central database could be done dynamically on a transaction by transaction basis before the ISO20022 payment instruction is sent, or the participants in the system could have a local copy of this database within their own domain that is updated regularly from a central source.

SWIFT could look to host this addressing hub within the SWIFT 'cloud' much like the existing SWIFTRef product suite. This hub could connect to SWIFT as per any other institution, or this addressing look-up could be done via another network option. Our suggestion would be to work with another provider to build this capability to Australian requirements, however SWIFT does not rule out hosting of the component within the SWIFT cloud if this were perceived to be an important requirement.

## **4 A Word on Governance**

As a service provider to financial market infrastructures around the world, SWIFT appreciates the need for a comprehensive and transparent risk management and governance framework.

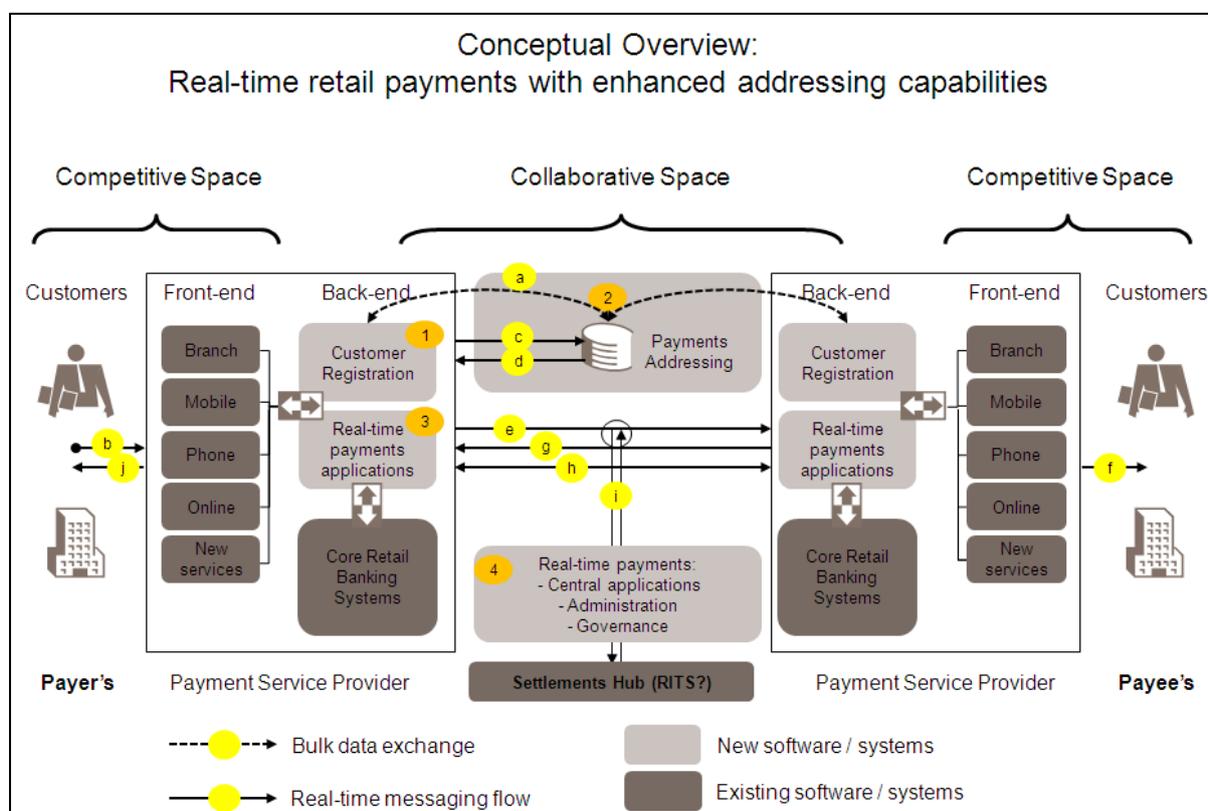
With our “Go Local” strategy, SWIFT is progressing with new structures for local operation, governance and oversight of our services. We would be willing to work with the industry to explore and possibly form a joint venture or similar vehicle that is designed to meet Australian needs. Such a joint venture may evolve over time with the increase of competition and participant membership. As an industry-owned not-for-profit cooperative, SWIFT offers a unique capability to partner in this type of industry project.

## 5 SWIFT's proposed model for the Australian financial community (Diagram)

The diagram below provides a high-level conceptual overview of how the strategic objectives can be approached with an explicit focus on two desired results:

- a system for more easily addressing retail payments to any recipient; and
- the capacity for businesses and consumers to make payments in real time, with close to immediate funds availability to the recipient.

The objectives of 24/7 availability and more complete remittance information can be considered implicitly in this overview.



### 5.1 New software / systems required

To enable both enhanced addressing and real-time payments, the following software and systems – along with integration capability to existing retail payments systems – are likely required:

1. **A customer registration module** residing at the payment service providers. Via this module, payments hub participants would link their retail customers new “addressing data”, such as addresses and mobile phone numbers, to payment products that they have issued (account, cards, mobile or virtual wallets, etc.);
2. **A central addressing data-base:** all, or a subset of, data from the participating payment services provider's customer registration module would be replicated to a central database where it can be queried by all participants;

3. **Real-time payments applications:** that needs to be enabled by the participating payment service providers. The types of functionality required will include the ability to authorise a debit/credit, from/to the payer/payees chosen product a means to populate a payment instruction based on “enhanced addressing” parameters and the ability to generate real-time status reports and notifications, etc.; and
4. **Central real-time payments applications:** At the very minimum a “real-time payments hub” needs to comprise a governance structure, a business rule-set, and the technical rules and standards to ensure interoperability.

## 5.2 Data and real-time messaging flows

On a very high level the data and messaging flows for a real-time credit-transfer push scenario are described below:

- a) **Bulk upload of customer data** requirements to the central addressing data-base;
- b) **Customer initiation:** minimum data required to initiate a transaction, such as the beneficiary’s mobile phone number and amount;
- c) **Request beneficiary details:** the payer’s payment service provider requests beneficiary data from the central repository;
- d) **Return beneficiary details:** the central repository provides payer’s provider with the beneficiary details. The payer’s provider can now create a complete payment instruction and address it to the beneficiary’s provider;
- e) **Transmit payment instruction:** the payer’s provider sends the complete instruction to the beneficiary’s provider who can now credit the beneficiary;
- f) **Notify beneficiary:** of incoming credit;
- g) **Send status report:** the beneficiary’s provider sends positive/negative status to payer’s provider;
- h) **Exception, investigation, reject and return:** workflows will need to be defined relative to the business rules. For example it is unlikely that cancel and modify flow can be part of a real-time credit push scenario;
- i) **Settlement flow:** in the diagram above, we have suggested a real-time copy messaging scenario. This means that each retail instruction could be copied to the central hub or to an existing clearing and settlement infrastructure (using an existing system, participants could avoid having to create a new pre-funding or credit line to guarantee the new real-time payment flow – however, the settlement system would also require real-time, 24/7 capability in this case); and
- j) **Confirmation of completion** of the transaction to the payer.

## 6 Conclusion and next steps

SWIFT has a proud history of innovation in the Australian payments industry. Australia was one of the very first countries to implement a SWIFT-based RTGS system, a model which has since been adopted by close to 70 countries. In 30 years of operations on SWIFT, Australian institutions have grown their use of SWIFT to the point where Australia has held a seat on the SWIFT Board for 26 of those years. It is clear that SWIFT is viewed as a critical piece of infrastructure by financial institutions in Australia.

A cornerstone of the SWIFT cooperative model is the concept of re-use, or “Single Window.” Over the years we have adapted our technical platform, products and services to allow our members to get more out of their SWIFT investment, thereby enabling them to increase their levels of Straight Through Processing (STP), security and operational resilience. As the usage of SWIFT increases, our cooperative model ensures that we pass this extra revenue on to the community in the form of price reductions and rebates. It’s a model that has been very successful, to the point where we have now connected more than 10,000 financial institutions and corporations from almost every country in the world.

The RBA’s direction for the next evolution in the retail payments space is outlined in their paper “Strategic Review of Innovation in the Payments System: Conclusions.” SWIFT are excited about the prospect of working with the Australian community to come up with another world first innovation, with SWIFT as the backbone of a new real-time clearing and settlement system for retail payments.

When focussing on the “Initial Strategic Objectives” listed in the RBA’s paper, we believe we have most of the capabilities required to build the central components of the system using off-the-shelf functionality. In the case that some of the requirements are not covered by existing SWIFT functionality, we would look to partner with other providers via some form of joint venture or cooperation agreement.

We hope the RBA and the financial community find this initial contribution to be of value. We look forward to engaging closely with the RBA and the payments community to gain a deeper understanding of the industry requirements, so that we can respond with a set of products and services directly relevant to the ambitions and needs of the Australian financial community.

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SWIFT welcome any questions, feedback and further discussion regarding the content of this document.

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