June 2017

New Payments Platform

New Payments Platform An Introductory Guide

NPP Australia

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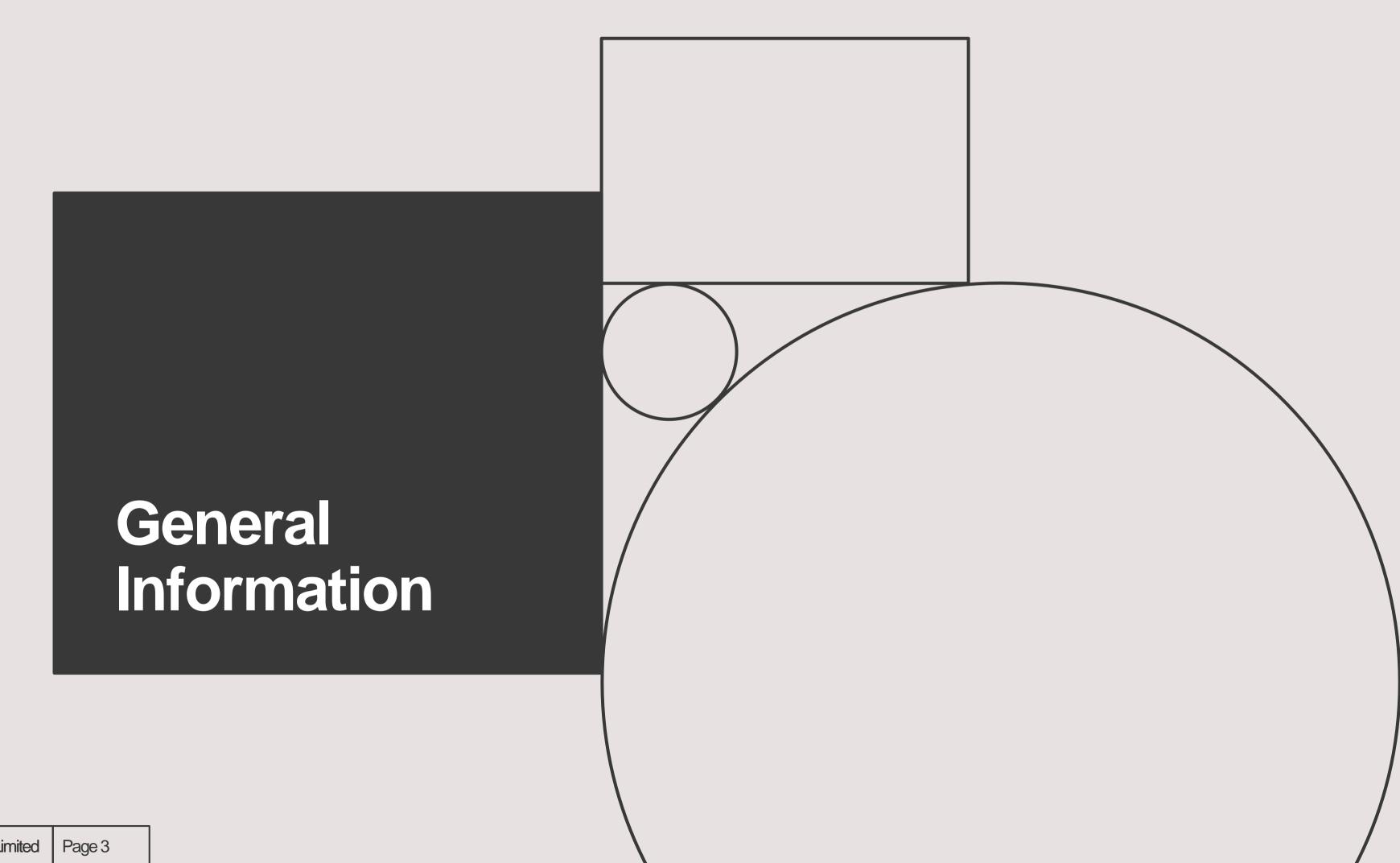
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What is the New Payments Platform?

The New Payments Platform (NPP) is the result of a major industry wide initiative to develop a new infrastructure for Australian payments by the end of 2017.

It's a fast, flexible and data-rich payments system for Australian governments, businesses and consumers to meet all their current payment needs. But it will also help them meet the needs of tomorrow – the layered infrastructure will help enable innovation and competition in payments services, be it in enhancing customer experiences or improving business operations.

What is the New Payments Platform?

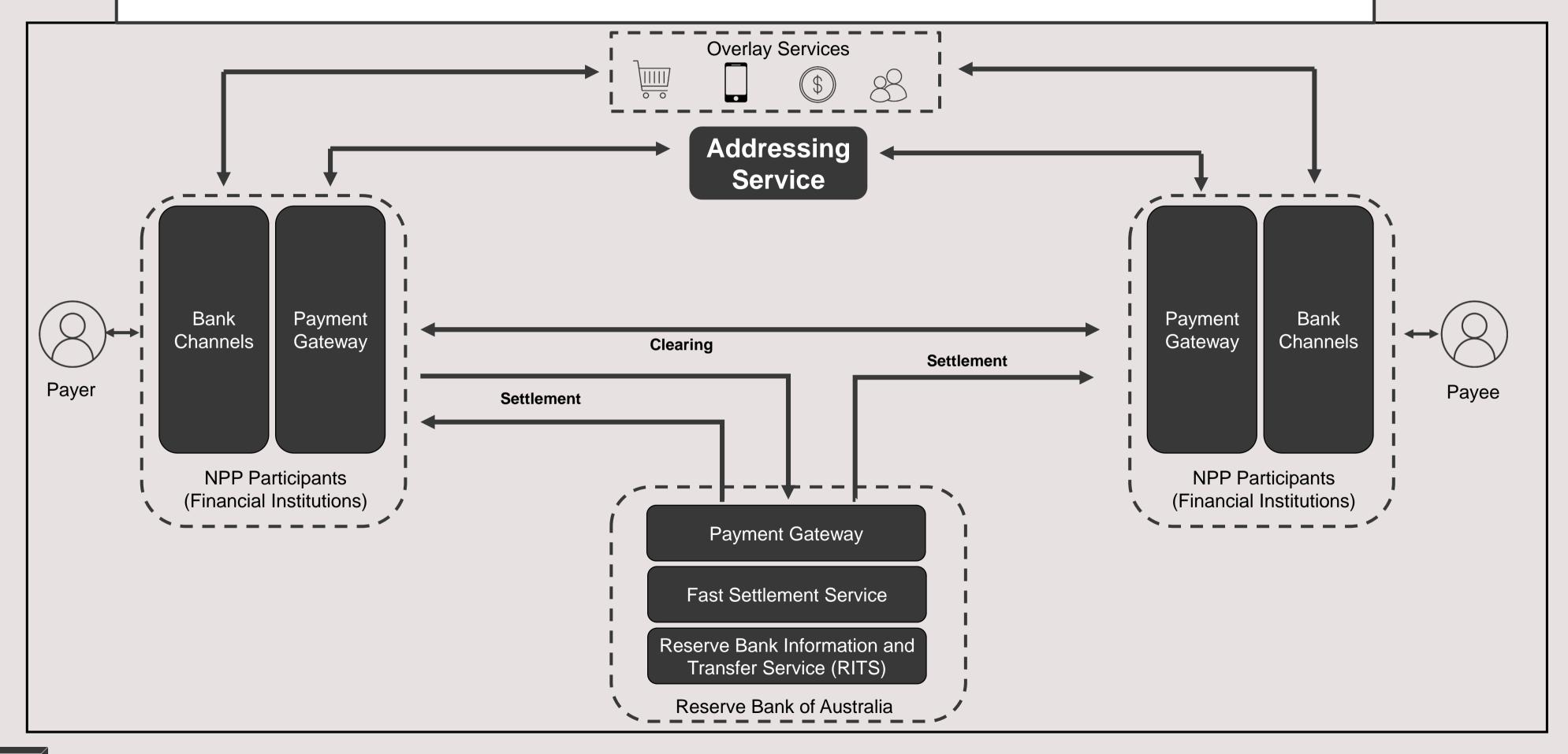
New infrastructure which will operate 24 x7 x365 to enable payment exchanges with real time transaction settlement between participating Financial Institutions (NPP Participants).

The platform is a distributed layered architecture, consisting of the Basic Infrastructure (BI) and Overlay Services (OS).

- The Basic Infrastructure consists of distributed connectivity points (NPP Participants), standard message flows, a switch, a fast settlement service and an addressing service (see next page).
- Overlay Services are approved products/services/schemes that can be deployed on the Basic Infrastructure, that deliver value to a specific group of subscribers and end users.

An overview of the NPP Architecture How it works © NPP Australia Limited

A new infrastructure for Australian payments



What are the benefits of the NPP?

Speed & Availability

- Increased convenience of faster funds availability
- Faster payments, settled in real time between ESA accounts
- 24/7/365 real time gross settlement with no 'cut off' times

Smart Addressing

- Customers can use simple, easy to remember addresses such as email or mobile number to direct payments
- Customers may no longer need to provide their BSB and account numbers

Richer
Payment
Information

- More information with a payment
- ISO 20022 message format enables extensive information to be embedded into payment messages for STP and can also provide links to externally hosted documents

Workflow Optionality

- Enables payments to be initiated by, and be contingent on, myriad different events or triggers
- Can be 1:many or many:1

Using the NPP

The NPP can be leveraged in two distinct ways:

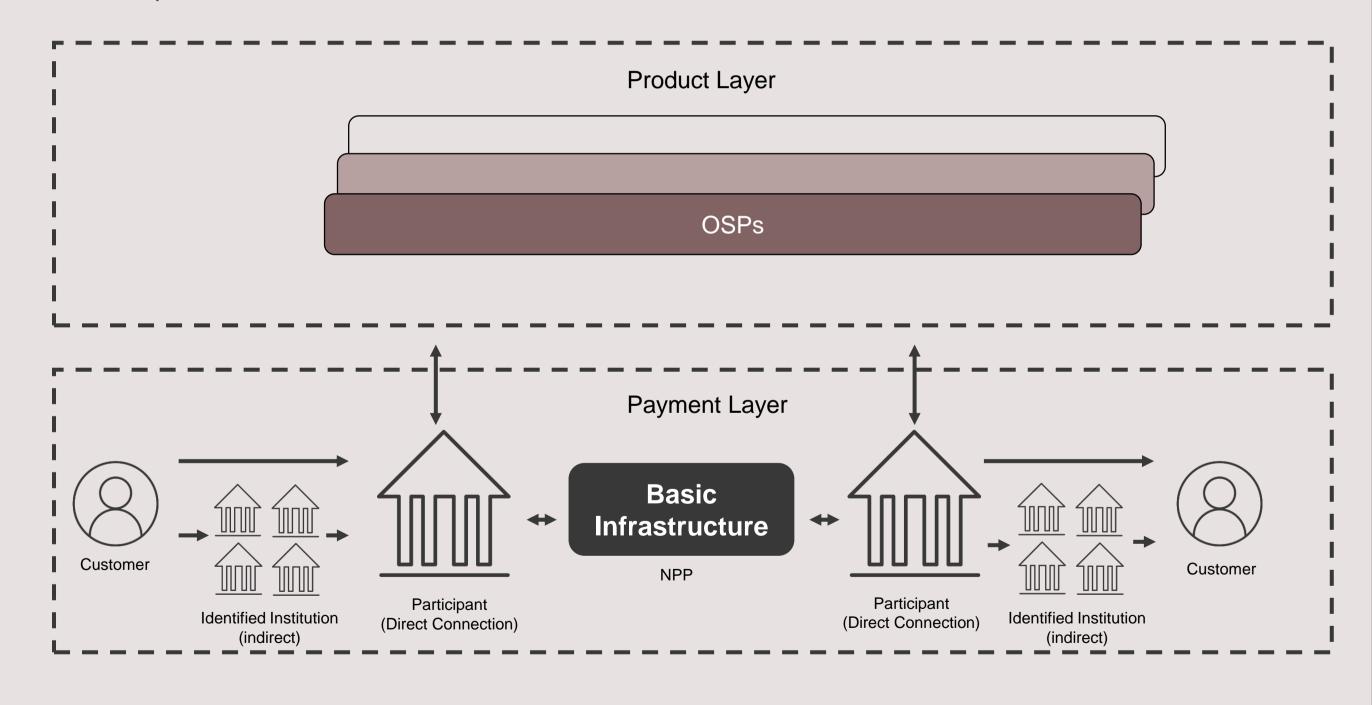
- 1. Using the NPP to send or receive payments using an existing/supported NPP message; or
- 2. Creating a new product or service, including a modified message set and end-user characteristics (what is known as an "Overlay Service"), and offering that product or service to NPP Participants and their customers

Offering a Product or Service

Overlay Service Providers deliver products that involve more than just the act of payment (e.g. define the user experience, provide data/reporting, initiate workflows, etc.)

Using the Basic Infrastructure

- Only NPP Participants can clear and settle payments
- Other parties can use the NPP to send or receive payments by entering into a commercial agreement with one of the many NPP Participants



Accessing the Basic Infrastructure



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How to access the Basic Infrastructure (BI)

The Basic Infrastructure can be accessed in one of three ways:

NPP Participants

- Directly or indirectly connected to the Basic Infrastructure to clear and settle payments
- Open to organisations which are:
 - a) Approved Deposit-taking Institutions (ADIs)
 - b) Hold an Exchange Settlement Account (ESA) with the Reserve Bank of Australia (RBA)
- Fees are payable to NPP Australia
 - a) Upfront fee to contribute towards the costs for establishing the platform. These are calculated based on current share of payment transactions
 - b) Ongoing fees on a per transaction basis

Identified Institutions

- Open to institutions who choose to connect to the Basic Infrastructure via a NPP Participant (direct connector) who clears and settles NPP payments on behalf of the Identified Institution (using the Identified Institution's BSB and BIC)
- A commercial agreement is required between the Participant acting as the sponsoring direct connector and the organisation seeking indirect access as an Identified Institution

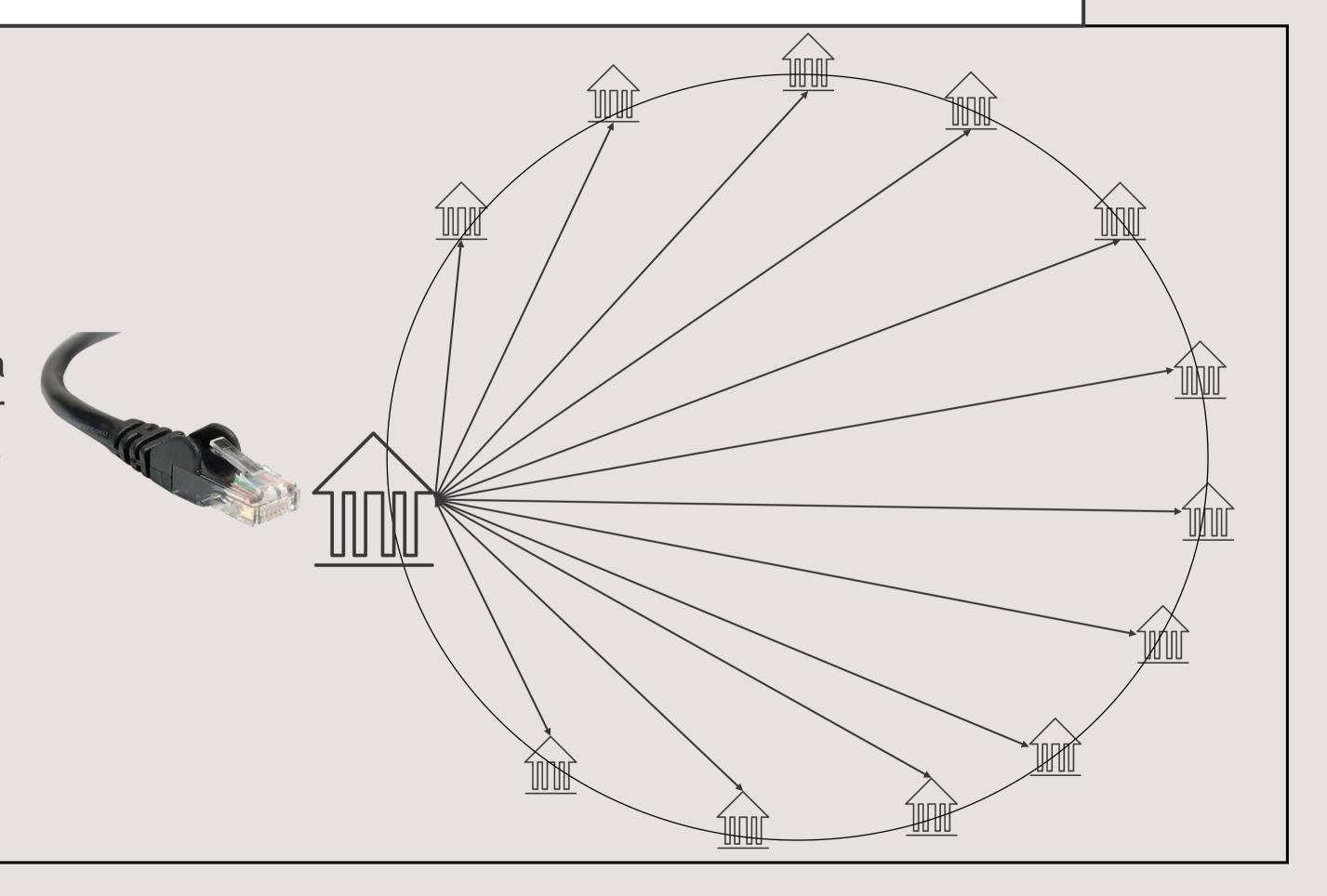
Connected Institutions

- Open to organisations who want to be able to connect to the NPP directly using their own NPP payment gateway to send payment initiation and other non-value messages (but with no ability to clear/settle payments)
- A commercial agreement is required between a Connected Institution and a directly connected Participant to use the NPP

Using the NPP (as opposed to connecting to it) does not require an organisation to be any of the above (see next slide)

Using the NPP as a customer

If an organisation wants to be a user of the NPP to make payments, they only need one point of access via one NPP Participant in order to reach customers of all the other Participants (including the customers of their Identified Institutions)



There are a number of eligibility and technical requirements for connectivity as an NPP Participant

Requirements for NPP Participation

Requirements for NPP Participation

 Meet minimum eligibility requirements, e.g. ADI Preliminary • Subscribe for shares in NPPA (premium or deferral capital funding) Accede to Shareholders Agreement Governance Enter into agreements with NPPA and approved partners to provision software and hardware components • If the Participant is settling NPP payments using their own ESA account, enter into agreement with RBA for FSS access • Hardware and software required to interface with the Basic Infrastructure, e.g. payment gateway, DMC and HSM **Network and Interface** Participants are required to use NPPA's approved network partners components Implementation • Must meet the minimum criteria for accessing the Basic Infrastructure, e.g. 24/7, resilience, performance SLAs, etc. **Resilience and Availability** • Must meet minimum security standards and requirements **Security and Alias** • Be able to follow the Alias registration protocols Registrations • Testing and certification based on NPP Regulations and Procedures and NPPA's network partner's user requirements **Testing and Certification** N.B. Some of the above requirements may not apply if connecting indirectly Ongoing Fees will be charged on a per transaction basis for usage of the NPP **Transaction Fees** • Fees will be set on a fixed cost recovery basis and will be determined by the NPPA Board post Go-Live. The RBA will also levy a settlement fee for usage of the FSS (on a per transaction basis)

Becoming a Participant

Preliminary discussion

NPPA and prospective Participant (Applicant) discuss interest in potential membership

Applicant provides NDA to allow Membership Documentation to be exchanged Application Process

NPPA provides initial Membership Documentation

Applicant provides completed Participation Application and supporting documents

Applicant pays Application fee

Acceptance of Participation Application

Check point: NPPA accepts application if all eligibility requirements have been satisfied

NPPA determines Applicant's appropriate proportionate share of investment

Applicant provides signed Accession Agreement

Applicant subscribes for shares, pays applicable subscription price and signs Provisioning Agreement

Applicant completes documentation required for connectivity, e.g. agreements with NPPA network partners

Plan and Build

Project plan developed by Participant

Technical build by Participant

Installation of NPP componentry into Participant's datacentre(s)

Certify and On-board

Meet test requirements (System/buddy testing)

Any applicable on/boarding/Overlay Service certification/ implementation processes completed

Check point: Operational readiness confirmed

Live proving including offer of Overlay Services

Offering a Product or Service (Overlay Services)



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What is an Overlay Service?

- The NPP is a platform which will support a range of real time 'overlay' payment services. An Overlay Service is a tailored, value adding payment service or payment-related service delivered via the NPP Basic Infrastructure
- NPPA will set access and participation rules and technical requirements for use of the Basic Infrastructure by Overlay Service Providers (NPP Regulations)
- The Overlay Service Provider (OSP) has commercial freedom to define the commercial/customer facing posting standards and scheme rules for a new Overlay Service
- Each Overlay Service is differentiated and identified in the NPP by a unique identifier and by its own closed user group of NPP Participants (and Identified Institutions) that either subscribe to or provide clearing and settlement services for that Overlay Service
- Overlay Services could range from the simple to the complex, depending on the amount of change (if any) a
 prospective provider requires (either in the Basic Infrastructure functionality or the NPP Core Clearing and Settlement
 Rules) to support the service. Depending on the scope of change required, Overlay Services can be on-boarded
 either during monthly release windows or after an agreed building, testing and implementation plan has been
 completed
- Overlay Service Providers do not have to connect to the Basic Infrastructure. An Overlay Service Provider that
 proposes to offer a more complex overlay service, e.g. one that involves a non-standard transaction orchestration or
 message flow (such as trigger based payments) may choose to connect to the Basic Infrastructure (either directly or
 indirectly) to optimise delivery of the service
- New Overlay Service Providers (whether they are offered by connected service providers or not), must be able to
 integrate to the platform without causing degradation of the Basic Infrastructure

Examples of Potential Overlay Services

It is envisioned that Overlay Services will be developed for a range of user groups and cater to their diverse needs. Below are some possible products and services that may arise from open development



Consumers

- Convenient and intuitive real-time payments to friends, family members and colleagues using 'simple' address information such as a mobile number or email address.
- Immediate payment to a private seller for purchase of goods.
- Car purchase with all in one registration transfer, finance check, stolen check and write-off check.
- Automated superannuation processing, including contributions, rollovers and benefits.



Businesses

- Better cash flow management through more efficient and automated reconciliation processes.
- Ability to submit bulk files out of hours.
- Ability to better understand customer behaviours and expenditure patterns through richer data.
- Improved liquidity through ability to request and follow up late payments.
- Ability to send full invoice information and receive full remittance information back from payer along with payment.
- Ability to convert loyalty points to cash at point of sale.



Governments

- Urgent government support payments for hardship or disaster.
- Emergency welfare assistance payments.
- Coordination of health benefit payments across Government and private sources.

How to become an Overlay Service Provider (OSP)

- In order to be able to provide an Overlay Service on the NPP, an organisation must be authorised as an Overlay Service Provider (OSP) by NPPA
- The rationale for being authorised as an OSP is that the transactions relating to a particular Overlay Service are uniquely identified in the Basic Infrastructure for the purposes of reporting, audit, billing and customer SLAs
- To become an OSP, an applicant should be able to demonstrate that they meet the following eligibility criteria;
 - a) be a body corporate which either carries on business at or through a permanent establishment in Australia or which has appointed an agent in Australia to receive notices on its behalf and act as its representative
 - b) propose to provide, and be capable of providing, an Overlay Service, e.g. financial viability/solvency, be able to demonstrate business expertise and have a comprehensive business plan for the proposed service
- In the case of a connected Overlay Service Provider, access to the NPP Basic Infrastructure is subject to meeting minimum technical criteria (security, interoperability, etc.)
- The subscription to an Overlay Service (and the provision of the service to end users) is solely within the discretion of NPP Participants and Identified Institutions and is subject to commercial terms agreed between the OSP and NPP Participants and Identified Institutions

Becoming an Overlay Service Provider (OSP)

Exploratory Phase

NPPA to respond to potential OSP's enquiries and provide initial information regarding process, requirements, etc.

NPPA and prospective OSP to sign NDA to enable exchange of more detailed, commercially sensitive information **Application Process**

Prospective OSP submits application form and pays application fee to become an Overlay Service Provider

NPPA assesses eligibility of OSP against minimum criteria

Technical assessment of proposed service and impact (if any) on the BI

Authorise OSP

Check point:

NPPA accepts application and authorises OSP if all requirements have been satisfied

NPPA communicates outcome of application to OSP

If approved, OSP pays annual administration fee

Planning and Build

Project plan developed by OSP

If applicable, technical design and build by OSP and change management plan developed by NPPA for changes to the BI

As required, change/build/test by Participants/Subscribers

Testing and On-board

Testing of Overlay Service by Participant(s) who propose to subscribe to the service

If connected, NPPA certification process is completed

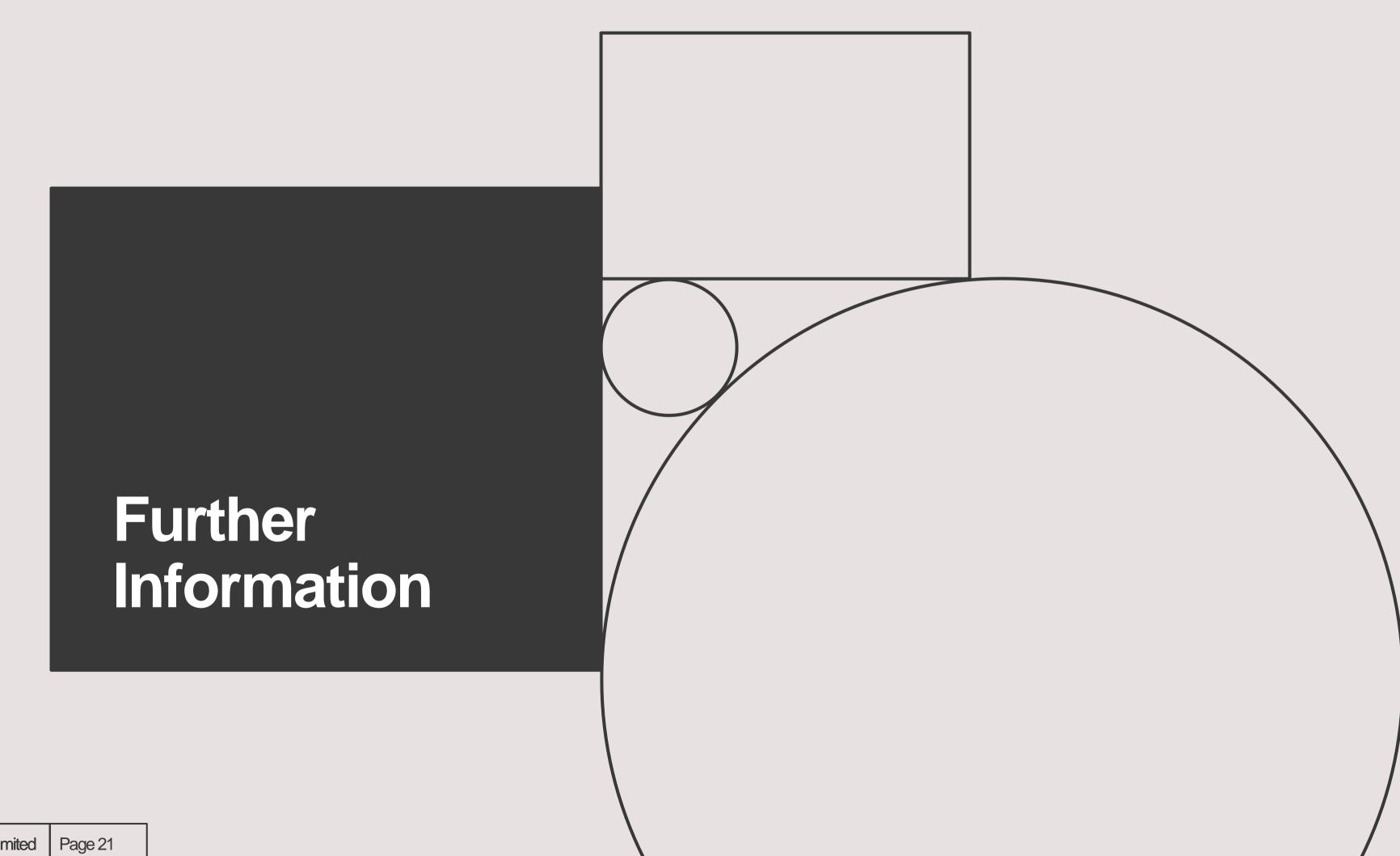
OSP certification of subscribers

On-boarding/ implementation process completed

Check point:

Operational readiness confirmed

Launch Overlay Service



New Payments Platform

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Further information

Item	When Available
NPP Regulations	Draft available upon request to potential Participant, Overlay Service Provider and Connected Institution applicants
	Final versions available July 2017
NPP Technical Introduction	See " <u>Useful Information</u> " on our website to download this document
Messages	The NPP will use ISO 20022 as the universal industry message.
	See www.iso20022.org for more information.

Further information regarding the NPP will be available over the next few months on the NPPA website at www.nppa.com.au

Contact Information

For NPP Participation and Connected Institution enquiries:

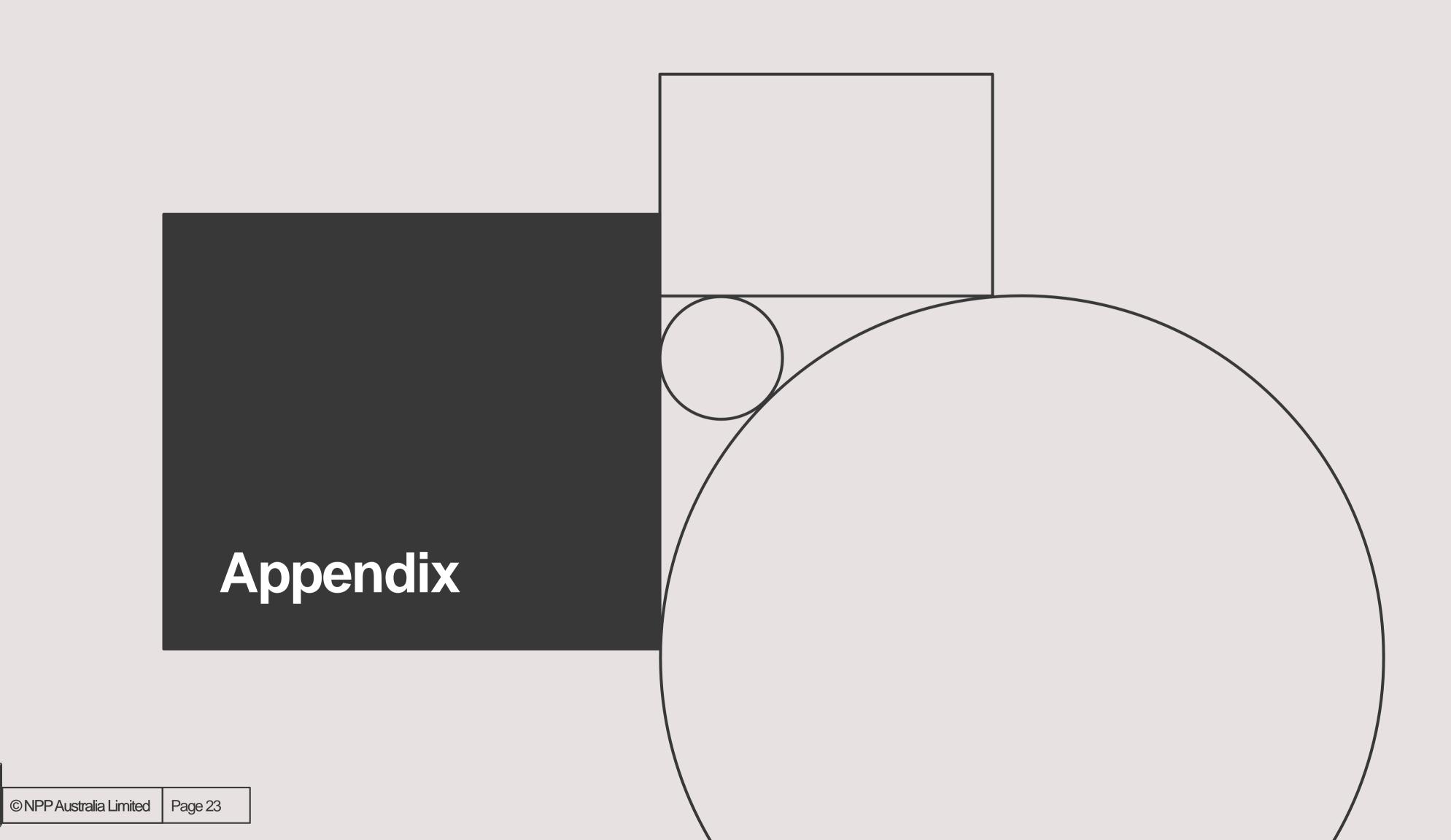
• Please contact NPP Australia on info@nppa.com.au

For Indirect connection enquiries:

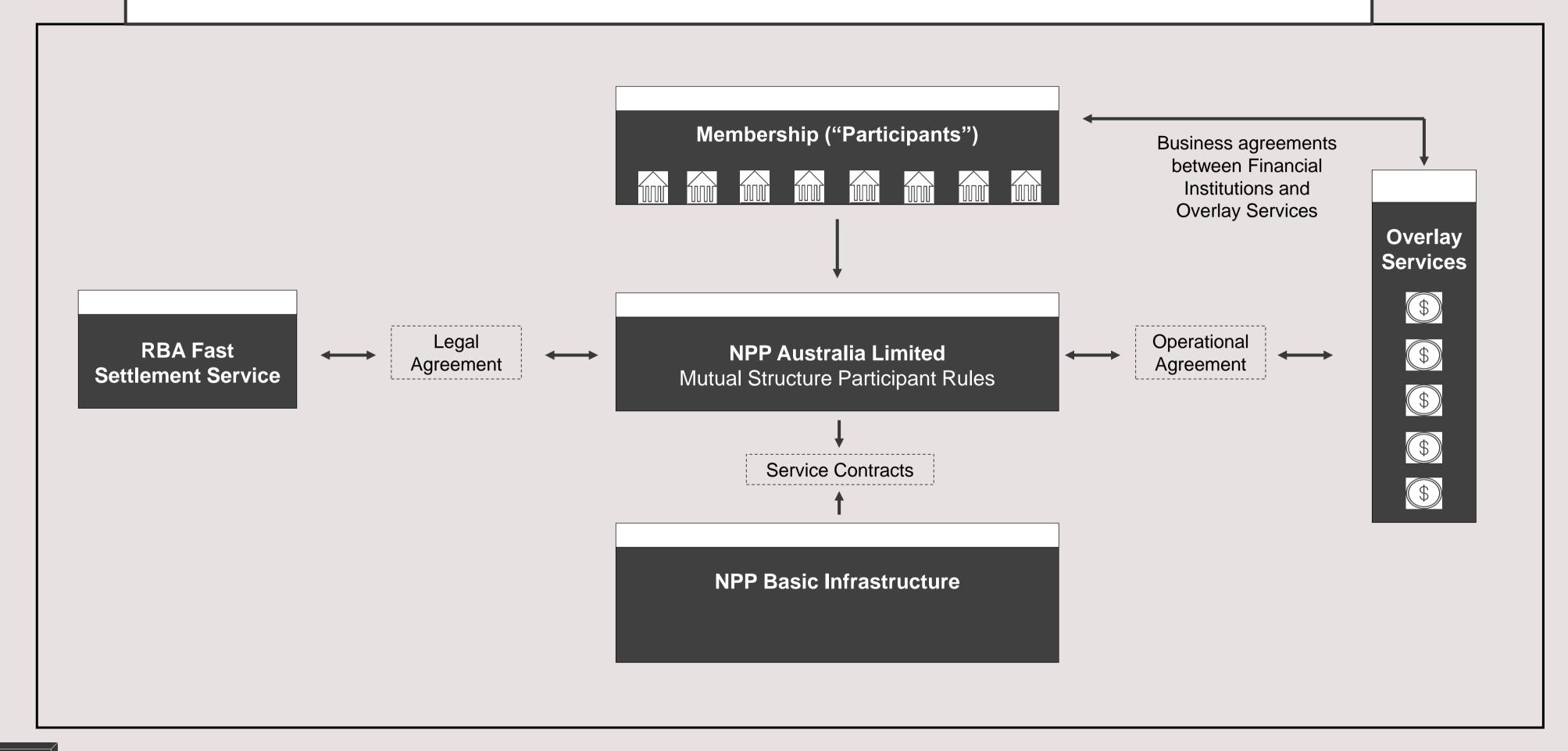
 Please refer to any of the participating Financial Institutions listed in Appendix 2

For Overlay Service Provider enquiries:

- Please contact NPP Australia on info@nppa.com.au
- Or please refer to any of the participating Financial Institutions listed in Appendix 2



Appendix 1 – NPP Relationship Overview



Appendix 2 – NPP List of Participants*

* As of June 2017

- Australia and New Zealand Banking Group Limited
- Australian Settlements Limited
- Bendigo and Adelaide Bank Limited
- Citigroup Pty Ltd
- Commonwealth Bank of Australia
- Cuscal Limited
- HSBC Bank Australia Limited
- Indue Ltd
- ING Bank (Australia) Limited
- Macquarie Bank Limited
- National Australia Bank Limited
- Reserve Bank of Australia
- Westpac Banking Corporation

Appendix 3 - Glossary

Accession Agreement means an agreement in which a prospective NPP Participant accedes to the Shareholders' Agreement

Addressing Service means that component of the NPP Basic Infrastructure that enables registration of Alias information and performance of Addressing Lookups

ADI means an authorised deposit-taking institution as defined in the *Banking Act 1959 (Cth)* or the RBA

Alias Registration Protocol means the protocol established by NPPA to manage the initial registration of Alias Information which will apply on a transitional basis only

Applicant means a prospective NPP Participant or Connected Institution

Connected Institution means a body corporate which is connected to the NPP Basic Infrastructure solely for the purpose of sending and receiving Non-Value Messages, and which, for the avoidance of doubt, may also be an Overlay Service Provider

Connected Overlay Service Provider means an Overlay Service Provider that is also a Connected Institution

ESA means an exchange settlement account maintained by an NPP Participant with the RBA for the purpose of effecting settlement of, amongst other inter-institutional payment obligations, the obligations required by the NPP Regulations to be settled via the FSS

FSS means the Fast Settlement Service operated by the RBA as a part of RITS, for settlement of NPP Payments by NPP Participants

Identified Institution means an institution that is not connected to the NPP Basic Infrastructure, but which has an arrangement with one or more NPP Participants to clear and/or settle NPP Payments on its behalf using the institution's BSB, associated BIC11 and payment routing information set out in the NPP Business Reference Data Tables

Member means a preference shareholder in NPPA

Non-Value Message means a non-value message, such as a payment initiation or inquiry message, which may be sent and received via the NPP Basic Infrastructure

NPPA means NPP Australia Limited (ACN 601 428 737)

NPP Basic Infrastructure means the New Payments Platform comprising the network, switching and addressing infrastructure and systems developed by or on behalf of NPPA which:

- a) Supports the exchange of Non-Value Messages between NPP Participants and Connected Institutions; and
- b) Facilitates the clearing and settlement of NPP Payments between NPP Participants

NPPA Business Reference Data Tables means the database of NPP Business Reference Data which is maintained by NPPA

NPP Participant means a preference shareholder in NPPA which:

- a) connects directly to the NPP Basic Infrastructure for the purposes of sending and receiving NPP Payments and Non-Value Messages; and
- b) Is either authorised by the RBA to use the FSS for settlement of NPP Payments or has not been authorised by the RBA to use the FSS for settlement of NPP Payments, but which has entered into an arrangement with another NPP Participant to settle its NPP Payments

NPP Procedures means the technical, operational and security procedures prescribed by NPPA for the purposes of the NPP Basic Infrastructure

NPP Regulations means the rules prescribed by NPPA that establish the core obligations and rights between NPPA, NPP Participants, Connected Institutions and Overlay Service Providers, including, without limitation, the annexures and schedules of the NPP Regulations, as amended from time to time

OSP Applicant means an applicant who wishes to become an Overlay Service Provider

OSP Application Fee means the fee determined by NPPA to be payable by an OSP Applicant upon lodgement of an OSP Application

Overlay Service or **OS** means a payment service, or payment-related service, using the NPP Basic Infrastructure, to be provided by an Overlay Service Provider to Overlay Service Subscribers

Overlay Service Payment or **OS Payment** means an overlay service payment transaction, and associated messages, cleared and settled using the NPP Basic Infrastructure by an NPP Participant (which is either an OS Subscriber or a provider of NPP clearing and settlement services to an OS Subscriber) pursuant to scheme rules established by an Overlay Service Provider



Appendix 3 – Glossary

Overlay Service Provider or **OSP** means a person who is authorised by NPPA to provide an Overlay Service

Overlay Service Rules or **OS Rules** means all of the commercial, technical and other terms and conditions upon which an OSP provides an Overlay Service to OS Subscribers

Overlay Service Subscriber or **OS Subscriber** in relation to an Overlay Service means a subscriber to the Overlay Service

Participant Application means application for participation as an NPP Participant or Connected Institution

Payee means, in relation to an NPP Payment, the Account Holder of the destination Account

Payer means, in relation to an NPP Payment, the Account Holder of the source Account

Payment Initiation Message means a non-value message requesting a payment to be made which may be processed via the NPP Basic Infrastructure

Provisioning Agreement means an agreement between an NPP Participant or a Connected Institution and NPPA to provide the NPP componentry and any additional components necessary to establish, maintain and operate a connection to the NPP Basic Infrastructure

RBA means the Reserve Bank of Australia

Shares means redeemable preference shares in NPPA

Shareholders Agreement means the agreement between NPPA and each Member dated 24 September 2014, as amended from time to time

Subscription Price means, in relation to a Participation Application submitted by a person who is not a Member, the subscription price for the Shares to be subscribed for by that person

Transaction Fees means the NPP Basic Infrastructure usage fees payable by NPP Participants and Connected Institutions, as determined by NPPA



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