27 November 2019

New Payments Platform Roadmap

ABSIA & NPPA Webinar

85

Participating Financial Institutions

66 million+

Accounts can make and receive NPP payments

750,000+

Average daily NPP transactions

$200 Bn+

Total cumulative value of NPP payments since launch

3.6 million

Number of registered PayIDs

Pay ID

New Payments Platform

$500 million

Largest single transaction across the NPP

245 million+

Transactions sent across the Platform

Double digit

Growth in monthly transaction volumes

NPP payment volumes and overseas comparison

Number of NPP Transactions [1]

('000s)

210% YOY growth

X-axis: Apr-2018, May-2018, Jun-2018, Jul-2018, Aug-2018, Sep-2018, Oct-2018, Nov-2018, Dec-2018, Jan-2019, Feb-2019, Mar-2019, Apr-2019, May-2019, Jun-2019, Jul-2019, Aug-2019, Sep-2019

Use of Fast Payments Systems [2]
Transactions per capita, annualised

Swish (Sweden)

NPP (Australia)

FPS (UK)

Years after launch
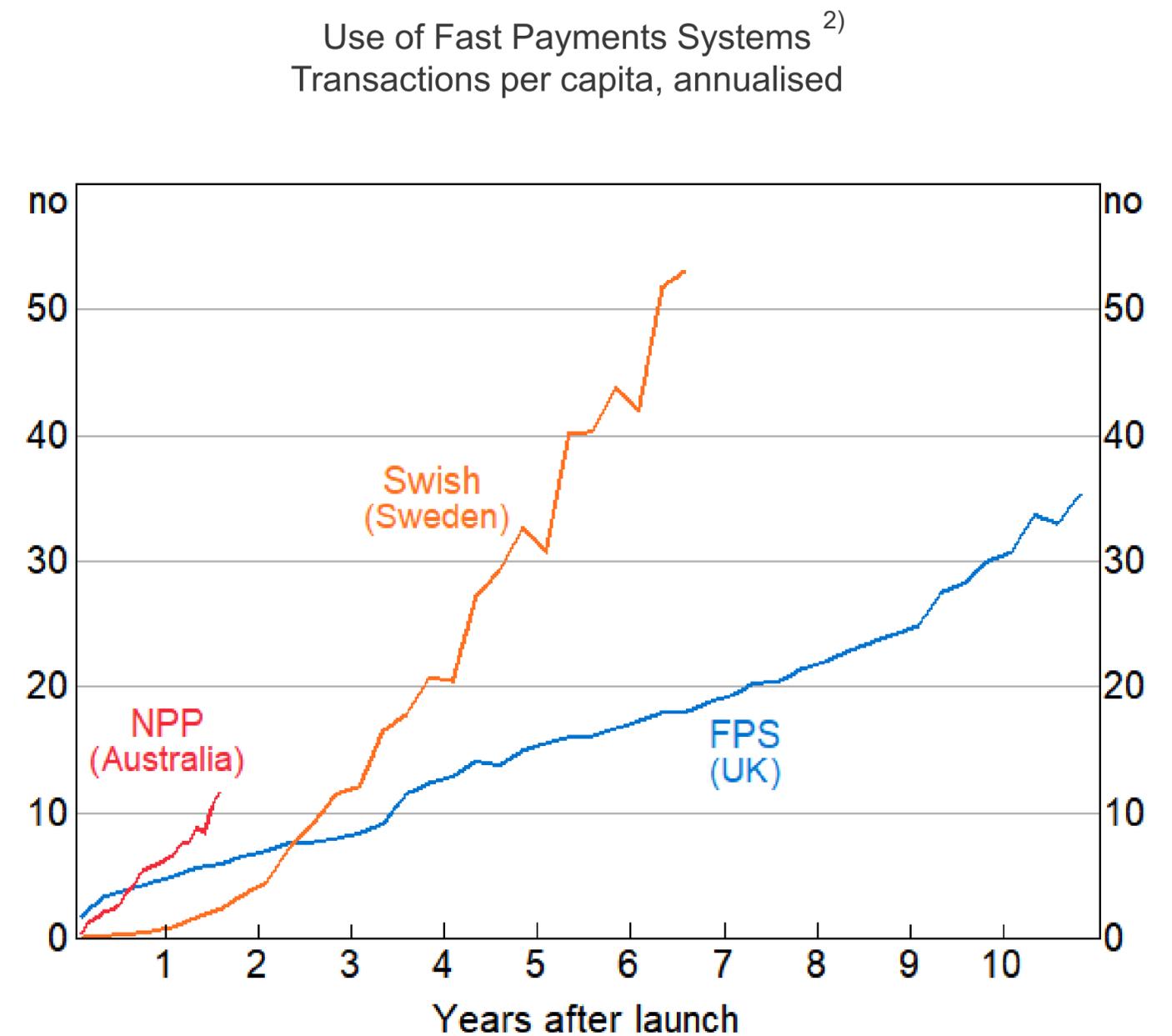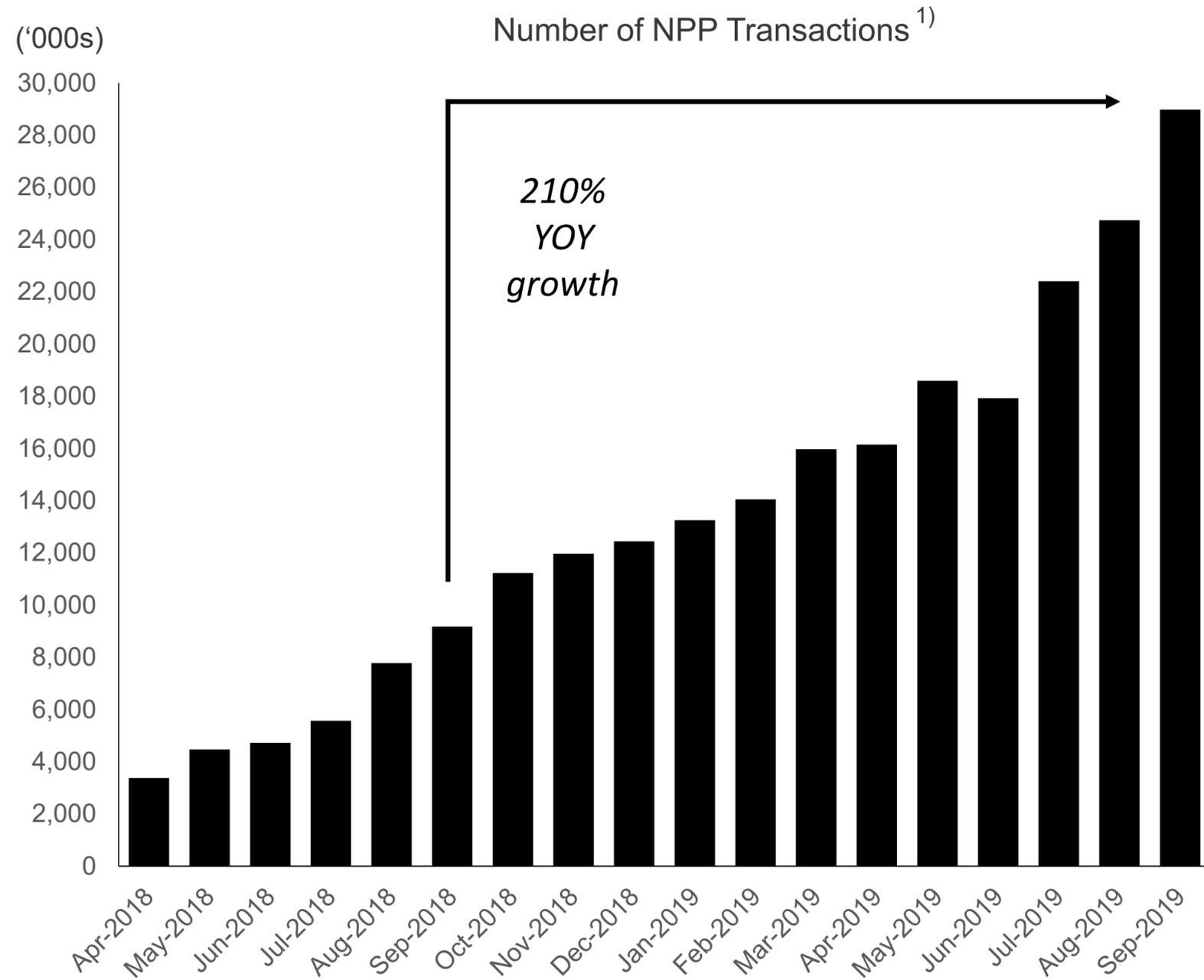
Sources: FPSL; Getswish; National statistics agencies; NPPA

New Payments Platform

1) Source: RBA C06-1 hist schedule; estimated for September 2019 based on NPP data
2) Payments Systems Board Report, September 2019

Who's involved?

Innovation on the NPP

Assembly Payments was the first non-bank payments platform provider to offer instant money transfers via the NPP to its customers

Earnd uses the NPP to enable employees to access their income as they earn it

Blockchain technology company combining fast payments and blockchain, e.g. myStake, an equity management, compliance and share registry platform

Consumer-to-business payment service which delivers real-time validation and processing for online payments
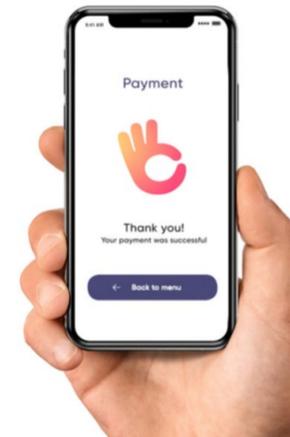
Monoova offers businesses real-time account payables and receivables functionality via a single API integration to its enterprise-level payments solution

Government use of the NPP

- Department of Human Services deploying the NPP for real-time emergency payments

- Instantly distributing emergency assistance including Disaster Recovery payments following recent floods in Queensland and bushfires in Tasmania

Business services vs Overlay Services

One integration point

Organisation

NPP Participant

Ability to reach over 66 million accounts
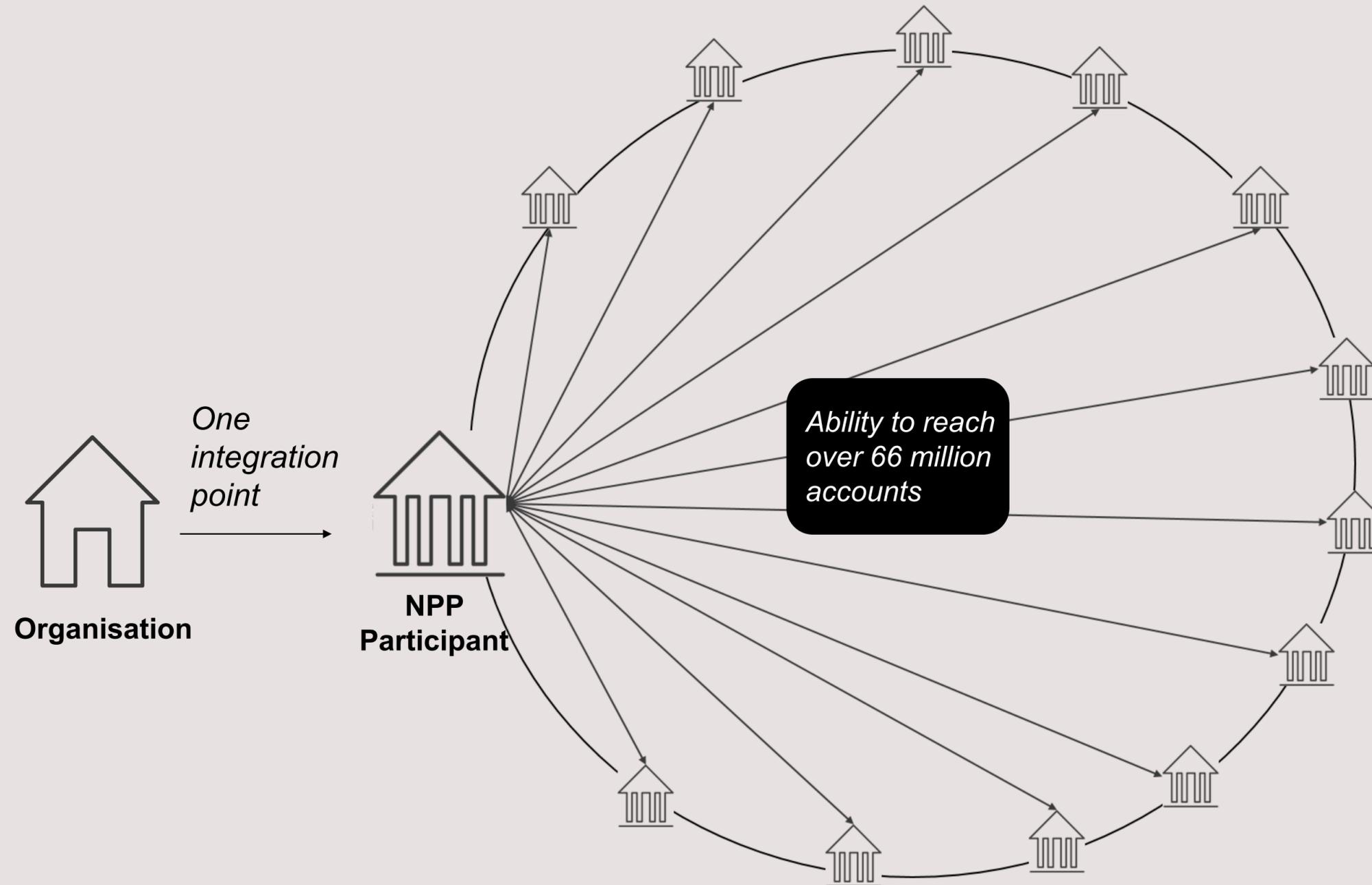
- Vast majority of organisations find that using the native capability of the platform meets their business needs

- Requires a commercial relationship with one participating financial institution as payment messages sent via one access point can reach all of the NPP enabled accounts

- NPPA is focused on developing native capability governed by a common rules framework ('business services') that can support a range of use cases

- Akin to providing 'building blocks' that others can put together in different ways to deliver payment products and services outside the platform

- Our focus is on ensuring consistency and standardisation in how payments pass across the platform and on delivering the minimum network effect required

NPP Roadmap

1. Development of NPP message standards to utilise the structured data capabilities of the NPP
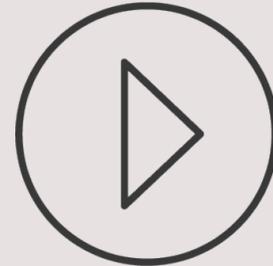
2. Development of a 'Mandated Payments Service' to support recurring and 'debit-like' payments on the NPP
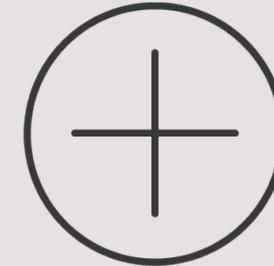
3. Implementation of payment initiation capability across the platform ('Basic Payment Initiation Service')

4. Implementation of services to support the domestic leg of an inbound cross-border payment

5. Supporting the use of QR codes on the NPP
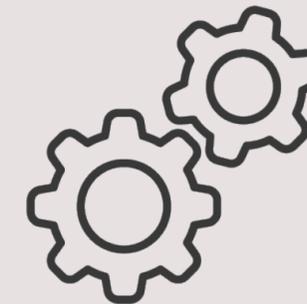
6. Extension of the NPP API framework and an upgrade of the API sandbox

Collectively the development and delivery of the capabilities in the NPP roadmap will significantly enhance the platform's functionality and drive further use of the platform by third parties

A copy of the NPP roadmap can be downloaded from www.nppa.com.au

NPP message standards

Superannuation[1]

Tax

Payroll

eInvoicing

- Use of structured data fields within ISO 20022 message

- Ensures uniform approach to data, end-to-end

- Defines specific message elements or data fields that should be included or populated

- Supports straight through processing of payment

- NPP participating financial institutions will be obliged to **receive** NPP messages with additional defined data elements for payroll, tax, superannuation and e-invoicing payments by December 2020
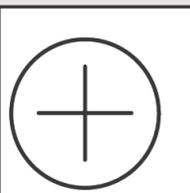
Business automation

Straight-through processing such as automating acceptance and payment of securities entitlements or electronic invoicing.

Improved reconciliation:

Automatically match a payment's origin and its purpose.

Enriched reporting:

Align to reporting standards and regulations, such as the Australian Taxation Office's Single Touch Payroll.
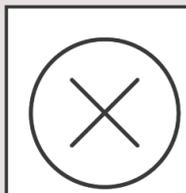
Financial crime prevention:

Including data such as Legal Entity Identifier in the payment message helps financial crime prevention

1) NPPA is seeking to have the NPP incorporated as an approved payment method within the SuperStream Data and Payment Standards. Currently the NPP is not a prescribed payment option under the SuperStream Data and Payment Standards and can only be used for SuperStream payments under agreement between the sender and receiver.

NPP message standards – eInvoicing

NPPA is currently working on how the platform can be used to support payments related to einvoicing by focusing on interoperability between the PEPPOL framework and the NPP

Technology aspect	NPP	PEPPOL	Interoperability requirement
Data formatting			
Data standard	ISO 20022	PEPPOL BIS, based on universal business language (UBL)	Translation of standard, mapping of fields
Data structure	JSON	XML	Syntax translation
Data exchange			
Communication protocol	HTTP(S)	HTTP(S)	-
Exchange protocol	REST API	AS2/AS4	May require additional protocol implementation and translation between the two
Receiver identification	(pre-registered) Directory lookup (if using PayID)	(pre-registered) Directory lookup	

New Payments Platform

NPP message standards – eInvoicing

NPP message usage for eInvoicing

Invoice domain

Sender — Invoice infrastructure — e.g. PEPPOL — Receiver

Payments domain

Invoice attributes in payment message

PayID

Bank A — ISO20022 support for invoice attributes — Bank B

NPP

RBA

Legend — Invoice data stream — Payments data stream
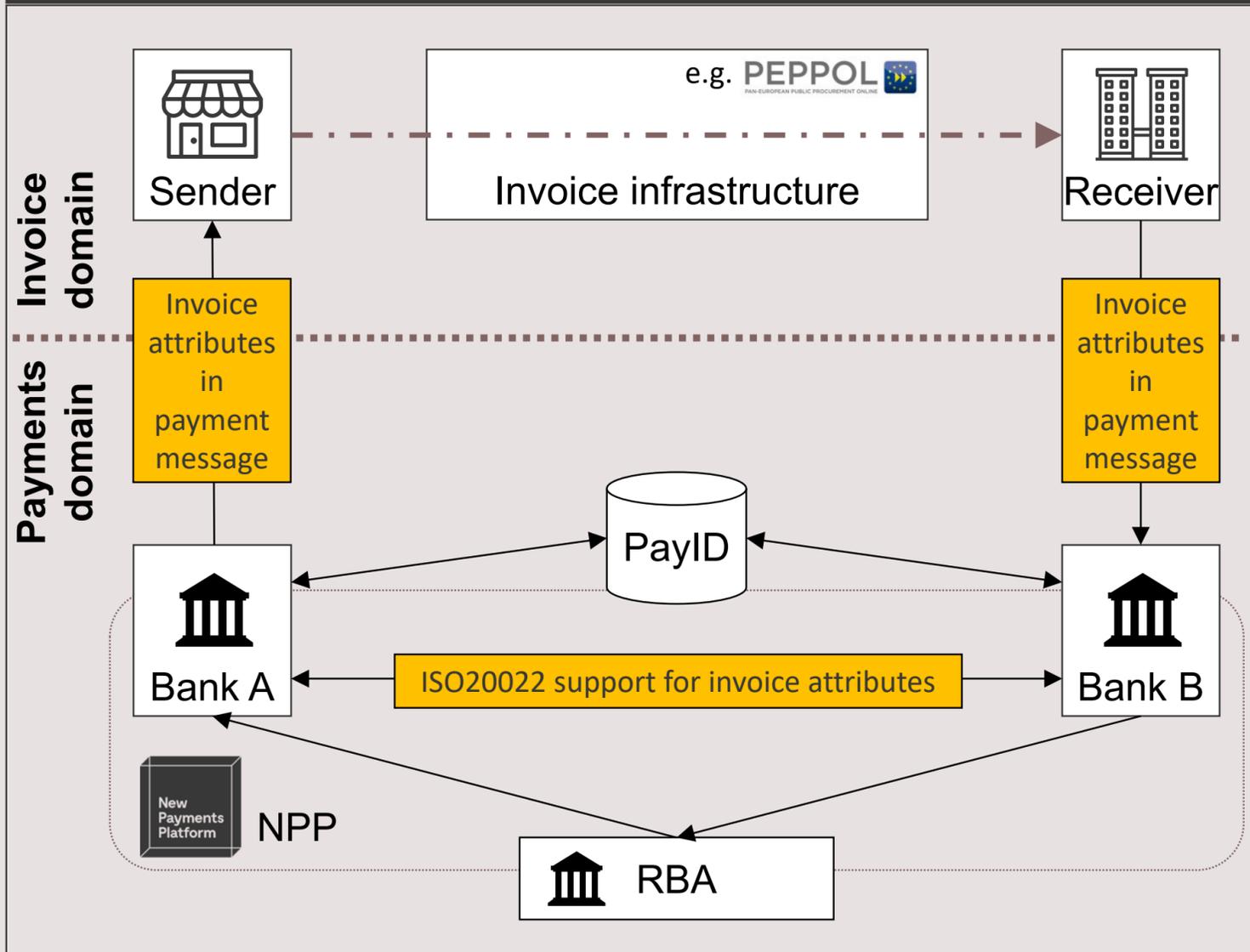
Description

- NPPA is currently mapping PEPPOL invoice attributes to the NPP ISO 20022 message, e.g.:

  – PEPPOL document reference

  – Inclusion of key remittance information

- Will facilitate the reconciliation of payments with invoices

- Also considering use of url link for externally hosted invoice documents within the NPP message

- NPPA would be interested in consulting ABSIA members on this mapping and message standards work

Mandated Payments Service

- NPP currently supports credit transfer payments or "push" payments, where a customer authorises payments to be taken out of their account at the time of making a payment

- Functionality that NPPA is asked most often about is the ability to initiate payments from a customer's account, either by a third party requesting payment or a third party authorised by a customer to initiate payments from that customer's account

- NPPA is developing capability to enable third party payment initiation on the NPP, governed by a rules framework that provides for the processing of the payment initiation messages as well as a robust and comprehensive liability model

- Central to this proposition is the account holder's authorisation (or consent) for payments to be initiated on their account with the creation of a digital payment arrangement or a 'mandate' in advance of the payments being made. This functionality increases the visibility and control that account holders have over these various payment arrangements, which will resolve some of the most frequent pain points with these kinds of payments today

- Having a standardised and consistent approach to this payment initiation capability will maximise the utility of the capability and provide a broad, scalable approach to third party payment initiation

Mandated Payments Service

This core foundational capability will enable a range of use cases in the future, such as recurring or subscription type payments, ecommerce and 'on behalf of' services such as a corporate using a cloud accounting software provider to do their payroll run

'Direct Debit' alternative:

Scheduled payments with customer pre-authorisation

Request for payments

Customer authorised payments requested by the creditor, e.g. ecommerce and in-app payments
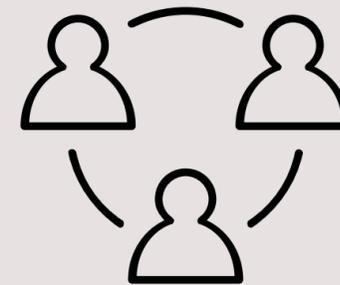
'On-behalf-of' payment initiation:

Customer pre-authorised push payments such as payroll payments

Parameter based payments:

Pre-authorised payments within pre-set parameters created by the customer, e.g. rights issues

NPP participating financial institutions will be obliged to receive and process payment initiation messages and support account holder authorisation for these NPP payments by December 2021

New Payments Platform

Basic Payment Initiation Service

As a precursor to the Mandated Payments Service, NPPA will work with interested financial institutions to implement a basic payment initiation service in 2020 which will be optional for participating financial institutions
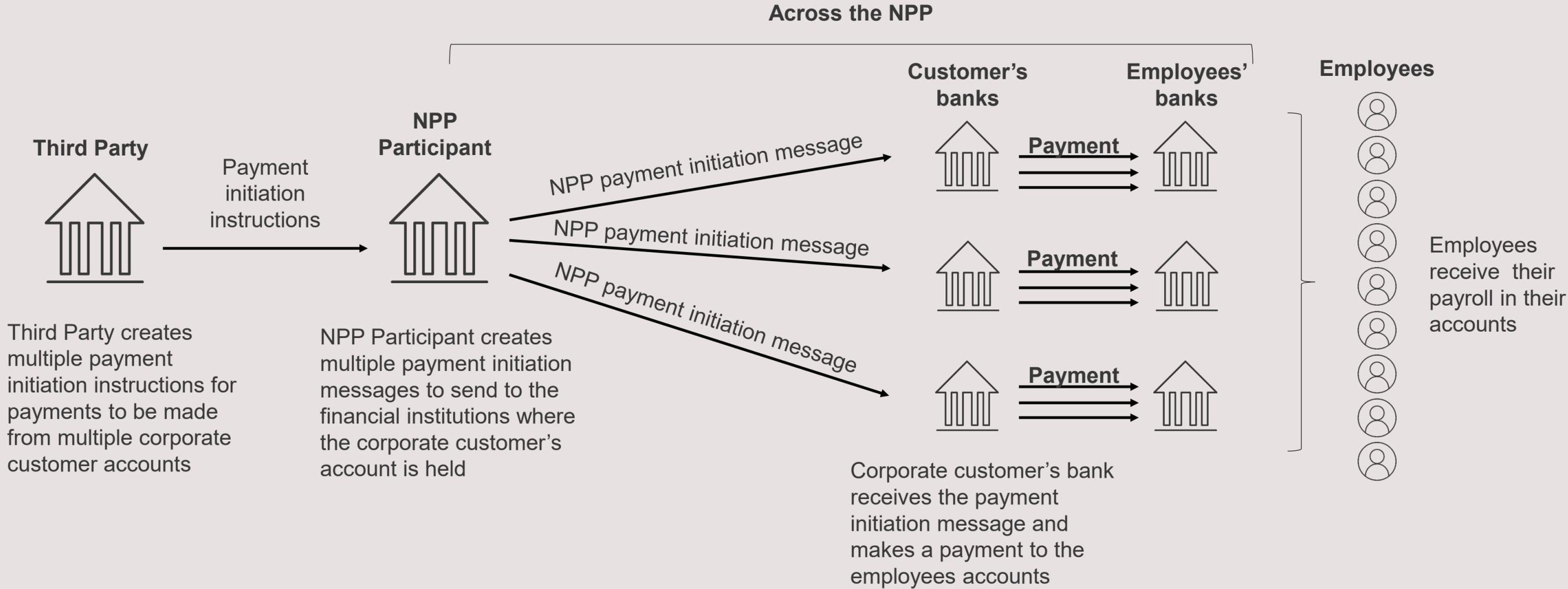
Prior to the implementation of the Mandated Payment Service, the basic payment initiation service will be more bespoke requiring proprietary arrangements to address associated risk and liability issues (as occurs today with certain payment arrangements such as TNA's)

Inbound cross-border payments

- NPP infrastructure has been upgraded to support the domestic leg of an inbound cross-border payment (IFTIs)

- Established as a service that NPP participating financial institutions can choose to opt-in to

- Cross-border services such as SWIFT gpi can (and will) sit on top

- NPP participating financial institutions can choose to opt into the IFTI service and SWIFT gpi instant service, which have been available in production from October 2019

APIs and QR codes

NPP API Framework and API Sandbox
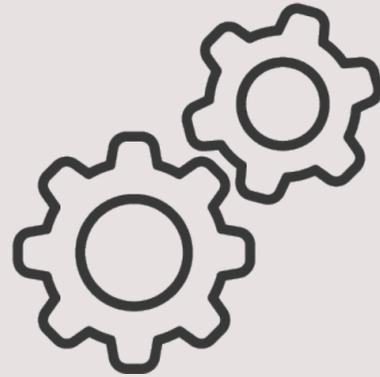
- Focus on standardisation and interoperability

- Defines technical approach and mandatory data attributes

- APIs published by NPP Participants

- Version 3.0 to be published this month

- Sandbox available for initial testing; introduction of dynamic API sandbox later this year

QR code standard

Scan me

- Based on EMVCo standard

- Bill payment, invoices, online purchases and possibly at Point of Sale terminals

NPP Roadmap

	2019		2020				2021				2022			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

NPP Message Standards

Implementation of NPP message usage standards for superannuation, payroll, tax and e-invoicing

Participant Mandatory requirement

ISO Message Version (2020 Version)

Mandatory Participant ISO Change

Mandated Payments Service

Mandated Payments Service — Participant implementation

Participant Mandatory Service

Basic Payment Initiation

Basic Payment Initiation Service

Participant Optional Service

IFTI Services

SCT IFTI Service

FAST GPI IFTI Service

Participant Optional Service

QR Codes

◆ **Version 1.0 Published May 2019**

NPPA API Framework

Category Purpose Payments

Bulk/Batch Payments

◆ **API Version 3.0**

Basic Payment Initiation

◆ **API Version 4.0**

Mandated Payments Service

◆ **API Version 5.0**

ISO Message Version Change

◆ **API Version 6.0**

Osko Services

QR code standards

Published December 2019

P2B data standards compliance

**October 2020**

Participant Mandatory

Participant Optional

In closing

- In addition to capability being centrally developed by NPPA, individual participating financial institutions are also developing capability to support NPP payments, in areas such as bulk payments, APIs and transaction value limits, according to their respective business objectives and implementation timing

- Given the distributed nature of the NPP architecture, the availability of capability is driven by what the individual end points have deployed

- As the operator of the infrastructure, NPPA is committed to ongoing investment to extend and enhance the capability of the platform to meet the needs of participating financial institutions, payment providers and users of the wider payments ecosystem

- NPPA is focused on developing broad native capability, governed by an appropriate rules framework, which is flexible and extendable enough to support a wide range of use cases

- Central to this is ensuring consistency and standardisation in how payments pass across the platform

- NPPA have published information on NPP message standards and formats on our website (www.nppa.com.au). This includes guidance for mapping DE file formats to NPP messages (we are also developing some code to further assist third parties with this)

- NPPA would be keen to support an ongoing dialogue between NPPA and the ABSIA community

For more information, please contact **info@nppa.com.au**

Questions?

Follow us on LinkedIn for regular updates about the Platform