

## Open Banking

### Payment initiation - completing the vision

December 2019

Organisations shouldn't be waiting for changes in the Consumer Data Right (CDR) legislation to introduce payment initiation (write access) to Australia's open banking framework. The introduction of the New Payments Platform (NPP) and, to a lesser degree, innovations by the card schemes, will make elements of payment initiation possible in 2020 with the full roll-out scheduled by 2022.

When Australia's CDR legislation was passed in August 2019, it gave individuals the right to access and share data about themselves and their transactions with accredited data recipients. The ability to share data is referred to as read access.

However, CDR will not provide consumers with the ability to authorise accredited third parties to initiate payments or to change account providers on their behalf. The ability to initiate payments is known as write access.

The *Review into Open Banking* noted: 'For open banking to succeed customers need a high level of confidence that their data is secure and that it is only being used for the purpose that consent is given. If write access was created before open banking was fully bedded down, that may put its success at risk. Further, while write access has significant benefits, it may take some time for customers to feel comfortable with third parties acting on their behalf ... for these reasons it would be premature to consider implementing it at this stage.'<sup>1</sup>

1. The Australian Government, The Treasury, Farrell, Scott, Review Into open banking: giving customers choice, convenience and confidence, December 2017, page 109

### Why has Australia only focused on data sharing (read access)?

From July 2020, consumers, including businesses, will be able to instruct their bank to share information about them and their transactions with accredited data recipients – this is known as open banking. The ability to share energy data is expected later in 2020, with the CDR likely to be extended to telecommunications in 2021. There have also been calls to extend the CDR to other sectors, such as superannuation and insurance.<sup>2,3</sup>

Third parties will be able to use this information to provide a range of potential benefits to consumers and businesses:

- Aggregating account information from multiple banks to enable a single view of banking account balances, transactions and associated data.
- Providing insights and recommendations on how to manage personal finances more effectively and improve budgeting, saving money and time. These services will be based on intelligent data analytics.
- Providing insights and recommendations on how to improve business financial management, potentially improving cash flow management.
- Enabling a simpler and more accurate credit assessment when applying for loans, allowing more timely credit decisions and reducing the risk of taking on unaffordable debt.
- Enabling comparisons of banking products to provide the 'best fit' and best value, based on transaction patterns.
- Enabling easier portability of banking relationships, with the ability to transfer transaction history between banks.

These benefits are likely to prove attractive to customers and enable innovation and better decision-making for providers. However, will they ignite the wave of innovation that will drive economic efficiency in financial services delivery? Will they facilitate services that relieve the stress that many customers feel around managing their financial position?

Without write access, consumers will not be able to automatically act on the data, or the insights that are generated. Consumers will not be able to instruct a third party to initiate a payment, or transfer funds on their behalf to obtain a better rate, or change providers.

### The original vision

The *Review into Open Banking* set out why CDR should initially focus just on read access:<sup>4</sup>

- **Scope:** write access was not part of the terms of reference for the Review and so was not considered in the report.
- **Readiness:** Starting with read access removes uncertainty about the ability of technology, data security and regulatory standards to support write access.
- **Comfort:** It may take customers some time before they felt comfortable authorising third parties to act on their behalf to initiate payments.
- **Security:** write access increases security risks for customers by creating a greater incentive for cyber attacks and allowing malicious parties to misappropriate money or identities.
- **Confidence:** Providing write access before consumers had confidence in read access, or became familiar with it, could put the success of open banking, and the broader open data economy anticipated by the CDR, at risk.
- **Consistency:** While the concept of write access is understandable for banking, it is not clear how it would apply to other sectors which would be designated under the CDR.
- **Take-up of NPP:** Customer experience and take up of real time person-to-person payments using the NPP infrastructure should be taken into account when considering implementing write access.

The Review concluded that the CDR legislation should not preclude the possibility of providing write access in the future. However, that it should only be considered after a post-implementation review of the assessment of the success of read access.<sup>5</sup>

### What are the benefits of including payment initiation (write access) in open banking?

In contrast to the Australian legislation, other jurisdictions have mandated both read access and write access from day one.

In the UK, open banking includes both data sharing (read access) and payment initiation (write access), but only applies to transaction accounts and to just nine banks.

In the European Union (EU), the second Payments System Directive (PSD2) enables third parties to initiate payments on behalf of consumers.

2. Productivity Commission, [Superannuation: Assessing Efficiency and Competitiveness, Inquiry Report Overview](#), December 2018, page 70

3. The Australian Government, [The Senate, Senate Select Committee on Financial Technology and Regulatory Technology, Issues Paper](#), October 2019

4. Farrell Review, 2018, pp 2, 105 and 109

5. Farrell Review, 2018, pages xi and 83

Open banking in New Zealand, has followed the UK model quite closely, but is industry-led, rather than having a regulatory mandate. An industry pilot to inform API specifications for both read and write access identified significant value in write access. Payments NZ Chief Executive, Steve Wiggins, noted that:

*“...development partners found they had stronger use cases for the Payment Initiation standard within the constraints of the minimal viable product (MVP) environment. This led to a re-focusing of the group's efforts toward testing the Payment Initiation API standard.”*<sup>6</sup>

In their submissions to the Farrell Review, both FinTech Australia and Cuscal claimed that allowing third party write access would be ‘the biggest reform to empower customers and improve bank competition’.<sup>7</sup>

FinTech Australia proposed that both read and write access should be implemented at the same time, after sharing data on customer validation to support the ‘know-your-customer’ requirements.<sup>8</sup>

Finder argued that extending the CDR to include write access ‘could act as an antidote to the inertia seen today in the retail banking market.’<sup>9</sup>

While payment initiation is not part of Australia's CDR framework, significant components of write access may still be possible in Australia when the capabilities delivered through some of today's payment solutions, as well as those committed in the NPP roadmap, are combined with data sharing under open banking.

When considering the combination of data sharing under open banking and the changes in the payments system set out in the NPP roadmap, organisations should be considering:

- What would the likely benefits be of extending CDR to payment initiation - write access - as in other markets?
- How might the New Payments Platform and other existing and planned payments functionalities enable write access?
- **The customer benefits of integrating read and write access are potentially transformative**

Imagine a world where a customer can set a savings threshold to invest in a term deposit with an app that automatically finds the best term deposit in the market and, with the customer's permission, invests their funds. Or where money can be dynamically switched to a savings account or term deposit with the best interest rate available in the market with no intervention from the customer other than providing consent to the original authorisation parameters.

It conjures up the very best of what we think of as customer service, convenience and simplicity, requiring little effort on the part of the customer, other than desire to improve their personal financial outcome.

While there are various use cases for read access that deliver value for consumers — account aggregation, personal financial management, and streamlined loan applications — the ability to have both read access and write access enables banks, Fintechs and other providers to offer a broader range of innovative services.

There is a range of use cases, some live in the EU and UK now, which deliver value to customers based on propositions that integrate both read and write access:

- A write access enabled intelligent assistant could move funds between accounts to ensure that funds are available in the correct accounts when payments fall due, and when earned interest is optimised.
- Write access could allow a third party to automate the payment of bills and invoices on the due dates and pay them from designated accounts.
- Write access could enhance the ability to provide wealth management services to consumers by allowing a third party to help consumers save and invest funds.
- Write access could make it easier to switch providers by enabling the transfer of accounts, banking authorities and transaction histories from one provider to another.
- Write access improves the feasibility of marketplace models, where a single aggregation platform provides access to multiple different providers for similar products, empowering the customer to more easily compare and choose different providers.
- Other use cases could include intelligent identification of optimal financial products across the market, and automatic migration of funds and transaction history to those products.

In the future banking could be integrated with alternative value representations to allow customers to seamlessly make payments with whichever value store delivers their best outcome. For example, a smart app could help a customer choose to make a payment using their crypto currency holding, or their frequent flyer points, as well as their traditional fiat currency in their transaction account

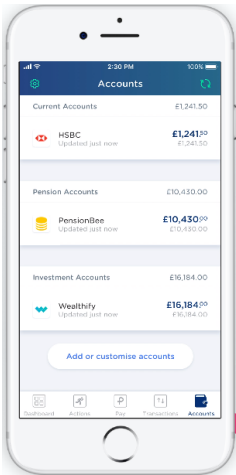
While account aggregation is possible with read access, when combined with write access third parties can initiate transactions to move funds across accounts on behalf of a customer. This offers the customer a simple, single integrated view of their financial situation, combined with the ability to transfer funds across accounts, significantly simplifying personal financial management (see examples of Yolt and HSBC).

6. Refer <https://www.apicentre.paymentsnz.co.nz/about/news/making-payments-innovation-easier/> retrieved 11 September 2019.

7. Farrell Review, 2018, pages 108, referring to FinTech Australia submission, page 5 and Cuscal submission page 4

8. Farrell Review, 2018, pages 98, referring to FinTech Australia submission, page 17-18

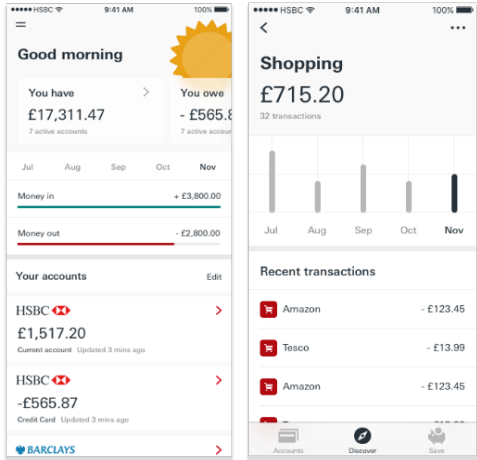
9. The Senate, Issues Paper, October 2019 page 9



**YOLT**

Yolt is a Netherlands-based venture by ING Bank that is delivering a single aggregated view of accounts across different financial institutions in the UK, France and Italy. It provides intelligent analytics, budgeting and spend controls, savings goals, as well as the ability to transfer money between accounts and make person-to-person payments.

As of October 2018, Yolt had 500,000 registered users and so has already gained significant market penetration.



**HSBC**

Traditional banks are also taking advantage of open banking capability with HSBC releasing its Connected Money<sup>1</sup> app to enable customers to see an aggregated view of their banking with spend analysis.

1 HSBC are now re-building this functionality into their core mobile banking app

These examples focus on the benefits to consumers. But in fact, the opportunity for small and medium-sized business to benefit, may be even greater. Integrating read and write access can enable better cash flow management, reduce complexity and cost, and free up time for managers to focus on their customers, rather than administering their business. This is an important segment for the Australian economy, and one where technological integration and automation is critical in extending complex transaction banking capabilities to smaller customers.

The integration of read and write access has the potential to transform the market. It has the potential to decouple the customer relationship management from the underlying bank products and bank providers. Some examples of this type of disaggregation of the universal banking model are already evident in the UK market.

So, does the lack of write access present a gap in the current approach to open banking in Australia?

### How might the New Payments Platform enable write access?

While the CDR neither requires nor supports write access, the ability to initiate a payment from a transaction account by a third party already exists in various forms in the payments system in Australia.

The New Payments Platform (NPP) was launched in February 2018, and is Australia's first real-time payments infrastructure. NPP enables households, businesses and government agencies to make fast, any time, data-rich, and simply addressed payments.

The payments can be made with near real-time funds availability to the recipient, on a 24/7 basis between any supported account types across all participating institutions. This is possible because of the Fast Settlement Service (FSS) infrastructure developed by the Reserve Bank, which settles each payment in real time.<sup>10,11</sup>

10. As of October 2019 there are more than 66 million Australian financial institution accounts NPP-enabled representing more than 80% of available accounts. Refer NPP Australia, "Updated response to the RBA's NPP Functionality and Access Consultation", 31 October 2019.

11. The Reserve Bank Fast Settlement Service (FSS) infrastructure provides for settlement of NPP transactions between financial institutions on a 24/7 basis across their Exchange Settlement Accounts (ESAs) at the Reserve Bank. Reserve Bank of Australia Bulletin, [The New Payments Platform and Fast Settlement Service](#), 20 September 2018

The NPP also introduces the concept of PayID, which is a customer-friendly alternative to identifying a bank account using a phone number, email address or Australian Business Number. Rather than requiring users to remember BSB and account numbers, NPP payments can be made using more easily remembered PayIDs.<sup>12</sup>

NPP and FSS are significant changes to the Australian payments system. Using the NPP infrastructure and the platform's native capabilities, parties can develop innovative payment offerings to customers as well as provide additional remittance information with a payment.<sup>13</sup>

At the same time, there is active development under way to enhance the NPP infrastructure to support payment initiation messages that would provide a customer-controlled, real-time replacement for Direct Debit authorisations.<sup>14</sup> Once implemented, these could provide capabilities for payment transactions to be initiated by third parties on behalf of customers. They could also provide customers with the ability to manage the consents they have provided to authorising third parties to access funds and initiate payments from specified accounts. These capabilities would provide a similar if not greater functionality for customers than the payment initiation capability implemented under both the UK and EU open banking regimes.

The implementation of write capability using the NPP is contingent on the implementation of third party payments initiation messages and the Mandated Payments Service now laid out in the NPP roadmap.<sup>15</sup> With the exception of international payments, the NPP can deliver an equivalent capability to the UK open banking capability to initiate payments.

How a customer provides their consent or authorisation for payments to be initiated on their account is critical to the proposed Mandated Payments Service. The customer consent model and framework has been extensively developed as part of open banking read access, right down to detailed customer experience guidelines. It would make eminent sense for the Mandated Payment Service to adopt and align the payments consent process to the open banking consent model and, as far as possible, allow banks to leverage their developments. This would provide customers with a consistent consent experience.

It was because these developments were anticipated, that the Farrell Review recommended that customer experience and take up of real-time person-to-person payments using the NPP infrastructure, should be taken into account when considering extending the CDR to include write access.<sup>16</sup>

### Comparing open banking payment initiation: NPP vs UK

Attribute	New Payments Platform	UK open banking payment initiation
Payment initiation APIs exist	API framework defined	Yes
Third party payments initiation mechanisms exist	Under development (Mandated Payments Service)	Yes
Customer consent framework	Under development (Mandated Payments Service)	Yes
Scheduled payments and standing payment order support	Under development (Mandated Payments Service)	Yes
Accessible to non-banks	Indirectly via a NPP participant as an 'Identified Institution' or potentially directly as a 'Connected Institution' <sup>17</sup>	Yes, as a Payment Initiation Service Provider
Connectivity required	Via one connection point <sup>17</sup>	Via multiple connection points to each bank or via a shared API point
International Payments supported	No	Yes
Real time payment rails	NPP infrastructure	UK Faster Payments
Customer friendly account addressing	PayID (email, mobile number, ABN); relatively broad penetration	PayM (mobile number); limited penetration

12. As of October 2019, there were approximately 3.6 million registered PayIDs. Refer NPP Australia, "New Payments Platform Roadmap 2019", 28 October 2019.

13. Reserve Bank of Australia, [The New Payments Platform](#).

14. NPP Australia, "New Payments Platform Roadmap 2019", 28 October 2019.

15. *ibid.*

16. Farrell Review, 2018, page 10

17. Once payment initiation capability is available as per the NPP roadmap

**The current payment infrastructure also enables payment initiation**

Direct debit authorisations enable an authorised third party, for example a biller, to debit an account within the parameters defined in the authorisation. That said, direct debit authorisations are still fairly cumbersome to set up. Often paper-based forms are still required and they are slow, with up to 24 hours or more to complete a transaction.

It is also possible to initiate a payment from a transaction account by third-party authorisation, using the various card networks e.g. Visa, Mastercard, or Amex. This is widely used by e-commerce sites and wallet providers, that hold a customer's card details on file to pay for recurring charges such as subscriptions.

eftpos Payments Australia Ltd is also developing an e-commerce capability that is likely to support third party payment authorisation in a similar manner to the other card schemes, and already supports digital wallets. eftpos is also proposing to develop a real-time payment capability in competition with the NPP, which it claims could lower cost<sup>18</sup>.

Write access offers potentially greater benefits to business customers. Write capability enables a range of use cases for business customers, including accounts payable management, treasury and payroll.

Integration of corporate systems to banks' technology environments in Australia is currently limited, partly due to the lack of standard APIs across the industry. Open banking provides those standards and could potentially result in a surge in end-to-end digitisation of corporate to bank relationships.

**Mechanisms to implement payment initiation**

Payment type	Irrevocable?	Account types	Speed	Consent held by	Configuration
<b>NPP*</b>	Yes	To be determined	Instant clearing and settlement	To be determined	Digital user control via bank apps
<b>Direct Debit</b>	Yes	Generally only transaction accounts	Up to 24 hours	3rd party	Manual, usually paper-based or online authorisation and withdrawal
<b>Scheme Debit – card on file</b>	No	Generally only transaction accounts	Instant clearing, deferred settlement	3rd party today, moving to customer control through web portal	Manual today, with digital control by customers coming through web portal


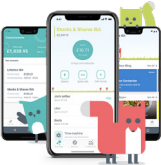
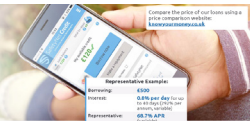

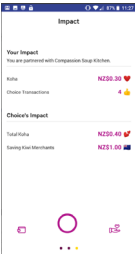
\* Based on our understanding as of November 2019<sup>19</sup>

18. Eyers, James, [Eftpos outlines plan to take on payment behemoths](#), Australian Financial Review, 24 October 2019.

19. NPP Australia, "New Payments Platform Roadmap 2019", 28 October 2019.

## Examples from other jurisdictions

Some examples of disaggregation of the universal banking model are already evident in the UK market.

Example	How write access enables the solution	Could it be delivered in Australia with the NPP?
<p><b>Monitoring account activity of vulnerable people Kalgera (UK)</b></p> 	<p>Kalgera uses open banking to allow a trusted representative of a vulnerable person to monitor their financial activity through a dashboard and smart alerts.</p> <p>This is an innovative approach to financial inclusion of vulnerable people. While it does not use payment initiation today, it is easy to envision enhancements where the trusted representative is able to make transactions on behalf of someone who is incapable of managing their own affairs.</p> <p>Source: <a href="https://kalgera.com/">https://kalgera.com/</a></p>	<p>This app requires only read access and so could be delivered using the Australian open banking regime.</p>
<p><b>Account sweeping and micro-savings Moneybox (UK)</b></p> 	<p>Moneybox allows customers to round up purchases into an investment account. It does this by using open banking to monitor transactions in a customer's account and transferring the round ups to an investment offering.</p> <p>The ability to initiate payments is an essential component of the solution.</p> <p>Account sweeping apps are also in development that will optimise a customer's earned interest by automatically moving money from transaction accounts to high-interest earning accounts dynamically.</p> <p>Source: <a href="https://www.moneyboxapp.com/">https://www.moneyboxapp.com/</a></p>	<p>This could probably be delivered using the NPP.</p> <p>Once the Mandated Payment Service is implemented, it is likely that this style of solution could be implemented here contingent on the investment account being accessible through NPP.</p>
<p><b>Automatic overdraft SafetyNet Credit (UK)</b></p> 	<p>SafetyNet provides a revolving line of credit that is applied to automatically keep a customer's current account out of overdraft. It currently uses screen scraping technology, but is moving to the UK open banking APIs. It is targeted at regular users of overdraft facilities such as small business.</p> <p>SafetyNet Credit's service requires the ability to initiate payments both to and from a bank account in almost real-time.</p> <p>Source: <a href="https://www.safetynetcredit.com/">https://www.safetynetcredit.com/</a></p>	<p>This could be delivered using the NPP.</p> <p>This app could monitor and interact with a customer's transaction account using the Mandated Payment Service.</p>
<p><b>Online shopping bank payment service Trustly (EU)</b></p> 	<p>Trustly provides an online direct-from-bank-account payment service for merchants that is built on the PSD2 open banking framework.</p> <p>The introduction of payment initiation in combination with open banking will allow a new range of innovative payment solutions to flourish that can make intelligent decisions on funding sources at the point of purchase based on a customer's current account balances across transaction, savings and credit cards.</p> <p>Source: <a href="https://trustly.com/en/">https://trustly.com/en/</a></p>	<p>This could be delivered using the NPP.</p> <p>This is a base use case for the Mandated Payment Service.</p>
<p><b>Social impact payments Choice (NZ)</b></p> 	<p>Choice is a QR code driven payments app that shares the merchant fees with a consumer's nominated charities. It leverage the open banking payment initiation APIs.</p> <p>Source: <a href="https://choicetopay.com/">https://choicetopay.com/</a></p>	<p>This could be delivered using the NPP.</p> <p>A QR code framework has been developed for merchant presented QR codes on the NPP. Once banks enable the ability for their customers to scan a QR code for NPP payments and coupled with the Mandated Payment Service, an app could deliver this capability.</p>

## Write access - beyond payments

While there are many options currently available and planned that support payment initiation, there are also potential non-payment related functions that the implementation of write capability in open banking could enable. These relate to many functions currently accessible through internet banking portals and banking apps. Examples include opening and closing accounts, redrawing loans, initiating term deposits and applying for other banking products. These functions would further enrich account aggregation use cases. These are sometimes referred to as 'Banking-as-a-service'. They would require the scope of open banking to be expanded and so at this point remain future options.

## Risks

The open banking rules and regulations go to great lengths to mitigate and manage the risks associated with sharing customer data with third parties. This includes specification of customer consent requirements and customer experience standards; accreditation of data recipients; requirements on technical security standards; and clear governance around customer privacy. All of these are backed by penalties for breaches that are meaningful, even for large institutions.

Similarly, payment initiation mechanisms are comprehensively governed by responsible entities such as card schemes (Visa, Mastercard, Amex, eftpos) and NPP Australia. These bodies set governance standards in the form of scheme rules and a mandatory compliance framework.

As with all new capability, there are potential vulnerabilities that may be exploited. These need to be identified and remediated quickly to ensure trust in the new capabilities is built and maintained. A recent example is the exposure of PayID customer data through inappropriate use of the address 'look-up' function. These were quickly addressed at both a technical and governance level.<sup>20</sup>

## Questions for organisations

As organisations prepare for open banking and NPP, the questions they should be asking include:

### Incumbent financial institutions

- How can we maintain market differentiation when challengers have access to the similar information and payment initiation capability?
- How can we operationalise hybrid open banking/payment solutions?
- How can we maintain a strong customer relationship if accessing bank applications is no longer required?
- How can we expand our current capabilities beyond traditional banking services to maintain customer relevance?
- Should we build, buy or partner to acquire these capabilities?

### Challenger financial institutions

- How can we leverage open banking and the ability to initiate payments to create unique value propositions and market opportunities?
- How can we access NPP-based or other payment initiation solutions?
- Which capabilities will be required to meet basic customer expectations in the future?

### Fintechs

- How can we use the combination of open banking and changes to NPP and schemes to innovate in financial services as a partner to existing institutions, or to challenge the status quo?
- How can we position solutions within the open banking and payment initiation regulatory environment?

### Payments industry

- What types of collaboration will be needed to enable a seamless open banking and payment initiation capability?
- How can payment initiation be presented to third parties in a consistent way across the industry?

### Regulators

- How should payment initiation under NPP be aligned with the existing open banking regulation?
- Given the payment initiation capability provided by NPP, are there other elements of write access that are still needed?
- What is the right balance between broader access that stimulates competition and managing risks to system stability?

### Last word

Overseas experience suggests that consumers and business could derive great value from the ability to initiate payments.

But there is no need for Australian participants in open banking to wait for write access to be regulated under the CDR. The essential component of write access – payment initiation - will be provided by the NPP and, to a lesser degree, are provided already by the card schemes.

As organisations move beyond compliance and focus on the development of customer propositions, they should be considering how the additional payment functionality provided by NPP, together with data sharing under open banking, impacts the benefits that can be provided to retail and business customers.

The combination of Australia's open banking framework together with the capability under NPP to initiate payments has the potential to deliver capability that is world-leading and provides compelling value to customers.

20. New Payments Platform Australia, [Uplifting cybersecurity controls](#), Press Release, 20 August 2019 (retrieved 11 September 2019)



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