

## **PUBLIC VERSION**

26 July 2024

# Submission: Future of Money – Digital Cash

## **Executive Summary**

1. Paymark Limited, trading as Worldline New Zealand (**Worldline**), is pleased to provide feedback on the consultation paper published by the Reserve Bank of New Zealand (**RBNZ**) on 17 April 2024 entitled: Digital cash in New Zealand (the **consultation paper**).<sup>1</sup> Worldline has previously submitted in response to the earlier papers forming the RBNZ's 'Future of Money' initiative.
2. Worldline NZ was established in 1984 to provide low-cost Eftpos<sup>2</sup> transaction processing as a way of enabling banks and merchants to move from cash to electronic payments. We are New Zealand's leading payments innovator, and we design, build, and deliver payment solutions that help Kiwis succeed. Worldline NZ is grateful for the opportunity to share its thoughts on the RBNZ's proposed approach to the potential issuance of digital cash.
3. Worldline New Zealand has been a part of Worldline SA, our parent company (a French corporation) since 2020. Worldline SA is the fourth largest payments provider in the world and has over 40 years' experience as a payment processor and innovator. Worldline Group currently manages historical, current, and future payments infrastructure for many different customers, such as central banks, commercial banks, payment service providers, public institutions, and every type of retailer.
4. Worldline Group provides central bank digital currency services and works with major central banks across the globe. In Europe, Worldline has been part of the Digital Euro Market Advisory Group<sup>3</sup> since 2019. The purpose of this group is to advise the European Central Bank (**ECB**) on the design and distribution of the digital euro, particularly peer-to-peer offline payments.<sup>4</sup> In addition, Worldline provides the underlying infrastructure for the central bank of the Netherlands who are piloting the digital euro for the ECB. Worldline is also involved with:
  - i) the offline prototype with the Reserve Bank of Australia (**RBA**)<sup>5</sup> and ANZ<sup>6</sup>;
  - ii) Project Polaris<sup>7</sup> with the RBA and the Bank for International Settlement (**BIS**); and
  - iii) Project Rosalind<sup>8</sup> with the Bank of England and the BIS.

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<sup>1</sup> See [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/digital-cash-in-nz.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/digital-cash-in-nz.pdf)

<sup>2</sup> 'Eftpos' is New Zealand's domestic payment product (currently a mag-stripe, no chip, plastic card). Funds are access directly from a debit account and processed efficiently and inexpensively via local processors.

<sup>3</sup> See <https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr211025~08af93ada7.en.html>

<sup>4</sup> See <https://www.ecb.europa.eu/press/intro/news/html/ecb.mipnews220916.en.html>

<sup>5</sup> See <https://www.rba.gov.au/payments-and-infrastructure/central-bank-digital-currency/pdf/australian-cbdc-pilot-for-digital-finance-innovation-project-report.pdf>

<sup>6</sup> See <https://bluenotes.anz.com/posts/2023/06/anz-news-central-bank-digital-currency-rba-pilot-cindy-he>

<sup>7</sup> See <https://www.bis.org/publ/othp79.pdf>

<sup>8</sup> See <https://www.bis.org/publ/othp69.pdf>

5. These projects cover items such as security, privacy levels management, types of wallets, peak usage management, offline mode and they interface with existing central bank back office, commercial banks back office (for distribution purposes and ATM use) and merchant acceptance networks.
6. Answers to the specific questions posed by the RBNZ are set out in **Appendix I** and our high-level thoughts on the consultation paper are as follows - these are explained further in the submission:
- i) The RBNZ should carefully consider the true purpose of digital cash. It is unlikely that digital cash alone will solve the payments-related problems referred to in the consultation documents.
  - ii) The true purpose for digital cash, and this is valid, is to ensure that New Zealand has a chance of preserving its monetary sovereignty and maintaining a value anchor for the New Zealand Dollar. The mere existence of digital cash will not achieve that goal – it must also have widespread uptake and use.
  - iii) Worldline is supportive of any initiative that would enable a retail payments ecosystem that is more open, innovative and competitive. For digital cash to accomplish those key objectives, there needs to be significant user uptake yet according to the consultation documents, widespread use by consumers is unlikely.<sup>9</sup>
  - iv) RBNZ research found that consumers were satisfied with what is available today<sup>10</sup> and it appears that any user problems (or unmet needs) could be resolved by a digital version Eftpos. Consumers want to use a payment instrument contactlessly, on their phone that is less likely to be surcharged, and merchants want something that is less expensive to accept. New Zealand should start there first.
  - v) Competition in payments will happen once there is more support from the banking industry for products that are not promoted by Visa and Mastercard. Incentives associated with issuing and processing Visa and Mastercard products make it challenging for any other payment product to compete.
  - vi) Nearly all the unmet needs and services relating to payments could be resolved by an open-banking digital version of Eftpos. Worldline has already developed this product and proven the concept. All it needs is commercial bank support, and in lieu of that, regulatory support to drive the commercial bank issuance. For a domestic product to compete with Visa and Mastercard it needs ubiquity of acceptance and mass market issuing to consumers who bank with the top five New Zealand banks.
  - vii) New Zealand needs to invest in a real-time payments system to enable functionality such as instant payments, digital identity services and digital currency services. A future proofed digital payments system, not unlike the rollout of fibre optic telecommunication networks in New Zealand, will be essential to New Zealand’s future financial stability and success. However, securing private investment in significant national infrastructure is challenging on a “build it and they will come” basis. Public private partnerships were created under Crown Infrastructure to de-risk private investors in the rollout of a national fibre to the home network ahead of demand and retail services and innovation worked – a similar model could drive modernisation in the payments industry.

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<sup>9</sup> Page 33 [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/digital-cash-in-nz.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/digital-cash-in-nz.pdf)

<sup>10</sup> See pages 21 and 24 [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/cbdc-consumer-research-report-for-publication-13122023-1.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/cbdc-consumer-research-report-for-publication-13122023-1.pdf)

- viii) A phased approach may be the most effective way for the RBNZ to deliver on its overarching objectives of innovation, resilience, competition and inclusion. Please refer to **Appendix II** for Worldline's proposed three-phased approach. This approach provides an efficient path whereby New Zealand can benefit gradually from improvements that meet the needs of consumers, the RBNZ, commercial banks and payment service providers (**PSPs**).
- ix) The confusing messaging in the consultation paper around a commercial model may make it challenging for PSPs to make investment decisions. PSPs need to know there is a chance of financial return, especially when they will be expected to manage onboarding, wallet provisioning, distribution, balance management, account linking, compliance costs (e.g., anti-money laundering obligations) and any regulatory burden (e.g., licencing and/or compliance with standards).
- x) New Zealand can only sustain a small number of payments networks. Whatever infrastructure is built of how may it will be important that it has common standards that ensure interoperability with open banking, digital identity platforms and acceptance networks.
- xi) Lastly, the New Zealand payments industry currently faces a raft of regulatory change involving several different regulators. There are several crossovers and over-laps between regimes, and this may result in confusion, slow-progress and ultimately stifle innovation. We would support a holistic, overarching strategy in respect of payments. We believe that this clarity would help reassure payments innovators that regulators are serious about providing a climate where competition in payments can thrive.
7. This submission contains commercially sensitive information and that a separate, confidential version is provided.

### **Retail payments are monopolised by international scheme cards**

8. New Zealanders prefer to use cards to make payments, and most are made using cards bearing the mark of an international card scheme (such as Visa or Mastercard).<sup>11</sup> With the increase in contactless payments to make purchases, consumers have moved away from New Zealand's own domestic payment product, Eftpos. This lack of competition is a matter of significant concern for New Zealand's financial ecosystem. Eftpos now accounts for only 20% of in-store payments though Worldline's system, indicating that the current decline could soon result in the only competitive constraint on Visa and Mastercard exiting the market.
9. Eftpos has suffered from under-investment and no owner. It is a basic plastic card, that has a mag-stripe but no chip. Without a chip it cannot be used contactlessly. We do not want to 'save' Eftpos in its current form. But to ensure a functioning and competitive payments market, New Zealand does need a domestic debit product of some kind. Preferably a modern Eftpos that utilises new technology; the plastic card should be digitised and provisioned to a mobile phone or other wearable. It should be available to all Kiwis via their bank, and it should be accepted by all merchants using existing hardware.
10. While we are pleased that the RBNZ is considering issuing digital cash and we agree that New Zealand needs a replacement for paper money that fulfils that vital role of monetary sovereignty. We do, however, think the timing could be improved. It is likely that Eftpos will have exited the market, prior to 2030 and, in the meantime, New Zealanders will have limited choice in payments products. Equally making investment decisions to digitise Eftpos will be challenging if it is likely that a digital currency would soon supersede it. A move to a digital form of Eftpos (with wide-

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<sup>11</sup> Over the Worldline switch **-CONFIDENTIAL-** of instore transactions are made with a Visa and Mastercard product and online that percentage increases to **-CONFIDENTIAL-**

spread use) would likely take a minimum of five years (that includes the build, onboarding of issuers, comprehensive merchant acceptance and broad consumer uptake).

11. Scheme processing fees continue to rise, and these are unregulated in New Zealand. In Australia, they've seen a more than 40% increase in recent years<sup>12</sup> and in the United Kingdom, scheme processing costs have increased by over 30% since 2019<sup>13</sup>. High debit use retailers (like grocery, fuel and quick serve restaurants) could see a significant increase in payment costs. These increased costs will flow down and result in higher prices for consumers.
12. Once Eftpos exits, consumers would no longer have a low-cost ubiquitous option for payments. The decline in local debit Eftpos usage also has broader implications for our financial autonomy. As transactions increasingly move to the international card schemes, we risk becoming overly dependent on them, resulting in our data going offshore and impacting the resilience and independence of New Zealand's payments infrastructure.
13. Worldline is committed to supporting high-performing New Zealand-based infrastructure for New Zealanders. Eftpos today has enabled a ubiquitous and inclusive method of payment for Kiwi's for over 30 years and we would like to see those same benefits continue in other forms. The challenge is that Eftpos does not have one owner, nor does it return the same revenue to the issuing banks as the international card scheme products. This means the banks are reluctant to issue the current Eftpos cards or to invest in developing new capability.
14. Meanwhile, Worldline has been working on a contactless digital debit solution, beyond plastic, that could provide a replacement to the current mag stripe Eftpos. The new product would utilise open banking API's, international ISO standards (and be compatible with future real-time payments and digital asset platforms) and it will also use the current acceptance network (so retailers do not need to pay for new terminal hardware). This product has the potential to meet the local needs of Kiwis, reduce costs for merchants and consumers, and take cost out for banks as they do not need to upgrade and maintain legacy payments infrastructure. However, we need industry and regulatory drive; we cannot do it alone.
15. A digital Eftpos product would meet consumer demands and behaviours<sup>14</sup> at a fraction of the time and costs of implementing a successful digital cash ecosystem. That way New Zealanders could benefit now instead of having to wait until 2030 when digital cash may be issued - acknowledging that it will take several years after 2030 for the RBNZ and the industry to have delivered an effective digital cash ecosystem.
16. Competition is necessary to ensure that New Zealanders have choice in good quality products and services at the right price. We are not convinced that the existence of digital cash alone would deliver this and the RBNZ states "we do not have any evidence to suggest that demand for digital cash will reach high levels".<sup>15</sup> Without high levels of use, not only will the monetary sovereignty objective fail but so too would the financial stability, inclusion, competition and innovative objectives. Without evidence to suggest digital cash would deliver the desired outcomes, justification for progressing could be challenging to ascertain.

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<sup>12</sup> See [https://www.rba.gov.au/speeches/2024/sp-so-2024-06-18.html?&utm\\_source=rbanews&utm\\_medium=email&utm\\_campaign=sp-so-2024&utm\\_content=online-retail-payments-some-policy-issues](https://www.rba.gov.au/speeches/2024/sp-so-2024-06-18.html?&utm_source=rbanews&utm_medium=email&utm_campaign=sp-so-2024&utm_content=online-retail-payments-some-policy-issues)

<sup>13</sup> See <https://www.psr.org.uk/media/pcvem3uq/interim-report-market-review-of-scheme-and-processing-fees-may-2024-publication.pdf>

<sup>14</sup> [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/cbdc-consumer-research-report\\_for-publication-13122023-1.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/cbdc-consumer-research-report_for-publication-13122023-1.pdf)

<sup>15</sup> Page 33 [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/digital-cash-in-nz.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/digital-cash-in-nz.pdf)

## Infrastructure should be considered sooner rather than later

17. Policy and technology may be more intertwined than expected. The clearing and settlement systems we have today need upgrading. While these systems are capable of bulk clearing and settlement several times a day, seven days a week, they are not capable of data rich instant messaging that we need to keep us safe. We need that data rich capability for programmability of payments and fraud-reducing solutions such as digital identity and effective cross-bank and international “Confirmation of Payee” platforms.
18. Most countries around the world have or are building real-time payments systems. New Zealand is one of the few countries without a system or a mandate to build. Payments New Zealand (PNZ) is exploring what a real-time payments system could look like for New Zealand under the NextGen project, yet progress has been very slow. Worldline understands that the owner banks of PNZ are not convinced that a real-time payment system is necessary, and they are the decision makers. Making real-time payment capability a foundation of that strategic roadmap is an important step towards addressing the RBNZ’s observation that instant, electronic, peer-to-peer settlement is a service currently not provided by the private sector.
19. A real-time payments platform provides the primary foundation for modern payments infrastructure. This is the direction globally and often this modernisation is mandated by the central bank. A real-time payments platform can also facilitate instore instant payments providing competition and greater independence from payments transactions that use the international scheme processing systems. Furthermore, if online and offline wallets (which provide for digital central bank and/or digital commercial cash transactions) are implemented we will see greater resilience during environmental disruptions.
20. Central banks often are interested in dual infrastructures: one for real-time payments and one for central bank digital currency. However, the strategic decision to implement one infrastructure for both digital central bank and commercial currencies or having different infrastructures in place, which are fully independent from each other for resilience reasons, is a decision to be made later. Noting that New Zealand’s small scale makes multiple networks commercially challenging.
21. Worldline has extensive experience in building and operating such systems in other jurisdictions. From Worldline’s experience, it takes one – two years to stand up a real-time payment system. Despite the letter sent to PNZ by the RBNZ<sup>16</sup>, it has so far taken longer to discuss and explore the project, and, as of today, no decision has been made to go ahead (or not). New Zealand should learn from, and not repeat, the same mistakes as other jurisdictions where the reasons for failure include lack of political alignment, poor commitment across too many stakeholders, lack of a value proposition that fits market needs or misaligned priorities in context of local market structure.<sup>17 18</sup>
22. The consultation paper refers to a digital cash platform envisioned (which could be a real-time payments system, coupled with digital asset management platform on blockchain, or another distributed ledger technology, or a new balance-based settlement system). This is remarkably like

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<sup>16</sup> See <https://www.rbnz.govt.nz/-/media/project/sites/rbnz/files/publications/information-releases/2023/letter-to-payments-nz-on-nzs-need-for-real-time-payments-10-july-2023.pdf>

<sup>17</sup> In Canada, the Mastercard project failed see <https://www.finextra.com/newsarticle/43993/canadas-real-time-payment-system-wont-launch-before-2026> and <https://www.americanbanker.com/creditunions/news/lessons-from-canadas-struggles-with-faster-payments>

<sup>18</sup> The P27 initiative in the Nordics failed see <https://insights.flagshipadvisorypartners.com/p27-lessons-learned-from-the-latest-failure-in-pan-european-payment-collaborations>

the NextGen platform envisioned by PNZ.<sup>19</sup> There does, however, appear to be conflict whereby the RBNZ sees its real-time payments platform as a piece of public infrastructure and PNZ sees its real-time payments platform as something that is owned and operated by its member banks. The consultation paper sets out that the RBNZ would own and operate a digital cash platform and the platform would facilitate all digital cash payments.<sup>20</sup> How the RBNZ will connect to those accounts to facilitate these payments is not described.

23. In any event, and realistically, only one real-time system is necessary, and all service providers should be able to integrate and access that system if they can comply with non-discriminatory, objective access policy and criteria. The digital cash system should be compatible with, and integrate to, the existing payments eco-system and the real-time payment system (if separate dual systems are implemented). Consumers can make payments using a mobile phone or a payment card and merchants can accept transactions using e-commerce gateways or point-of-sale terminals, and cash can be withdrawn from ATMs. Using this approach, we can maximise the chance of public adoption (as user habits do not need to change) and the friction caused by the introduction a new type of money will be reduced. Capitalising on the existing payment network would also help to contain the costs.
24. The banking industry will not enable real time payment capability in a timely or logical manner without regulatory intervention. The new system could either be a new piece of public infrastructure<sup>21</sup> or be implemented under a shared infrastructure model. Whichever model is chosen, the system should have open access so the necessary scale can be achieved at a reasonable cost.

### **Commercial model will need to incentivise participation from service providers**

25. Ideally the digital cash platform will facilitate increased efficiency, innovation, and allow businesses and individuals to have greater choice. However, the facilitation, distribution and use of digital cash will all come at a cost. For service providers to participate there must be a clear common commercial model and operating standards otherwise justifying investment decisions will be difficult and could lead to a stifling of innovation. Service providers should have the freedom to offer value-added services (such as scheduled payments, conditional/programmable payments, recurring payments, loyalty programs, vouchers etc) to the end-users so they may generate revenue to cover distribution costs.
26. The technology used to facilitate digital cash will need to be of a high standard. If services are poor, it could lead to a bad customer experience and limit the opportunities for innovative products to be developed. The risks which may arise (fraud, scams, money laundering) are not explored in detail in the consultation documents. These important topics will need to be considered and appropriate risk mitigations put in place if digital cash is to succeed.
27. The consultation paper provides an example of using digital cash to pay for things<sup>22</sup> and it goes on to state that “By paying with digital cash Levi won’t get charged any extra fees”. It follows then that the RBNZ would prohibit merchants from applying a surcharge. If so, that may require a

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<sup>19</sup> See <https://www.paymentsnz.co.nz/our-work/next-generation-payments/>

<sup>20</sup> See page 6 [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/digital-cash-in-nz.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/digital-cash-in-nz.pdf)

<sup>21</sup> RBNZ states the “Digital cash would also be a new piece of digital public infrastructure that supports digital transformation in New Zealand” see page 11 [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/digital-cash-in-nz.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/digital-cash-in-nz.pdf)

<sup>22</sup> Pages 8 and 24 [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/digital-cash-in-nz.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/digital-cash-in-nz.pdf)

change to the Retail Payment System Act 2022<sup>23</sup> (**RPS Act**). It is likely that merchants would be charged by service providers who facilitate acceptance and processing of the transaction.

28. From what is described in the consultation paper there is little to reassure businesses they would see a return on any investment and the RBNZ may find it challenging to incentivise service providers to participate. The commercial model must be clear and make sense for a country the size of New Zealand. Without this there is a risk of discouraging investment resulting in inertia.

### Offline is more complicated than as described

29. RBNZ has not gone into the complexities of offline transactions and how they must interact with the online environment. Offline payments are those made with no access to the internet, power or telecommunications networks (including payments networks) by the payment initiator and well as the receiver (double offline). While online digital payments (at least using one device with internet network access or at the point-of-sale (**POS**) using telecommunications networks) will represent most of the digital cash transactions, the chosen approach will need to cope with scaling millions of accounts and a vast number of concurrent transactions in both the offline and online environment. This is quite different to the bulk clearing and settlement systems of today.

30. Worldline Group recently completed a Proof of Concept (**PoC**) with the ECB for the digital euro. In that PoC we explored a payment between two offline devices (without any internet or telecommunications connection), the so-called “double offline” transaction. To perform a double offline transaction, an online-online transaction must take place first, this is followed by an online-offline transaction, to “freeze” some digital cash tokens in the “online world”, and only then can the digital cash be loaded into an “offline” wallet.

31. Furthermore, a secured digital vault is needed to store value on the mobile phone, but it could be embedded on a payment card / smartcard (allowing peer-to-peer (**P2P**), POS, ATM and offline payments). If stored on a phone, the secure digital vault is called the secured element (**SE**). This SE can take different forms: it can be embedded on a dedicated chip in the device (on the board or embedded in the CPU<sup>24</sup>) or can be installed on a SIM<sup>25</sup> card with the support of a telco provider. For example, the People’s Bank of China chose to partner with the domestic smartphone manufacturer Huawei<sup>26</sup> to launch products which include a hardware wallet to enable double offline transactions. New Zealand does not have a domestic smartphone manufacturer and getting access to the SE is notoriously difficult, especially if consumers wish to use an Apple phone.<sup>27</sup>  
<sup>28</sup>The RBNZ may want to consider how it will achieve this without regulatory intervention.

32. Acceptance is another key aspect of a successful digital cash roll-out. In addition to the use-case of offline wallet to offline wallet, Worldline was able to demonstrate the transfer of money from an offline wallet to a POS device. This is necessary if consumers want to purchase items from retailers during natural disasters, such as Cyclone Gabrielle. However, the risk of fraud increases with offline transactions as the normal controls and checks present for online transactions cannot

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<sup>23</sup> See <https://www.legislation.govt.nz/act/public/2022/0021/latest/whole.html>

<sup>24</sup> Central processing unit

<sup>25</sup> Subscriber identity module

<sup>26</sup> See [https://consumer.huawei.com/ae-en/community/details/Mate40-series-is-the-first-of-its-kind-to-support-hardware-wallet-for-China%E2%80%99s-Digital-Currency/topicid\\_121407/](https://consumer.huawei.com/ae-en/community/details/Mate40-series-is-the-first-of-its-kind-to-support-hardware-wallet-for-China%E2%80%99s-Digital-Currency/topicid_121407/)

<sup>27</sup> See <https://www.forbes.com/sites/davidbirch/2024/04/29/the-ecb-warn-that-the-iphone-is-incompatible-with-digital-currency/>

<sup>28</sup> See <https://www.afr.com/companies/financial-services/apple-concedes-to-european-banks-amid-concern-on-new-rba-payment-power-20240122-p5ez45>

take place. Double spending can occur, as can fraudulent wallet balance updates. These risks can be reduced by ensuring the highest SE security standard, setting specific offline transaction limits and implementing checks when the money is returned to an online environment for fraud detection.

33. Online payments may be used for all types of transactions (P2P, POS, ATM, e-commerce) and can also load an offline purse. Offline payments are sent from one party to the other but in a reduced supervision frame. Specific limits and velocities apply as compared to online transactions. Transaction traceability and integrity checks must take place once connected to the online environment.
34. It is important to remember that retail payments today already have offline capability. During Cyclone Gabrielle, the payments network was let down by the lack of redundancy and resilience of New Zealand's electricity and telecommunication networks.<sup>29</sup> It is likely that the infrastructure underlying and enabling digital cash (both online and to facilitate offline) will rely of these same networks.

## Privacy

35. Privacy preserving technologies must be in combination with the traceability of financial transactions. A transaction's purpose and identity of the involved parties should be protected however the possibility of identifying the parties should be retained for fraud management or legal concerns. While trust is at the heart of money transactions (both from a people and system perspective) full traceability is technically required in a digital world to ensure confidence and certify genuine transactions. Yet not all information should be available to all parties involved in the transactions. You can have split or partial information. It is possible to have privacy and anonymity based on a 'need-to-know' policy. It should be the role of the RBNZ to define the standard rules and exceptions and who can access what data, when and in compliance with law. Privacy is important at technical infrastructure level and for the different parties involved. The level of data available to the different stakeholders should be defined and controlled. Parties in a transaction should know the essence of the transaction but do not need to know the real identity of each party. Anonymity can preserve end-user identity while keeping the transaction fully known and verifiable.
36. We know that people like cash as it provides individual liberty, however, we would all benefit if it did not provide criminals with anonymity. It would not be ideal if digital cash becomes the number one mechanism for illegitimate purposes, including tax evasion and illegal activity. Digital cash will need some form of electronic or digital identity solution so that the AML/CFT<sup>30</sup> requirements could be complied with, and we can address tax evasion and provide for transactions to take place offline. For example, ecommerce transactions today require strong customer authentication to combat fraud and digital cash should be no different. The programmability offered by digital payments allows for a levelled and dynamic approach to privacy, depending on defined transaction criteria, using, for example, privacy-by-design and privacy-by-default approaches.
37. Policy makers will have to carefully consider all these topics to achieve the right balance between anonymity and traceability, and protection of personal information.

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<sup>29</sup> See <https://www.rnz.co.nz/news/national/490873/ongoing-questions-on-telecommunications-resilience-remain-unanswered>

<sup>30</sup> Anti-Money Laundering and Countering Financing of Terrorism Act 2009 including regulations

## Digital identity services are a core function

38. For any new payment product to succeed, it must be trusted. Many of the ‘problems’ associated with payments are related to identity, such as authentication, fraud and privacy. These problems can be reduced if digital identity solutions were broadly available. Being able to verify who or what you are online and who you are doing business with is key to being safe.
39. Unfortunately, digital identity solutions will not see broad adoption until such time as consumers can easily access and use them. The use of digital identity as a verification and authentication mechanism should be promoted by the RBNZ and Government agencies (such as the New Zealand Transport Agency – Waka Kotahi, the Ministry of Social Development, and the Ministry of Health) should be issuing and accepting digital identity credentials. For New Zealanders to feel comfortable, they need to know that digital identity solutions are an acceptable form of identification. Any existing legislation and regulations requiring sight of a physical document need to be updated to provide for the issuance and acceptance of digital identity credentials.
40. The Department of Internal Affairs (**DIA**) intends to transition RealMe from an identity verification service to an issuer of verifiable credentials, but this is some time away. Further, only certain data points on New Zealand citizens are held by the DIA and not everyone doing business in New Zealand is a New Zealand citizen. It is not yet clear what the costs of using this service may be. Pricing for business use of RealMe is prohibitively high and it would be a shame if business users were priced out of using the DIA issued verifiable credentials. The Digital Identity Services Trust Framework Act<sup>31</sup> (**DISTF Act**) is a step in the right direction as it requires service providers to show they can comply with the standards and rules (including those related to security and privacy) if they wish to receive accreditation under the DISTF Act. But this is an opt-in regime, which means we may not see a truly safe environment in the digital identity space.
41. If digital identity services are a key enabler a dependency arises. Presently the digital identity services ecosystem is not ready. This is a risk (low presently as issuance is not expected until 2030) but unless real progress is made in a timely fashion, by both the public and the private sector, this risk will increase over time.

## Opportunity for education

42. There’s an opportunity, and need, for education. If the knowledge base of New Zealanders when it comes to digital cash is anything like those Members of Parliament who sit on the Finance and Expenditure Select Committee<sup>32</sup>, there is a long way to go. Best practice guides should be developed for users and service providers. Not only for digital cash but for ancillary services such as digital identity services. Digital identity solutions have been identified as a core function<sup>33</sup> but if no one knows about digital identity or is suspicious of it, we are unlikely to see safe digital environments.
43. Clear, consistent, educational, and reliable communications are vital – if no one knows about it, or mistrusts the Governments intentions, digital cash will not see broad uptake. Without widespread use, the RBNZ will not succeed in its primary objective in protecting New Zealand’s monetary sovereignty.

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<sup>31</sup> See <https://www.legislation.govt.nz/act/public/2023/0013/latest/LMS459583.html>

<sup>32</sup> See <https://selectcommittees.parliament.nz/v/0/63a4a5d2-779e-48e8-f597-08dc6d5d6759>

<sup>33</sup> See page 31 [https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user\\_uploads/digital-cash-in-nz.pdf](https://consultations.rbnz.govt.nz/money-and-cash/digital-cash-in-new-zealand/user_uploads/digital-cash-in-nz.pdf)

## We need a plan for cash-free or cash-lite society

44. A plan for how we practically move towards digital cash, and at the same time manage cashlessness, is necessary. While digital cash has been positioned to sit alongside paper money, New Zealand is, in any event, on the road to being a cashless society. This has so far been an organic journey, but we need a plan to ensure broad inclusion for all New Zealanders before the road is forged for us by overseas players, such as the international card schemes or crypto currencies such as bitcoin. The three-phased approach described in **Appendix II** could form the starting point for a conversation on the gradual path to a cash-free or cash-lite society.

## One clear strategy for payments

45. Coordination and collaboration between the RBNZ, the New Zealand Commerce Commission (**NZCC**) as regulator of the RPS Act, Ministry of Business Innovation and Employment (**MBIE**) (as the administrator of the consumer data right<sup>34</sup>) and the DIA (as the identity administrator for New Zealanders) is necessary.

46. The payments industry is currently navigating its way through several regulatory initiatives across several different regulators. For this reason, we consider it vital that the RBNZ aligns its digital cash work with other regulatory initiative; including the NZCC's Market Study<sup>35</sup>, the RPS Act and the associated consultations, the DISTF Act, the Customer and Product Data Bill<sup>36</sup>, the Financial Markets Infrastructures Act 2021<sup>37</sup> and the Council of Financial Regulators "Vision for the future of New Zealand's payments".<sup>38</sup> We understand that CoFR has commenced work on a plan to deliver their vision albeit without any industry engagement.

47. We are concerned that the intersecting and overlapping payments-related responsibilities and objectives between the agencies may not deliver the best outcomes for New Zealanders. We would like to see a cohesive and aligned strategy with an effective enforcement regime. Leaving 'the industry' (i.e., the commercial banks) has resulted in payments, both online and instore, being dominated by the international card schemes.

## Conclusion

Worldline is supportive of the RBNZ's plans to progress with digital cash as it is important for policy reasons that the New Zealand Dollar remains an effective currency. However, we think that many of the other objectives or reasons for digital cash could be resolved by a digital version of Eftpos and a real-time payment system, both of which could be progressed with or without digital cash. New Zealanders should not have to wait another six-plus years before having choice in payment products for digital cash to be issued.

Globally there is a move to account-to-account local debit products and New Zealand is lagging. We are a small country and if we are to have any competition in payments, the industry and Government must collaborate and collectively decide and agree to move at pace towards a payment product that is designed to meet New Zealanders' specific needs.

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<sup>34</sup> For more information, see here: <https://www.mbie.govt.nz/business-and-employment/business/competition-regulation-and-policy/consumer-data-right>

<sup>35</sup> See <https://comcom.govt.nz/about-us/our-role/competition-studies/market-study-into-personal-banking-services>

<sup>36</sup> See <https://www.legislation.govt.nz/bill/government/2024/0044/latest/LMS700098.html> and <https://bills.parliament.nz/v/6/770a5f4e-2185-4f1f-1395-08dc75512299?Tab=history>

<sup>37</sup> See <https://www.legislation.govt.nz/act/public/2021/0013/latest/whole.html>

<sup>38</sup> See <https://www.cofr.govt.nz/news-and-publications/payments-vision.html>

We look forward to working together with the RBNZ, the payments industry, FintechNZ and Digital Identity New Zealand<sup>39</sup> to develop real-time payments including online and offline options, digital identity services and digital cash in a way that improves the integrity of the payments industry, protects consumers, and importantly fosters innovation and competition.

Should you wish to discuss any of the points raised in this submission, please do not hesitate to contact Julia Nicol, Head of Public Affairs, Regulatory & Corporate Communications on [julia.nicol@worldline.com](mailto:julia.nicol@worldline.com).

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<sup>39</sup> See <https://fintechnz.org.nz/> and <https://digitalidentity.nz/>

## Appendix I - Answers to Consultation Questions

1. Do you have any feedback on the objectives for digital cash to:
  - i. ensure that central bank money is available to New Zealanders and allow it to be used digitally?
  - ii. contribute to the innovation, efficiency and resilience of New Zealand's money and payments landscape?

*It is easy to see how New Zealand's monetary sovereignty could be impacted should a significant proportion of the population start to use digital currencies issued by other countries and/or private businesses (e.g., Bitcoin or Ethereum) but the contribution to innovation and efficiency is less straightforward or clear. Digital cash will improve logistics (e.g., the distribution of physical cash is no longer required), maintain monetary sovereignty, increase resilience to the payment infrastructure and reduce reliance on the international card schemes however many of those problems could be addressed by supporting a local domestic debit product and a real-time payments system. More is needed to define the technology and the market. In the consultation the RBNZ has said that it wants to see service providers perform certain roles yet there is no mention of the commercial model. Service providers would need to see a return on investment.*

2. Do you have any feedback on the digital cash principles: Uniform, Universal, Private, Innovative, Reliable, and Orderly?

*The principles set in the consultation paper set out a framework that aligns with the broader policy objective. We would suggest that a new principle 'Harmless' is added so that digital cash in principle does not seek to harm the current financial system, it only builds and brings innovation to it.*

*In relation to the 'Private' principle we note that full traceability is technically required in a digital world to ensure confidence and certify genuine transactions.*

3. What are your biggest concerns with digital cash? What design changes, if any, could address your concerns?

### **Acceptance**

*The consultation paper sets out an assumption that digital cash will be accepted everywhere, at merchant, at service providers and your peers but how this will practically take place has not been included. Enabling acceptance will be one of the most challenging parts unless you partner with a network which already has connections to retailers and service providers. For digital cash to be a success, it needs to be everywhere Kiwis are. The RBNZ will need to incentivise participation and provide a framework for ongoing innovation by being open, accessible to all, low cost and easy to integrate.*

### **Offline Capability**

*Offline capability is much more complicated than described in the consultation paper, please refer to paragraphs 29 to 32 for more information.*

### **Real-time Payments**

*Real-time payments systems are not as expensive and complicated as they were. New Zealand should make real progress in this space in advance of introducing digital cash. RBNZ should mandate progress because if it is left to the commercial banks (and if open banking is anything to go by), no decision will be made in a timely fashion. Please refer to paragraphs 17 to 24 for more information.*

### **Support The Market Model**

*It is not clear how the RBNZ intends to support the market, what expectations it has, what market involvement should be and the timings. Without this level of detail, it could be challenging to realise the proposed 'Support the Market' model.*

### **Benefits of digital cash**

4. Do you think digital cash can enable long term innovation for New Zealanders? What innovative features should digital cash or its platform have?

*With the decline in Eftpos we see competition in payments being reduced. Consumers have very little choice in payments products. Presently the international card schemes dominate payments both instore and online. Any transactions that are processed via the schemes attract extra costs. In New Zealand, only a few scheme products have regulated interchange fees and scheme processing fees are unregulated. In Australia, these unregulated fees increased more than 40%<sup>40</sup> in 2022/23 relative to 2021/22. We have no visibility of what these fees are or how much they've increased in New Zealand, but the additional costs and inefficiencies of scheme products are being paid for by consumers via high prices and surcharges.*

*Outside of maintaining the status quo for monetary sovereignty and monetary policy, many of the benefits identified in support of digital cash (inclusivity, efficiency and cost reduction) could easily be solved with digital Eftpos and a real-time payments system. Digital Eftpos would be a quick and simple fix towards providing consumers with that contactless, mobile payment, straight from their bank account. It would also help merchants as it would be less expensive to accept than contactless Visa and Mastercard products (whether they be via a card or ApplePay/GooglePay).*

*We do think that digital cash will help in the long-term (functions such as the programmability of payments and double offline capability are only achievable with digital cash). However, with the decline in plastic card Eftpos, New Zealand needs competition and choice in payments products in advance of 2030.*

5. Do you think digital cash can improve the reliability of payments in New Zealand? What reliability features should digital cash or its platform have?

*Yes, it can but digital cash alone cannot improve the reliability of payments in New Zealand. There needs to be investment in not only payments platforms (such as a real-time payment platform) but also telecommunications and electricity as critically important infrastructures need improved resilience and redundancy. Double offline options can be implemented via a real-time payments system in advance of digital cash.*

6. How can digital cash support digital financial inclusion? What design features (technical, governance, or standards) would be required to support digital financial inclusion?

### **Design features**

*Online/offline wallets, ATMs for funding/defunding, wallets based on contactless cards, mobile wallets secured via the secure element of mobile phones.*

### **Inclusion**

*We agree that it is important for New Zealand to keep pace with changes in digital technologies as it could help improve lives, expand consumer and career choices, and contribute to solving wider issues, like climate change. But, no one should be left behind: i) those who choose non-digital options*

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<sup>40</sup> [https://www.rba.gov.au/speeches/2024/sp-so-2024-06-18.html?utm\\_source=rbanews&utm\\_medium=email&utm\\_campaign=sp-so-2024&utm\\_content=online-retail-payments-some-policy-issues](https://www.rba.gov.au/speeches/2024/sp-so-2024-06-18.html?utm_source=rbanews&utm_medium=email&utm_campaign=sp-so-2024&utm_content=online-retail-payments-some-policy-issues)

should have easy access to the same services as those who choose digital options; and ii) those who's circumstances prevent them from having access, but they would like to have and use digital services, should be supported, and assisted. In this context, digital cash should be completely interoperable with private means of payment, and with cash itself. New Zealand should leverage its existing infrastructure, such as ATMs and merchants that offer cash services. Any plan for digital cash needs to respond to the social, economic, education and cultural opportunities, along with the risks, that these technologies can bring. The cost of mobile data in New Zealand needs to be reduced. New Zealand is one of the most expensive places in the world when it comes to mobile phone data.<sup>41</sup> New Zealand suffers from a lack of competition in the telecommunications market and once again, consumers are paying prices that are too high.

### **Governance**

The RBNZ should provide a level playing field and flexible future proof processes for accessing and integrating to the digital cash platform or system. Both service providers and banks should have equal access to key infrastructure so any policy on access should be objective and assessed on actual, rather than assumed, risk. The RBNZ should not be implementing policies that cement existing barriers to entry, such as those in place for Exchange Settlement Account System (ESAS). The RBNZ must deliver on its innovation and competition objectives as well as its integrity and reliability objectives.

Consumers will need to trust that the service providers involved with facilitating digital cash are safe and secure and perhaps a trust framework where service providers can undertake accreditation would be prudent. This would need to be facilitated and managed by a regulatory body, or an industry body that operates within a regulatory framework, to ensure good governance.

### **RBNZ Role**

We would like to see the RBNZ continue to provide oversight (as it does with the private money banks) and issue the digital cash but not itself administer or manage it. There needs to be a separation between the digital cash service providers and the RBNZ.

7. What problem(s) could digital cash help you or your organisation address and what benefit(s) could it bring?

*No comment*

### **Strategic design**

Future stages of work will continue to refine the design details of digital cash and its ecosystem, including governance arrangements. To assist us we would like feedback from the financial sector and possible partners in the digital cash ecosystem.

8. Do you have feedback on the digital cash design models and the Reserve Bank's preferred approach set out in section 6?

*Worldline currently supports all options and can provide support for the full value chain across three domains for i) communities where digital cash is being issued ii) for intermediaries (banks/open banking providers, PSPs) and iii) user related necessities such as contactless cards, online wallets and offline wallets with all surrounding functionalities such as fraud detection/prevention, digital identity, proxy-lookup, know your customer (KYC) etc. Please refer to the three-phased approach set out in Appendix II.*

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<sup>41</sup> <https://www.scoop.co.nz/stories/BU2310/S00086/nz-places-218-out-of-237-countries-when-comparing-price-of-1gb-of-mobile-data.htm>

*The private sector is likely to be better positioned to deliver innovation and great user experiences however they will require remuneration for the services they provide. Private sector should have better mechanisms for reaching consumers and enabling acceptance than the public sector - both of which are necessary for broad uptake.*

9. What role might your firm or organisation take in the digital cash ecosystem, and what support would you require from the Reserve Bank?

*Worldline can support the RBNZ across the different components required to issue digital cash. The diagram below shows -**CONFIDENTIAL**-.*

i. What products and services would you build off the options? What design functionality would you need to support you?

*Worldline is a global payment provider covering the entire industry. Worldline can provide support for all or any of the parts of the digital cash project. We have the expertise to provide the underlying system, settlement infrastructures (both offline and online) and real-time payments systems.*

*We provide customer facing applications for both online and offline, and we can enable acceptance instore, via terminals connected to our retail payments network or online, via our ecommerce gateways and open banking solutions. Alongside payments, our system can process digital identity information which is a key enabler for digital cash.*

ii. What core functionality should be provided by the digital cash platform and what should be provided by the market?

*That largely depends on whether the RBNZ decides it needs one or two platforms to facilitate digital cash.*

iii. What key governance measures would you expect the Reserve Bank to provide in the digital cash ecosystem?

*The RBNZ should be the sole issuer of digital cash. The RBNZ would then remain responsible for its monetary policy, and the digital cash supply. As digital cash is money being issued by the RBNZ, it is a liability of the RBNZ. The RBNZ, in providing this role, may attract or give rise to privacy and trust concerns from the end-users and consumers. We therefore support Principle 3 of the Digital Cash in NZ consultation paper (Table 2: Application of the principles to strategic design choices).*

10. Third party intermediaries will own the customer relationship including managing onboarding and AML/CFT requirements. What support or enabling functionality would you require as a potential third party?

i) *Digital identity services must be implemented. Digital identity services will not only provide for a consumer to authenticate themselves but also for businesses. This is key to reducing fraud and scams. Digital identity services also help to manage AML/CFT requirements when onboarding customers or accepting large payments, it provides for consumers to confirm they are the right age to purchase restricted goods and services, or to benefit from a discount. The current identity verification processes (such as copying and storing of identity documents and the use of a username/password when online) are increasingly less fit for purpose, especially when it comes to digital cash. Not only are they inconvenient to use they also put our personal information at risk and provide opportunities for fraudsters.*

ii) *Tools to implement onboarding including funding and defunding wallets, issuing and/or managing wallets and contactless cards.*

iii) *Tools to link digital cash users to their current NZD commercial bank accounts to their digital cash accounts.*

## **Managed issuance**

Future stages of work will explore the potential impacts of digital cash on the financial system and assess the benefits, costs, and risks. To assist us, we would like feedback on the following:

11. Do you expect interest to be paid on digital cash holdings?

*No, but should the RBNZ decide to pay interest on digital cash holdings it may lead to greater commercial bank disintermediation.<sup>42</sup>*

12. Do you think there should be holding limits for digital cash or any other controls on issuance?

*Commercial banks rely on deposits from consumer account holders. From this perspective, digital cash could be a threat to their business model. It may therefore be important to define holding limits from a few hundreds to thousands of dollars. The displacement of funds, which would normally be held by a commercial bank to the RBNZ, could be problematic for commercial banks' capital requirements.<sup>41</sup> The impact that different scenarios of digital cash holding limits might have on the commercial banks should be researched. Only then could the right level of holding limit be discussed and determined along with the commercial banks.*

*A transaction's purpose and identity of the involved parties can be protected however the possibility of identifying the parties should be retained for fraud management or legal concerns.*

*There should be limits on, or related to, offline transactions to reduce the risk of fraud (double spending & false balance updates), such as:*

- *Maximum number of transactions*
- *Maximum amount per transaction*
- *Maximum cumulative amount*
- *Maximum time-period*

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<sup>42</sup> <https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp220408~980e39957b.en.html>

## Appendix II – Worldline’s three-phased approach

Worldline globally supports digital currencies. For New Zealand we note the following three categories:

- i) Digital commercial cash where the New Zealand dollar is digitised for online and offline payment transactions by the commercial banks;
- ii) Central bank digital currency (or ‘CBDC’) referred to by the RBNZ as ‘digital cash’; and
- iii) Stablecoins and other cryptocurrencies, these are not further discussed here.

Considering the RBNZ’s objectives, and the need to modernise and improve the current payment infrastructure, Worldline recommends the following three-phased approach:

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This phased approach not only fits New Zealand from a population, cash use, banked status, innovation, current payments eco-system and cost perspective but it aligns with progress in other jurisdictions. New Zealand can benefit from gradual improvements over time, in a way that meets the needs of consumers, the RBNZ, commercial banks and service providers.