

**RESERVE BANK OF AUSTRALIA**

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**Payments Network Connectivity**

**Partner Migration Information Paper**

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**December 2009**

## TABLE OF CONTENTS

<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1 Background .....	1
1.2 Aim .....	1
1.3 Scope .....	1
1.4 Document Structure .....	1
1.5 RBA Contact Information.....	2
<b>2. RBA BUSINESS FUNCTIONS.....</b>	<b>3</b>
2.1 RBA as a Participant in APCS (CS1) and BECS (CS2) .....	3
2.2 RBA as Collator.....	3
2.3 RBA as Courier in CS2 .....	3
2.4 RBA as Core Banker to the Australian Government.....	3
2.5 RBA Low Value Clearing Service (Clearing Interconnector) .....	3
2.6 RBA Low Value Settlement Service (Settlement Interconnector).....	4
<b>3. RBA'S COIN NETWORK ARRANGEMENTS .....</b>	<b>5</b>
3.1 RBA Network Overview .....	5
3.2 Network Diagram .....	5
3.3 IPSec.....	6
3.4 Exchange of Pre-Shared Secrets.....	6
3.5 Allocated Network Address Spaces .....	6
3.6 RBA Host Environments – IP Addressing .....	7
3.7 File Transfer Protocols .....	7
3.8 Network Monitoring .....	8
<b>4. RBA'S SWIFT NETWORK ARRANGEMENTS .....</b>	<b>9</b>
4.1 Network/Service Overview .....	9
4.2 Closed User Group Participation .....	12
<b>5. PROCESSES FOR ESTABLISHING RBA PARTNER MIGRATION PROJECT .....</b>	<b>13</b>
5.1 COIN Migrations.....	13
5.2 SWIFT FileAct Migrations.....	14
5.3 Clearing Interconnector Migrations .....	16
5.3.1 COIN Partner Setup .....	16
5.3.2 SWIFT Partner Setup .....	16
5.3.3 Partner migration planning .....	16
5.3.4 Recording of file transfer details by the RBA.....	17
<b>6. APPENDIX - FILE NAME CONVENTION AND FILE TYPE.....</b>	<b>18</b>

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# 1. INTRODUCTION

## 1.1 Background

The Australian payments industry is currently migrating from the bilateral links used for the clearing of payments to an industry Community of Interest Network (COIN) or to SWIFT (using the SWIFT FileAct service).

The Australian Payments Clearing Association (APCA) is managing the payments network migration project and Steering and Implementation Committees have been formed to manage the migration process and to ensure its success.

The RBA is a sender and receiver of clearing and settlement related files and, as such, is a link partner in the industry network migration project. The RBA will also be providing a new service, known as the Low Value Clearing Service (or Clearing Interconnector), which will provide connectivity between participants for their file exchanges.

This document provides the following information for link partners:

- RBA network connectivity information for COIN and SWIFT participants.
- An outline of the expected processes/steps that will need to be followed for the migration of file exchanges with the RBA.
- Information relating to partner migrations using the Low Value Clearing Service (referred to as the Clearing Interconnector in this document).

## 1.2 Aim

The aim of this document is to provide payments industry link partners with network connectivity information to assist in the migration from existing bilateral links to COIN/SWIFT connectivity with the RBA.

## 1.3 Scope

This document provides the necessary COIN/SWIFT information to link partners to assist with their RBA migration planning. It covers both business and technical issues associated with the initial establishment of new connectivity and for managing partner migrations to live cutover.

This document does not cover the use of alternate contingency options such as PGP email. We note that the industry is presently considering the future approach to this issue as the new network arrangements are being put in place.

This document does not include any information relating to partner migrations for CS3 message exchanges as the RBA does not directly participate in this clearing system.

## 1.4 Document Structure

This partner migration document has the following structure:

- Section 2 summarises the business purposes of all file exchanges with the RBA.
- Section 3 sets out information for a COIN partner migration.
- Section 4 sets out information for a SWIFT partner migration.

- Section 5 provides information on establishing partner migration projects with the RBA and for the Clearing Interconnector service.

## 1.5 RBA Contact Information

The following table provides contact information for relevant RBA staff involved in the partner migration process. Please contact the relevant person listed below if you have any questions regarding this document or the connection/migration process in general.

<b>Role</b>	<b>Contact(s)</b>
Project Managers (for Partner Migrations)	Senior Manager, RTGS Systems Payments Settlements Department 02 9551 8981  Senior Manager, Government Banking Systems Banking Department 02 9551 9303
Banking (BK) Business Enquiries (covering CS1, CS2, Collator, Agency Banking and Courier)	Manager, Electronic Distribution Services (EDS) Banking Department 02 9551 9976  Assistant Manager, EDS Projects Banking Department 02 9551 9977
Payments Settlements (PS) Business Enquiries (covering Low Value Clearing and Settlement Services)	Manager, New Projects Payments Settlements Department 02 9551 8921  Senior Manager Payments Settlements Department 02 9551 9894
Communications Infrastructure Enquiries	Manager, Communications Systems and Technology Department 02 9551 9536
File Transfer Protocol Enquiries	Manager, Network Services Systems and Technology Department 02 9551 9450
Security Enquiries (including exchange of Pre-Shared Secrets)	Manager, Security Analysis Systems and Technology Department 02 9551 9427

## **2. RBA BUSINESS FUNCTIONS**

This section provides a brief description of the underlying business purpose for each file exchange with the RBA.

### **2.1 RBA as a Participant in APCS (CS1) and BECS (CS2)**

The RBA is a Tier 1 participant in APCA's Australian Paper Clearing System (APCS) and Bulk Electronic Clearing System (BECS). As such, it exchanges APCS Electronic Presentment and Dishonour files and BECS files with other Tier 1 participants in these clearing systems.

The RBA's Banking Department has business and operational responsibility for this role. Partners should note that COIN CS1 and CS2 file exchanges will be to and from host IP addresses belonging to the RBA's Banking Department.

### **2.2 RBA as Collator**

The RBA performs the role of the collator of settlement obligations arising from low value clearings in APCS, BECS, and the Consumer Electronic Clearing System (CECS). Settlement participants in those clearing systems send exchange summary files to the RBA advising their bilateral clearing obligations. The RBA processes these files and provides response files containing provisional and final clearing system obligations. The RBA also provides an overall multilateral net obligations file to participants.

The RBA's Banking Department has operational responsibility for this role. The RBA's Payments Settlements Department has business responsibility for this role. Partners should note that COIN collator file exchanges will be to and from host IP addresses belonging to the RBA's Banking Department.

### **2.3 RBA as Courier in CS2**

The RBA acts as a Courier for BECS Tier 1 member Tyro.

The RBA's Banking Department has business and operational responsibility for this role. Partners should note that COIN Courier file exchanges will be to and from host IP addresses belonging to the RBA's Banking Department.

### **2.4 RBA as Core Banker to the Australian Government**

The RBA is the core banker to the Australian Government. There are a number of agency banking files that are sent by Transactional Bankers (defined as those that hold accounts for Australian Government agencies) to the RBA each day. Transactional Bankers must also sweep the aggregate amount held at the end of each day to the RBA.

The RBA's Banking Department has business and operational responsibility for this role. Partners should note that agency banking file exchanges will be to and from host IP addresses belonging to the RBA's Banking Department.

### **2.5 RBA Low Value Clearing Service (Clearing Interconnector)**

The RBA will offer a service to clearing participants to accept files from one participant (or their designated agent) and transfer them to another participant (or their designated agent). The two participants (or their designated agents) do not need to be members of the same communications network. More information on Clearing Interconnector migrations is provided in Section 5.3 of this document.

The RBA's Payments Settlements Department has business and operational responsibility for the provision of this service. Partners should note that the COIN leg of Clearing Interconnector file exchanges will be to and from host IP addresses belonging to the RBA's Payments Settlements Department. All file exchanges by SWIFT participants with the RBA and with COIN exchange partners will use this Clearing Interconnector infrastructure. This includes files addressed to the RBA acting as participant, courier, collator and core banker (as described above) and files addressed to other participants (using either COIN or SWIFT).

## **2.6 RBA Low Value Settlement Service (Settlement Interconnector)**

In the second half of 2010, the RBA will introduce capability in RITS to accept settlement instructions related to low value clearings. These instructions will be sent to the RBA via COIN or SWIFT in a file containing a "File Settlement Instruction". These instructions will be placed on the RITS Queue for either individual settlement or for settlement as part of a periodic multilateral settlement process. Initially, this will facilitate the move to same day settlement of BECS obligations.

The RBA's Payments Settlements Department has business and operational responsibility for RITS Low Value Clearing and Settlement arrangements. Further information on the RITS Low Value Feeder Project to deliver these services is available on <http://www.rba.gov.au/rits/info/> under the Current Projects tab.

### 3. RBA'S COIN NETWORK ARRANGEMENTS

This section sets out information on establishing COIN connectivity with the RBA.

#### 3.1 RBA Network Overview

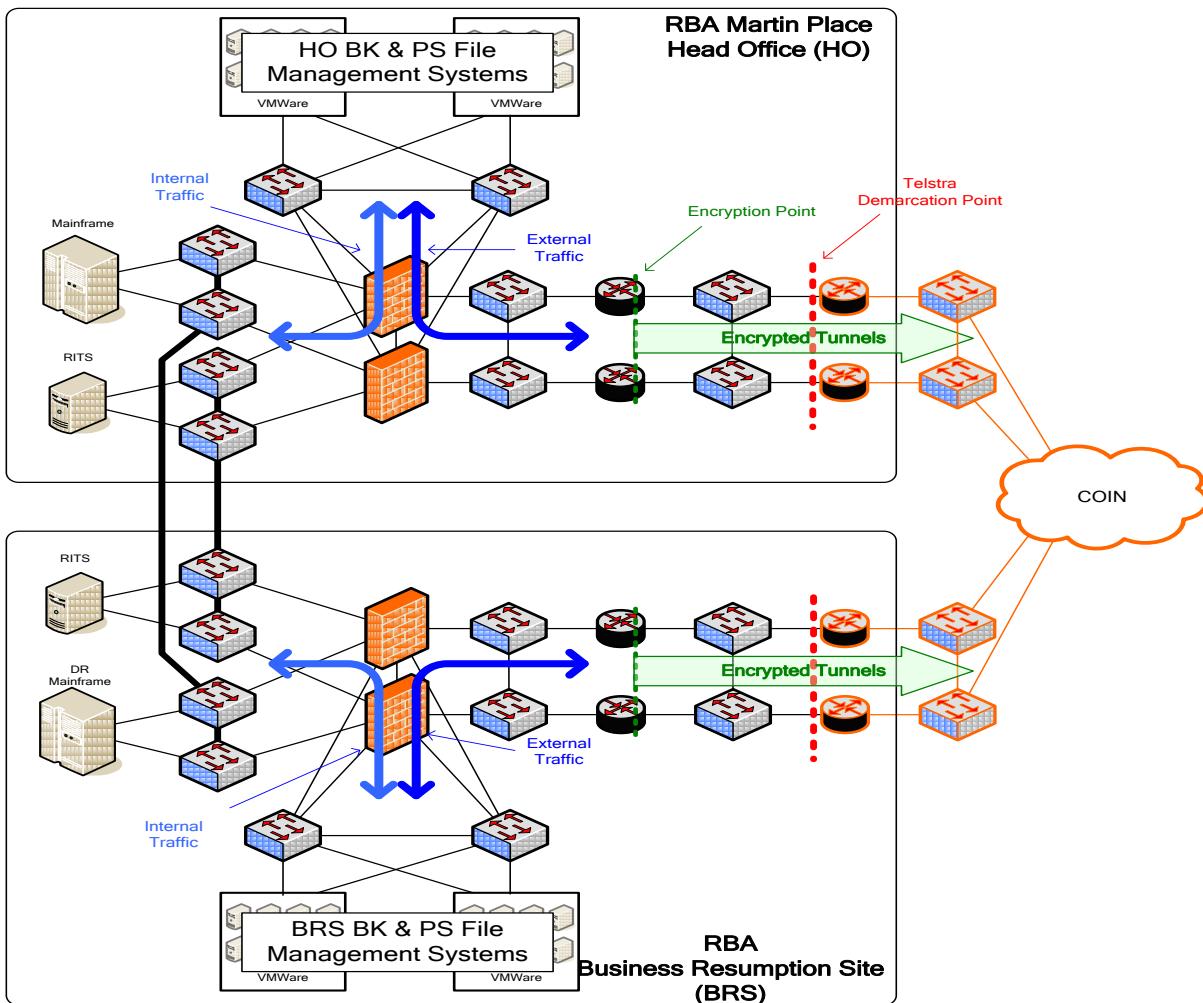
The RBA has dedicated COIN infrastructure with Telstra Fully Redundant Ethernet services operating at 2 Megabits per second (Mbps) into its two Data Centres. Telstra then provides the two Telstra managed routers at each site (total of 4 across the 2 sites) as part of the COIN managed service.

These links are connected into fully redundant RBA managed consolidation routers for the purposes IP Security (IPSec) termination. These routers then in turn connect to Firewalls which provide the isolation between internal systems and external connectivity.

The RBA operates an active/active configuration with both the Head Office (HO) and Business Resumption Site (BRS) running active operational environments.

#### 3.2 Network Diagram

The following illustration shows the RBA's COIN connectivity and associated systems infrastructure. The abbreviations BK (Banking Department) and PS (Payments Settlements) are used in this diagram.



### 3.3 IPsec

The RBA has opted to terminate IPsec on the external RBA managed consolidation routers. The following are the currently recommended options for the configuration:

- Use of static routes.
- Use of IPsec without the use of GRE-tunnels.
- HMAC-SHA-1 for the Encapsulation Security Payload.
- 256 bit AES data encryption.

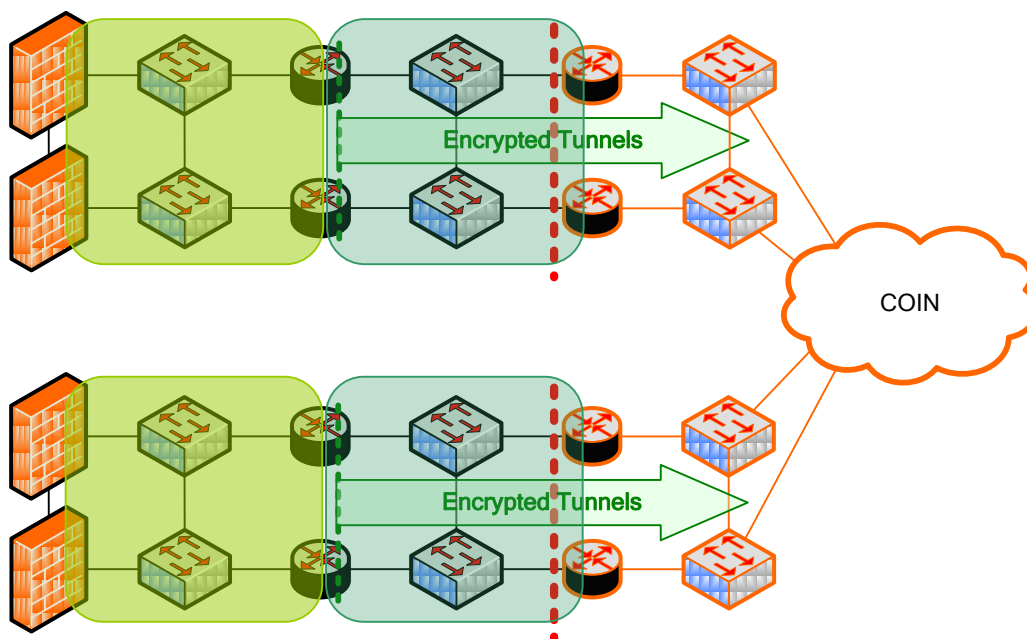
### 3.4 Exchange of Pre-Shared Secrets

In accordance with the industry agreed COIN Operating Manual, the RBA requires the establishment of a Pre-Shared Secret (PSS) via the secure exchange of 16 character strings between each partner to form the complete 32 character (256 bit) PSS.

For further information on the exchange of Pre-Shared Secrets please contact our Security Group (see Section 1.5 for contact details).

### 3.5 Allocated Network Address Spaces

The RBA currently uses the Telstra allocated "public" network addressing.



The network address spaces allocated by Telstra for the RBA to use can be obtained by contacting our Communications Group (see Section 1.5 for contact details). Separate address spaces have been allocated as follows:

- For Host addressing at Head Office (HO).
- For Host addressing at the Business Resumption Site (BRS).
- For IPsec termination at HO.



- For IPsec termination at BRS.

### 3.6 RBA Host Environments – IP Addressing

The following are the RBA host environments for COIN file transfers. Each row hosted below has a separate IP address which can be obtained by contacting Communications Group (see Section 1.5 for contact details).

Type	RBA Location	RBA Business Purpose	Host IP Address
Production	Head Office	CS1/CS2 Participant Collator Courier Core Banker to Government	(Please contact the RBA for this information)
Production	BRS	CS1/CS2 Participant Collator Courier Core Banker to Government	
Production	Head Office	Clearing Interconnector Low Value Settlement	
Production	BRS	Clearing Interconnector Low Value Settlement	
Test	Head Office	CS1/CS2 Participant Collator Courier Core Banker to Government	
Test	BRS	CS1/CS2 Participant Collator Courier Core Banker to Government	
Industry Test (Pre-Production)	Head Office	Clearing Interconnector Low Value Settlement	
Industry Test (Pre-Production)	BRS	Clearing Interconnector Low Value Settlement	

If required, the RBA can assist participants to determine which RBA primary and secondary Host IP addresses should be used for each file exchange.

### 3.7 File Transfer Protocols

The RBA supports the industry decision to use Connect:Direct over IP (CD:IP) as the default file transfer protocol for COIN file exchanges. Other file transfer protocols can be investigated upon request.

Partners wishing to commence discussions on the setup and configuration of Connect:Direct can contact our Network Support Group. Partners wishing to discuss the use of alternative options should contact one of the RBA's project managers. (See Section 1.5 for contact details.)

### **3.8 Network Monitoring**

The RBA requests that organisations connecting over the COIN to the RBA provide two Host IP addresses per active site or environment for network monitoring purposes. Typically these addresses are "loopback" or virtual addresses that exist on the host side of the IPSec tunnel.

The RBA will then use these hosts for "ping" monitoring from our internal Enterprise Management System (EMS) via the RBA's Head Office and Business Resumption sites.

The RBA can similarly provide loopback addresses for this purpose on the host network side of our RBA Managed COIN Routers. These are not listed in this document, but are available on request by contacting the RBA's Communications Infrastructure staff (see Section 1.5 for contact details).

The RBA acknowledges that this does not fully monitor the end-to-end application connectivity, however, it does provides a reasonable level of monitoring. The RBA welcomes discussion on options or alternatives to this arrangement.

## 4. RBA'S SWIFT NETWORK ARRANGEMENTS

This section outlines arrangements for participants wishing to exchange files with the RBA via the SWIFT FileAct Service. Prospective SWIFT participants should note the details provided in this section cover all file exchanges with the RBA (i.e. for all business functions listed in Section 2). In particular, the establishment of the SWIFT arrangements outlined below will facilitate SWIFT/COIN partner migrations for file transfers using the Clearing Interconnector service. In addition, the information provided below includes some detail on future SWIFT based arrangements relating to the RITS Low Value Settlement Service via the Settlement Interconnector.

### 4.1 Network/Service Overview

The RBA has set up a single SWIFT FileAct business service known as "**SWIFTNet Bulk Payments by the RBA**". The RBA is the Administrator of this service. Production (Live) and Pre-Production (Industry Test) Environments will be available to participants. The Test Environment is indicated in the technical service name by the suffix "**!pu**".

For each environment, there will be two FileAct Closed User Groups (CUGs). These CUGs will allow SWIFT participants to choose between sending/receiving files in "real time" or "store and forward" modes, and are indicated in the technical service name by the suffixes "**.rt**" and "**.sf**".

Use	Transfer Mode	Technical Service Name	Available Request Types
Production	Real Time	<b>rba.bulkp.rt</b>	pacs.xxx.cfe pacs.xxx.lvsc pacs.xxx.lvs
Production	Store and Forward	<b>rba.bulkp.sf</b>	pacs.xxx.cfe pacs.xxx.lvyc pacs.xxx.lvsc pacs.xxx.lvs
Industry Test	Real Time	rba.bulkp.rt!pu	pacs.xxx.cfe pacs.xxx.lvsc pacs.xxx.lvs
Industry Test	Store and Forward	rba.bulkp.sf!pu	pacs.xxx.cfe pacs.xxx.lvyc pacs.xxx.lvsc pacs.xxx.lvs

Within each technical service, separate Request Types have been set up to differentiate between the various types of file transfers that can take place. These are described in the table below.

<b>Request Type Name</b>	<b>Request Type Description</b>
pacs.xxx.cfe	<p><b>Clearing File Exchange</b></p> <p>This Request Type is used to transfer clearing files to and from the RBA via SWIFT FileAct. This Request Type will be used for all clearing files which use the RBA Clearing Interconnector service (this includes SWIFT file transfers where the RBA is the exchange partner).</p> <p>For files initiated via SWIFT (and where the RBA is not the exchange partner), the RBA will route the clearing file to the intended participant via the COIN or SWIFT. For files received via the COIN, the RBA will route the clearing file to the participant using SWIFT.</p> <p>This Request Type can be used in both real time or store and forward modes.</p> <p>Until the RITS Low Value Settlement Service is introduced, this is the only Request Type that will be used.</p>
pacs.xxx.lvyc	<p><b>Low Value Y-Copy</b></p> <p>This Request Type is used by the participant to initiate a clearing file transfer to a SWIFT exchange partner and to send an LVF settlement instruction to RITS at the same time using SWIFT's FileAct Y-Copy Service. The settlement instruction is in the HeaderInfo field of the File Transfer Request and the clearing file is the payload file. When the RITS Low Value Settlement Service is implemented, the Y-Copy Service will send the settlement instruction to RITS. On settlement, RITS will send a release authorisation, at which time the Y-Copy Service will release the clearing file to the exchange partner. The Sender may also choose to receive settlement confirmation. Both Senders and Receivers must use the SWIFT FileAct service for low value file exchange in order to use the Y-Copy option.</p> <p>This Request Type can only be used in store and forward mode.</p>
pacs.xxx.lvsc	<p><b>Low Value Settlement and Clearing</b></p> <p>This Request Type is used by the participant to transfer a clearing file to an exchange partner and to send an LVF settlement instruction to RITS at the same time using SWIFT's FileAct Service. The settlement instruction is in the HeaderInfo field of the File Transfer Request and the clearing file is the payload file. When the RITS Low Value Settlement Service is implemented, the RBA will route the settlement instruction to RITS and the clearing file to the exchange partner. The Sender must use SWIFT FileAct and the Receiver can use either COIN or SWIFT.</p> <p>This Request Type can be used in both real time or store and forward modes.</p>
pacs.xxx.lvs	<p><b>Low Value Settlement</b></p> <p>This Request Type is used by the participant to send an LVF settlement instruction (or recall instruction) to RITS. The settlement or recall instruction will be in the payload file. When the RITS Low Value Settlement Service is implemented, the RBA will route the instruction to RITS.</p> <p>The RBA will use this request type for all Low Value Feeder settlement related messages (responses/advices) from RITS to the LVF participant, regardless of which request type was used for the settlement/recall instruction.</p> <p>This Request Type can be used in both real time or store and forward modes.</p>

More information on the use of the three settlement-related Request Types will be provided in forthcoming RITS Low Value Feeder Project documentation (along with detail on the provision of settlement requests via the COIN).

For each CUG and Request Type combination the RBA will use the following Distinguished Name:

**o=rsbkau2s,o=swift**

This applies to the RBA as both Sender (Requestor) and Receiver (Responder) for both Production and Pre-Production (Industry Test) environments and for all settlement and clearing files, including those using the Clearing Interconnector service or where RBA is the exchange partner. Participants will need to advise the RBA of their Distinguished Name(s).

The following table shows which Distinguished Names will be used for each Request Type.

Request Type	Requestor DN (Sender)	Responder DN (Receiver)	Comments
pacs.xxx.cfe	Participant	Counterparty	Both the sending participant and their exchange partner (counterparty) use the SWIFT FileAct service, and the transfer is directly between the two exchange partners (ie does not use the Clearing Interconnector service).
	Counterparty	Participant	
	Participant	RBA	The participant uses the Clearing Interconnector service for file transfers to all other exchange partners (including the RBA).
	RBA	Participant	
pacs.xxx.lvyc	Participant	Counterparty	Both the Participant and Counterparty must be SWIFT FileAct users, and agree to use the Y-Copy service.
	Counterparty	Participant	
pacs.xxx.lvsc	Participant	RBA	This Request Type is only used for files sent to the RBA; it will not be used by the RBA for any outgoing file transfers.
pacs.xxx.lvs	Participant	RBA	All Low Value Feeder settlement advices and responses sent to participants by RITS will use this Request Type, regardless of whether the 'lvsc' or 'lvs' Request Type was used for the initial transfer of the settlement instruction.
	RBA	Participant	

The following options are available to participants when sending files via SWIFT FileAct using the above CUGs:

- To elect to send files either in real time or store and forward mode (with the exception of FileAct Copy where store and forward is mandatory).
- To elect whether or not to receive SWIFT delivery notifications.
- To elect whether or not to use the SWIFT non-repudiation option.

Participants will need to assess the suitability of each option for their own purposes, taking into account cost, efficiency and any legal considerations.

Unless otherwise requested, the RBA expects to send all files to SWIFT participants using real time mode. If files are unable to be delivered using this mode after a number of retry attempts, the RBA will attempt to send files using store and forward mode. This will require SWIFT participants to have processes in place to retrieve files from their SWIFT Queue.

In the normal course, the RBA will not select the non-repudiation option when sending files. Delivery Notifications will also not be selected.

As a sender of files over SWIFT FileAct, the RBA is able to provide information that may assist participants with their internal file processing by populating one of the fields in the File Transfer Request that accompanies each FileAct transfer. This will be achieved via the use of a field known as FileInfo in the File Transfer Request. In addition to SWIFT required details for this field, it will be populated in a pre-specified syntax to show details of the original file sender, file recipient and file type.

The proposed FileInfo syntax is as follows:

**SwCompression=None;Source=XXX;Dest=YYY;Type=ZZZZ**

where:

- **SwCompression=None** is mandatory;
- **XXX** is the APCA 3 character clearing code of the clearing party that sent the file to the RBA;
- **YYY** is the APCA 3 character clearing code of the clearing party to which the RBA is sending the file; and
- **ZZZZ** is a 4 character code for the file type, based on the abbreviations contained in the Appendix of this document.

For example, where Westpac sends a direct entry non-government transaction file to ANZ via the Clearing Interconnector Service, the RBA will populate the FileInfo field of the SWIFT file transfer request as follows:

**SwCompression=None;Source=WBC;Dest=ANZ;Type=DENT**

SWIFT senders may also populate this field. However, the RBA will not verify the contents and will not be able to pass this information on to other participants.

## 4.2 Closed User Group Participation

A prospective SWIFT FileAct participant will need to apply to join each CUG. The application/enrolment process will be via a SWIFT e-order on [www.swift.com](http://www.swift.com).

Once submitted, SWIFT will send the enrolment application to the RBA (as Administrator of each CUG) for approval. The RBA will contact the SWIFT applicant to advise the estimated completion time and availability date.

## 5. PROCESSES FOR ESTABLISHING RBA PARTNER MIGRATION PROJECT

This section summarises the project steps and requirements for establishing network connectivity with the RBA for the exchanges of files over COIN or SWIFT, including via the Clearing Interconnector service.

### 5.1 COIN Migrations

The RBA is connected to the COIN and has established the necessary infrastructure and file management arrangements to send and receive files via the COIN.

Partners will need to determine their own requirements for connection to the COIN and complete the necessary contractual arrangements with Telstra. This process will encompass all design considerations such as number of links, speed, and other proprietary configuration requirements. In addition to the link installation process, file management systems and back-end applications will need to be readied to facilitate file transfers using Connect:Direct over IP via the COIN.

Once a prospective partner has completed their internal readiness for COIN file exchanges and is ready to commence their RBA partner migration, they should contact the RBA Project Manager to arrange an initial project planning meeting. As a guide, this initial meeting will discuss:

- high level tasks required to complete the migration;
- proposed dates and timings for each agreed task;
- the documentation that will be necessary for the migration and the party who will be responsible for producing or maintaining this documentation (eg file exchange lists, test plans, issues logs, risk registers, etc);
- relevant technical details required for the migration covering initial connectivity establishment, the configuration and use of Connect:Direct, the exchange of Pre-Shared Secrets and other security information;
- provision of existing file exchange information to ensure that all files presently being exchanged are migrated;
- the proposed testing approach, covering the availability of test environments, the timing of testing, and the way functional, performance, end-to-end and failover tests will be performed;
- implementation options and the preferred approach; and
- production implementation authorisation arrangements.

Specific tasks relating to the migration will then commence. These will include:

- the development of an agreed project plan. The RBA has developed a project plan that can be used as a starting point for this purpose;
- the exchange of Pre-Shared Secrets and the establishment of IPSEC tunnels;
- completion of initial COIN connectivity tests;
- the exchange of technical information and credentials required to establish file transfers using Connect:Direct over IP;

- completion of each participant's file transfer system administrative setup to provide file transfer capability;
- agreement on all the files (source, destination, file type, file name and usual time of transmission) that will be included in the migration, including files where either party acts as agent for another participant in the file exchange process;
- the drafting of test planning documents based on agreed test cases; and
- the commencement of file transfer testing.

In considering each of the above tasks, both parties will take into account any industry related reference documents that may be made available by APCA.

The RBA also has a preference for COIN partners to configure their COIN connectivity and file management transfer systems to communicate with all of the RBA Host IP addresses set out in Section 3.6. This will help facilitate future migrations with participants using the SWIFT network (via the Clearing Interconnector service) as well as establishing the necessary connectivity to make use of the Low Value Settlement Service when it commences.

During the course of the project, it is expected that regular meetings (in person or by teleconference) will be convened to monitor the status of various tasks against the timetable and to resolve any issues that may have arisen. It will be desirable for status reports to be produced on a regular basis in an agreed format.

Once testing has been completed to the satisfaction of both parties, a production cutover date(s) will need to be agreed. As production files are exchanged between Monday and Saturday morning, a weekend implementation will be required. The RBA is happy to consider an implementation approach which migrates only a limited range of files to the COIN initially. Once these initial files have been successfully migrated, the migration of all other files could then occur on a subsequent weekend. The agreed project timings and production implementation dates will need to take into account the limited number of change weekends and tight timeframe for both parties to complete all of their link partner migrations.

Partners should note that the RBA is unlikely to be able to accommodate changes on the following weekends in 2010:

- 3 / 4 April (Easter); and
- 24 / 25 April (Anzac Day).

Following the completion of COIN partner migration, both parties will agree on the date that the decommissioning of their existing bilateral link can occur. The partner that is the designated manager of the link will then arrange for the link to be decommissioned.

## **5.2 SWIFT FileAct Migrations**

This section outlines the migration steps for participants that will use the SWIFT FileAct service for their partner migration with the RBA. [Section 5.3 covers partner migration project planning arrangements with other clearing partners via the Clearing Interconnector service.] Although many of the project steps are the same as for a COIN migration, they are repeated here for ease of reference.

The RBA is connected to SWIFT and has established the necessary infrastructure and file management arrangements to send and receive files using the SWIFT FileAct service. The SWIFT FileAct services, Closed User Groups and request types have all been established.

Partners will need to determine their own system design requirements and infrastructure changes to facilitate the transfer of files using SWIFT FileAct via the Closed User Groups described in



Section 4.1. Partners should apply to join each Closed User Group around one month before their readiness date.

Once a prospective partner has completed their readiness for SWIFT file exchanges and is ready to commence their RBA partner migration, they should contact the RBA Project Manager to arrange an initial project planning meeting. As a guide, this initial meeting will discuss:

- high level tasks required to complete the migration;
- proposed dates and timings for each agreed task;
- the documentation that will be necessary for the migration and the party who will be responsible for producing or maintaining this documentation (eg file exchange lists, test plans, issues logs, risk registers, etc);
- relevant technical details required for the migration covering initial FileAct connectivity testing (partners should note that some initial FileAct testing can be performed without the need to use the CUG technical service names);
- provision of existing file exchange information to ensure that all files presently being exchanged are migrated;
- the proposed testing approach, covering the availability of test environments, the timing of testing, and the way functional, performance, end-to-end and failover tests will be performed;
- implementation options and the preferred approach; and
- production implementation authorisation arrangements.

Specific tasks relating to the migration will then commence. These will include:

- the development of an agreed project plan;
- completion of initial file transfer tests;
- completion of the process to join each CUG (Production and Pre-Production) as described in Section 4.2;
- completion of each participant's file transfer system administrative setup to provide file transfer capability;
- agreement on all the files (source, destination, file type, file name and usual time of transmission) that will be included in the migration, including files where either party acts as agent for another participant in the file exchange process;
- the drafting of test planning documents based on agreed test cases; and
- the commencement of file transfer testing using the Pre-Production Environment technical service name(s) and Request Type 'pacs.xxx.cfe', as described in Section 4.1.

In considering each of the above tasks, both parties will take into account any industry related reference documents that may be made available by APCA.

During the course of the project, it is expected that regular meetings (in person or by teleconference) will be convened to monitor the status of various tasks against the timetable and to resolve any issues that may have arisen. It will be desirable for status reports to be produced on a regular basis in an agreed format.

Once testing has been completed to the satisfaction of both parties, a production cutover date(s) will need to be agreed. As production files are exchanged between Monday and Saturday morning, a weekend implementation will be required. The RBA is happy to consider an implementation approach which migrates only a limited range of files to SWIFT initially. Once these initial files have been successfully migrated, the migration of all other files could then occur on a following weekend. The agreed project timings and production implementation dates will need to take into account the limited number of change weekends and tight timeframe for both parties to complete all of their link partner migrations.

Partners should note that the RBA is unlikely to be able to accommodate changes on the following weekends in 2010:

- 3 / 4 April (Easter); and
- 24 / 25 April (Anzac Day).

Following the completion of SWIFT partner migration, both parties will agree on the date that the decommissioning of their existing bilateral link can occur. The partner that is the designated manager of the link will then arrange for the link to be decommissioned.

### **5.3 Clearing Interconnector Migrations**

This section outlines the additional steps involved in partner migrations via the Clearing Interconnector Service (where the RBA is not one of the two exchange partners). Each external exchange partner will need to have successfully completed their RBA partner migration (if applicable) via either COIN or SWIFT prior to their partner migration using the Clearing Interconnector service commencing live operations.

The RBA will support both Production and Pre-Production (Industry Test) Environments for all Clearing Interconnector related file transfers over both COIN and SWIFT.

#### **5.3.1 COIN Partner Setup**

Most of the connectivity setup steps required for the COIN leg of a Clearing Interconnector migration will have already been completed as part of the RBA migration. This includes the establishment of network connectivity, file transfer protocol arrangements and the exchange of Pre-Shared Secrets. COIN participants will need to ensure, if they haven't already done so, that they can address files to each of the separate Host IP addresses used to provide the Clearing Interconnector service (as listed in Section 3.6).

#### **5.3.2 SWIFT Partner Setup**

All of the connectivity setup steps required for the SWIFT leg of a Clearing Interconnector migration will have already been completed as part of the RBA migration. This includes the establishment of FileAct arrangements, participation in the CUGs, and use of the applicable Request Type.

#### **5.3.3 Partner migration planning**

As with each partner migration, the two exchange parties will need to agree a network migration project plan. As the RBA will be in the centre of file exchanges between each partner, it will need to have major involvement in the planning process and the project itself. Once the parties have held an initial discussion, they should contact the RBA to commence further planning. They should also provide an indication of their preferred implementation date.

The main RBA-related tasks for the two exchange partners to consider in the planning process are:

- discussion and agreement on the tasks requiring RBA involvement, and their likely timings (by the two exchange partners and the RBA)

- agreement on the files to be exchanged followed by the completion of RBA-provided forms which will provide static data details of these file exchanges, including source and destination details as well as the file type and other information.
- entry by the RBA of the details of each file transfer into its Pre-Production (Industry Test) Environment;
- discussion on testing arrangements and processes. It is expected that participants will perform a significant level of testing across the Pre-Production Environment before commencing file transfers over the Production Environment; and
- discussion on the steps required ahead of the production weekend implementation including the formal advice of files to be exchanged in production, the testing of production capability (if required) and other implementation considerations.

#### **5.3.4 Recording of file transfer details by the RBA**

To facilitate the exchange of files between exchange partners using the Clearing Interconnector service, the RBA will arrange for each partner to complete forms to collect the file transfer static data required for the operation of the service. These forms will allow each partner to advise the RBA of the inbound and outbound file names (for each file type) that will be sent and received. The form will also cater for file name translation if the file name the receiver wishes to receive is different from the file name sent by the sender. It is expected that this information will be collected electronically (via an Excel spreadsheet, or similar) to facilitate data entry by the RBA.

It is envisaged that there will be separate data collection processes for test file exchanges using the Pre-Production Environment and live file exchanges on the Production Environment. This will allow exchange partners to differentiate between the file names used for testing purposes and the file names to be used in the Production Environment.

For Pre-Production, the RBA will advise each partner when details have been recorded in its system. The RBA will provide each partner with a file details listing from its Pre-Production Environment. This listing will show the file type and file name of all files the partner will send and receive with another partner via the Clearing Interconnector service.

For Production, the RBA will record the details of each file transfer and initially set this to an "inactive" status in its system. The RBA will provide each partner with a file details listing from its Production Environment. This listing will show the file type and file name of all files the partner will send and receive with another partner via the Clearing Interconnector service. Prior to the implementation of one or a group of file types, both partners will need to provide their written authorisation for the RBA to activate each file type. Once written approval has been received, the RBA will activate each approved combination of sender, receiver and file type on the agreed date. Migration of different file types can occur on different dates.

The RBA will provide further information on the data collection process and the type of information that will be required in forthcoming Clearing Interconnector Member Information documentation.

## 6. APPENDIX - FILE NAME CONVENTION AND FILE TYPE

In the Clearing Interconnector Information Paper issued in June 2009, the RBA proposed an optional file naming convention for clearing files. This received support from those participants who provided feedback on the paper. Some changes have been made to simplify the identification of file type.

The proposed file naming convention is:

### **Sender.Receiver.Date.FileType.Description.Test/ProdIndicator**

For example: BK1.BK2.D091203.DETN.1000.P

The following table sets out the allowable contents of each element of the file name.

Item	Valid Values	Description
Sender	As setup	APCA 3 digit clearer code.
Receiver	As setup	APCA 3 digit clearer code.
Date	DYYMMDD	Letter "D" followed by the date of file exchange in date format YYMMDD.
File Type	<u>Australian Paper Clearing System (APCS; CS1)</u>	
	<u>Electronic Presentment and Dishonour (EP&amp;D)</u>	
	EPDA	File A – Electronic Presentment (EP) file
	EPDB	File B – EP Acknowledgement and Technically Invalid (TI) EP file
	EPDC	File C – TI EP Acknowledgement file
	EPDD	File D – Electronic Dishonour (ED), Electronic Dishonour Refusal (EDR) and Voucher Required (VR) file
	EPDE	File E – ED Acknowledgement file, TI ED file, EDR Acknowledgement file, TI EDR file, VR Acknowledgement file and TI VR file
	EPDF	File F – TI ED Acknowledgement file, TI EDR Acknowledgement file and TI VR Acknowledgement file
	<u>Bulk Electronic Clearing System (BECS; CS2)</u>	
	DENT	Direct Entry Normal (non-Government) Transaction file
	DENS	Direct Entry Normal (non-Government) Summary file
	DEGT	Direct Entry Government Transaction file
	DEGS	Direct Entry Government Summary file
	<u>Consumer Electronic Clearing System (CECS; CS3)</u>	
	CEIS	Interchange Summary Report file
	<u>National Collator files</u>	
	NCES	Exchange Summary file
	NCEA	Exchange Summary - Error Advice file
	NCPA	Clearing System Obligation – Provisional Advice file
	NCFA	Clearing System Obligation – Final Advice file

Item	Valid Values	Description
	NCNO	Net Obligations file
	<u>Commonwealth Government Agency Banking files</u>	
	GAAB	Account balances file
	GASO	Settlement obligations file
	GAHV	High value payments file
	GAPD	Pending debits file
Description	For BECS: Normal 1000 1300 1600 1830 2015  Govt 0700 1815 2000	Usage dependant on Clearing System:  For BECS, description is the time of exchange. Official exchange times are listed here, participants with other bilaterally agreed file exchange times would need to show that time in the same 24 hour format (eg 2230).
Test/Production	T P	