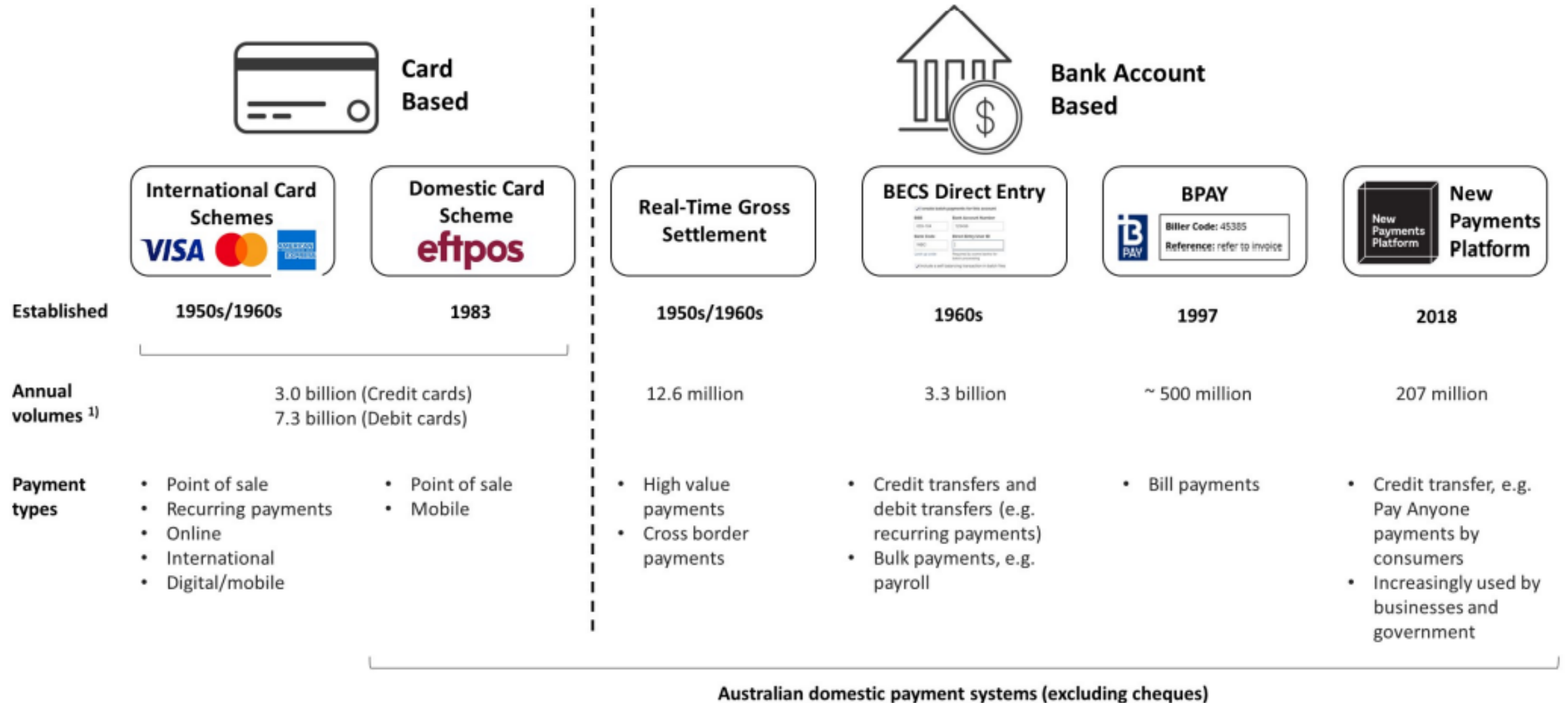


Payments:

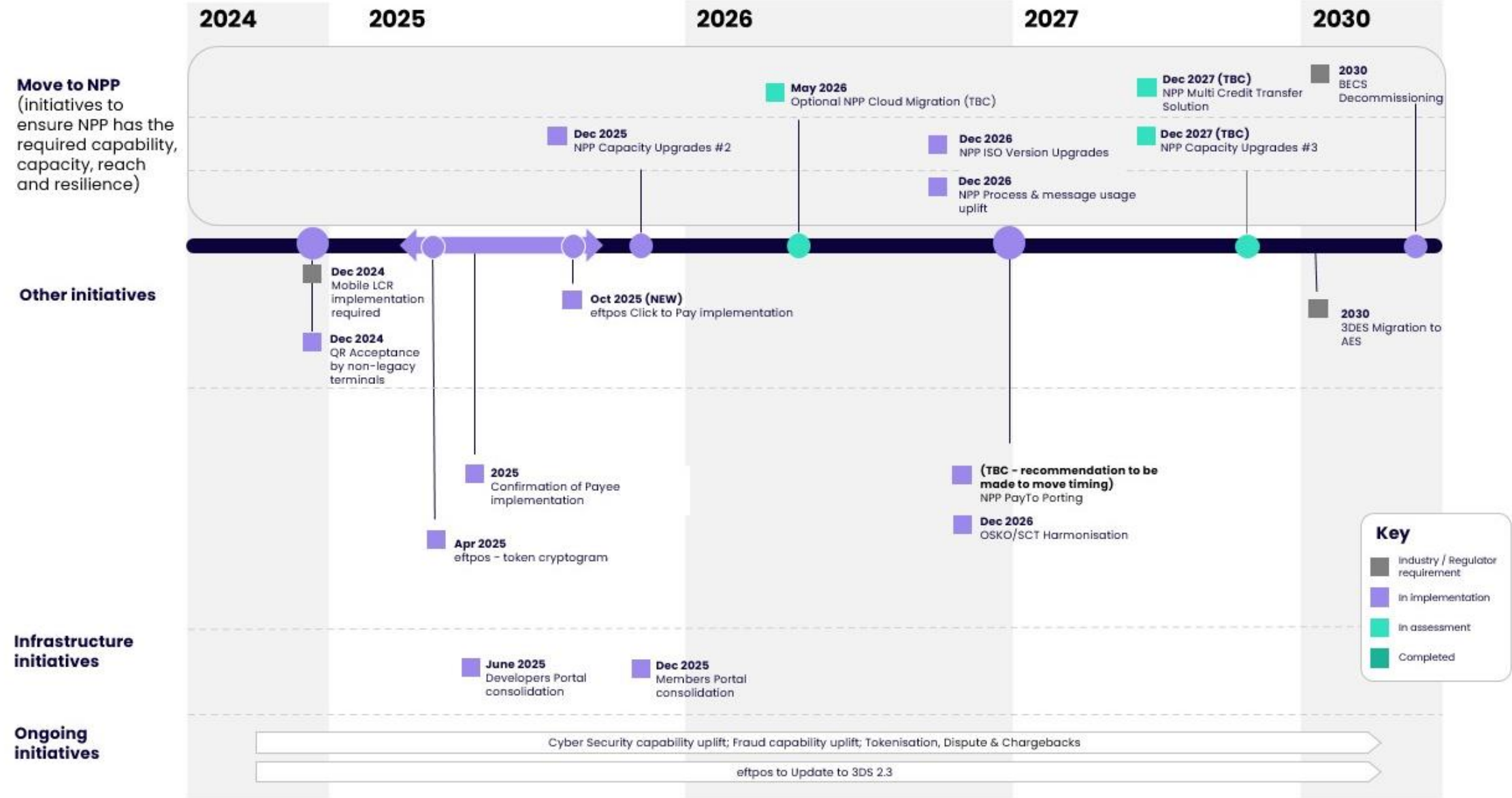
Fundamental concepts

Payment Systems operating in Australia



2025 AP+ Roadmap

Source: Payments in Australia - Roadmap 2025



Payment schemes

Classification based on ownership

```
graph TD; A[Classification based on ownership] --> B[Industry-operated clearing & settlement systems:]; A --> C[Privately-owned payment systems:];
```

Industry-operated clearing & settlement systems:

- Low-value payments aka Direct entry
- High-Value payments
- Real-time payments aka NPP

Privately-owned payment systems:

- BPAY
- eftpos
- Cards: Mastercard, Visa schemes

Industry-operated clearing & settlement systems

Payments	Low-value payments aka Direct entry	High-Value payments	Real-time payments aka NPP
Scope	Retail payments for low-value retail transactions up to \$100 million	Transfer of large sums	Low value retail payments
Payment types	Direct credit payments (salary) Direct debit payments (utility bills) Consumer 'pay anyone' bank transfers Internet banking transactions	Bank-to-bank transfers	Consumer 'pay anyone' bank transfers
Features	Bulkified, scheduled 5 times each business day	Real-time, irrevocable	Near real-time 24/7/365. Line by line, Bulkified mode is not supported yet.
Participants	Consumers, Merchants, Banks	Financial institutions & corporates	Consumers, Businesses, Govt. agencies
Network / Rail	Community of Interest Network (COIN)	SWIFT NET	Basic infrastructure (BI): <ul style="list-style-type: none"> - Domestic SWIFT NET, connecting institutions via Payment Gateways (PAG) - Overlay service Addressing Service (PayID)
Clearing	Bulk Electronic Clearing System (BECS)	High Value Clearing System (HVCS) running on SWIFT Payment Delivery System (PDS)	Facilitated via PAG by Clearing & Full Participant
Settlement	Low Value Settlement Service (LVSS) on Reserve Bank Information and Transfer System (RITS)	Real-time gross settlement (RTGS) on Reserve Bank Information and Transfer System (RITS)	Fast Settlement Service (FSS) running on RITS
Clearing & Settlement Message standard	Clearing: BECS proprietary Settlement: RBA proprietary LVSS XML	ISO 20022 XML (SWIFT MX format)	ISO 20022 XML
Governance body	AusPayNet's BECS Management Committee	AusPayNet's HVCS Committee	NPP Australia
Lifespan	To be decommissioned by 2030, with NPP taking over		Since 2018

Privately owned payment systems – Work in progress

Payments	BPAY	eftpos	Cards: Mastercard, Visa schemes
Scope			
Payment type	bill payments	retail point-of-sale and online payments	Retail / online payments
Features	payments are bilaterally cleared between participating institutions through BPAY and settled periodically in multilateral batches in RITS	payments are bilaterally cleared between financial institutions according to rules for each card scheme and settled periodically in batches in RITS	payments are bilaterally cleared between financial institutions according to rules for each card scheme and settled periodically in batches in RITS
Owned by	BPAY Group (now part of Australia Payment plus)	eftpos Payments Australia Ltd	Mastercard, Visa

Term	Description
Least Cost Routing (LCR)	Functionality that promotes competition in the debit card market and helps to reduce payment costs in the economy. LCR, also known as Merchant Choice Routing, allows retailers and merchants to channel contactless transactions from dual network debit cards via the lowest cost payment network (in most cases eftpos)

Terminology – Clearing & Settlement Frameworks

Term	Description	Operated in AU by
Fast Settlement Service (FSS)	Capability that enables every single payment made on the NPP platform, regardless of its size, to be settled in real-time by debiting and crediting the Exchange Settlement Accounts (ESA) of the two financial institutions that are acting for the payer and payee customers. Operated by RBA	RBA
High Value Clearing System (HVCS)	A real-time payment system framework for a clearing and settlement of large value payments with no upper value transaction limit [Reference]	AusPayNet
Bulk Electronic Clearing System (BECS)	<p>A streamlined electronic payment method used to process low-value, bulk transactions for account-to-account (A2A) payments:</p> <ul style="list-style-type: none"> • Tier 1 Members: clear and settle direct entry files through an RBA's ESA with other tier 1 members. Usually ADIs & AFSL holders • Tier 2 Members: indirect clearing members that need to use a Tier 1 member as a "sponsor" to clear and settle their payments. 	AusPayNet
Real-Time Gross Settlement (RTGS)	It's a system for transferring high-value payments between financial institutions in real-time, meaning each payment is settled individually and immediately, rather than waiting for a batch processing cycle. This eliminates the risk of potential loss due to deferred settlements.	RBA
Exchange Settlement Account (ESA)	RBA settlement account which is used to settle financial obligations arising from the clearing of payments. Once the RBA approves the opening of a new issuer's ESA account, the issuer has to become a member of the RBA's high-value settlement system, RITS. RITS acts like an online banking facility for ESA holders and is used to settle payments on a Real-Time Gross Settlement (RTGS) basis.	RBA

Terminology – Rails aka Network

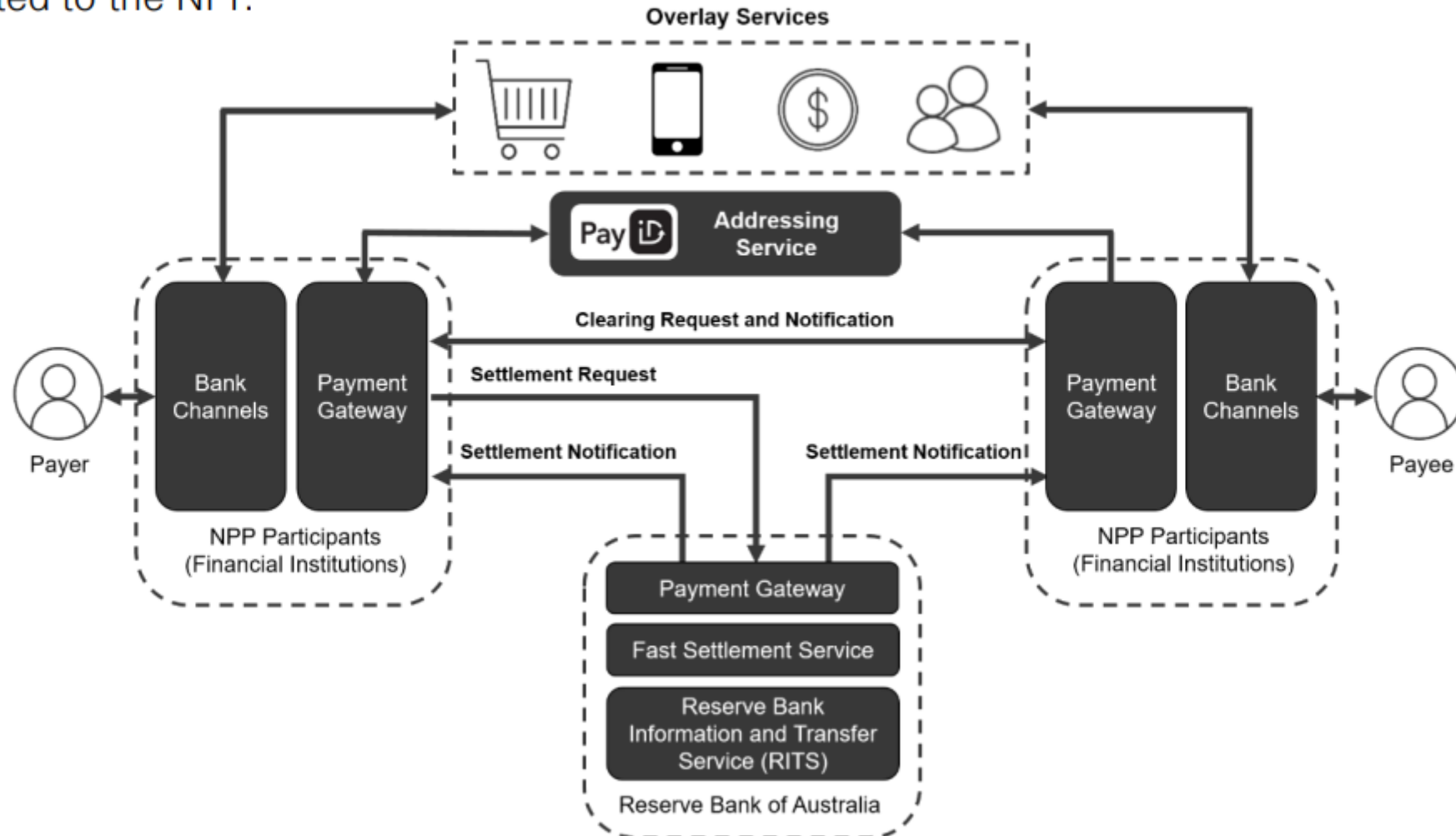
Term	Description	Operated in AU by
New Payment Platform (NPP)	A new, world-leading domestic payments infrastructure that enables connected Australian financial institutions to offer their customers – consumers, businesses and government agencies – near real-time, datarich inter-bank payments 24 hours a day, 7 days a week. NPP has a distributed architecture built by SWIFT and consisting of individual ' Payment Access Gateways ' (PAG) that route and exchange financial messages between participating organizations and RBA. Operated by NPP Australia	NPP Australia
Community of Interest Network (COIN)	A high availability, managed network for the multilateral secure transmission of payment files between payments participants	AusPayNet

Terminology – NPP Overlay Services

Term	Description
Overlay Service	A value-added product or service that uses the NPP infrastructure's capabilities, potentially in a customized way to define a bespoke payment service or process.
PayTo	A digital payment solution providing consumers with more visibility and control and enabling businesses to initiate real-time payments from customers' accounts
PayID	A service address payments with an easy-to-use identifier such as mobile number, email address, ABN or organisation ID
Confirmation of Payee (CoP)	An industry-wide service that matches the bank account details entered by a payer with the account details held by the recipient's bank and displays a match outcome to the payer.

NPP – Clearing & Settlement Flow

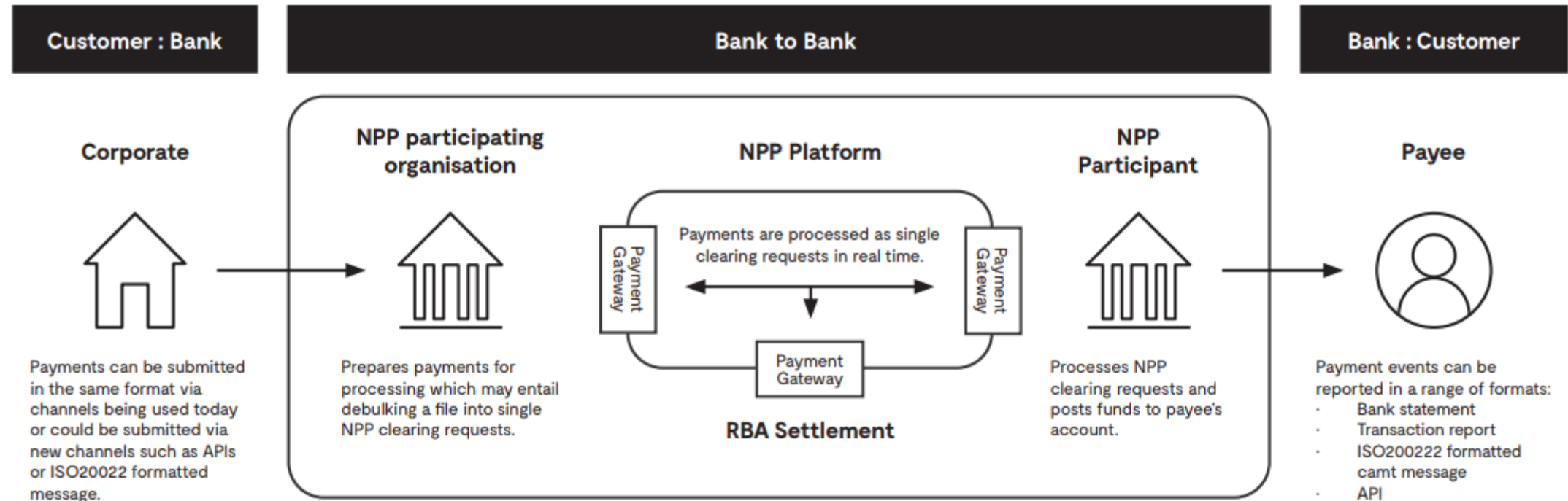
Figure 1: Depicts the NPP message and information flows between financial institutions directly connected to the NPP.



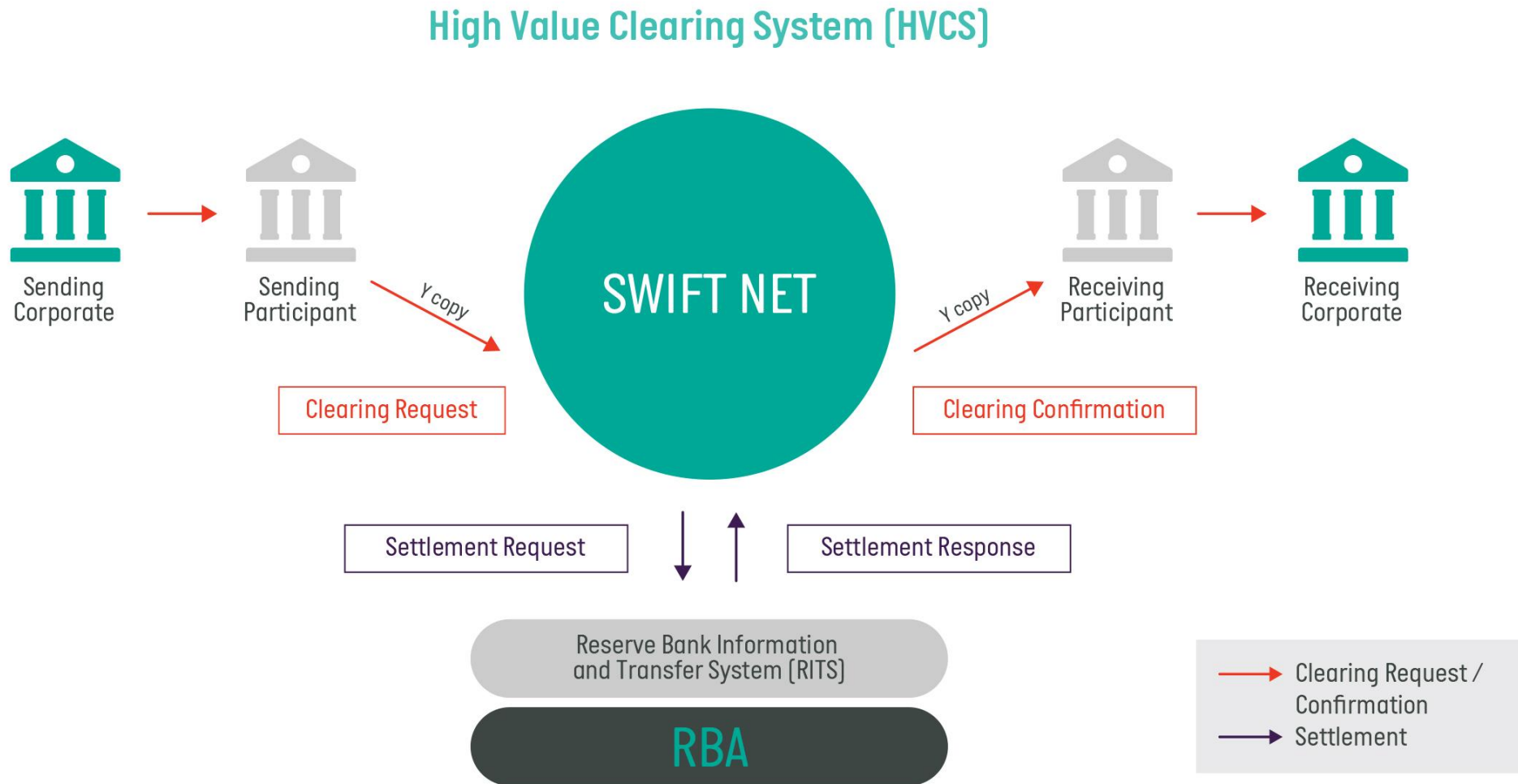


Moving payment processing to the NPP

Corporates can access the benefits of the NPP with minimal impact on systems and processes. NPP participating banks can support corporate customers with this change management process.



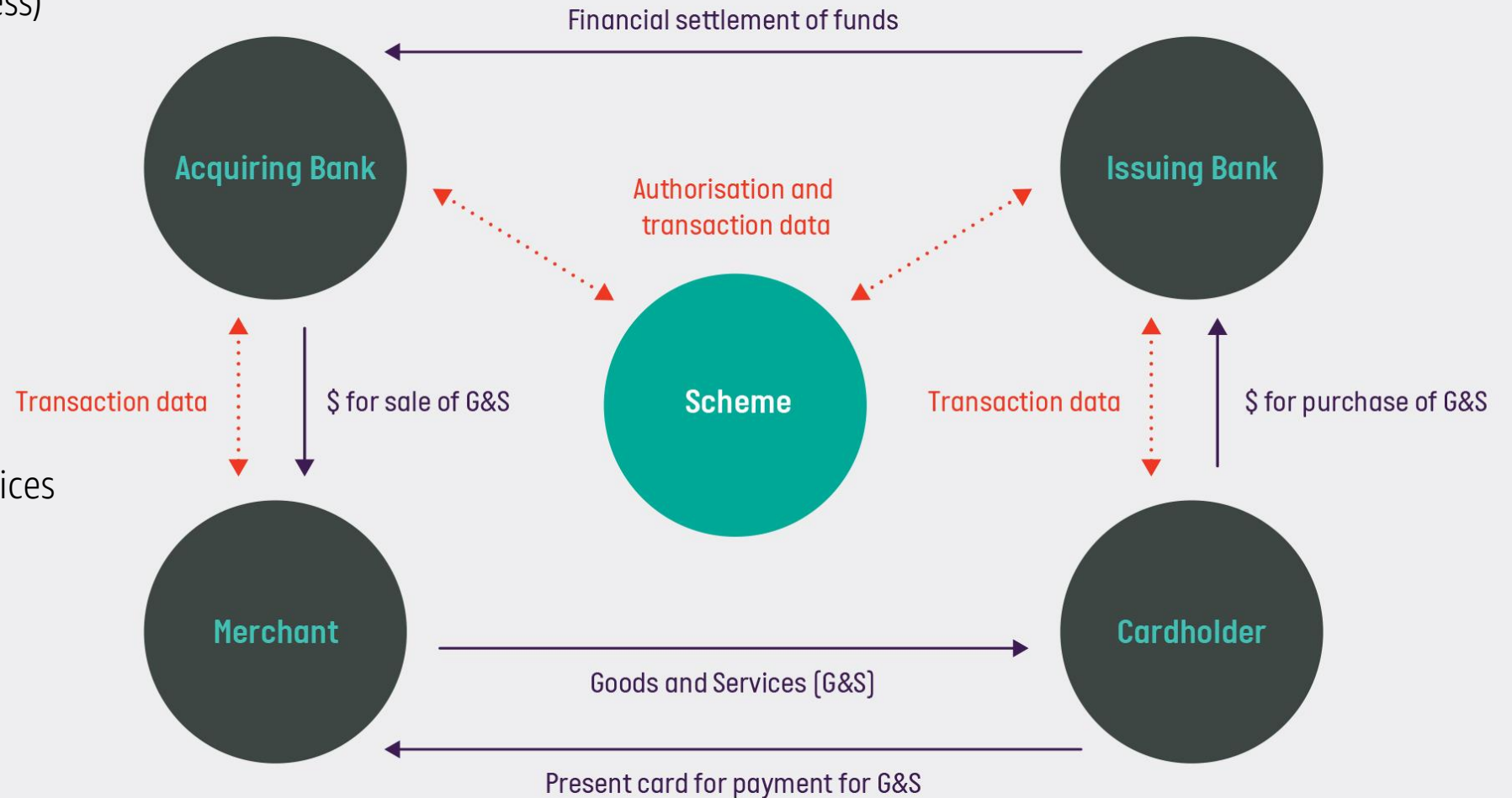
High Value Clearing System (HVCS) [Source](#)



Card Payments

Source

4 Party Model



- Cardholder (an individual or business)
- Merchant (retailer or provider of goods or services)
- Issuer (usually a bank or financial institution, issuing the card to the cardholder)
- Acquirer (a financial institution or entity providing card payment services to the merchant)

Terminology – Regulatory / Licensing Requirements

Term	Description	Operated in AU by
Authorized deposit-taking institution (ADI) License	<p>Organizations that want to accept deposits from consumers or businesses in Australia will need an ADI licence from APRA:</p> <ul style="list-style-type: none">• Full ADI – suitable if they have the resources and capabilities necessary to meet the full criteria for an ADI. APRA expects established companies to follow this path.• Restricted ADI - suitable if they do not currently have the resources and capabilities to meet the full criteria for an ADI and need time to develop them (a maximum of two years is allowed). The restricted ADI is designed to help smaller institutions, fintechs and digital banks enter the payments system.	APRA
Australian Financial Services (AFSL) Licence	<p>Organizations providing a service that allows a customer to manage an investment or make a non-cash payment may need an AFSL from ASIC. Services requiring an AFSL include basic deposit products. More information on AFSLs is available from ASIC</p>	ASIC

Type of financial institutions in AU [[Link](#)]

The main types of financial institutions in Australia are:

- [Authorised Deposit-taking Institutions \(ADIs\)](#)
- [Non-ADI Financial Institutions](#)
- [Insurers and Funds Managers](#)

Type of Financial Institution	Primary License	Regulatory Authority	Notes
Authorized Deposit-taking Institutions (ADIs)	ADI License	APRA	Banks, credit unions, building societies; Can take deposits
	AFSL	ASIC	
Non-ADI Financial Institutions	AFSL	ASIC	Payment service providers, fintechs, non-bank lenders that don't take deposits
Insurers	Insurance License + AFSL	APRA (insurance) + ASIC (AFSL)	General insurers, life insurers, private health insurers
Funds Managers	AFSL	ASIC	Manage investment funds, superannuation funds; provide financial advice

Message standards [Source](#)

Australian Payments, Clearing and Settlement Systems

Payment type		Clearing system format		Settlement message format		RBA settlement system settlement method
High-value payments	↔	HVCS SWIFT FIN MT	↔	SWIFT FIN Y-Copy – MT	↔	RITS
Debt securities & cash transfers	↔	ASX Austraclear SWIFT FIN MT	↔	RBA/ASX Proprietary	↔	line by line
BPAY	↔	BPAY Proprietary	↔	RBA Proprietary LVSS XML	↔	periodic multilateral settlement
Cheques	↔	APCS EP&D Proprietary	↔		↔	
Direct credits & debits	↔	BECS Proprietary	↔		↔	
VISA	↔	VISA AS2805	↔		↔	
Mastercard	↔	Mastercard AS2805	↔		↔	
eftpos	↔	eftpos AS2805	↔	SWIFT FIN Proprietary MT	↔	periodic batch
Equities	↔	ASX CHES* Proprietary	↔		↔	
Property	↔	PEXA Proprietary	↔	RBA Proprietary XML	↔	periodic reservation batch
NPP	↔	NPP ISO 20022 XML	↔	NPP ISO 20022 XML	↔	FSS line by line

*ASX CHES batch settlement message is currently migrating to ISO 20022.

ISO 20022 – Payment Messages

pacs.002.001.01

Category Type Variant Version

4!a . 3!c . 3!n . 2!n

Business area Message identifier/functionality Variant Version

Example

pacs.008.001.08

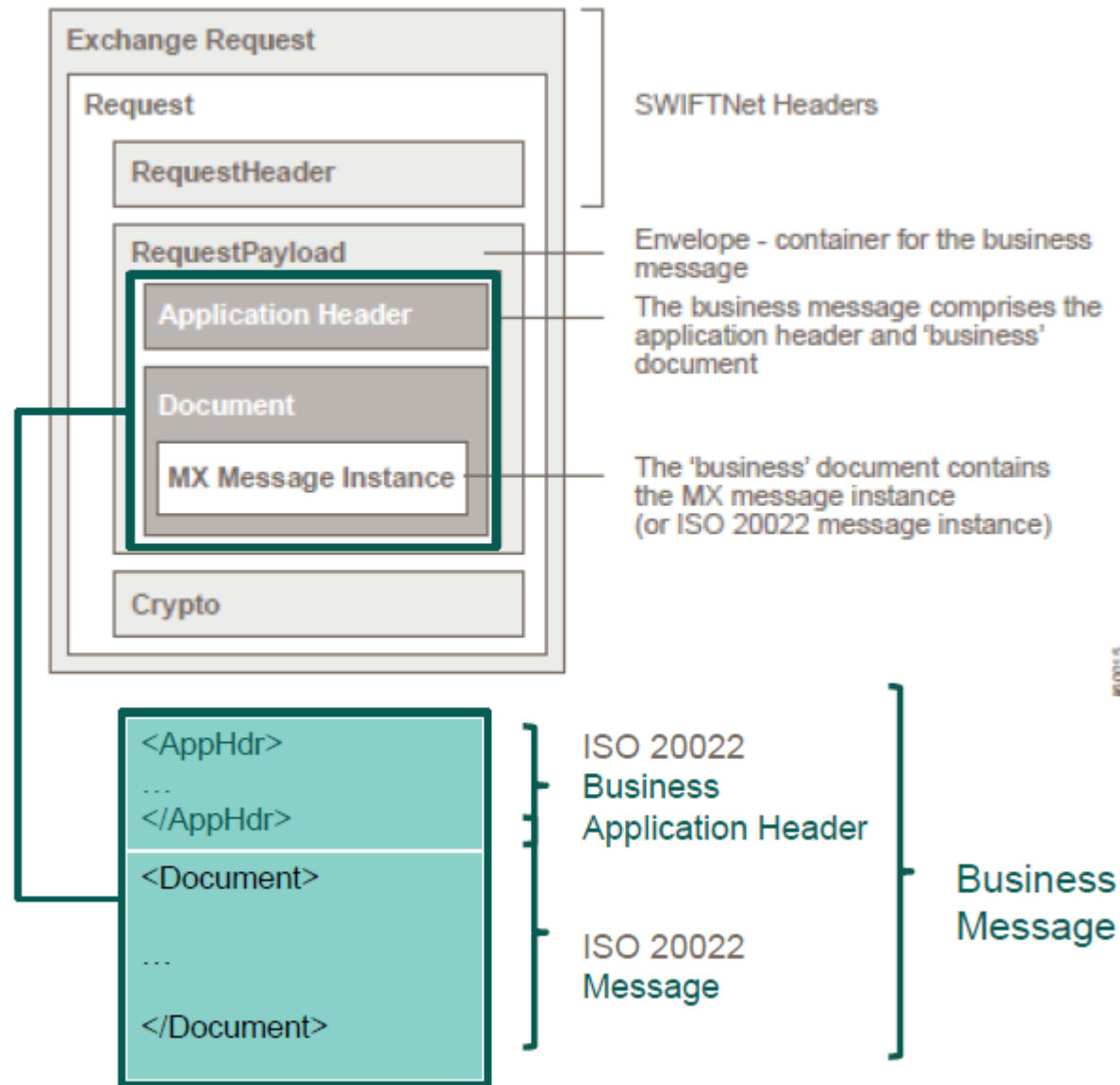
Payments Clearing and Settlement FI To FI Customer Credit Transfer Variant 1 Version 8

ISO 20022 – Payment Msgs - Benefits

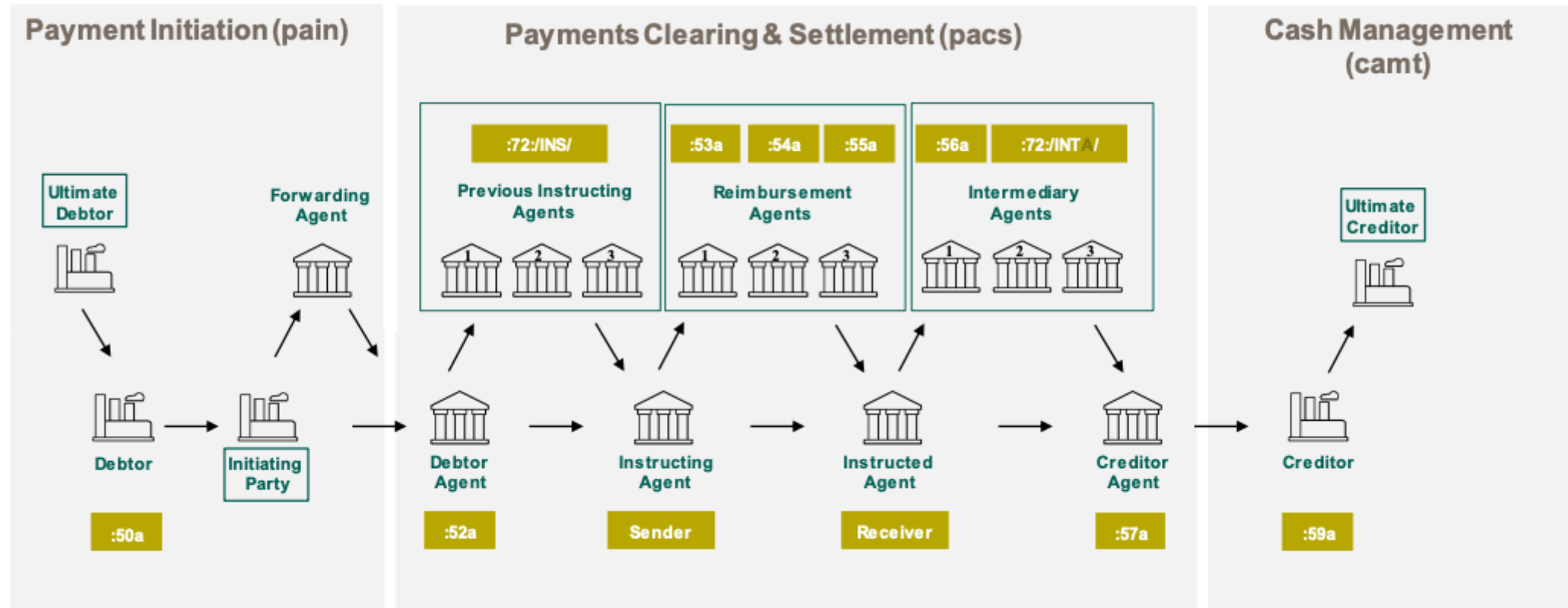
- Customer insights (KYC): the enhanced data-carrying capability of ISO 20022 structured messages is an enabler for institutions to pass customer-specific attributes and enhanced capabilities for customer identification and analytics.
- Fraud and financial crime management: the expansion and addition of information fields can help to facilitate payment tracking and verification
- Innovation: This leads to delivering competitive and innovative services to their customers
- Improved reconciliation: ISO 20022 can help to minimise the number of unmatched items due to support of extended remittance info fields
- <https://www.rba.gov.au/publications/consultations/201904-iso-20022-migration-for-the-australian-payments-system/iso-20022-migration.html>
- [ISO 20022 messaging system's potential to improve KYC, and fraud detection](#)

ISO 20022 – Payment Messages

ISO 20022 (MX)



Mapping of ISO 20022 (current) vs SWIFT MT (past) Messages flows in a payment txn



ISO 20022: pain | pacs | camt

SWIFT MT: :50a | :52a | :72:/INS/ | :53a | :54a | :55a | :56a | :72:/INT/ | :57a | :59a

Resources

- [Guide to the Australian payments system](#) (MUST KNOW)
- [Payments in Australia - Roadmap 2025](#) (MUST FOLLOW)
- [NPP API Framework: Visuals with payment txns and cancellation flows](#)